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Suicide in United States Army Personnel, 1975-1976 D D C

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The man who kills a man,
The man who kills himself, kills all men.
G. K. Chesterton

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ROBERT Kastenbaum's¹¹ argument that suicide is destined to become the preferred means of death in our society may have to be taken seriously. The national suicide rate is increasing while the death rate is decreasing. From a recent-history low, reached in the World War II era, the suicide rate for all ages in the United States has risen approximately 20 per cent: 9.9 per 100,000 in 1943-1945² to 12.4 per 100,000 in 1973-1975.^{23,24} The rise is more evident in age groups² below age 45 and is most dramatic in the teenager and young adult.^{13,17,18} During the same period, the United States death rate for all ages declined 12.4 per cent.²⁴

however, the suicide rates calculated are uninterpretable since they are based only on AIP accessions, not Army-wide incidence. Suicide in the Air Force is described by Eggertsen and Goldstein⁵ for the period 1958-1964 and by Jones¹⁰ for the period 1970-1974. Schuckit and Gunderson¹⁹ summarized suicide data in US Navy personnel for the years 1965-1971.

The present article adds to this patchwork by presenting data on the epidemiology of suicide in US Army active duty personnel for the years 1975-1976.

Method

The question can be asked if the same trend is apparent in the military—a population comprised predominantly of youthful males. Unfortunately, there has existed over time no consistently designated archival repository for data on suicide occurrence in US military personnel. The student of military suicide finds only scattered, isolated reports in the scientific literature, with occasional reference to unpublished administrative reports that are inconvenient and difficult to locate. Recurring publications, such as the US Army Surgeon General's *Health of the Army*, track cause of death only by broad categories such as battle injury versus disease.

One author (AWJ), in his official duty capacity as Psychiatry and Neurology Consultant to the Surgeon General, received from the Casualty Branch of the Adjutant General the line of duty investigation file²⁵ on every active duty soldier whose death was labeled suicide. As AWJ reviewed each case to determine the subject's mental competency at the time the act was performed, he entered data from the file onto a log sheet, which contained the traditional epidemiological variables as well as a column reserved for noteworthy observations and comments. The other author (WED) devised a coding scheme to accommodate the variables and the observational comments, and coded the entries listed in the log as he received them from AWJ. The data were then key-punched, and processed by computer by using programs in the software package called Statistical Analysis System (SAS).¹ Suicide files covering the two calendar years 1975 and 1976 were studied, and it is believed that all or virtually all of the active duty Army soldiers who were officially labeled as having died by their own hand during this period are included in the resulting count.

Yessler²⁸ published suicide rates for US Army male personnel for the years 1910 through 1958. His data source was an unpublished manuscript prepared within the Office of the Surgeon General. Zamcheck and Geisler³⁰ present epidemiological data on 1,179 cases of suicide reported to the Army Institute of Pathology (AIP) during World War II;

Table 1

SUICIDE INCIDENCE AND RATE PER 100,000 IN ACTIVE DUTY ARMY PERSONNEL FOR CALENDAR YEARS 1975 AND 1976

	Enlisted		Officer		Total	
	Incidence	Rate	Incidence	Rate	Incidence	Rate
Male	226	17.7	20	10.4	246	16.8
Female	8	9.8	1	10.6	9	9.9
Total	234	17.2	21	10.4	255	16.4

Results

From 1 January 1975 through 31 December 1976, a total of 255 American soldiers killed themselves. Based on 1975 and on 1976 mid-year strength data (obtained from the officer and enlisted master file of the Defense Manpower Data Center), the annual suicide rate for the two-year period was 16.4 cases per 100,000 persons-at-risk. In 1975, the suicide incidence was 144 and in 1976 it was 111. These counts produced rates of 18.4 and 14.3, respectively.

From the Division of Neuropsychiatry, Walter Reed Army Institute of Research and the Directorate of Health Care Operations, Office of the Surgeon General, Department of the Army.

