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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This is a report of an ongoing study of all Army suicide cases. Demographic and situational factors are documented. Dyadic love relationships disruptions are important precipitants in most cases.

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Suicide in United States Army Personnel, 1979-1980

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Lovelorn suffering is intense. It is like the grief of bereavement. Such melancholy may become laced with rage that escapes in retaliation dreams or nightmares of homicidal and suicidal jealousy. Sometimes the dreams become real-life dramas.

John Money
Love and Lovesickness

This is the third in a series of biennial reports on the epidemiology of suicide in active duty Army personnel.^{1,2}

Method

As in the two previous studies, the line of duty (LOD) investigation file on each completed suicide was used as the primary data source. The LOD file was routinely received by the Psychiatry and Neurology Consultant in the Office of the Surgeon General for an opinion on the suicided soldier's mental competency. While the file was under review, selected information from it was extracted and recorded for later coding and data processing.

Results

From 1 January 1979 through 31 December 1980, a total of 175 soldiers killed themselves intentionally. Using mid-year strength data provided by the Defense Manpower Data Center, the Army annual crude suicide rate for the two-year period was found to be 11.6 cases per 100,000 soldiers-at-risk. In 1979, the suicide incidence was 88 and in 1980 it was 87. These counts produced annual crude rates of 11.7 and 11.4, respectively.

The 175 suicides are broken out by sex and by enlisted versus officer status in Table I, and the corresponding rates are also given. The male to female rate ratio is 1:3. The enlisted to officer rate ratio is 3:1.

Sex by race breakout of the suicide frequencies is presented in Table II. Rate ratios are as follows: white male to black male 2:0; white female to black female, 5:3; white male to non-white male, 2:3; white female to non-white female, 6:3.

Age and grade distributions are summarized in Table III. The data are broken out by enlisted versus officer status

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TABLE I
SUICIDE INCIDENCE AND RATE PER 100,000 IN ACTIVE DUTY ARMY PERSONNEL FOR CALENDAR YEARS 1979 AND 1980

	Enlisted		Officer		Total	
	Incidence	Rate	Incidence	Rate	Incidence	Rate
Male	156	12.9	8	4.4	164	11.8
Female	11	10.1	0	0.0	11	8.9
Total	167	12.7	8	4.1	175	11.6

and by sex. The average age for male enlisted suicides was 26, and for female enlisted suicides was 24. Most enlisted suicides for either sex occurred in grade E4.

Age-specific rates for the 1979-1980 Army suicide population were calculated for either sex and are plotted by five-year age groups in Fig. 1, along with the age-specific rates for the general US population for 1978, obtained from the Mortality Branch of the National Center for Health Statistics. (US rates by five-year age groups for 1979 or for 1980 were not available at the time of this writing.) The 11 women suicides were distributed into the respective age-groupings as follows: 1, 7, 2, 1. An examination of the yearly age-specific rates revealed that the highest Army rates (for both sexes combined, and not counting age years in which only one suicide occurred) were for ages 33 (rate of 20.9), 24 (19.9), 31 (19.6), 35 (19.2), and 27 (18.1).

Grade-specific rates by sex and for the total are presented in Table IV. These rates were calculated by using as denominators the 1979 and 1980 mid-year grade strengths compiled by the Defense Manpower Data Center. The grade with the highest suicide rate for men was E6; for women E5.

Table V presents marital status and number of children distributions. Approximately half of the suicides were currently married and about three-fifths had no children at the time of death. These proportions are similar to those obtained previously.^{1,2}

Time and place circumstances were as shown Figs. 2 and 3, and in Table VI. Suicide was spread quite evenly throughout the days of the week, but exhibited a saw-tooth pattern across the months of the year. There is little apparent consistency in the cyclical properties of suicide when the data from all three biennia are examined.^{1,2}

TABLE II
SUICIDE INCIDENCE AND RATE PER 100,000 BY SEX AND RACE IN ACTIVE DUTY ARMY PERSONNEL FOR CALENDAR YEARS 1979 AND 1980

	White		Black		Other		Total	
	Incidence	Rate	Incidence	Rate	Incidence	Rate	Incidence	Rate
Male	131	14.9	29	7.4	4	3.8	164	11.8
Female	10	13.2	1	2.5	0	—	11	8.9
Total	141	14.7	30	6.9	4	3.3	175	11.8

The home (including parental home, family quarters, apartment, and barracks) was the site of suicide for 57 per cent of the cases, a finding remarkably similar to the 55 per cent in 1977-78 and to the 52 per cent in 1975-76. In terms of distribution of the suicide cases via geographic location, 11 continental United States (CONUS) stations reported five or more instances of completed suicide in the two-year period: Fort Hood 14, Bragg 11, Campbell 9, Carson 8, Benning 7, Gordon 7, Houston 5, Lewis 5, Polk 5, Sill 5, and Wood 5. CONUS reported a total of 134 suicide deaths (rate of 15.1), Alaska 4 (rate of 23.1), Hawaii

2 (rate of 5.7), Europe 31 (rate of 7.1), and Korea 4 (rate of 6.6).

