SUICIDE AND ATTEMPTED SUICIDE IN THE ROYAL NAVY

by

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SUICIDE AND ATTEMPTED SUICIDE IN THE ROYAL NAVY

Suicide and attempted suicide are always disrupting influences in any community. In a uniformed and disciplined community such as the Royal Navy, these acts assume a possibly greater significance than in civil life. When a man kills himself in the Service, there is often the implication that in some way the Service or some part of it has failed: why was he not noticed by other men in his ship, why did his divisional (company) officer not see the warning signs of some change in the man, and why did the welfare services not act to help him to solve his problems? This suggestion of failure by the Service is possibly aggravated by the fact that after each "unnatural death" a Board of Enquiry is always convened, to investigate the circumstances surrounding the incident and to make recommendations for avoiding further similar happenings.

As to attempted suicide, this also presents a problem - possibly a greater problem than suicide itself - to any service such as the Royal Navy. There are always in these cases several questions to be answered - is this attempt to kill himself a mere gesture or is it a "failed successful suicide"? Is it motivated by illness or by malice? Is it an attempt to avoid an unpleasant environment or to evade discipline? In other words, should the matter be dealt with as a medical problem or should it be treated by the executive and administrative authority? It must be remembered in this connection that in a service such as the Royal Navy the opportunities for exercising "blackmail" by threatening or attempting suicide are frequent and may be most effective. When a ship is on detached service and not carrying a medical officer, a man may upset the programme for a whole cruise or exercise by threatening to kill himself; he may equally well attempt to avoid punishment or service overseas by a similar threat or demonstration. Even when a medical officer is available, he may be young and inexperienced and unable

to assess the case accurately and confidently. It is a very different picture from that of the civil attempted suicide, who is quickly seen in hospital or outpatient clinic by an experienced psychiatrist, who can at once call on any assistance that he feels is required - relations, hospital, psychiatric social worker, local health and welfare authorities, or even in some cases the police.

These aspects of suicide and attempted suicide are quickly brought home to any medical officer practising in the armed forces and from time to time they prompt individual medical officers to bring this matter forward as a subject deserving of greater investigation and knowledge than is at present available.

In such a way there developed at a routine meeting of Royal Navy psychiatrists in London in the summer of 1958 a discussion of the problem of attempted suicide. At this meeting, the psychiatrist of one of the Royal Naval Commands in this country initiated the discussion by quoting the following figures, which relate only to the Command with which he was in direct contact:-

Date and period	Number of new psychiatric cases	Number of cases of Attempted Suicide	%
1.6.56 - 31.5.57	399	18	4.51
1.6.57 - 31.5.58	341	24	7.04

He suggested that though the total number of men serving in the Royal Navy was falling steadily, the number of psychiatric cases was not falling in the same proportion and that his impression was that there was a tendency towards an overall increase in the numbers of cases of attempted suicide.

In the discussion which followed, many suggestions were put forward to explain the apparent rise in the incidence of attempted suicide. Lowered morale in the service, lack of identification with ship and companions, undue emphasis placed on "welfare

considerations", lowering of standards in the homes of the classes from which new entries to the service are recruited, lack of proper interest and supervision by officers, the failure to appreciate the difference between a disciplined and uniformed service and civil employment in a "Trade Union and Welfare State" - all these were suggested as possible factors in the problem.

No definite conclusions were reached, except in so far as it was agreed that this was a subject deserving further investigation.

This study is an endeavour to do so.

Background and general considerations

The back-ground will be sketched in as briefly as possible.

The Royal Navy is a uniformed and disciplined service which exists primarily to float, to move, to fly and to fight on and over the many seas and oceans of the world. It is composed of carefully chosen males who vary in age from the boy entrant of 15 years to the Flag Officer of 60 years or over. In December 1958, in a force which totalled 100,160 men, 15 ratings and Royal Marine other ranks had been born in 1944; at the other end of the scale, 25 officers, ratings and Royal Marine other ranks had been born before 1900. The bulk of the serving personnel are comprised however in the age group 15-45; most ratings complete their service and retire with a pension at the age of 40 years; officers, unless already promoted to Commander and above, retire at the age of 45 years, except in special cases.

Both officers and ratings are very fully and carefully examined from the physical point of view on entry to the service. A high standard of physical fitness is demanded on entry and this standard is maintained throughout the course of their service by routine yearly X-ray of chest and by a complete physical examination every four years; special physical examination is also carried out

at more frequent intervals for officers and men in employment which is more exacting or hazardous than normal naval life; this includes men in the submarine service, Fleet Air Arm, divers and similar personnel. This should mean that physical illness may be virtually excluded as a factor in consideration of this problem.

Material and economic conditions should also play little part as "suicidal or psychiatric illness precipitants". The naval officer or rating, save in exceptional circumstances or on active service, is well paid, well housed or accommodated, well fed and well clothed. His rate of pay compares favourably with what he might obtain in civil life and he has generous allowances if he marries, if he is not accommodated and fed by the service, and if he is serving overseas where the cost of living may be more than in this country. He also knows that he has financial security and stability; his salary or wage will not vary from week to week or month to month, and he is not dependent on the prosperity or otherwise of a single industry.

All in all, the personnel of the Royal Navy lead a sheltered and protected life in times of peace, in a secure, carefully controlled environment, favourable to the individual from a purely material and economic point of view.

One further matter of some importance must be mentioned at this stage. During the period this country has known National Service, the Royal Navy has accepted, except during the war years, a minimum of national service or conscript entrants. This service has accepted only the "cream" of these young men, having first call on them before the Army and R.A.F. Some connection with the Royal Navy, e.g. previous membership of the R.N.V.R., or some skill of special value to the Royal Navy have been a necessary condition for entry. This means in practice that apart from the years of the second world war, 1939-1945, the personnel of the Royal Navy has been volunteer in character. This excludes a further possible stress factor, viz. compulsion for service by an outside agency.

On the other hand, factors must be considered which do not arise in civil life. The serviceman must be prepared to move to the other end of the world at short notice and to live there, if necessary under specially stressful conditions of climate, active service, civil riot and commotion. He must also be prepared to accept separation for more or less prolonged periods from his wife, his family and his home, and normal civil contacts.

Other factors which may have to be considered will include specially stressful employment within the service itself, e.g. diving to remove underwater obstacles and weapons including mines and depth charges, flying high-speed strike aircraft from the heaving and tossing decks of aircraft carriers, and finally service in submarines, where the man may be exposed to prolonged periods of stress in a boat which may remain submerged for considerable periods, "snorting" (i.e. with a snorkel breathing apparatus in action), with the atmospheric pressure in the boat changing every time the top of the "snort" hits a wave.

Further stress factors which are considered to play a large part in determining suicide in civil life should play little part in such action in a naval setting. These are social isolation and loss of social status. The Royal Navy is a closely integrated unit with a definite and positive identity, made up of men who serve for long periods as volunteers, who develop a definite sense of loyalty to and identification with their ship and the service, and who know that they will at least maintain their position in the social structure of the Royal Navy unless they positively offend.

Parental deprivation may well, however, play a considerable part in naval as well as in civil suicides.

Alcoholism (in conclusion) may be of more importance in service than in civil life; the opportunities for and toleration of alcoholic excess are much greater in the Royal Navy than in civil life.

Psychiatric illness probably is of less importance in a naval setting than in civil life. The degree of care which is taken to exclude men suffering from organic dysfunction is not similarly employed in the psychiatric screening of entrants. It can be accepted, however, that entrants suffering from overt psychotic or psychoneurotic illness will not be accepted for service. Men showing marked psychopathic traits will almost certainly be rejected also. In practice, too, it is found that the initial training period - in peace time at any rate - fulfils a useful function in screening entrants. Predisposed individuals tend to break down quickly under the purposely rather authoritarian and rigid discipline of this period; they are then quickly ejected from the service.

Sources of Material

Permission was given by the Medical Director General of the Royal Navy for the use of Admiralty medical records, and these have been studied at:

The Medical Department of the Navy.
The Admiralty Records Office.
The depots and hospitals of the Royal Navy at Chatham, Portsmouth and Plymouth.

With regard to the Royal Navy medical records, however, it must be explained that the figures used in this study are the result of personal perusal of the records; these figures may not agree fully with those produced by the "machine methods" of the Statistical Department in due course.

The numbers for the cases of completed suicide were assembled as follows: the death registers for 13 years (from 1946 to 1958) in the Medical Department of the Admiralty were studied and from these registers was extracted a total of 568 deaths with diagnoses which were considered suggestive of suicide; these case records were then studied in detail, giving eventually a figure of 162 cases of suicide.

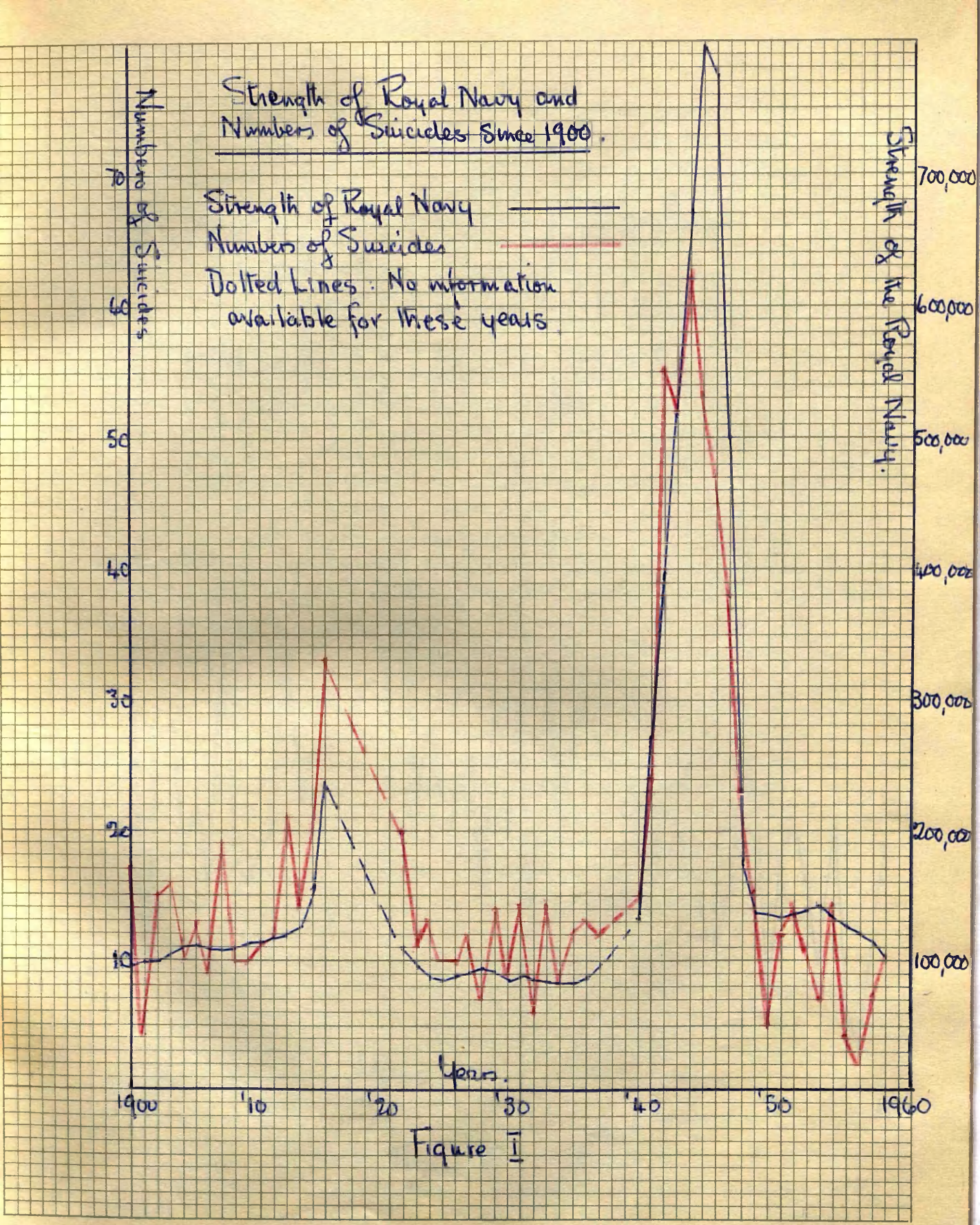
Strength of Royal Navy and Numbers of Suicides Since 1900.
Strength of Royal Navy
Numbers of Suicides
Dotted Lines: No information available for these years
Numbers of Suicides
Strength of the Royal Navy.
0
10
20
30
40
50
100,000
200,000
300,000
400,000
500,000
600,000
700,000
Years.
1900
'10
'20
'30
'40
'50
1960

Figure 1

Suicide in the Royal Navy since 1900
per 1000 at risk

Dotted lines: No information available for these years.