The 255 suicides are broken out by sex and by enlisted versus officer status in Table 1, and the corresponding rates are also given. The male rate to female rate ratio is 1.7 and the enlisted rate to officer rate ratio is also 1.7. The 10.4 officer rate masks a wide difference in rates found between warrant officers (27.0) and commissioned officers (8.0).

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The race results were as follows. Of the female soldiers

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Table 2

SUMMARIES OF AGE, LENGTH OF SERVICE, AND GRADE DISTRIBUTIONS BY ENLISTED/OFFICER STATUS AND BY SEX FOR THE 255 ARMY SUICIDES, 1975-76

	Enlisted		Officer	
	Male	Female	Male	Female
Age				
N	226	2	20	1
Mean	25.2	23.9	35.6	27.0
Mdn	23.2	23.5	36.0	27.0
Mode	20	21	—	27
Range	17-55	20-29	21-51	—
Length of Service				
N	214	7	19	1
Mean	5.4	3.6	12.1	1.0
Mdn	3.0	3.0	13.8	1.0
Mode	2	2	20	1
Range	2 wk-26 yr	2 yr-6 yr	1 mo-20 yr	—
Grade			<u>Grade</u>	<u>No.</u>
N	226	8	WO	7
Mean	4.1	4.1	2LT	2
Mdn	4.1	4.0	CPT	3
Mode	4	4	MAJ	5
Range	E1-E9	E3-E6	LTC	3

^a 2 was the largest frequency and occurred at four age levels.

who completed suicide, all nine were white. This produced a white female rate of 12.9 per 100,000. There were 211 white and 30 black soldiers in the group of 246 male suicides. The resultant rates were 18.9 and 9.9, respectively. This is a 1.9 white male rate to black male rate ratio.

The resultant age, length of service, and grade distributions on the 255 suicide cases are summarized in Table 2. The data are broken out by enlisted versus officer status and by sex.

Age-specific rates were calculated for the male suicides. The results are plotted by five-year age groups in Fig. 1, and are compared with the 1975 age-specific rates for the general US male population. When one examines the yearly age-specific rates, ages 23, 24, and 25 are the highest (rates of 26.4, 23.6, and 22.3, respectively) until age 42 is reached. The year-by-year age-specific rates are quite unstable because of the small number of cases in many of the age years.

Grade-specific rates are presented in Fig. 2. These rates were calculated by using as denominators the 1975 and 1976 mid-year grade strengths reported by the Department of the Army, Deputy Chief of Staff for Personnel, Manpower Programs Division. Suicide rates for the enlisted grades clearly exceeded that obtained for the commissioned officers, while the rate for warrant officers was the highest of all.

Table 3
DISTRIBUTIONS OF MARITAL STATUS AND NUMBER OF CHILDREN

	Number	Per cent
Marital status		
Single	101	40.1
Married	126	50.0
Divorced or separated	25	9.9
Total	252	100.0
Number of children		
None	156	66.1
One	34	14.4
Two	38	16.1
Three/four/five	8	3.4
Total	236	100.0

Note: Totals are less than 255 because of missing data.

Age-Specific Suicide Rates by Five-Year Age Groups for Army Active Duty Male Personnel 1975 and 1976 and for General United States Male Population 1975

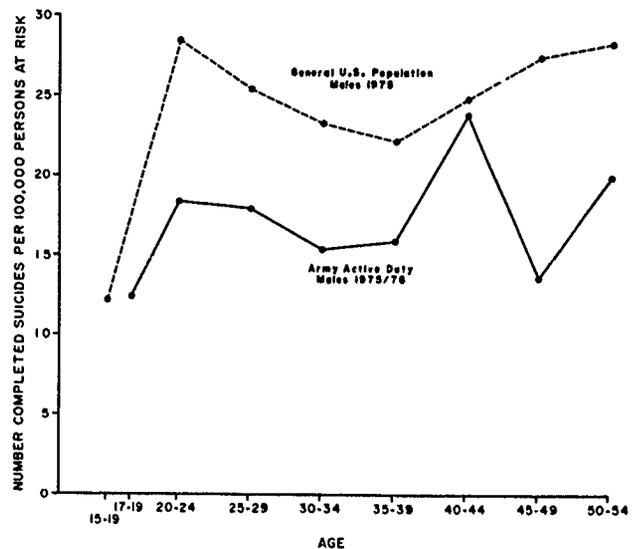


Fig. 1. Age-specific suicide rates by five-year age groups for Army active duty male personnel 1975 and 1976 and for general United States male population 1975.