In terms of time clusters, at two posts (Campbell and Carson) there were instances (one at each) wherein three cases occurred within a 30-day period. In Europe there was a string of five suicides from 12 March 1979 through 11 April 1979. The methods that were used to execute the suicides are tallied in Table VII. Use of a firearm was again the most common method employed by either sex.

It was observed that 24 per cent of the 175 victims left a suicide note, 25 per cent of them spoke of or hinted about suicide prior to the act, and 23 per cent had histories of suicide attempts. Thirty-three per cent of the cases had a history of some kind of psychiatric contact—mental health clinic visit, hospitalization, or para-psychiatric counseling. We counted 21 per cent of the 175 cases who had been using alcohol at the time of the final act, and four per cent who had been using an illicit drug just before death. These percentages on communication, psychiatric history, and alcohol/drug usage are believed to be conservative representations, since observational data on the presence or absence of these items were not always included in the files reviewed.

Table VIII is a list of stressful problems, with a tally of the number of cases in whom the specific problem was noted to have existed prior to suicide. The percentages are based upon the 151 persons in whom one or more of the problems had been detected and recorded. In 24 of the victims, no motivational explanations or problem definitions could be found in the files searched.

The foremost problem is the one labeled "difficulties with love-object." When the nature of the relationship problem in the victim love-object dyad is explored (Table IX), divorce or other dissolution of the relationship is the most frequent manifestation. In 34 per cent of the cases in which a love-object problem was noted, reference to a quarrel or altercation just prior to the suicide could be found in the case material.

The taxonomy of suicidal motivation developed previously^{1,2} was used again to categorize cases whenever sufficient information was available. One-hundred eighty cases were assigned one of five classifications, with the following percentage results: (1) Exposed, caught, humiliated, cornered—24 per cent; (2) Guilty, remorseful, regretful—seven per cent; (3) Rejected, deserted, cut off—49 per cent; (4) Inadequacy, inability, loss of functioning, dislike of self—19 per cent; and (5) Intractable pain, hopeless mood.

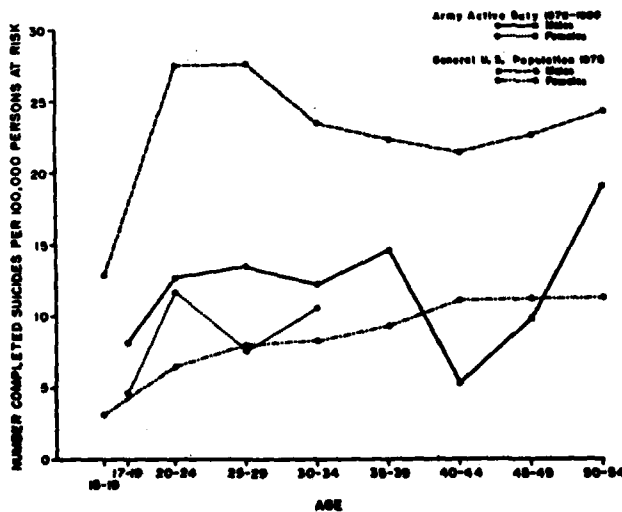


Fig. 1. Age-specific suicide rates by five-year age groups for Army active duty personnel 1979 and 1980 and for general United States population 1979.

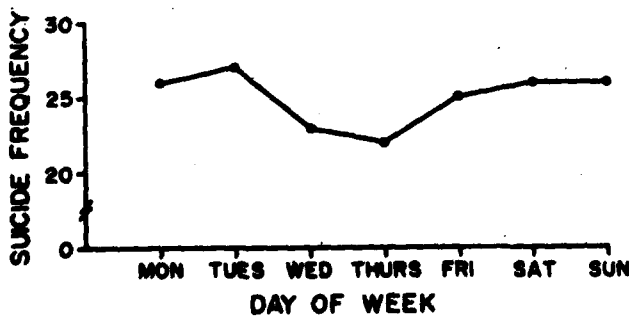


Fig. 2. Frequency of suicides by day of week, 1979-1980.