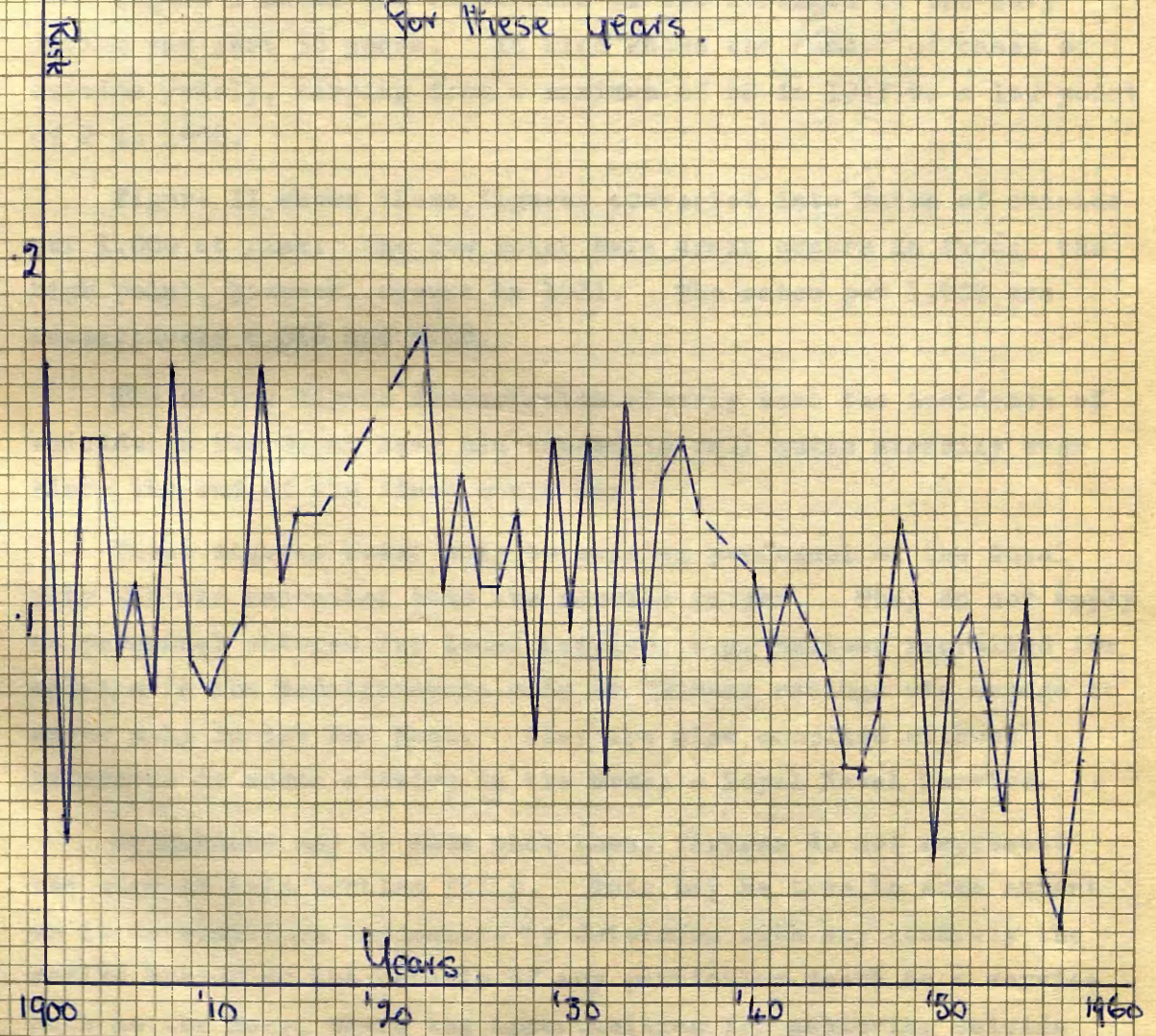

FIGURE II

The numbers of attempted suicides were derived from study of case records in the psychiatric departments of the various naval depots and hospitals in this country.

Suicide in the Royal Navy

Figures I and II show graphically the story of suicide in the Royal Navy during this century.

Figure I shows the variations in the strength of the Navy during the last 58 years. It also shows the number of cases of suicide yearly, varying from a maximum of 62 in 1943 to a low point of 2 in 1956.

Figure II shows these figures converted into rates of suicide per 1,000 at risk; the low point here again occurs in 1956; the high point, however, occurs in 1921. The rates per 1,000 are respectively 0.016 and 0.18.

The second figure demonstrates clearly that the incidence of suicide in the Royal Navy has tended to fall quite steadily ever since the end of the first world war.

These figures refer only to serving personnel of the Royal Navy who are recruited into the service proper. They do not apply to personnel entered for local service, e.g. Maltese recruited for service in the Mediterranean only or Chinese ratings who engage to serve only in the Far East. They are also compiled without reference to women serving in the Women's Royal Naval Service.

Objections may be made that these figures do not represent the size of this problem fully. This may be true to some extent as it is sometimes impossible to determine with any accuracy the motive behind or the details of any particular death in a service such as the Navy, where the opportunities for achieving suicide are easily to hand by methods which leave no chance for survival. For the purpose of this study, however, I have not counted such

deaths unless the circumstances left no doubt of the suicidal intent. This has eliminated many deaths, e.g. by drowning and by falling into docks. It has also cut out cases where the man has simply disappeared from the ship and it has been presumed that he has been washed overboard.

I believe, however, that for practical purposes these figures represent a degree of accuracy at least comparable with the figures issued by the civil authorities.

The Coroner of the City of Bristol, with whom this matter has been discussed, agreed with this view. He stated that it was his policy to return an "open" verdict unless the circumstances were such that the suicidal intent behind any particular incident was clear beyond doubt. At the same time, however, he was reasonably convinced that this practice understated the size of the problem and that no one would claim that the official figures represented more than a minimum of the actual cases of suicide.

Since the end of 1945, up to the end of 1958, there have been in all 162 cases of suicide among serving personnel in the Royal Navy. It is now intended to scrutinise these figures more closely.

The variations in these figures over the 13 years are given in Table I. This shows that the cases were composed of 32 officers and 130 ratings.

The highest total in any post-war year occurred in 1946 with 38 cases; the lowest in 1956 with 2 cases.

The rates per 1000 at risk varied from 0.016 in 1956 to 0.129 in 1947.

TABLE I

Year	Total strength of R.N.	SUICIDES			
		Officers	Men	Total cases	Rate per 1000 at risk
1946	500,000	9	29	38	0.076
1947	178,000	2	21	23	0.129
1948	137,000	4	11	15	0.109
1949	136,000	1	4	5	0.037
1950	130,900	4	8	12	0.092
1951	135,800	4	10	14	0.102
1952	140,700	2	9	11	0.078
1953	141,900	-	7	7	0.049
1954	131,523	2	12	14	0.106
1955	126,200	1	3	4	0.031
1956	120,200	-	2	2	0.016
1957	113,600	2	5	7	0.061
1958	103,400	1	9	10	0.097
Total suicides over 13 years		32	130	162	

Officers

Age distribution:

Age group	Suicides	% in each age group	% age distribution of all officers
15 - 25	8	25.00 %	23.53 %
26 - 35	7	21.87 %	35.35 %
36 - 45	10	31.26 %	30.29 %
46 +	7	21.87 %	10.83 %

Methods of suicide:

Shooting	14	Poisoning -	
Hanging	6	Coal gas	4
Falling	3	Barbiturates	2
Drowning	2	Morphine	1

Ranks:

Captain	1	Sub-Lieutenant	2
Commander	3	Midshipman	2
Lieutenant-Commander	11	Cadet	1
Lieutenant	9	Warrant Officer	3

Marital status:

Married	20	Single	12

Place of suicide:

Home	Ship	Hospital	In unfamiliar surroundings
7	17	2	6

In the United Kingdom	Overseas
28	4

Time of year:

January	2	May	5	September	3
February	2	June	2	October	3
March	2	July	5	November	3
April	4	August	-	December	1

Time of day:

a.m.	22	p.m.	10

Previous history:

In 11 cases there was a relevant history of psychiatric illness. Of the other cases, 2 might be considered to have been precipitated by fear of disciplinary action, and 1 may have been precipitated by a serious road accident in which his wife was killed in a car he was driving. In the other 18 cases, no history is available to explain the decision to commit suicide even on the most superficial level.

Religion:

No account has been taken of religious affiliation in these cases. Every serving officer and rating in the Royal Navy is officially a member of a recognised religious group; this is for the most part nominal and no real importance can often be attached to the "label" used.

Branches of the service:

Officers of all branches of the service were represented in this series of cases of suicide except chaplains, dental officers and electrical officers. The numbers in these latter branches are very small in comparison to the total number of officers at risk.

There were no cases of officers committing suicide who were at the time of the act employed in submarines, as air crew, in small ships, or as officers in Royal Marine Commandos.

Ratings

Age distribution:

Age group	Suicides	% in each age group	% age distribution of all ratings
15 - 25	67	51.54 %	71.20 %
20 - 35	42	32.31 %	20.12 %
36 - 45	21	16.15 %	7.80 %
46 +	-	-	0.88 %

Methods of suicide:

Hanging	42
Shooting	19
Drowning	14
Falling	8
Railway	4
Cut throat	1
Stabbing	1
Suffocation	1

Poisoning -	
Coal gas	27
Barbiturate	6
Aspirin and codeine	2
Ether	2
Arsenic	1
Carbontetrachloride	1
Car exhaust	1

Rating:

Boys	2	Leading Rate	11
Ordinary Rating	9	Petty Officer	24
Able Rating	64	Chief Petty Officer	20

Marital status:

Married 57. Single 60. Unknown 13.

Place of suicide:

Home	Ship	Hospital	In unfamiliar surroundings
33	78	2	17

In the United Kingdom	Overseas
93	37

Time of year:

January	13	May	15	September	16
February	9	June	14	October	4
March	14	July	11	November	5
April	8	August	11	December	10

Previous history:

In 77 of these cases there was a history of illness or of stress which seemed to explain at least superficially the decision to commit suicide. In the other 53 cases no precipitating factors were recorded in the case histories.

Again, no account is taken of nominal religious affiliation, for the reason already given.

All branches of the service are represented in the group. But, again as with officers, there is an apparent weighting against suicide in terms of special service. The submarine service, air service, small ships, and Royal Marine Commandos are poorly represented in this series of cases.

Summarising, these more detailed figures show that there are some quite striking differences between officers and ratings as regards the incidence of suicide, in the following ways.

Incidence of suicide in different age groups (rate per 1,000)

Age group	Officers	Ratings
15 - 25	0.139	0.051
26 - 35	0.~~114~~ ·081	0.113
36 - 45	0.135	0.145
46 +	0.371	-

It is of interest to note here:-

(a) The striking difference in the 15-25 age group between the officers and ratings. These are large groups and are not unduly weighted one way or the other because of difference in the size of the samples.

(b) The 46+ age group also shows a striking difference. This, however, may be a false impression because of the different age structure of officer and rating components in the Royal Navy; as stated earlier, only a very small minority of ratings serve after the age of 40 years; officers do not retire till 45 years at the earliest and many hope to serve till 55 or 57 years of age.

The methods of suicide employed are similar in both groups in that the overwhelming majority choose brutal and effective methods to kill themselves. Few cases of poisoning (apart from coal gas poisoning) are recorded; stabbing and slashing are seldom employed. The other differences between the two groups suggest only that officers may have easier access to firearms than ratings.

Marital status shows no trend in either direction. Of the total number of cases, 77 were married, 72 were single, and 13 had a marital status of which details were not known.

Place of suicide

	Home	Ship	Hospital	In unfamiliar surroundings
Officers	7	17	2	6
Ratings	33	78	2	17

The pattern here is similar in both groups except that possibly officers committed suicide oftener in unfamiliar surroundings.

There are striking differences, however, in these figures:-

	In the United Kingdom	Overseas
Officers	28	4
Ratings	93	37

Percentage committing suicide overseas: Officers 12.50 %
Ratings 28.46 %

This will be discussed in detail later in the paper.

Time of year

Quarter:	1st	2nd	3rd	4th
Officers	6	11	8	7
Ratings	36	37	38	19

Time of day

Officers, 22 a.m. and 10 p.m. Ratings - not specified often enough to produce any meaningful numbers.

The points raised earlier under the headings of religion, branch of service and employment in special services show no special differences of interest as between officers and ratings.

Attempted Suicide in the Royal Navy

As might be expected, while it is comparatively easy to discover at least an approximation of the cases of suicide in the Royal Navy, it is much more difficult to uncover comparable figures relating to attempted suicide.

It was intended initially to assemble these cases for a similar period to that used in considering the cases of suicide, i.e. from 1946 to the end of 1958. In practice it was found that this would be impossible to achieve without searching the medical records of every officer and man who had served in the Royal Navy during this period. This would have been a task of such magnitude that it would have been quite impracticable if not impossible; it would have involved studying more than 500,000 individual case histories. There is no central register maintained to record cases of attempted suicide in the way that all deaths are noted.

It was decided therefore to restrict the study to the last 5 years, i.e. from 1954 to 1958, and as stated earlier the case material was assembled from the records in the psychiatric departments in the various major Commands of the Royal Navy in this country.

Study of these records showed that there were at least 315 cases of attempted suicide in the Royal Navy in this country during the last 5 years, i.e. cases which were referred to the psychiatrist because of a suicidal act or gesture of some kind. This means that the figure represents the absolute minimum of such cases and that there may well be more such cases which do not come to psychiatric notice. It is considered, however, that most cases are referred for psychiatric opinion, because it is Admiralty policy that they should be so seen, so that the captain of the ship may be assisted, if he wishes, to decide whether the individual case should be dealt with as a medical or disciplinary problem.

The numbers of cases in each year were as follows:-

	Attempted Suicides in the R.N. (excluding Mediterranean Fleet and detached ships)		Suicides in the R.N.
	Number	Per 1000	Per 1000
1954	72	0.616	0.106
1955	55	0.476	0.031
1956	60	0.574	0.016
1957	83	0.813	0.061
1958	45	0.521	0.097

Total in 5 years: 315. Average: 63 per year.

There were in this group only 6 officers; all the other cases were ratings.

The methods used in these attempts were quite different from those in the successful suicides. The violent and effective methods seen in the cases of completed suicide are almost completely absent. The accent is on the younger age groups.

Considering these cases in greater detail, it is intended to review first the officer cases, which can be divided as follows.

	Officers		
Age groups:	26 - 35	5	
	36 - 45	1	
Methods employed:	Drugs	4	
	Cut throat	1	
	Falling	1	
Ranks:	Lt.Commander	1	
	Lieutenant	5	
Marital status:	Married	2	(1 divorced and remarried)
	Single	4	

Place of suicidal attempt:

Place of duty 6.

Previous history

In all these cases there is a positive psychiatric history of - psychopathy (2 cases), psychosis (1 case) and neurosis (3 cases).

No account has been taken of other factors in this group as the numbers involved are too small to allow any meaningful figures or trends to be deduced.