The total group of suicide cases is described further in Table 3, which gives marital status and number of children distributions. Missing data account for the abbreviated totals. Half of the cases studied were currently married but two-thirds had no children. The youthful age of the preponderance of cases (see Table 2) obviously conditions the marital and the fertility findings.

Time and place circumstances were as shown in Figs. 3 and 4, and Table 4. Suicides were most frequent in the month of June and on Wednesdays. There was consistency in the June and Wednesday finding from 1975 to 1976. The home (including parental home, family quarters, apart-

Grade-Specific Suicide Rates for Army Active Duty Male Personnel 1975 and 1976

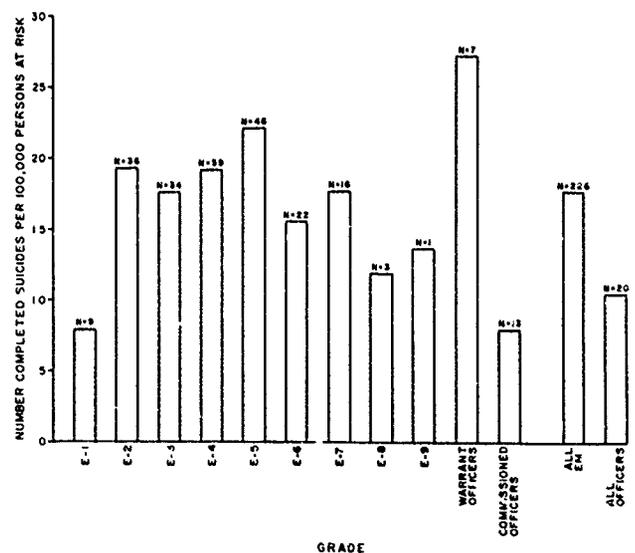


Fig. 2. Grade-specific suicide rates for Army active duty male personnel 1975 and 1976.

ment, and barracks) was the site of suicide for more than one-half of the cases. In terms of geographic location, it was noted that in the two-year period 14 continental United States (CONUS) stations reported five or more instances of completed suicide. The Army's largest post reported 21. CONUS reported a total of 188 suicide deaths (rate of 19.4), Alaska five (rate of 26.8), Hawaii three (rate of 8.1), Europe 47 (rate of 12.1), Korea eight (rate of 11.9), and other overseas four (rate of 4.9).

To explore the notion that suicides occur in time clusters, the cases were plotted by station location across the two-year period. The resultant plot may be inspected in Fig. 5. At five of the posts (Forts Benning, Bragg, Campbell, Hood, and Sill) there were instances when three cases occurred within a 30-day period. Curiously, all of Europe went for approximately four months in early 1976 without a single case having been observed.

The methods used by the subjects to arrange their own deaths are tallied in Table 5. By far the most common method used by the male soldiers was the firearm (56.5 per cent). The same means of self-destruction has predominated in previous military samples. In the World War II sample,³⁰ 49 per cent shot themselves. In the Naval study,¹⁹ 50 per cent of the Navy personnel and 70 per cent of the Marines used a firearm to accomplish the goal; and in Jones' Air Force data,¹⁰ 52 per cent of the victims died from a bullet wound. The method employed in our sample was sex-related: Overdosing (including poisoning) was used by a majority of the female subjects.