TABLE III
SUMMARIES OF AGE AND GRADE DISTRIBUTIONS BY ENLISTED/OFFICER STATUS AND BY SEX FOR THE 175 ARMY SUICIDES, 1979-80

	Enlisted		Officer	
	Male	Female	Male	Female
Age				
N	156	11	8	0
Mean	25.9	23.7	35.2	—
Mdn.	23.6	23	32.5	—
Mode	21,24	22	29	—
Range	18-46	19-31	23-54	—
Grade				
N	156	11	Grade	N
Mean	4.1	3.7	WO	1
Mdn.	3.7	4	2LT	1
Mode	4	4	1LT	1
Range	E1-E9	E1-E5	CPT	1
			MAJ	3
			COL	1

TABLE IV
GRADE-SPECIFIC SUICIDE RATES FOR ARMY ACTIVE DUTY PERSONNEL 1979-1980

Grade	Male		Female		Total	
	N	Rate	N	Rate	N	Rate
E1	17	13.4	1	7.1	18	12.8
E2	16	14.4	0	—	16	12.7
E3	23	12.7	3	13.3	26	12.8
E4	32	10.4	4	12.5	36	10.6
E5	27	12.8	3	14.3	30	12.9
E6	28	19.5	0	—	28	19.0
E7	12	13.4	0	—	12	13.2
E8	0	—	0	—	0	—
E9	1	13.5	0	—	1	13.5
Warrant Off.	1	3.8	0	—	1	3.8
Commis. Off.	7	4.5	0	—	7	4.1
All Enlist.	156	12.9	11	10.1	167	12.7
All Off.	8	4.4	0	—	8	4.1

condition—one per cent. A couple of cases suggested an additional category: Hallucinatory, delusional, confused, disoriented.

Discussion

The annual suicide rate per 100,000 soldiers-at-risk fell more than three points from 1977-78 to 1979-80. This drop represents an emphasis in the continued downward trend



Fig. 3. Frequency of suicide by month of year, 1979-1980.

TABLE V
MARITAL STATUS AND NUMBER OF CHILDREN (ARMY SUICIDES 1979-1980)

	N	%
Marital Status		
Single	63	36.0
Married	86	49.1
Div'd. or separ.	24	13.7
Widowed	2	1.1
Total	175	99.9
Number Children		
None	70	57.9
One	27	22.3
Two	16	13.2
Three/four/five	8	6.6
Total	121*	100.0

*Less than 175 because of missing data

TABLE VI
PLACE WHERE SUICIDE ACT OCCURRED (ARMY SUICIDES 1979-1980)

Place	N	%
Home/quarters	77	44.0
Barracks	23	13.1
Friend's home*	10	5.7
Motel/hotel	6	3.4
Jail/hospital	6	3.4
Place of duty	16	9.1
On post, other	8	4.6
Off post, other	29	16.6
Total	175	99.9

*Including relative's home (not parent)

that has been observed since our studies began. In 1975-76 the annual crude suicide rate was 16.4; in 1977-78 it was 14.8; and in 1979-80 it was 11.6. We lack a completely satisfactory explanation for this observed trend but, in this connection, we would point out the demographic shift in active duty Army that has occurred during the period we have been studying soldier suicide.

In 1975-76, the ratio of white soldiers to black soldiers in the active US Army was 3:7; in 1979-80, it was 2:2. This constitutes a drop of 40.5 per cent in the white:black soldier population ratio in six years of time; and we know that the suicide rate for black soldiers is considerably lower than it is for white soldiers. The relative risk for white male suicides over black male suicides is 2.0, and the relative risk for white female soldiers over black female soldiers ranged from 4.8 to 6.3 in the three bienna studied.

The suicide rate per 100,000 women in the Army dropped from 15.2 in 1977-78 to 8.9, a figure approximately three points less than the male rate, in 1979-80. The frequency with which women employ firearms in performing the self-destructive act continued to rise in the latest biennium. It seems premature, however, to conclude that the suicide

rate for women and the suicide method used by women are approaching those for men in the Army; the frequency counts are too small for women to be regarded as highly reliable. The trend bears more watching.

There were no female officer suicides and no black female suicides in 1979-80. The mean age of enlisted suicides, either male or female, was not dissimilar to what it had been in the two previous biennia. The mean age of male officer suicides, 35.2, was similar to what was found in 1975-76, 35.6, but greater than that found in 1977-78, 31.8. The relative risk of enlisted suicides to officer suicides jumped to 3.1 from ratios of 1.7 and 1.8 obtained previously.