Ratings

With regard to the remaining cases, i.e. 309 attempted suicides among ratings, the details are as follows.

Age distribution:

Age group	Attempted suicides	% in each age group	% age distribution of all ratings
15 - 25	280	90.62 %	71.20 %
26 - 35	15	4.85 %	20.12 %
36 - 45	14	4.53 %	7.80 %
46 +	-	-	0.88 %

Methods employed:

Slashed wrists	70	Shooting	1
Jumping	24	Railway	1
Hanging	18	Driving car off road	1
Swallowing glass	10	Poisoning -	
Strangulation	6	Aspirin	98
Drowning	5	Barbiturates	28
Cuts to body	4	Coal gas	24
Hand through window	2	Degreasing fluid)	15
Refusal of food	2	Disinfectants &c.)	

Ranks:

Boys and Juniors	22	Leading Rate	14
Ordinary Rating	56	Petty Officer	10
Able Rating	201	Chief Petty Officer	6

Marital status, in age groups:

Age group	Married	Single	Total cases
15 - 25	93	187	280
26 - 35	10	5	15
36 - 45	11	3	14
46 +	0	0	0
Totals:	114	195	309

Place of suicidal attempt:

Home 5. Ship or place of duty 304.

Time of year

The distribution of attempted suicide does not seem to be influenced to any marked extent by time of year and the attempts are spread more or less evenly throughout the year. There is however a peak in the third quarter of the year and secondary peaks occur after each leave period, in January, May and September.

January	37)		July	27)	
February	16)	82	August	32)	102
March	29)		September	43)	
April	13)		October	21)	
May	35)	64	November	28)	61
June	16)		December	12)	

The distribution of these cases among the various branches of the service is again in keeping with the numbers in these branches and no one branch of the service is outstanding either by reason of presence or absence of these cases.

There is however again an absence of ratings employed in special duties, i.e. in small ships, submarines and the air arm.

There is in relatively many cases - 28 in all in this series - a history of repeated suicidal attempts.

None of these cases has so far made a successful or completed suicide, as far as is shown in the records held in Royal Naval establishments and in the Admiralty.

There are in most of these cases signs of defect of personality, neurosis or psychosis. Alcoholism, delinquency, and dislike of the service are frequently mentioned in these case histories.

Return to duty or disposal

It is not possible to give any full figures with regard to the disposal of all these cases. With regard to the officers, all were invalided from the service as psychiatric cases. As regards ratings, those suffering from severe psychiatric illness were also invalided; these were much in the minority - in one series of 35 admitted to a hospital for observation, 32 were returned to duty. The eventual disposal of these men then became an administrative problem; only 3 were discharged from the service as unfit medically. It is considered that this is in keeping with general practice in this matter. The eventual disposal of the 32 is not known. They may have been discharged from the service subsequently as "unsuitable". It is against naval practice, however, to discharge men from the service who have threatened suicide or attempted suicide simply to procure their discharge. This does not of course preclude in due course an "unsuitable or services no longer required" discharge, i.e. they are unable to be of value to the service or they are undesirable people to retain. This of course is an administrative and not a medical decision.

Threats of Suicide

In one series of 64 cases seen consecutively in one psychiatric department because of the "suicidal element" in their complaints, there were 44 cases of attempted suicide. The other 20 cases were referred because of suicidal threats, considered by the General Duties Medical Officers to be sufficiently serious to justify psychiatric examination.

DISCUSSION

The investigation was prompted in the first place by the seeming frequency with which cases of attempted suicide were seen by Royal Navy psychiatrists. All psychiatrists serving in the Royal Navy agreed that this matter was a problem, but when it was discussed no one seemed to have widely-based positive information on which advice could be given to the administrative authorities of the service as to the optimum solution, or, failing a solution, advice which might reduce the size of this problem.

There has been much written on the subject of suicide in the course of the last century, ever since Durkheim's original monograph (1897), later re-translated by Spaulding and Simpson (1952). Cavan (1928) investigated the problem of suicide and social disintegration in Chicago. Sainsbury (1955) investigated the problem of suicide in London. Batchelor and others (1953,1954) investigated various aspects of attempted suicide in Edinburgh. Stengel et al. (1958) in London, Parrish (1957) at Yale, and Rooke (1959) at Cambridge have also produced studies on various aspects of suicide.

Even the B.B.C. referred to this matter recently when in the course of a News Bulletin on the television service they flashed the following on the screen, as representing the main causes of death in this country:-

Coronary and other cardiac disease	750	Deaths per day.
Pulmonary carcinoma	54	
Road accidents	15	
Suicide	14	
Tuberculosis	12	

There has however so far as is known to the writer been no study such as the present, where the two groups of "successful or completed" suicides and attempted suicides in the same community have been studied in conditions where it can be said that the figures quoted for both groups bear at least a close relation in standard of accuracy and completeness, and where it has been possible to see over a matter of years how much overlapping there is between these two groups.

SUICIDE

Turning first to the matter of the completed suicide, there have been 162 cases in the last 13 years in the Royal Navy. This means an average of 12.46 cases per year which, in a force which has averaged 161,171 over this period, does not present a serious administrative problem. In fact in some ways these cases do not present a problem administratively, for when such a case comes to the notice of authority the incident is already over and done with; ships' routines are not affected to any significant extent and the fighting efficiency of the service remains what it was. The implications of the suicide are of course quite another matter, suggesting as they do a failure on the part of the system in not preventing a man killing himself.

Ostensible causes of suicide

Considering these cases, however, it is seen that in 18 of the 32 cases or 56.25% of officer suicides there were no warning signs which might have led to action to abort the incident. Among ratings the figure is 53 or 40.77%. The overall figure is 71 or 43.82%.

Looking now at the cases in which - "looking back" - it is possible to see that suicide might have been contemplated, details of the officer cases are given below.

TABLE II.

	Age Group				Total
	15-25	26-35	36-45	45 +	
No warning signs	6	3	6	3	18
Depression	-	2	4	4	10
Schizophrenia	1	-	-	-	1
Disciplinary and social factors	-	2	-	-	2
Neurosis	1	-	-	-	1
Totals:	8	7	10	7	32
Percentage of officer suicides with apparent explanation for the act	25%	57%	40%	57%	

In the group of 14 officers with some explanation for the act, two killed themselves when in circumstances which might have led to serious disciplinary action, involving possibly the ruin of their careers in the Royal Navy with all that this means in terms of social isolation, social degeneration and financial problems.

The remaining 12 cases were made up as follows: one officer killed himself by falling from a window in a hospital in Spain, where he had been admitted after a road accident in which his wife had been killed in a car he himself was driving; there was nothing in his earlier history to suggest that he would ever contemplate suicide; it is considered that he was suffering from acute reactive depression in the setting of a post-concussional state and that this suicide could not have been predicted by anyone, except possibly by one present in the hospital at the relevant time.

The remaining 11 officers were all suffering from more or less frank psychiatric illness. One was on terminal leave, after being treated in several hospitals for a schizophrenic illness, and was actually working in a civil hospital when he killed himself. Another absconded from a civil hospital where he was being treated for a psychotic illness, probably depressive, to kill himself.

Eight officers were suffering from depressive illnesses, which were not all recognised at the time by those around them. Two were under outpatient treatment at the time of the suicide; one of these had a strongly positive family history - two near relations had committed suicide. Another case committed suicide a week after leaving hospital where he had been treated for 4 weeks for what was then diagnosed as "anxiety state and effort syndrome". Two cases had previously been treated in hospital for psychiatric illness. Two cases had not received specific psychiatric treatment; one of these was a former Japanese P.o.W. who had found difficulty in readjusting to life outside a P.o.W. camp. The last of these 8 cases left suicide notes suggesting that he had suffered from chronic depression for many years.

The eleventh case was that of a young man of 20 who had repeatedly threatened suicide and who had been seen on several occasions by psychiatrists; no active serious psychiatric illness had ever been demonstrated either as an outpatient or during observation in hospital; his threats were widely known and warnings of these threats had even been received by friends in the U.S.A. who in turn advised the Admiralty of them.

Among the rating group, comprising 130 cases in all, 53 showed no warning signs whatever. In the remaining 77 cases, 12 were facing serious disciplinary action, 12 had serious marital and domestic problems; the remaining 53 cases showed positive evidence of psychiatric illness or of severe personality disorders when case histories were studied. This illness, however, was often not so clearly apparent before the incident which led to its inclusion in this study. These figures are shown in age groups, with percentages, in Table III.

TABLE III.

	Age group			Total	%
	15-25	26-35	36-45		
No warning signs	28	17	8	53	40.77%
Discipline	9	2	1	12	9.23%
Domestic and marital	4	7	1	12	9.23%
Psychiatric	26	16	11	53	40.77%
Totals:	67	42	21	130	
Percentage of rating suicides with apparent explanation for the act	58%	59%	62%		

Looking more closely now at the 53 cases (40.77%) of rating cases which showed evidence of psychiatric illness or personality disorder, there seems to have been in 10 cases illness of psychotic intensity; 3 were suffering from schizophrenic illness, 2 were suffering from alcoholic psychosis, 1 was suffering from a paranoid illness and the remaining 4 from severe depressive illness. Most of these cases were or had been in hospital under treatment.

Of the 3 cases of schizophrenia, one committed suicide after discharge from hospital and the Royal Navy, having apparently made a good response to treatment in hospital; the second committed suicide while an in-patient; and the third, in whom the diagnosis of schizophrenia has been made posthumously on consideration of the case notes, had been earlier under psychiatric observation. Both cases of alcoholic psychosis had received treatment in hospital; one disappeared while at sea on his way to hospital in this country from overseas; the other had been treated in hospital earlier, had made a good recovery and had then reverted to his previous habit of alcoholic excess; this was not known to authority, but he was known to be ill again by his companions, none of whom however reported that he was hallucinated and deluded again.

The patient suffering from a paranoid illness committed suicide while a patient in a ship's hospital, when he evaded his escort and threw himself over the side.

The four cases of depression which culminated in suicide had all received treatment for depression. Two killed themselves while on dispersal leave, having apparently earlier responded well to treatment in hospital; they had been discharged from hospital and from the Royal Navy, comparatively shortly before the suicide. The other two cases had been treated in hospital for depression and had made seemingly complete recovery, so that they were allowed to return to duty, where they subsequently, some months later, relapsed and committed suicide. Two of the cases - one a depressive and one a schizophrenic - are known to have attempted and threatened suicide in previous exacerbations of their illnesses.

The remaining 43 ratings were cases in which the diagnosis was of either neurosis or psychopathy. The 5 cases of psychopathy which culminated in suicide all showed evidence of much delinquency, alcoholism and sexual promiscuity. One took part in a suicide pact with his mistress, in which both died of coal gas poisoning. Two had sustained head injuries at earlier stages in their careers; however their psychopathic behaviour was antecedent to the head injuries, which were sustained in the course of aggressive behaviour.

Of the remaining 38 cases, 14 are known to have shown signs of tension and depression following venereal infection; the infection had been treated adequately from the somatic point of view; the anxiety and guilt surrounding the incident had, however, persisted and were known in most cases to their companions, but had not been communicated to authority.

A further 5 cases were possibly precipitated by maladjustment to the service; one boy of 19 was disgusted by the conversation and attitude to life of many of his messmates; another aged 19 was

unable to make the progress in his studies which he felt was demanded of him; a further young man of 20 - a National Serviceman - felt he was wasting his time in the service; another man of 21 disliked every part of the Royal Navy; and the final case was a young rating of 19 who was unable to accept the responsibility of the duties he was called on to undertake in relation to naval property.

Four cases committed suicide when suffering from what appear to have been acute attacks of depression; they are variously described as moody or unhappy for a day or so before the incident. Two other cases had a history of headache for which no organic cause was ever demonstrated and for which they had been treated prior to the suicide. Another case was under observation in the Sickquarters of his station and awaiting transfer for treatment of a depressive illness. Two further cases had histories of repeated anxiety states in the past; another case had a history of obsessional behaviour, some depression and repeated alcoholic excess. Two had a history of moodiness following head injury. A further case was being treated as an out-patient for depression, and another 5 cases had been treated earlier for depression. The final case was that of a P.O.W. who had failed to settle after returning from overseas and a prison camp. Three of the cases had earlier attempted suicide.

The 12 cases with domestic and marital problems had no relevant entries in their previous medical history records. Of the 6 cases overseas, 3 of the problems concerned a wife in the U.K. and a girl friend overseas who had been promised marriage; in 2 cases the wife had instituted divorce proceedings for misconduct on the part of the rating; in the final case the marriage had broken down. Of the 6 cases which occurred in the U.K., in one the wife had committed bigamy; in another case there was doubt as to the paternity of a child; a broken engagement was mentioned in a further case; in the fourth case the rating had promised marriage to a girl who was then pregnant by him, while he was already married; and in the two remaining cases dysharmony between husband and wife was the ostensible reason for the suicide.

In the final 12 cases (in which conflict with authority seemed to be the precipitating factor leading to the suicide), desertion, evading escort on the way to detention, smuggling, and breaking out of ship, were the main charges facing the rating. There was only one civil charge - being on enclosed premises; in this case the rating hanged himself in a civil police cell. There was no suggestion in any case of major crime. One case was the result of a suicide pact between two ratings who had been charged with breaking out of a ship; there was a strong suggestion of a possible charge of indecent behaviour in this case but no positive charge had been made at the time of the suicide so far as is known to the writer.

Summarising these cases of officers and ratings gives the following table:

TABLE IV.

Ostensible cause of suicide		Age group				Total	% of group
		15-25	26-35	36-45	46 +		
Domestic and marital:	Ratings	4	7	1	-	12	9.23%
	Officers	-	-	-	-	-	-
Discipline:	Ratings	9	2	1	-	12	9.23%
	Officers	-	2	-	-	2	6.25%
Psychiatric:	Ratings	26	16	11	-	53	40.77%
	Officers	2	2	4	4	12	37.50%

Considering this table, the first point to be noted is the apparent absence of domestic problems as a factor leading to suicide among officers; it is thought that this is a false impression and that it represents nothing more than a reluctance on the part of officers to allow domestic and marital problems to come out into the open. The rating, on the other hand, tends to make use of the welfare services available to him and to be more forthcoming on his personal problems.