It was observed that 30 per cent of the 255 victims left a suicide note, 35 per cent of them spoke of or hinted about suicide prior to the act, and nine per cent had histories of previous suicide attempts. Yessler, Gibbs, and Becker²⁹ found similar percentages. Twenty-five per cent of their sample of 272 Army and Air Force suicides left a note, 30 per cent spoke of committing suicide, and 12 per cent had made a previous suicide attempt. In similar agreement are the 27 per cent of our sample and the 24 per cent of the Yessler *et al*²⁹ sample who had a history of some kind of psychiatric contact. We counted 18 per cent of our cases who had been using alcohol at the time of the final act. Zamcheck and Geisler³⁰ report that 21 per cent of their cases had some alcohol in their blood, and Yessler *et al*²⁹ submit a parallel statistic of 29 per cent. We identified five per cent of our cases who had been using drugs at the time of suicide. Our percentages on the communication, psychiatric history, and alcohol drug variables are conservative representations,

Table 4
DISTRIBUTION OF SUICIDE BY PLACE WHERE ACT OCCURRED

Place of suicide	Number	Per cent
Home/quarters	110	44.9
Barracks	18	7.3
Friend's home	12	4.9
Motel/hotel	18	7.3
Place of duty	16	6.5
Jail	10	4.1
On post, other	18	7.3
Off post, other	43	17.6
Total	245	99.9

Table 5
DISTRIBUTION OF SUICIDE BY METHOD USED

Method	Men		Women	
	Number	Per cent	Number	Per cent
Firearm	139	56.5	3	33.3
Hanging	47	19.1	-	-
Overdose/poison	20	8.1	5	55.6
Gas (CO, other)	23	9.3	1	11.1
Jump	9	3.7	-	-
Other	8	3.3	-	-
Total	246	100.0	9	100.0

since observational data on these items were not always included in the line of duty investigation case files.

Table 6 lists an inventory of stressful problems and gives 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 206 persons in whom one or more of the problems had been detected. In 49 of the victims, no motivational explanations or problem definitions could be found in the case file. To interpret the percentages listed, it is necessary to assume that the distribution of problems undetected is similar to the distribution of problems detected. There was considerable consistency in the percentages from one year to the next.

Strikingly prominent is the problem labeled "difficulties with love object." It is of interest to investigate the manner in which the love object problem was expressed. In this respect, Table 7 is presented. It shows the kinds of circumstances which made for placement into the "love object difficulty" category, and how many of the 143 love object problem cases were associated with each such specific manifestation.

From case information describing the personal and social circumstances surrounding the fateful action, an attempt was made to build a taxonomy of suicidal motivation. Five descriptor categories of "main precipitating subjective state" were constructed: (1) Exposed, caught, humiliated, cornered; (2) Guilt, remorse, regret; (3) Rejected, deserted, cut off; (4) Inadequacy, inability, loss of functioning, dislike of self; and (5) Intractable pain, hopeless medical condition.

One hundred and eleven cases had sufficient collateral information to permit assignment to one of the five principal motivational precipitants. For the 111 cases, the results were as follows: Category (1) 17 per cent; (2) five per cent; (3) 48 per cent; (4) 28 per cent; and (5) two per cent. These data should be viewed as preliminary and exploratory, since no check was made on the reliability of case classification. Some cases showed characteristics of more than one class and it was sometimes difficult to decide upon the most salient motivational state.

Discussion

The primary contribution of the data assembled in this report is to define a point on a continuously developing course. Interpretation of the data points obtained is facilitated to the extent that data points in the past (and future) are located by similar means. Although this be only more or less the case, there are perhaps some meaningful comparisons and implications to arise from placing the 1975-1976

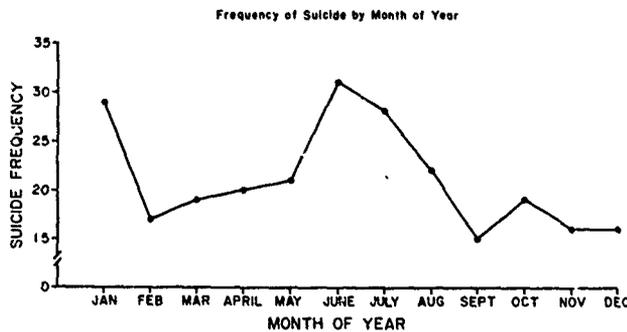


Fig. 3. Frequency of suicide by month of year.