Age-specific rates for the Army male suicides were lower at all age levels studied than the comparable rates for the general US male population—a finding that has now established itself three times. However, Army suicide rates for women trend consistently higher than rates at comparable ages in the general US female population. This finding provides further suggestion that Army female suicides may be unique from civilian female suicides, even when age is held constant.

The data having to do with note-leaving, communicating intent, history of attempts and psychiatric contact, and using alcohol or drugs at the time of suicide were similar to

the percentages obtained in the two previous biennia. The place where the act occurred was also similar. Time indicators—day of the week and month of the year—show little consistency from one two-year period to the next.

What is perhaps most enlightening in contributing toward the understanding of the psychosocial dynamics in Army suicide is the consistency over the three biennia in existent "problem areas" and in the inferred "motivational state" at the time of suicide. Again, our data demonstrate that the impending Army suicide is most likely to be in the throes of a relationship problem with his or her spouse or lover, producing a compelling feeling of rejection or isolation from the other party in the dyad.

Admittedly, such a psychosocial state of affairs is probably not a rare circumstance in the life of the soldier. Certainly, many persons experience lovesickness and rejection and do not complete suicide. We simply do not know the epidemiology nor the natural history of love dyads in turmoil. We can only suggest to the caregiver that the love-lorn soldier therewith subjected to feelings of isolation and rejection is at increased risk for suicide completion. Add the communication of suicidal intent, a history of suicide attempts and/or psychiatric contacts, and the use of alcohol at times of conflict or loneliness, and the risk rises accordingly.

TABLE VII
METHOD USED TO COMPLETE SUICIDE
(ARMY SUICIDES 1979-1980)

Method	Men		Women	
	N	%	N	%
Firearm	103	62.8	8	72.7
Hanging or strang.	25	15.2	1	9.1
Overdose/poison	11	6.7	1	9.1
Gas (CO, other)	7	4.3	1	9.1
Jump	5	3.0	—	—
Drowning	5	3.0	—	—
Other	8	4.9	—	—
Total	164	99.9	11	100.0

TABLE VIII
NUMBER AND PERCENTAGE OF SUICIDED PERSONS
IN WHOM CERTAIN SPECIFIC STRESSFUL PROBLEMS
WERE NOTED TO HAVE EXISTED PRIOR TO SUICIDE
(ARMY SUICIDES 1979-1980)

Existent Problem	N	%
Difficulties with love object	112	74.2
Difficulties with job/work/Army	40	26.5
AWOL/desertion at time of suicide	21	13.9
Trouble with law (other than AWOL)	15	9.9
Financial problems	20	13.2
Suffering from a psychosis	12	7.9
Medical/health problems (non-psychiatric)	11	7.3
Death of a loved one	8	5.3
Alleged sexual deviation	2	1.3

Percentages based on an N of 151; i.e., the number of persons with one or more detected stressful problems

Summary

A third biennium of epidemiological data on suicide in the United States Army was compiled with the same method as was used previously.^{1,2} The annual crude suicide rate per 100,000 soldiers-at-risk for 1979-80 was found to be 11.6, a drop of 3.2 points from where it stood in 1977-78.

Sex-specific, race-specific, age-specific, and grade-specific rates were studied and can be compared with the same indices in the previous two biennia. Demographic data and information on circumstances surrounding the suicidal act were also made available for comparison with previous data.

TABLE IX
NUMBER AND PERCENTAGE OF LOVE-OBJECT-
PROBLEM-SUICIDED PERSONS IN WHOM THE LOVE
OBJECT PROBLEM WAS MANIFESTED IN CERTAIN
SPECIFIC WAYS
(ARMY SUICIDES 1979-1980)

Manifestation of Love Object Problem	N	%
Recent or pending divorce, separation, or break-up	62	55.4
Marital problems/"can't get along"	48	42.9
Altercation with love object just before suicide	38	33.8
Infidelity an issue	16	14.3
History of violence in relationship	13	11.6
Murdered love object time of suicide	5	4.5
Attempted to murder love object but failed	3	2.7

Percentages based on an N of 112; i.e., the number of persons with a detected love-object-problem

Analysis of the suicided person's psychosocial situation (as reflected in the kinds of personal problems recorded in the reports and investigations of the incident and as reflected in assessments made of the victim's presuicidal "motivational state") showed remarkable consistency in the three time-periods studied, and points unflinchingly to a love-object dyadic relationship in near or total collapse in the pre-suicide soldier.

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- ¹Datel, W. E. and Johnson, A. W., Jr.: Suicide in United States Army personnel, 1975-76. Milit. Med., 144:239-244, 1979.
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