In the second category (discipline), there is little difference between officer and rating; one extra officer case would have equated the ostensible difference; the numbers involved are in any case small and are not significant.

With regard to the third category (suicide due to psychiatric disturbance) it is proposed to tabulate these figures in more detail:

TABLE V.

Psychiatric disturbance		Age group				Totals	
		15-25	26-35	36-45	46 +		
Schizophrenia:	Ratings	2	1	1*	-	4)	5
	Officers	1	-	-	-	1)	
Depression:	Ratings	7	7	5	-	19)	29
	Officers	-	2	4	4	10)	
Neurosis in which major symptom was anxiety:	Ratings	15	6	2	-	23)	24
	Officers	1	-	-	-	1)	
Psychopathy:	Ratings	2	2	3	-	7)	7
	Officers	-	-	-	-	0)	
Totals:		28	18	15	4	65	

* Paranoid

In the table above, all the depressive illnesses, whether psychotic or ostensibly neurotic in type, have been grouped together; the paranoid rating has been grouped with the overtly schizophrenic division. The two "alcoholic" suicides have been grouped under the heading of psychopathy; while they showed no other evidence of psychopathy, it is considered that this is the most appropriate placing in the table.

Expressing these figures in relation to the total number of suicides in the Royal Navy during the period in question, another table has been prepared:

TABLE VI.

Diagnosis	Total cases	% of all suicides	% of Rating suicides	% of Officer suicides
Schizophrenia	5	3.08	3.08	3.12
Depression	29	17.90	14.62	31.25
Neurosis	24	14.81	17.69	3.12
Psychopathy	7	4.32	5.38	-
Totals:	65	40.11	40.77	37.49

This suggests that: (a) depressive illness is a potent factor in cases of suicide among officers; (b) neurosis with anxiety as a principal symptom precipitates suicide among ratings.

These figures are, however, complicated by the different age structures of the two groups and it is intended to consider this matter further in the next section.

Sainsbury, in his work on suicide in London, reported that mental illness was a principal factor in the suicides in 47.4% of his cases, alcoholism in 6.2% and abnormal personality traits in 16.7%. This gives a total of 70.3% of cases, as against 40.11% in a naval setting. This would appear to support the opinion expressed earlier, where it was suggested that psychiatric illness should be a less potent factor in suicide in the Royal Navy than in civil life.

Kupper (1947) on the other hand reports that in his series of 30 soldiers in Europe immediately after VE day, who presented as serious suicidal risks, 25 (or 83%) were insane. This, of course, was a group who had been exposed to the stresses of prolonged

active service and in any case not for the most part composed of professional servicemen, as in the present series. It is of interest, too, that his five cases who were sane did not blame the horrors of war for their decision to commit suicide.

Incidence of suicide in the various age groups

As stated earlier in this study, the age structure of the two groups involved, namely officers and ratings, varied considerably; the percentages in each group were as follows:

Age group	Officers	Ratings
15 - 25	23.53 %	71.20 %
26 - 35	35.35 %	20.12 %
36 - 45	30.29 %	7.80 %
46 +	10.83 %	0.88 %

These figures refer to the 5-year period from 1954 to 1958. The officer group has averaged 11.25% of the total group over the same period. The strength of the Royal Navy has averaged 161,171 over the period of this study.

Taking the figures for the whole series and for the two smaller groups independently, the following rates for suicide per 1,000 have been determined:

TABLE VII.

	Age Group							
	15 - 25		26 - 35		36 - 45		46 +	
	No.	Per 1000	No.	Per 1000	No.	Per 1000	No.	Per 1000
All cases	75	.054	49	.107	31	.142	7	.164
Officers	8	.139	7	.081	10	.135	7	.371
Ratings	67	.051	42	.113	21	.145	-	-

The rate for all age groups in the Royal Navy over the same period has been 0.0773 per 1,000; that for officers 0.222, and that for ratings 0.0702.

These rates show what might have been anticipated and what other investigators have also demonstrated, viz. the increasing risk of suicide with increasing age. There are also four other points of interest.

The first is the seemingly greater liability of the young officer to commit suicide as compared with the young rating. This is of special interest in view of the findings of Parrish at Yale University, and of Rooke in his article on suicide among students at a British university.

Parrish reported that suicides at Yale University between 1920 and 1955 accounted for 25 or 12% of all deaths among Yale University students and that the death rate from suicide is not significantly higher among college students than among a comparable group of the non-college population.

Rooke, however, pointed out that this represents a rate of 13 per 100,000 and that this compares with a rate for young adult males in England of 2.8 per 100,000. The following figures are quoted by him:

	Rate per 100,000
Oxford University	30.5
Cambridge University	17.8
7 British universities	7.9
University College, London	17.1

These rates may be compared with:

Royal Navy, young officers	13.9
Royal Navy, young ratings	5.1
Yale University	13.0

This suggests that many of the same factors might be expected in the environment, background and aspirations of the young naval officers as in those of the university undergraduate, and in fact this is so. The young naval officer comes from the same kind of background both domestically and educationally as does the under-

graduate, he is studying to pass examinations and to establish himself in a career - in many cases he is in fact studying for a university degree in engineering or some skill which will be of value to the service.

Turning now to the second point of interest in these figures, it is clear that the suicide rate for all officers is much higher than that among ratings. This of course is as would be expected. The Registrar General (1938) gives the following figures for suicide in the different social classes:

Standardised Mortality Ratios.	All males aged 20-65	
	1921-23	1930-32
I. Professional Class	113	120
II. Intermediate between I and III.	125	137
III. Skilled workers	89	95
IV. Intermediate between III and V.	87	87
V. Unskilled workers	96	87

These figures show the highest suicide rate among the top levels of society, a diminishing rate as the social level falls, and a tendency to increase slightly when the subject is in a class likely to be exposed to financial stress.

Correlating these figures with those applicable to the Royal Navy gives the following picture:

Class I	1921-23	1930-32
Professional class civilians	113	120
Royal Naval Officers	222	
Class III		
Civilians, skilled workers	89	95
Royal Naval ratings	70	

These figures suggest that the rate for naval officers is higher than might have been expected; equally it shows that the rate for ratings is lower than seemed likely. It has been assumed

that officers are of professional status and that ratings come into Class III for the purpose of this comparison. It is considered that this assumption is fully justified by the social esteem in which each group is held by the community. This matter will be discussed in greater detail later.

The third point to be considered now is the apparent finding in the previous section of the study that ratings tend to be more prone to commit suicide in a setting of anxiety and that officers are specially prone to suicide in the setting of a depressive illness.

Taking first the matter of suicide in a neurotic setting with anxiety as the principal symptom: among ratings these cases were 17.69% of the total number of suicides; the comparable figure for officers was 3.125%. When these figures are expressed as a rate per 1,000 at risk, the figures are .0136 for ratings and .0069 for officers. The bulk of the cases are, however, in the youngest age group, 16 out of 24 cases being in the 15-25 group. Comparing officers and ratings in this age group gives a figure for ratings of 15 cases or .0142 per 1,000 at risk as compared with a rate for officers of 1 case or .0173 per 1,000. In the older age groups there are no officer cases in which anxiety was noted prior to suicide; in the rating group there were 8 such cases. It is believed that this represents nothing more than the reluctance of the older and more mature officer and his family to discuss their anxieties with others, and with his determination to present a "good face" to the outside world. The rating is more accustomed to seek the help of outside agencies and to look for advice and help from these agencies.

With regard to the second half of this matter, namely, the suicide in a setting of depressive illness, the picture seems to be of positive significance. There were in all 29 cases of suicide with a history of depressive illness - 17.9% of all suicides in this study. Of these 10 were officers and 19 ratings; the respective

percentages in each group being 31.25 and 14.26. The officers were all aged 26 or more years; the ratings up to 45 years of age. When these figures are expressed as in the following table, the picture becomes clearer.

TABLE VIII.

Suicide in a setting of depressive illness

	Age group							
	15 - 25		26 - 35		36 - 45		46 +	
	No.	Per 1000	No.	Per 1000	No.	Per 1000	No.	Per 1000
Officers	-	-	2	.0231	4	.0540	4	.212
Ratings	7	.0053	7	.0188	5	.0345	-	-

These rates suggest that officers do commit suicide more frequently in a setting of depression than do ratings. The overall numbers are too small however to be significant statistically and it is the opinion of the writer that they simply represent once again the greater reluctance of the officer to seek medical or other help as compared with the rating.

The final point of interest which is suggested by the initial table of suicide rates in the various age groups is the apparent relationship which they bear to the environment of the subject at the time. This has been expressed in abbreviated form in the following tabulation.

Age Group		Suicide Rate	
15-25	Officer	.139	He is studying and striving hard to achieve and to maintain his status as an officer.
	Rating	.051	He is young, often unmarried, and well settled in a well-paid job.

Age Group		Suicide Rate	
26-35	Officer	.081	He is now an officer, generally subordinate and with comparatively little service responsibility. He is married and his family is still young.
	Rating	.113	He is now a senior rating, accepting much responsibility. He is married, with family growing up. He marries at a younger age than the officer.
36-45	Officer	.135	He is now accepting greater responsibility and striving hard to achieve promotion. His family are growing up and presenting greater problems.
	Rating	.145	He is now at the zenith of his career and may be trying to achieve officer status. His family are at least adolescent and may be a considerable problem. He has great responsibilities at duty.
46 +	Officer	.371	He has now achieved a position of responsibility and is striving for further promotion. He may be entering the 'involutional' phase and his ability to extend his knowledge and certainly his physical fitness is likely to be less than it was in terms of his ability to accept long hours of work and exposure to unfavourable climatic conditions.
	Rating	-	He remains in the Royal Navy - a trusted and senior rating. He is in a good job which he wishes to retain as long as he is fit to do so. He is not striving for promotion now.

Comparison of Naval rates of Suicide with those of civil life in the United Kingdom

The rate for naval suicides per 1,000 during this century has already been demonstrated graphically at the beginning of this section of the study and has been shown to vary between a high point of .18 per 1,000 in 1921 and a low point of.016 in 1956. This

graph also demonstrates the general trend of suicide in the service which has been downward on the whole since the end of the second world war and certainly less than in the inter-war period.

The picture may be better illustrated in the following table which is based on the Registrar General's figures for suicide in England and Wales during this century, with the corresponding Royal Navy figures added.

TABLE IX.

Suicide Rates per 100,000 (male only) in age groups

Period	Royal Navy	CIVILIANS (age groups)						
		Total 15+	10-14	15-19	20-24	25-29	30-39	40-49
1901-03	12.0	23.3	.3	3.4	9.4	15.6	25,6	39.5
1910-12	12.0	22.4	.3	4.3	9.2	14.6	23.4	35.5
1920-22	14.3	20.8	.5	2.7	6.6	8.1	14.3	25.2
1930-32	13.3	26.0	.2	3.3	9.8	12.7	16.1	30.1
1936-38	13.0	22.9	.3	3.0	8.2	10.9	15.6	23.0
1947-49	9.2	18.5	.2	3.2	6.4	7.7	9.8	16.9
1952-54	7.7	18.9	.2	2.9	6.0	7.9	10.1	17.1

To obtain a clearer comparison it is nowintended to reproduce the lower part of this table, showing the figures for 1947-49 and 1952-54, compared with the corresponding Royal Navy age-groups for the 13-year period of this study, 1946-58.

The result is shown in Table X.

TABLE X.

R.N. and Civilian Suicide Rates per 100,000 (male only) in age groups

Period	R.N. Overall rate	CIVILIANS (age groups)						
		Overall rate 15 +	10-14	15-19	20-24	25-29	30-39	40-49
1947-49	9.2	18.5	.2	3.2	6.4	7.7	9.8	16.9
1952-54	7.7	18.3	.2	2.9	6.0	7.9	10.1	17.1
1946-58	7.~~73~~ 48	ROYAL NAVY (age groups)						
		Overall		15 - 25		26-35	36-45	46 +
		7.~~73~~ 48		5.4		10.7	14.2	16.5

From this table it can be seen that there is in fact a close relationship between the rates for suicide in a Royal Naval setting and in a civilian setting, the difference in the overall figures quoted in the second and third columns being obviously due to the weighting given by the absence of aged groups in the Royal Navy as compared with civil life; as is well known, the suicide rate in the aged groups is much higher than in younger groups.

It is perhaps of interest to add here that the overall rate of suicide in the Royal Navy in the last five years has been 37 cases in a force which has averaged about 120,000 men over that period. In the city of Bristol there have been 36 suicides in the male age group 15-45, in a population very closely corresponding to the R.N. figure in size of the sample at risk. This finding is significant in view of the nature of this city, which has been described by Hare (1956) in the following terms: "Bristol has never suffered severely from industrial depression and has no necrotic or hobo centre such as has been described in Chicago during the 1920's (Zorbaugh, 1929). Its industries are so varied and well balanced that Bristol has been called 'the pattern of a diversely occupied town' (Little, 1954) and

there seems to have been relatively little migration into or out of the city in the last ten years." The conditions in this city economically correspond closely to those obtaining in the Royal Navy and the lack of mobility, migration and extraneous influence in Bristol has some affinity with a long-service volunteer force such as the Royal Navy. It may be argued, of course, that the personnel of the Royal Navy are mobile, do migrate and are subject to extraneous influences. These movements and exposure to extraneous influences are however of a different nature from those described by Sainsbury in his study of these factors in London. The movement and the other factors in the Royal Navy are experienced in a community and not an individual setting and, in theory at any rate, the officer and rating are still living in much the same setting, whether his ship is off Dover or off Hong Kong.