Army suicide data alongside the findings and thoughts of others.

There is first the quantitative question of rates and rate differentials. On the male personnel, we obtained a suicide rate of 16.8 per 100,000 (Table 1). Is this high or low? Compared with data available from previous military studies, it seems to be high. After World War II, the rate for Army male personnel peaked at 15.2 in 1947 and 1948, and in 1958, Yessler's²⁸ last data point, it was 14.7. Parker¹⁷ quotes an Army Surgeon General report²⁶ to the effect that the comparable rates for the years 1965, 1966, and 1967 were 13.3, 10.4, and 10.2, respectively. The average rate over the period 1958 to 1964 in the Air Force⁵ was 11.9. For the Navy (including the Marine Corps) for 1966, 1967, and 1968, the rates were 8.7, 10.2, and 10.9 according to a document²⁷ quoted by Parker¹⁷. In the period 1965-1971, the male rate in the Navy was between 8 and 9, and in the Marine Corps¹⁹ between 14 and 16. From 1970 to 1974 the Air Force rate¹⁰ steadily increased from 8.4 to 12.7.

We conclude that none of the post-World War II rates established on previous male military populations are as high as the rate we have obtained in this current 1975-76 Army study. On the other hand, the male suicide rate for the general US population is considerably higher than it is in the same age groups for the Army (Fig. 1). A similar rate

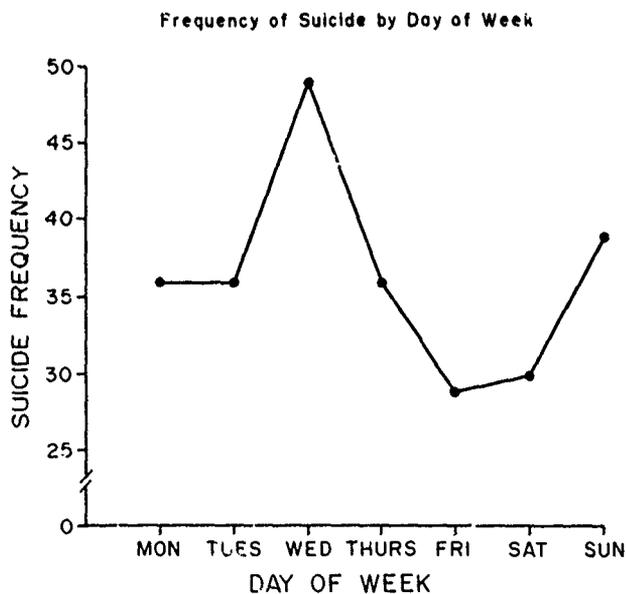


Fig. 4. Frequency of suicide by day of week.

Table 6

NUMBER AND PERCENTAGE OF SUICIDED PERSONS IN WHOM CERTAIN SPECIFIC STRESSFUL PROBLEMS WERE NOTED TO HAVE EXISTED PRIOR TO SUICIDE

Existent Problem	Number	Per cent
Difficulties with love object	143	69.4
Difficulties with job/work/Army	86	41.7
In trouble with the law (more than simple AWOL)	26	12.6
Financial problems	22	10.7
Medical/health problems (other than psychiatric)	16	7.8
Death of a loved one	14	6.8
Suffering from a psychosis	12	5.8
Alleged sexual deviation	10	4.9

Note: Percentages based on an N of 206, i.e., number of persons with one or more detected stressful problems.

discrepancy was found when Navy men were compared with US men in general.¹⁹ Screening and "weeding" procedures associated with military service may be partly responsible for the consistent differential between military and civilian suicide rates. Also, there is a higher percentage of black males in the military than there is in the civilian population, and suicide is known to be race-related.²

The age-specific pattern we found (Fig. 1) does not conform to the traditional pattern of a steadily increasing suicide rate over the male life span. This may be due to the instability of our age-specific rates, particularly in the older age groups. However, it is interesting that the 1975 pattern for the US male population has become twin-peaked, with one of the peaks occurring in the same high risk group as we observed in the Army, age 20-24. The age-specific suicide pattern seems to be changing.