No detailed comparison of the incidence of suicide in the R.N. as compared with other naval forces is possible. An attempt was made twice to obtain this information from the U.S.A. but proved unsuccessful. This was considered to be the only other naval force in the world corresponding to a major degree in size, composition, movement and responsibilities to the Royal Navy; the other navies of the world operate on a more or less "local basis" apart from the Russian Navy and no reliable information is publicly available on this navy.

Teicher (1947) does quote the following figures, however, referring to the U.S. Navy and the U.S. civil population; superimposed on these figures are those for the Royal Navy for the same period. The figures suggest at least that the experience of the Royal Navy in relation to suicide is much more favourable than that of the U.S. Navy. In drawing any conclusions, however, it must be remembered that during this period the Royal Navy was more actively employed in war-like activity, e.g. the Spanish Civil War, than was

the U.S. Navy, and that obviously such activity (vide Durkheim) would have an effect in at least tending to reduce the incidence of suicide in the Royal Navy.

Suicide Rates per 1000 at risk

Year	U.S. Civil	U.S. Navy	Royal Navy
1932	.17	.17	.16
1933	.15	.39	.09
1934	.14	.28	.14
1935	.14	.32	.15
1936	.14	.23	.13
1937	.15	.26	Not available
1938	.15	.21	Not available
1939	.14	.21	.10
1940	.14	.20	.10
1941	.13	.14	.10

Methods of Suicide

There is little that need be said on the methods of suicide employed in the various cases in this study. They are almost all brutal, violent, and effective. The details are set out in Table XI.

There is little difference between the two groups - officers and ratings - in the methods used, except in the use of firearms. This, as already noted earlier in the study, suggests only what is already known, i.e. that officers generally have readier access to firearms than ratings. Sleeper (1944) also points out however that, even though firearms are ready to hand in conditions of military service, in relation to suicide in the U.S. Armed Forces officers use pistols most frequently, non-commissioned officers less often, and that such a method of suicide is much rarer among other ranks.

Comparing the total group figures with those of other groups in this country and overseas, Table XII has been prepared.

TABLE XI: Methods of Suicide in the Royal Navy

Method	No. of Officers	%	No. of Ratings	%	Total cases	% of all cases
Hanging	6	18.75	42	32.31	48	29.63
Shooting	14	43.75	19	14.62	33	20.37
Poisoning:						
1. Gas	4	12.50	28	21.54	32	19.75
2. Barbiturates	2	6.25	6	4.61	8	4.94
3. Aspirin	-	-	2	1.54	2	1.23
4. Other poison	1	3.13	4	3.07	5	3.08
Drowning	2	6.25	14	10.77	16	9.87
Falling	3	9.37	8	6.15	11	6.80
Railway	-	-	4	3.08	4	2.47
Stabbing	-	-	1	0.77	1	0.62
Cut throat	-	-	1	0.77	1	0.62
Suffocation	-	-	1	0.77	1	0.62
Totals:	32	100 %	130	100 %	162	100 %

TABLE XII: Methods of Suicide compared, as percentage of each group

Method	Royal Navy group	Sainsbury's London group (male)	Bristol 1954-57	U.S.A.
Hanging	29.63	10.3	12.04	17.89
Shooting	20.37	2.6	2.77	45.78
Poisoning:				
1. Gas	19.75	40.3	60.18	18.42
2. Barbiturates	4.94	)		
3. Aspirin	1.23	) 16.7	7.41	8.95
4. Other poison	3.08	)		
Drowning	9.87	9.0	-	2.11
Falling	6.80	10.3	8.33	2.11
Railway	2.47	3.9	1.86	-
Stabbing	0.62	)		
Cut throat	0.62	) 6.4	6.48	3.69
Suffocation	0.62	-	-	-
Electrocution	-	0.5	0.93	1.05
Totals:	100 %	100 %	100 %	100 %

Table XII confirms that male successful suicides, so far as the English-speaking communities are concerned at least, generally employ methods of great effectiveness, and that the exact choice of method depends largely on the availability of that method. In civil communities in the United Kingdom, fire-arms are often difficult to acquire; carbon monoxide or dioxide in one form or another are readily available; these facts are demonstrated in the figures given above. Fire-arms are more readily available in the United States and in the Royal Navy; the figures for methods of suicide again reflect this.

In short, the methods employed in suicide by Royal Naval personnel are what might have been expected; they are in keeping with previous findings on the matter.

Place of Suicide

In this study, there are in all 162 cases of suicide, some of whom committed suicide in the United Kingdom, some of whom killed themselves overseas, some at duty, some at home, and some in an environment unfamiliar to them. The following table shows this in detail.

TABLE XIII.

(A) Officers. (B) Ratings. U.E. = unfamiliar environment.

	U.K.	%	Overseas	%	At home	%	At duty	%	Hospital	%	U.E.	%
(A)	28	87.50	4	12.50	7	21.87	17	53.12	2	6.25	6	18.75
(B)	93	71.53	37	28.46	33	25.38	78	60.00	2	1.53	17	13.07
All	121	74.69	41	25.31	40	24.69	95	58.64	4	2.47	23	14.19

There are various points of interest shown in Table XIII.

1. There were 4 cases of suicide in hospital patients. This is in keeping with the findings of Banen (1956) who in discussing the problem of suicide in psychotic patients in an American mental hospital remarks that many give no previous warning of suicidal intent and it is impossible to eliminate entirely suicide in hospital patients. The proportion of this group to the total is extremely small and when considered against the total number of naval patients in hospital is of no practical significance.

2. In the study of suicide among college students by Parrish (1957) at Yale University, he drew attention to the fact that 40% committed suicide at home, 40% in the college community, and 20% in unfamiliar environments. In the Royal Navy the figures for the whole group are 24.69% at home, 58.64% at duty and 16.66% in unfamiliar surroundings. If one accepts that for some sailors and officers, barracks and ship may be synonymous with home, the figures work out as follows:-

	Home and College	Away from either
Yale	80%	20%
Royal Navy	83.33%	16.66% (including in hospital)

Once again in this respect the findings of this study are in keeping with those of other investigators.

3. In this series of cases, 41 or 25.31% of cases of suicide took place overseas. Over the 13-year period which this study covers, this means an average of just over three cases per year, which is much less than in the inter-war years, when the comparable figure was almost six cases per year.

The details of suicide in the Royal Navy during the inter-war years are given in Table XIV.

TABLE XIV.

(A) TOTAL CASES OF SUICIDE (Inter-war)

Year	Home Station	Atlantic Fleet	Med. Fleet	N.Amer. & W.I.	China	East Indies	Africa	Irreg.	TOTAL
1921	9	5	2	1	1	1	-	1	20
1922	2	2	-	1	4	2	-	-	11
1923	4	2	2	-	2	-	1	2	13
1924	5	1	1	-	1	1	-	1	10
1925	4	1	2	-	1	1	-	1	10
1926	5	1	3	-	2	-	1	-	12
1927	1	1	3	1	1	-	-	-	7
1928	2	2	5	1	2	-	-	2	14
1929	2	1	2	-	4	-	-	-	9
1930	6	2	3	1	-	1	1	-	14
1931	2	-	2	-	1	-	1	-	6
1932	5	1	5	-	2	-	-	1	14
1933	4	-	3	-	1	-	-	-	8
1934	6	-	2	1	2	-	-	1	12
1935	8	-	2	1	2	-	-	-	13
1936	4	3	1	1	1	1	1	-	12
	69	22	38	8	27	7	5	9	185
	UK & Home Waters Total 91		Overseas Total 94						Average 11.56

(B) SUICIDE RATES PER 1000 AT RISK (Inter-war)

Year	Home Station	Atlantic Fleet	Med. Fleet	N.Amer. & W.I.	China	East Indies	Africa	Irreg.	OVERALL
1921	.16	.16	.14	.51	.51	.58	-	.29	.18
1922	.04	.07	-	.45	.89	1.05	-	-	.11
1923	.11	.08	.11	-	.42	-	.63	.26	.14
1924	.14	.04	.06	-	.21	.56	-	.16	.11
1925	.11	.05	.08	-	.20	.48	-	.28	.11
1926	.13	.06	.14	-	.35	-	.62	-	.13
1927	.02	.06	.17	.51	.07	-	-	-	.07
1928	.05	.12	.23	.44	.19	-	-	.88	.15
1929	.06	.06	.08	-	.53	-	-	-	.10
1930	.18	.12	.14	.44	-	.42	.77	-	.15
1931	.06	-	.09	-	.12	-	.80	-	.06
1932	.13	.06	.27	-	.23	-	-	.76	.16
1933	.14	-	.16	-	.11	-	-	-	.09
1934	.20	-	.11	.32	.21	-	-	.56	.14
1935	.23	-	.09	.42	.23	-	-	-	.15
1936	.11	.20	.04	.44	.12	.30	.90	-	.13
Aver:	.117	.0675	.119	.220	.274	.212	.232	.199	.124

(C) SUICIDE RATES (Post-war)

Average over 13 years, 1946-58 = 12.46 cases per year.

= .074 per 1000 at risk.

Table XIV demonstrates clearly:

(a) The change in the overall suicide rate for the Royal Navy, from 0.124 in the inter-war years to 0.074 in the post-war period.

(b) The change in the pattern of suicide in these two periods:-

	In U.K. & Home Waters		Overseas	
	No.of cases	% of group	No.of cases	% of group
Inter-war	91	49.19	94	50.81
Post-war	121	74.69	41	25.31

(c) The inverse relationship between activity and suicide. When details of fleet movements and aggressive activity, or potentially aggressive activity, are correlated against the incidence of suicide, it is quickly seen that there is a positive inverse connection. As an example of this, there can be seen the difference between serving in the Royal Navy ashore in the United Kingdom and in ships based on the United Kingdom. Over the period covered by the table, the rates per 1,000 were - ashore 0.117, ships in home waters 0.0675. The difference can also be seen when various international crises in the inter-war years are considered, e.g. the Sino-Japanese war, the Spanish civil war, the various incidents in the Balkans and in Turkey, and the Abyssinian war.

A further corollary of this relationship is probably evidenced by the change remarked in paragraph (a) above on the overall reduction in the suicide rate for the Royal Navy. During the inter-war years, due to economic stress in the country as a whole, there were periods when the service was starved of money for new equipment and active sea-going service. Since the war, activity in the fleet has been much more intense generally and there have been few prolonged periods in the last 13 or so years when any major part of the active fleet has been negatively employed. This may well be at least part of the explanation of the marked drop in the incidence of suicide in the Royal Navy.

A further comment is called for on the matter of suicides overseas, regarding the difference in incidence between officers and ratings. It is considered that this is a significant finding and to try to explain this Table XV was prepared.

TABLE XV: Suicide Overseas - Ostensible Causes.

	Ostensible Cause of Suicide				Total
	Psychiatric	Marital, domestic	Discipline	Unknown	
OFFICERS	2	-	-	2	4
% of all officer cases	6.25%	-	-	6.25%	12.5%
RATINGS	11	6	4	16	37
% of all rating cases	8.46%	4.61%	3.10%	12.04%	28.46%
TOTALS overseas	13	6	4	18	41
% of all cases	8.02%	3.70%	2.47%	11.11%	25.31%

These figures suggest:

(a) that suicide overseas in a setting with psychiatric illness as a principal factor is much the same in the two groups of officers and ratings;

(b) the remaining groups of figures suggest what is possibly already known to most readers - that the rating and the officer overseas move in quite different strata of society and that the rating faces problems differing widely from those he experiences in the United Kingdom.

To explain more fully what is meant: the officer is generally socially acceptable in most levels of society, he is well educated and can express himself in letters home; his family are probably of equal standing and can use letters as a medium of communication.

He is accustomed to handling money and credit facilities; any romantic attachment he may form does not generally speaking entail financial or material reward and the lady will probably accept the affair as a passing phase. In other words, he is socially accepted, financially knowledgeable, and not isolated from his home and family.

The rating, however, is in quite a different position. He is often more or less isolated from his family because either he or his family lack the knowledge and experience to express themselves on paper. He is not often socially acceptable except by people he despises; very few "good girls" or "good families" have any respect for the sailor; so he is forced - if he wishes to mix in the civil community at all - to mix either with girls who are no better than they might be or with girls from the lower levels of society, often with habits and manners which would not be socially acceptable in the United Kingdom. These girls, by and large, are not willing to accept a temporary liaison; they demand marriage and this frequently leads to many complications. In addition, the rating is frequently encouraged to accept credit and to run up bills which he cannot hope to meet, in the belief that if he cannot pay the Royal Navy will. It is not surprising that in these circumstances the naval rating may eventually reach the stage where he kills himself.

An excellent description of the life of the serviceman overseas is given by John Masters in his book "Bugles and a Tiger":-

"When an officer committed suicide in India, some reason was usually found, but scores of British soldiers killed themselves without any cause ever becoming apparent. Many people read Kipling when they are young, for the zest and adventure of his tales, and to the child reader his stories of the 'Soldiers Three' give an impression, carried on into maturity, that a private's life is a riot of jolly pranks and escapades. It is worth while rereading these stories as an adult and noticing how much unhappiness lies beneath the surface. A private's life was no riot in Kipling's

day and it became even less so later. The young British regular usually did six years in India without a break and during this time his government did nothing for him. For the officers there were clubs and messes and a few women; for the Indian sepoys their own country and people and way of life. For the British private there were a fly-blown bar and grill on the outskirts of the bazaar, where he was robbed of his scanty pay and given adulterated drink and skimped food; sand-harlots, riddled with every type of venereal disease; old-fashioned barracks and the sour smell of sweaty socks and shirts; a cinema a mile away; and, close at hand, boredom, loneliness and despair. And always, thank God, there was three o'clock of a burning afternoon, an empty barrack room, and a big toe on the trigger. Not infrequently men spent loving weeks and months preparing their own death in some complicated mechanical fashion. The occupation drove away the cafard by giving them something interesting to do and think about. One private soldier, who had a good rifle with him all the time, took twelve weeks to make a dummy machine-gun fireable. He added an unnecessarily devious contraption to enable him to fire it while sitting in front of the muzzle. He then sandbagged the walls of his little store - he was a storeman - so that he would not hurt anyone else, and, at last, shot himself just in the way he had intended."

(c) The difference in the overall number of naval officer cases of suicide overseas as compared with rating cases, i.e. 4 to 37, is striking when compared with Murphy's (1954) findings for the British army in Singapore in the period 1946 to 1952. He reports 14 cases of suicide in all during this period - 7 officers and 7 other ranks - with a rate per 100,000 at risk per annum of 60 for officers and 7 for ratings. The difference suggested by these figures probably reflects the basic difference between the Royal Navy and the Army. As stated earlier, naval personnel are part of a community in a ship and it matters little whether the ship is off Spithead or Hong Kong - in the ship little changes. The Army

ashore is, however, exposed much more directly to the stresses mentioned in the paragraph above.

(d) The final matter for comment is the seeming change in the pattern of suicide in the post-war years as compared with the inter-war years. This has already been expressed as follows:

	Inter-war	Post-war
U.K. and Home Waters	91 (49.19%)	121 (74.69%)
Overseas	94 (50.18%)	41 (25.31%)

This change in pattern may be due to a limited extent to the change in the number of ships in active commission overseas. This is, however, a comparatively minor change; the major changes have been two-fold:

(i) The length of an overseas commission has been drastically reduced in most cases. A typical commission now lasts for 18-24 months, of which half is spent in home waters. Before the war, an overseas commission was generally 3 years in duration, all of which was spent overseas. This change in the pattern of overseas service, of course, makes any fuller comparison of these figures impossible. Studies during the last war however indicated that men stood up well to service overseas for about 18-24 months and that after this period the breakdown rate for nervous and mental illness increased steadily. It was also pointed out that marital, domestic and economic problems also tended to show a marked increase in frequency and severity after this initial period.

(ii) Welfare facilities are now provided on a much more generous scale. The married rating going overseas to a base for more than a few months is encouraged to take his wife and family with him and he is given free travel facilities for this purpose and generous financial allowances when they are overseas. If the family remain in the United Kingdom, he can visit them

at intervals, travelling by air at concession rates. The difficulties described earlier as facing the sailor overseas still persist, however, though on a reduced scale as compared to the inter-war years.

All branches of the service are represented in this series of cases apart from the small officer groups - chaplains, dental and electrical officers, as mentioned earlier. Officers have been shown to commit suicide much more frequently than ratings. There are 32 cases of officer suicide to 130 cases of rating suicide - about 25%; officers in actual fact represent only 10% of the service. The same difference is noticed between junior ratings and senior ratings; the seniors commit suicide more often than the juniors.

When, however, this matter is considered from another point of view, in relation to actual employment in the service, striking facts emerge. It would seemthat over the period of this study, there have been no cases of suicide in submarine, flying or small boat personnel. All the cases of suicide have been confined to General Service personnel, i.e. personnel serving in large units or large ships. This is of special interest because the stresses of service in these more active arms of the service are much greater than those experienced by General Service personnel. One has only to think of the submarine, with small enclosed spaces, deep beneath the surface of the ocean; the constant anxiety as to the possibility of surfacing again; 'snorking', with the pressure in the boat changing every time the 'breathing tube' hits a wave; tedium and boredom on long patrols. Or if one thinks of flying high-speed aircraft off the deck of an aircraft carrier; or of making patrols in small torpedo or motor gunboats far from land and often in rough weather; one can gauge the stresses these men experience even in peace-time, stresses from which the General Service man is sheltered.

On the other hand, there is in these arms a close unity among aircrew, or in the ship's company of a submarine or motor gunboat. This close identification of the individual with his comparatively small group is something which any stranger to the Royal Navy will quickly remark on and which is well known to naval circles.

Another factor which is possibly of equal moment is that these sections of the service are essentially aggressive and offensive. This aggressive characteristic is a much more personal matter in these groups than in large ships which may bomb towns or sink ships far out of visual range in an impersonal though effective manner.

The flying personnel, the patrol-boat ship's company and the crew of the submarine are much closer to their quarry; they are also by and large much closer to any offensive action with which their opponents may reply. It is an atmosphere constantly charged with aggression - no one can imagine a submarine as anything but an example of aggression. There is a constant gamble with death in these careers; will the submarine surface again; will the aircraft manage to find the carrier again - a small spot in a vast ocean - and be able to land safely; will the fast patrol-craft manage to survive the weather and sea and the risk of fire - a patrol-craft is almost only a floating fuel tank with engines and offensive weapons.

These matters will be referred to again later, in view of the significance of these findings in regard to the psychopathology of the subject. Weiss (1957) describes the dynamics of the true suicidal attempt as always involving a discharge of self-directed aggressive tendencies through a gamble with death and a trial by ordeal.

Other aspects of Suicide in the Royal Navy

Marital status

In this series 77 were married, 72 were single and 13 had a marital status the details of which were not known. This shows no significant trend and is in keeping with Sainsbury's findings on the matter. In his series, married persons had a higher suicide rate than single persons but their average age was above that of the single, so that the usual tendency for the married to have a lower rate was concealed. The same is true of this series.

Religion

This is a matter which might have been of some considerable interest had it been possible to establish with precision the religious loyalties and the depth of attachment to their nominal religions of the subjects of this study. This it has not been possible to do and it is felt that any comments based on the nominal religions to which these men belonged would be without meaning. One has only to attend "voluntary church parades" in the servicesto appreciate this; equally, the tendency to classify any man who does not declare himself to the contrary as "C. of E." (Church of England) would completely invalidate any discussion of the matter and any conclusions reached.

Distribution of suicides throughout the year

In other studies on this subject, it has been noted that suicide is not constant throughout the year. McGeorge (1942) noted that December was the peak month in his series of cases in Australia. Sainsbury reported the incidence of his London cases as shown in Table XVI, in which the incidence of Royal Navy cases is plotted alongside for ease of comparison.

TABLE XVI.

Month	LONDON		ROYAL NAVY			
	Monthly	Quarterly	Monthly			Quarterly
			Officers	Ratings	Total	
January	35		2	13	15	
February	23		2	9	11	
March	27	85	2	14	16	42
April	39		4	8	12	
May	55		5	15	20	
June	38	132	2	14	16	48
July	28		5	11	16	
August	31		-	11	11	
September	29	88	3	16	19	46
October	28		3	4	7	
November	39		3	5	8	
December	37	104	1	10	11	26
Totals:	409	409	32	130	162	162

In both these series, as shown in the above table, the peak is in the month of May and in the second quarter of the year.

If the figures are now grouped as Durkheim suggested, the following pattern emerges:

	London	Royal Navy
Winter (December - February)	95	37
Spring (March - May)	121	48
Summer (June - August)	97	43
Autumn (September - November)	96	34
	409	162

The peak again appears in the spring, which is the period noted by Durkheim as the high point for suicides in urban communities.

It is of interest perhaps to note that, in discussing suicide in rural communities, Durkheim notes the high point of the year as June. When allowance is made for geographical considerstions, December in Australia and June in Europe are the same period of the year from the point of view of activity; in both it is the month of possibly maximum activity in the countryside. Once again this confirms Durkheim's findings.

Repeated attempts at suicide and suicide pacts

In this series of cases in the Royal Navy, there were two examples of suicide pacts, with a total of three deaths. Two of these deaths were of naval ratings; the third was the sweetheart of a naval rating.

This incidence of suicide pacts, namely, 2 pacts in a series of 162 cases, or 1 suicide pact in 81 cases of suicide, corresponds with Sainsbury's reported 4 suicide pacts in 390 cases of suicide, or 1 in 97.5 cases.

There was also in the complete series of 162 an earlier history of attempted suicide or a suicidal threat in a total of 6 cases (1 officer and 5 ratings); this is a ratio of 1 in 17, or almost 6%. This compares with Sainsbury's finding of 35 cases in 390, or 9%.

ATTEMPTED SUICIDE

In this section, it is proposed to investigate in greater detail the cases of attempted suicide - 315 cases in all, which were tabulated earlier in the study.

The first point which comes to notice in this more detailed appraisal of these cases is the wide range of the cases involved from the point of view of the subject's determination to kill himself. It seems in fact that these cases can be divided into the following groups.

(1) The determined attempt at suicide, i.e. the case where the man was fully determined to kill himself and where he failed to do so only by fortuitous circumstances or was rescued by a chance passer-by. In this group are placed those few cases where the method of suicide employed left very little, if any, prospect of survival, for example, shooting or jumping under a moving train. As examples of these may be quoted two cases not included in this study which came under the care of the writer some years ago: (i) A schizophrenic young man who jumped down the funnel of an aircraft carrier with a view to immolating himself as a sacrifice for the expiation of the wrongs of this world; he survived this incident, was treated for his schizophrenic illness and made a good recovery. (ii) A Royal Marine who put a service rifle to his temples and fired a round through his skull and both frontal lobes; he also survived the incident and made a good recovery in hospital; unfortunately he died some considerable time later when an effort was being made to remedy the bony defect of the skull by means of a metal plate.

(2) The much larger group where there was some chance that the man would kill himself but where there was also some chance that he might survive, for example, coal gas poisoning and hanging. These methods are often effective in producing suicide, but they

lack the instantaneous and immediately effective characteristics of those in the first group and leave some chance for survival. This is the group in which the "gamble with death" described by Weiss is most apparent.

(3) The third group, which is also a large group, consists of those in whom the method employed in the particular circumstances of the individual case made it clear that there was little prospect of successful suicide. There was, however, still a potential risk of death or injury in these cases. Cases in this group possibly are best exemplified by that of the man who attempted to gas himself in a kitchen at home where he knew that his wife was bound to come when she returned home twenty minutes later (as she always did).

(4) This is possibly the largest group in this series, consisting of those who made obviously transparent "suicidal gestures", in which it was most unlikely that there would be any risk to life or limb, often after making quite sure that those around knew what was planned. The element of "blackmail" was well marked in these cases and generally speaking the motivation of the gesture was clearly defined, at any rate at a superficial level.

(5) This group is included in this table for the sake of completeness. It is the group in which there has been no positive attempt to produce injury or death or even to make a show of doing so, but in which the man has endeavoured to mould his environment more in keeping with his own ambitions or desires by threatening to kill himself. This group has been included in the present study because these cases, too, have been sufficiently attracted to and interested by the thought of suicide to consider using the threat of such action as a weapon in their attempts either to blackmail authority into acquiescing in their (the subjects') desires or as a means of calling for help.

Officers

Considering first the officer group of 6 cases in relation to the above divisions, it is noted that there were no cases in group (5). There was one case in group (2) - an officer suffering from pulmonary tuberculosis who became depressed, ostensibly because of his physical illness. He was recognised as suffering from a depression and was treated in hospital under close observation. He managed however to abscond from the hospital ward, clad only in pyjamas and dressing-gown, in the depths of winter with snow on the ground, climbed two walls topped with broken glass and then hid in an air raid shelter on a neighbouring golf course, cutting his throat in a severe and determined manner. He lay there for some hours waiting to die; eventually he realised that he would not die at once and as soon as he realised this "something happened" to him. He described it in the following terms: "When I lay in bed in the sanatorium, I knew I was suffering from pulmonary tuberculosis and that my career as a naval officer was finished. When the full implications of this became clear to me, I lost all desire to live - I had failed everybody - I had nothing to live for and death seemed attractive and yet at the same time very frightening. The more I thought about this the more unhappy I became. I became completely absorbed with the idea of death. I was restless, could not sleep and could not think of anything else. On the one hand, I felt that I could justify my being if I killed myself. I could show everyone that I was not so ineffectual and useless as I seemed to be. On the other hand, I wondered whether anyone would be really interested. Eventually I made up my mind to kill myself and almost at the same time I seemed to feel happy and satisfied. It was as though everything was solved; I had no more feelings of unhappiness, I became able to eat and sleep again. Then I waited for a chance to get out of the ward. Eventually I saw my way clear. I ran

away from the ward, over the hospital walls and on to a golf course. I found an old air raid shelter there, went inside, cut my throat and lay down to die. After a time it seemed that I would not die. This did not upset me however and when I was found I was quite satisfied to come back to hospital. Now, looking back, it seems to me that once I had made the effort to sacrifice my own life and this had been rejected, I was fully entitled to live on in my new circumstances - I had killed my previous self and all that it stood for - a naval career. Now I started a new life in quite different conditions almost as though I had been born again."

This case of an officer in his twenties has been described in some detail as it exemplifies very clearly the mechanisms, in particular the "rebirth" theme, which are often encountered in these cases but which are less frequently so clearly expressed.

As regards group (1), there was again one officer case of attempted suicide by falling from a window. This officer was suffering from a schizophrenic illness, which subsequently responded well to treatment in hospital.

There were two cases of attempted suicide which were considered to fall within the group (3), both by barbiturate poisoning in which it seemed unlikely that either individual seriously wished to die. Both attempts took place in the setting of neurotic depressive illness, one precipitated by romantic entanglements and the other by financial problems.

Finally, there were two cases, both of barbiturate poisoning and by medical officers, in which there seems to have been no real intention to cause either death or injury to the individual. Both these men had histories of sexual promiscuity, alcoholic excess and a tendency, possibly amounting to addiction, to take excessive quantities of barbiturates. One case was precipitated

by a feeling of injustice; he felt that he had been ill-treated by those in authority and he threatened suicide if his "wrongs" were not righted. It was subsequently learned that earlier he had been treated in civil mental hospitals as a psychopathic personality. In spite of his personality defects, he was an outstanding clinician, having been a university lecturer earlier and holding three post-graduate qualifications. The other case was precipitated by fear of disciplinary action following indiscreet and perverse sexual behaviour; when he was discussing his attempt subsequently he described the incident quite frankly as a demonstration designed to distract attention from other facets of his behaviour; he also stated that he thought it would be most "amusing" to be the centre of attention and a source of anxiety and thought for those in authority. These two cases, in which the prime factor was obviously a desire to "blackmail" authority fall into category (4).

Ratings

With regard to the rating group of 309 cases, the picture is very much the same.