Regarding sex-, race-, and grade-specific rates, our findings sometimes agree and sometimes disagree with what might have been expected from information presented in previous reports. The sex ratio favoring male suicide by a factor of 1.7 seems to be on the low side of the range (2 to 7) reported by Linden and Breed¹³ in their review of the sex differential in suicide. Perhaps this is a reflection of possible differences in social structures housing the female military member compared with those containing her civilian counterpart. In this connection, Jones¹⁰ reports an almost incredible finding: 16 per cent of his 160 suicide cases in 1973-74 were women. This produced a female suicide rate for the Air Force of 58.6 per 100,000.

The 1.9 ratio we found in white male to black male suicide rate supports the notion that the higher rate of suicide repeatedly found in white males over black males cannot be explained away as artifactual or as outdated. Our enlisted to officer ratio of 1.7 is contrary to some of the previous reports. Yessler²⁸ states that with few years ex-

Table 7

NUMBER AND PERCENTAGE OF LOVE-OBJECT-PROBLEM SUICIDED PERSONS IN WHOM THE LOVE OBJECT PROBLEM WAS MANIFESTED IN CERTAIN SPECIFIC WAYS

Manifestation of Love Object Problem	Number	Per cent
Recent or pending divorce, separation, or breakup	82	57.3
Quarrel/altercation with love object just before suicide	80	55.9
Infidelity an issue	14	9.8
Love object died (not including being murdered by subject)	9	6.3
Murdered love object at time of suicide	9	6.3
Attempted to murder love object but failed	4	2.8
Joint suicide with love object	2	1.4

Note: Percentages based on N of 143, i.e., number of persons with one or more love object problems.

cepted, "the suicide rates among officers have been higher than among Army enlisted men." Schuckit and Gundersen¹⁹ found a slightly higher rate for Naval officers over enlisted, and Eggertsen and Goldstein⁵ reported no difference in rate between Air Force officers and enlisted. However, the more recent Air Force data¹⁰ yield an enlisted to officer suicide rate ratio of 1.6—similar to that which we report here.

There is always the question of etiology or, more delicately phrased, the question of associational relationships. Suicide may be construed as a unique form of death in at least two important respects. First, it is the only cause of death which can be rendered inoperative by sheer volition; it can literally be wished away by the prospective victim himself. Second, it is a death the immediate cause of which resides exclusively in the domain of the psychosocial, rather than in the realm of the more strictly biological. The second characteristic is perhaps less unique than the first, since the cause of homicides, battle deaths, and some accidents may also be regarded as mainly psychosocial in origin.

In the case of suicide, what are these psychosocial factors? What are the intraperson and the interperson events which propel an individual to the moment of decision and, with the necessary momentum, tip the balance in favor of cessation over continued existence? Is there a common essence in the set of events, from one suicide occurrence to another, or are the psychosocial circumstances so unique in each instance as to preclude classification and scientific description?

Several writers have struggled to formulate a consistent, encompassing statement on the psychosocial etiology of suicide. Freud⁷ emphasized intrapsychic structures and happenings. In this regard, Hendin⁸ has provided a nice synopsis of Freud's contribution to suicide. Durkheim³ enunciated events and circumstances external to the individual. More recent writers have offered elaborations and refinements upon these polar positions.