There are few cases of attempted suicide where the odds on survival were very definitely against the individual; there are more where the subject gambled with death. The bulk of the attempts however suggest demonstration with a view either to enforce a decision on authority or to ask for help. Details are as follows:

Suicidal Category	Age Groups 15-25	26-35	36-45	Total
(1)	10	3	3	16
(2)	37	5	5	47
(3)	53	7	6	66
(4)	180	-	-	180
	280	15	14	309

Group (5) has not been quoted here as this group was not investigated at each psychiatric centre. This matter will be referred to later in the work.

These figures show unequivocally that the vast bulk of the attempted suicides seen in practice in the service, 180 out of 309 cases, are of little significance so far as any immediate danger of death is concerned and that determined suicidal attempts are comparatively few in number, 16 out of 309 cases, or 5.18% of all cases in this series.

This is in keeping with the findings of Fisch (1954) in his study of suicidal gestures in a series of 114 service patients hospitalised in a U.S. Navy hospital because of abortive suicidal gestures. He reported that the majority of the cases seen in his series were histrionic aggressive gestures.

It is also in keeping with the experience of psychiatrists in other of the British armed forces. McGhie (1959) has stated that his impression is that only 20-25% of cases of alleged attempted suicide in the British Army in this country are more than the most transparent of gestures. In one command in this country, the psychiatrist concerned stated that he expects to return promptly to duty most of the cases of attempted suicide seen by him and that only about 1 in 5 will be judged to be of sufficient significance to justify admission to hospital for observation. Epps also reported, in her series of 100 cases of attempted suicide admitted to Holloway Prison, that 29% came into the "nuisance" category, in whom a charge of drunkenness or breach of the peace might have been more appropriate than that of attempted suicide.

With regard to the group of officers attempting suicide, this is so small - only an average of 1.2 cases a year or a rate of 10.1 per 100,000 at risk - that no meaningful trends can be deduced from it. The small-ness of the sample is however in keeping with the findings of Stengel and others (1958) who showed that the upper social classes might be less prone to attempt suicide. He believed however that this apparent trend was the

result of a tendency among the upper classes to conceal attempted suicide more than other social classes would endeavour or be able to do. This may well be true also of naval officers. At the same time, while admitting this possibility, it is worthy of note that a naval officer or rating while at duty has little opportunity of concealing an attempt at suicide and that any officer who did attempt to commit suicide would certainly be referred for psychiatric opinion, in view of the doubts such an attempt would cast on his fitness to continue as an officer in the service. All the six cases of attempted suicide in officers took place in the environment of the Royal Navy; none took place at home or outside the service. Comparing this finding with that of the rating group, 304 out of 309 attempts by ratings took place in a service environment. This is 98.3% of cases of attempted suicide among ratings as compared with 100% of the officer cases.

Expressing this in terms of the number at risk, the following figures emerge:

Attempted suicide rate per 100,000 per year.

	Total	At duty
Officers	10.1	10.1
Ratings	66.3	65.2

These figures do suggest that there is in fact a significant difference between these two social groups and that the trend noted by Stengel does exist. The writer believes that this is so in a naval setting at any rate. In his experience attempted suicide among officers is a rarity, while it is relatively common among ratings; he has himself seen only one such officer in 15 years service. Cases of attempted suicide among ratings (because of their seeming frequency) was the point which first suggested this investigation.

It might be argued, of course, that officers choose an environment other than the Royal Navy for attempting suicide and

that they conceal the attempt subsequently. This is not feasible in a service such as the Royal Navy; medical certificates must be produced to account for any period of absence except on leave, and on return to duty after illness the officer is seen by a service medical officer, who must be satisfied that he is fit for duty in every way. This, it is considered, precludes successful concealment of attempted suicide except possibly in a very small number of cases. This point applies also to the rating group of cases, of course, and equally precludes any concealment on a material scale of attempted suicide. It must also be remembered in this connection that in the service, because of the possible evasion of duty in its various aspects (e.g. service overseas) medical certificates from civilian medical practitioners are carefully scrutinised and the local admiralty surgeon may be asked to visit in order to confirm that the patient actually is ill and unfit to travel back to rejoin his ship or unit.

No further mention will be made of the small series of officer cases of attempted suicide and further discussion will be confined to consideration of the 309 cases of attempted suicide among ratings.

Factors provoking attempted suicide among ratings

There are four main factors to be considered under this heading:-

(a) Psychiatric illness.
(b) Maladjustment to the service.
(c) Disciplinary stress.
(d) Marital and other domestic problems.

To show these factors in their respective importance, Table XVII has been prepared, which shows them in relation to the seriousness of the suicidal intent.

TABLE XVII.

Factors provoking attempted suicide among Ratings

Suicide category	Total cases	% of all cases	Psych-iatric	% of group	Malad-justment	% of group	Disci-pline	% of group	Mar-ital	% of group
(1)	16	5.14	10	62.50	2	12.50	-	-	4	25.00
(2)	47	15.22	20	42.55	10	21.27	2	4.25	15	31.91
(3)	66	21.37	15	22.72	33	50.00	3	4.54	15	22.72
(4)	180	58.27	10	5.55	100	55.55	32	17.77	38	21.11
Total	309	100%	55		145		37		72	

These four groups of factors will now be considered in more detail.

(a) Psychiatric Illness

Psychiatric illness was a major factor in 55 of these cases, or 17.8% of the total group. In the table above, as shown by percentage proportions, it is clear that psychiatric illness is of considerable importance in category (1), that it diminishes in importance in categories (2) and (3), and that it is of little significance in category (4). When the diagnosis of the psychiatric illness involved is considered, other points of interest can be observed, as shown in Table XVIII.

TABLE XVIII.

Suicide category	Schizophrenia	Depressive illness not directly related to reactive factors	Neurotic illness	Total	% of group (a)
(1)	2	6	2	10	18.18
(2)	1	4	15	20	36.36
(3)	-	2	13	15	27.28
(4)	-	-	10	10	18.18
Total	3	12	40	55	100%

This table shows clearly that psychotic illness is related to serious attempts to commit suicide and that, in this series at any rate, it is not demonstrated in the cases where there is little real intent to kill themselves. This finding agrees with the observations of Stengel, who reports: (i) "The proportion of absolutely dangerous attempts undertaken with maximum intent was higher in the psychoses than in other conditions." In the present series 50% of the dangerous attempts were undertaken in a setting of psychotic illness; only 12.5% were in a setting of neurotic illness; another 12.5% were in a setting of maladjustment to the service; and 25% were provoked by marital and related stresses. (ii) "Suicidal attempts in depressive patients are likely to be more dangerous and more serious than in other conditions." The above table confirms this observation fully.

It is worthy of note that psychotic illness, as shown in the table, is not a bar to the planning and execution of determined attempts to commit suicide.

A further point of interest is demonstrated in the figures in the final column of Table XVIII. These figures suggest that, in the setting of the Royal Navy at any rate, serious consideration must be given to any case of attempted suicide where a positive psychiatric diagnosis can be made. In this series, 54.54% of the cases of attempted suicide with a positive diagnosis of psychiatric illness showed an at least moderately well developed intent to commit suicide and employed a method of suicide which involved danger to life. It is also clear from the table, as already noted, that an attempted suicide in a setting of psychotic illness is much more serious than in a neurotic condition.

The age distribution of these illnesses was entirely confined within the 15-45 age group, so excluding all degenerative and involutional mental illness. The cases of neurosis occurred for the most part in the 15-30 age group, only one case being

more than 30 years of age. The schizophrenics were aged between 19 and 25 years. The depressive illnesses occurred in the 25-45 age group.

(b) Maladjustment to the Service

This was by far the largest group in the series of ratings who attempted to commit suicide. As shown in Table XVII, 145 men, or 46.9% of the total cases, gave as their reason for the attempt dissatisfaction or discontent with the service in general or some aspect of the service in particular.

It is proposed now to consider this matter further under the following headings:

(i) Degree of suicidal intent present.

(ii) At what stage in a career in the service does this maladjustment to the service manifest itself?

(iii) What is maladjustment in the Royal Navy and what provokes this?

(iv) The age groups involved.

(i) Degree of suicidal intent present

The following extract from Table XVII gives a clear picture of this matter.

Suicide category	No. of cases	% in group (b)	% in Suicide category
(1)	2	1.38	12.50
(2)	10	6.89	21.27
(3)	33	22.76	50.00
(4)	100	68.97	55.55
	145	100 %	

This shows clearly that maladjustment to the service seldom produces a "dangerous" attempt at suicide and that the bulk of the cases made the attempt in circumstances and by methods where no real risk to life or health was involved.

The table also shows that in category (1), 1 in 8 dangerous attempts to commit suicide were provoked by discontent with the service, as compared with category (4), where more than 1 in 2, or 55.55% of the cases were provoked by dissatisfaction with the Royal Navy.

(ii) <u>At what stage does maladjustment manifest itself?</u>

There are in the present series two major groups and one minor showing this syndrome. They may be briefly described as follows. All the cases are under 25 years of age and are not particularly successful in their chosen careers, by way of gaining promotion, with all that this means in terms of prestige, responsibility and financial gain.

The first major group has joined the Royal Navy generally on an impulse, attracted by a film, television or radio drama, book, or an idea of glamour, bands playing and high adventure overseas. They are quickly disillusioned during the initial training period but most manage to persevere and to complete this training, hoping to serve overseas soon. This many of them do and some settle during an overseas commission. Others do not, and when they return to this country the comparison between life in the Royal Navy with its discipline and restrictions on personal liberty, and life in a prosperous civil community, makes the prospect of further service seem unbearable. They investigate the possibility of leaving the service and discover that unless they have some reason more cogent than simply a desire to satisfy their immediate ambitions, they must complete their engagement. This is the point at which they begin to think of a "way out" and attempted suicide sometimes seems the solution to this problem.

The second major group consists of those who have settled well in the Royal Navy until disturbed by some extraneous influence. The extraneous influence in over 90% of this group of cases was

marriage. This may seem at first sight to be a misplacing of a group of cases, and it might be thought that they should be placed in the group where marital problems are considered to have provoked the suicidal attempt. This is not so however; the marriages in these cases were normally successful and happy marriages, which, possibly because of their success and happiness, made naval life seem increasingly unattractive to the rating concerned, entailing as it does frequent and often prolonged separation from home, wife and family. Very few wives are favourably inclined to the Royal Navy as a choice of career, and one has only to ask any group of ratings why they are not intending to re-engage, to understand how frequently the opposition of their wives has influenced them against the choice of further service and how potent a factor this is in making a man discontented in the service.

The other minor influence in this second major group is a sudden chance opportunity to make successful careers in civil life which may have to be missed because of the individual's contract of service with the Royal Navy.

In the third and very small group where maladjustment to the service is the main provoking factor in the attempted suicide, the discontent with the service is generally with some particular aspect; for example, the man who took aspirin and when seen later gave as his reason for this gesture the failure of the authorities to draft him to a sea-going ship as he had asked.

Expressing these three sub-groups as percentages of the total number in this group gave the following figures:

Dissatisfaction without specific extraneous factors	75%
Dissatisfaction with specific extraneous factors	20%
Dissatisfaction with some particular aspect of the service	5%.

(iii) What is maladjustment to the service?

This is not intended to be anything more than a rather short account of the nature of the dissatisfaction and discontent which is found in the cases described above and which have been grouped under the term "maladjustment to the Royal Navy".

The first point which possibly should be made here is that in no case was any mention made of dissatisfaction with material conditions in the service. There was never any mention of bullying or victimisation by messmates or superiors; no complaint was ever made of the conditions of life, food or accommodation; and pay was generally considered to be adequate if not positively good. Equally striking was the absence of any complaint in regard to the possibly dangerous nature of some of the duties the man might be called upon to undertake. The discontent was in fact centred on the following matters only.

The lack of any opportunity for a change of career once a rating had committed himself by "signing on" often caused discontent. Many objected bitterly - once they were in the service - to the length of the engagement. One remark which was commonly heard was: "I signed on as a boy aged 15 years and committed myself to serve till I was 30 years old. I would not be allowed to sign any other contract at that age binding myself completely for 15 years. If only I knew I could change my career if I wished to, I would probably be much more settled in the service."

Among married couples there were several matters which seemed to provoke discontent.

One was a feeling that the Royal Navy was less considerate in granting married quarters and similar amenities than the other services. While husbands and wives were prepared to accept separation while the husband was at sea, they felt that when he was serving ashore they should be able to spend longer periods together than is often possible at present. This of course is

related to the problem of married quarters at shore establishments, where often by the time a rating is entitled to a married quarter a considerable part of his commission ashore has gone and he is almost "waiting for a draft to sea again". This is the result of the waiting list which exists in most shore establishments for married quarters. A personal example of this difficulty is now included as an illustration of what may happen. The writer was appointed to Malta in December 1955 and placed his name on the married quarters waiting list at this time. His family arrived in Malta in January 1956. By September 1957 they had gradually moved up the waiting list and were at the top of it. Very soon afterwards, and before a quarter became vacant, they were told that as they then had less than nine months to serve overseas in that commission, they were no longer entitled to a quarter and were removed from the list. As regards the writer personally, it was a matter of relatively little moment. The rating however is much more dependent on service married quarters and such happenings always provoke discontent.

The major factor in provoking restlessness and dissatisfaction however is the separation of husband and wife which is inherent in a sea-going service. Very few wives are satisfied with a career for their husbands which takes him away for prolonged periods; most accept it, but there is a minority who seem to set out almost deliberately to provoke the maximum amount of dissatisfaction in their husbands as regards the Royal Navy, with a view to his leaving the service.

A further but much less important source of discontent voiced by many husbands and wives is the financial aspect of separation. They point out that when they are living together the husband generally gets more money in the form of ration and other allowances, yet their expenses are possibly least at this time. They argue that separation inevitably means increased travelling and other expenses and that some consideration should be given to this point.