Menninger¹⁴ provides a protracted discussion on the basically Freudian idea that suicide accomplishes the symbolic destruction of an external object, first "introjected." Shneidman,²² in a rather more Sullivanian sense, asserts that suicide is typically a dyadic phenomenon. Kraus and

Kraus,¹² drawing upon the conceptualization of Naroll,¹⁵ offer cross-cultural evidence for the idea that an important interpersonal ingredient in suicide is the experiencing of a loss, the reason for which can be plausibly attributed to the actions of another individual. Loss caused by impersonal or natural events does not qualify. Naroll¹⁵ said: "If a person is separated from a societal group to which he is bound with close ties and if further he perceives someone he can plausibly blame for his loss, the stress of anger and frustration produced by this situation may drive him to suicide." Shneidman's²¹ quip that suicide is murder in the 180th degree is a cleverly concise statement of the revenge hypothesis.

Do our data bear on this general notion that suicide is primarily the product of a dyadic relationship gone sour by a loss or threat of loss, attributable to the actions or expressed intentions of one or both of the members? We think they do. In almost 70 per cent of the cases on which sufficient data existed to identify any problem area at all, at least one of the problems identified was "difficulty with love object." In the taxonomy we built, it was not shame (disgrace), nor guilt (remorse), nor low self appraisal, nor an untreatable medical condition that was the main culprit; it was the anticipation and/or the experience of being rejected, deserted, or cut off by a person central to the victim's emotional sustenance. In case after case, the accounts were filled with the sorrows and hatreds of unrequited love, in scenarios that compete vividly with the most compelling in American soap opera.

Farberow and McEvoy⁶ made similar observations in a group of psychiatric patient suicides. They describe a suicide pattern characterized by having recently lost (or feeling in danger of losing) an important relationship with a love object, with the central conflict centering around separation, divorce, infidelity, etc. Humphrey⁹ recently reported social loss to be greater in suicide victims than in either homicide offenders or in non-violent persons. Simon and Lumry²⁰ link suicide and divorce. Otto¹⁶ writes: "Love conflicts have been revealed as the most common reason given by adolescents in this material for suicide attempts."

The conceptualization of suicide as a dyadic phenome-

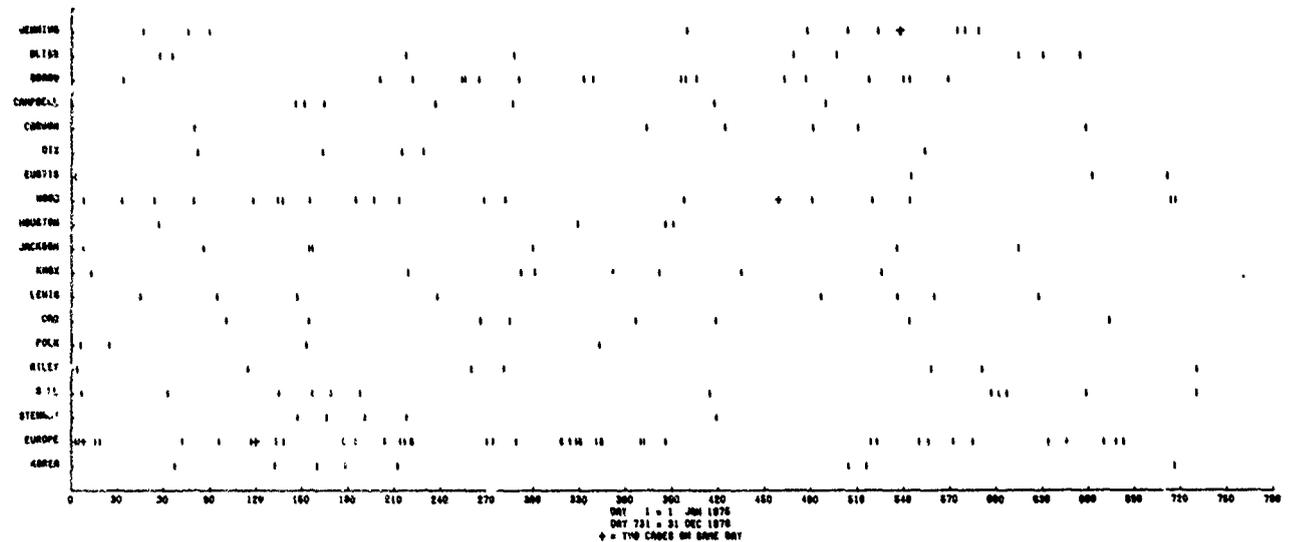


Fig. 5. Days upon which an Army active duty suicide occurred during a two-year period at selected Army locations.

non is embodied in Hendin's⁸ taxonomy. His first three categories invoke the interpersonal: death as retaliatory abandonment, death as retroflected murder, and death as a reunion. Edland and Duncan⁴ apparently classified 330 suicide notes according to Hendin's taxonomy but do not present the resulting frequency counts. This is an unfortunate omission in the common quest for empirical validation of the psychosocial determinants of suicide.

At this point in our understanding, we should not go so far as Lord Chesterton. We should take the following liberty with his quotation:

The man who kills a man, kills a man.
The man who kills himself, kills two men.

Summary

We collected the line of duty investigatory file on each active duty Army completed suicide for calendar years 1975 and 1976, and tabulated data contained therein. There was a total of 255 cases during the two-year period, producing a suicide rate of 16.4 per 100,000. The male rate was 16.8, a rate higher than that reported for any of the Armed Services since World War II. The female rate was 9.9, but is based on only nine cases. The heaviest concentration of male suicides was in the 20-24 age group, which had 103 of the 255 cases, and a rate of 18.3. There were 23 cases at age 23, with a rate of 26.4—the highest single year age-specific rate until age 42 was reached.

The following ratios obtained between comparison rates: male to female 1.7, enlisted to officer 1.7, white male to black male 1.9. The median length of service for both male and female enlisted suicides was 3.0 years, for male officers 13.8 years. Forty per cent of the entire group were single; 66 per cent of all the cases had no children. Over one-half of the suicides took place at home—family quarters, apartment, parental home or barracks. The predominant method of self destruction was the firearm. June was the highest frequency month, Wednesday the day of the week. From a running list of stressful problems extant at the time of suicide, the most frequently occurring untoward circumstance was difficulty of one sort or another with the subject's love object.

A five-class taxonomy for categorizing the ascendant dysphoric motivational state precipitating the suicide was suggested from observations and commentary contained in the case files. The results of the stressful problem counts and the taxonomy tabulations can be interpreted as supporting Shneidman's position that suicide is primarily a dyadic phenomenon.

Acknowledgments

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The authors collected the line of duty investigatory file on each active duty Army completed suicide for calendar years 1975 and 1976, and tabulated data contained therein. There was a total of 255 cases during the two-year period, producing a suicide rate of 16.4 per 100,000. The male rate was 16.8, a rate higher than that reported for any of the Armed Services since World War II. The female rate was 9.9, but is based on only nine cases. The heaviest concentration of male cases was in the 20-24 age group, which had 103 of the 255 cases, and a rate of 18.3. There were 23 cases at age 23, with a rate of 26.4--the highest single year (over)		

#20 continued

age-specific rate until age 42 was reached.

The following ratios obtained between comparison rates: male to female 1.7, enlisted to officer 1.7, white male to black male 1.9. The median length of service for both male and female enlisted suicides was 3.0 years, for male officers 13.8 years. Forty per cent of the entire group were single; 66 per cent of all the cases had no children. Over one-half of the suicides took place at home--family quarters, apartment, parental home or barracks. The predominant method of self destruction was the firearm. June was the highest frequency month, Wednesday the day of the week. From a running list of stressful problems extant at the time of suicide, the most frequently occurring untoward circumstance was difficulty of one sort or another with the subject's love object.

A five-class taxonomy for categorizing the ascendant dysphoric motivational state precipitating the suicide was suggested from observations and commentary contained in the case files. The results of the stressful problem counts and the taxonomy tabulations can be interpreted as supporting Shneidman's position that suicide is primarily a dyadic phenomenon.

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