They also feel that as travelling is part of a naval career, the full cost of removal of a family to rejoin a husband should be met by the service; there is an allowance at the present time to cover some or most of the cost of the removal but this allowance is so hedged round by restrictions and conditions that many ratings regard it with suspicion and feel cheated when what they consider legitimate expenses are disallowed. The matter of "railway warrants" allowing free travel three times a year is also commented on by some wives; they are prepared to accept that some more or less arbitrary figure must be set each year for the number of free journeys the rating is entitled to; they complain however that no allowance is made for service overseas and suggest that a rating should be credited with the warrants he "missed" while overseas.

There are three other factors which seem to have played some part in provoking discontent in the present series of cases.

There are not infrequently complaints of "waste of time". What is meant here is that the rating, generally in a shore establishment, feels bored by the lack of purposeful activity. He is a trained man, who may be very interested in his own special duties in the service; yet when ashore he may either be sitting round filling in time without any opportunity for exercising his own skills or he may be employed on more or less domestic and labouring duties - sweeping up leaves, delivering coal and acting as a sentry in the establishment. This quickly leads to deterioration of morale.

The rating complains also of petty restrictions, and on some occasions of what seems to be discipline for the sake of discipline and not from the point of view of training or of operational efficiency. This again is largely confined to shore establishments where the rating is not fully employed. He will agree that restrictions and careful regulations of all activities are necessary in a sea-going ship; he cannot see the point of enforcing similar regulations where he does not see any real need for this. As an

example of this, he at once sees the need for a man to return promptly from leave to a ship; he often fails to see any reason for similarly prompt return to a shore establishment where, in some cases at any rate, he is simply going to "fill in the time till he is due to go ashore on leave again".

The final point which is made by some ratings is the poor quality of the officers under whom they work. This is however not a common comment. When it is made it is generally confirmed from other sources and it must be accepted that there are officers in the service whose power of command or technical efficiency and knowledge is so lacking that they do not inspire loyalty in their subordinates. No other adverse comments however were made by the cases in this series about officers, and on the whole officers were considered by the ratings to be fair, interested in their work and interested in the welfare of both the man and the service.

Summarising the various points made above, it is seen that the major points leading to maladjustment to service in the Royal Navy are:-

The prolonged nature of the engagement and the feeling of being trapped in the service.

Separation.

Boredom.

(iv) <u>The Age Groups involved</u>

This has already been mentioned in the earlier discussion on this topic. As stated earlier, all these cases were contained in the 15-25 age group.

(c) <u>Disciplinary Stress</u>

In this study, of the 309 cases, 37 or 11.97% attempted to commit suicide either while facing trial and probably punishment for alleged offences or while under sentence.

Of these 37 cases, 32 have been placed in the category (4), implying that in only 5 cases or 15.62% of this sub-group was there any possibly significant suicidal intent present. These cases too were all in the younger age groups. None were facing charges of major importance.

(d) Marital and other domestic problems

Under this heading are grouped 72 or 23.3% of the cases in this study. Details in terms of suicidal intent are shown below.

Suicide category	No.of cases	% in group (d)	% in suicide category
(1)	4	5.55	25.00
(2)	15	20.84	31.91
(3)	15	20.84	22.72
(4)	38	52.77	21.11
	72	100 %	

This shows that in rather more than half these cases there was no material intent to kill and that only in about 5% was there a dangerous attempt with maximum intent.

The factors involved in these stresses were what might have been expected - financial difficulties, infidelity and sexual problems, friction through living with relations, and difficulties arising because of separation of husband and wife with inability to communicate adequately by means of letters.

In the younger age groups, the suicidal intent was minimal and the difficulties between husband and wife were often seen objectively to be of a minor nature.

In the older age groups the problems are of a more serious nature and the attempt at suicide more dangerous.

The four cases in category (1) were all aged over 30 years. The 38 cases in category (4) were all aged less than 25 years.

Other Comments

Alcoholism has been shown in other studies on this subject by Batchelor, Robins and Woodside to be a significant factor in cases of attempted suicide. In this series, however, it was mentioned in only 15 out of 309 cases, or 4.85%, as a factor contributing to the attempt. This finding may of course simply reflect a greater tolerance of alcoholic excess in service as opposed to civil life. It is probably true that absolute temperance is equally rare in a service setting. Stengel found alcoholism a less effective factor in suicide than did Batchelor. Harold Hove (1953) reported 9.3% of his group of attempted suicides were alcoholics.

Homosexuality was mentioned as a factor in only 2 cases in the series, or 0.65%. This suggests that the difficulties inherent in this condition are less acute in a naval setting than in civil life.

Age Distribution

The distribution by age in this series of suicide attempts by ratings is shown in the following table.

TABLE XIX.

Age group	No.of cases	%	Percentage of all ratings at risk in age group
15-25	280	90.62	71.20
26-35	15	4.85	20.12
36-45	14	4.53	7.80
Total	309	100 %	

This table shows that in the youngest age group there seems to be an increased tendency to attempt to commit suicide. As, however, this age group contains the bulk of cases with minimal intent to kill themselves, a clearer picture is possibly given

in the next table, which shows the attempted suicide rates per 100,000 in age groups, graduated according to the degree of real suicidal intent and danger to life.

TABLE XX.

Suicide category	TOTAL		Ages 15-25		Ages 26-35		Ages 36-45	
	No.	Rate per 100,000	No.	Rate per 100,000	No.	Rate per 100,000	No.	Rate per 100,000
(1)	16	3.43	10	3.01	3	3.20	3	8.26
(2)	47	10.00	37	11.15	5	5.33	5	13.77
(3)	66	14.16	53	15.97	7	7.46	6	16.53
(4)	180	38.63	180	54.25	-	-	-	-
Total	309	66.22	280	84.38	15	15.99	14	38.56

This table shows clearly that in a naval setting the suicidal "gesture" is confined to the youngest age group in this study and that it is not met with in its "pure form" in the older age groups.

The rate of dangerous attempts at suicide varies little in the period between 15 and 35 years of age; after this the rate is more than doubled in the next decade of life.

The two intermediate categories, (2) and (3), show a peak in the first age group, the rate falls sharply in the next decade and then rises sharply in the age group 36-45 years to another peak higher than the first one.

What is possibly even more interesting is that there were no attempted suicides in the 46+ age group. This is certainly a small group, numbering only about 2,000 individuals in all; it is certainly surprising, however, that over a five-year period there was not one case in this group, whereas if it had conformed to the overall pattern of the service one would have expected some 6 or 7 cases. This is of course once again in keeping with Stengel's observations on this matter. He reports that the peak

for suicidal attempts is in the 25-44 age group and shows in Table 30 in his monograph on "Attempted Suicide" that the incidence of attempts falls off sharply after the age of 44 years.

Method employed in attempted suicide

The methods employed in suicidal attempts have already been noted earlier in this study. Table XXI shows these figures (for ratings) in less detail and expressed in percentage form, for comparison with similar figures for two other groups of attempted suicide cases. One of these groups was centred in Bristol; the figures quoted relate to cases of male attempted suicide for four years, 1954-1957 inclusive, and have been extracted from reports of the local Medical Officer of Health. The second of these groups was the Group IV investigated by Stengel and based on St. Pancras Observation Ward, also relating to male cases.

TABLE XXI.

Method used	Percentages in each group		
	R.N. Group (309 cases)	Bristol Group (98 cases)	St.Pancras Group (96 cases)
Aspirin	31.72	34.49	13.2
Narcotics	9.07		31.1
Coal fas	7.77	24.49	16.0
Other poisons	4.85	6.12	3.8
Wounding	24.60	17.34	17.9
Train and vehicle	0.64	3.06	0.9
Jumping from heights	7.77	3.06	4.7
Hanging and strangulation	7.77	4.08	1.9
Drowning	1.61	7.14	8.5
Shooting	0.32	-	-
Other methods	3.88	0.22	2.0

This table shows several points of interest.

Firstly: the Royal Navy rating, even in attempted suicide, employs more directly aggressive methods than does the civilian. Wounding accounts for almost 1 in 4 naval cases; in civil life for less than 18%. Secondly: it is surprising that drowning as a method of attempted suicide is so poorly represented in the naval group as compared with civil life.

The difference between one method and another is obviously, in part at any rate, dependent on the immediate environment of the subject. Coal gas is readily available in civil life, while it is difficult to find in some parts of the Royal Navy. Equally, it is difficult to accumulate barbiturates or similar drugs in the Navy; these drugs are much more readily available in civil life. Woodside, in her series of 55 cases of attempted suicide admitted to a London teaching hospital, reported that 63% had taken barbiturates. Aspirin, however, can be bought easily even in a ship's canteen.

The final point to be noted is that in the Royal Navy series, as in the civil groups, the pattern of methods used in attempted suicides is quite different from that met with in the "completed suicide" group of cases. The emphasis in the attempted suicide group is on methods which are unlikely to succeed. Table XXII has been constructed to illustrate this point more clearly.

TABLE XXII.

Method	Suicide	Attempted suicide
Aspirin	1.23%	31.72%
Narcotics	4.94	9.07
Coal gas	19.75	7.77
Other poisons	3.08	4.85
Wounding	1.23	24.60
Train and vehicle	2.47	0.64
Jumping from heights	6.79	7.77
Hanging, strangulation	30.25	7.77
Drowning	9.88	1.61
Shooting	20.38	0.32

It will be seen that two methods which account for 56.32% of attempted suicides (aspirin poisoning and wounding) account for only 2.46% of completed suicides. Conversely two methods (shooting and hanging) which account for 50.63% of completed suicides account for only 8.09% of attempted suicides.

Other points

Place of attempt

In the present series, 304 out of 309 cases made the attempt to kill themselves while at duty in a ship or establishment of the Royal Navy in this country. Only 5 made the attempt while at home. None attempted to commit suicide while in unfamiliar surroundings. The placing of the attempt is obviously of importance in relation to the effect the attempt is expected to produce on the environment.

No series of cases from overseas stations of the Royal Navy has been included in the present study. No method could be devised which would allow the collection of such a series; due to the movement of ships and the habit of putting "serious cases" ashore at the next port of call, any series which was collected in a single base overseas would be unrepresentative.

Time of year

Attempted suicide occurred throughout the year. The peak period is in the third quarter of the year. When the monthly figures are considered, however, it is found that secondary peaks occur in the month after each leave period; equally there is a fall in the number of attempts before and during the leave period. Stengel reports in his series of cases that the peak occurred during the spring in a manner similar to the seasonal increase in suicide noted in the present study.

Religion

No formal figures are being presented on this point as it is felt that no real significance in most cases can be attached to the formal "religion tags" accepted by the rating in the Royal Navy. In the writer's experience, it is most exceptional for a rating who is a keen and enthusiastic member of a religious body to attempt to commit suicide; in 14 years service in the Royal Navy as a psychiatrist he can remember only two such cases.

Rating, branch of service and type of employment

No one level or branch of the service showed any particular tendency to suicidal attempts. All the various ratings from Boy to Chief Petty Officer are represented in the series.

All branches of the service, including engineering and the sick berth branch, are also represented in proportion to their total numbers.

When employment in the various arms of the service is considered, however, men employed in the Air Arm, the submarine service and small craft, are again conspicuous by their absence, as has already been demonstrated in the section on completed suicide.

Marital status

In the 309 cases considered in this section of the investigation, 114 were married and 195 single. Expressed as percentages of the total, 36.89% were married and 63.11% single. This is a ratio of almost 1 to 2 and suggests that single men are more prone to attempt suicide. It is not believed however that this represents a true conclusion and it is considered that these figures represent only the youthfulness of the bulk of the cases; 280 of the cases were under the age of 25 years.

On the other hand, Stengel reports in his Group II series of cases that among the sample of persons who had attempted to commit suicide the number of single persons was higher than in the rest

of the hospital population. (Bethlem Royal Hospital and the Maudsley Hospital.)

Background and previous history

This matter of background, i.e. family history and early environment, and the individual's own personal early history, is one on which the writer finds himself in something of a dilemma as to how valid any observations he makes on these subjects may be.

Each of the individuals who make up this series of cases has joined the Royal Navy and has at the time of his entry into the service given accounts of himself, his family and background, which must have been satisfactory or he would not have been accepted. He has denied at this time any materially significant history of family or personal illness, including mental and nervous illness; he has shown evidence of at least average scholastic achievement, and a satisfactory work record. He has denied any delinquency of consequence. It is laid down in B.R.1750 - "Pulheems: a system of medical classification for the fighting services" that "it must be clearly recognised that the services are not corrective institutions and cannot 'make a man' out of a mental defective, a neurotic or a psychopath. As service personnel they are failures, much of their service is spent in hospital or detention barracks, and, with their frequent psychosomatic symptoms and delinquency, they absorb administrative time, money and medical man-power quite out of proportion to their usefulness. A history of mental disorder in the family or in the recruit himself, signs of intellectual, emotional or character disorder, or psychosomatic disorder, should prompt close investigation and reference to the psychiatrist. Mental capacity is most easily assessed in the course of clinical examination by careful history-taking, with special reference to school and work records."

The principles outlined above should, in theory at any rate, eliminate those potential recruits who have positive findings in their history prior to entry. When one scrutinises the reports on the men made at the time of entry, this would seem to be confirmed. One does not find in these records any indication of significant previous history relating either to the man himself or to his family.

Yet some time later, when the man is referred to a service psychiatrist for examination following an attempt at suicide, he invariably produces a history which is strongly positive. He alleges either a disturbed home, family mental illness or family history of psychopathy; he will claim, too, many symptoms of emotional instability in childhood, probably a poor scholastic record and a disturbed work record; he will frequently admit to much delinquency in childhood or adolescence. He will almost invariably claim that he has suffered from symptoms of anxiety, tension or depression since he has been in the service. In the author's personal experience of almost 300 cases of attempted suicide in the service, some of which are included in this series, the "attempted suicide" case which does not give a positive history is not seen by a service psychiatrist.

In connection with this matter, there is a possibly very important point which should be made here. This point is the very different relationship in which the service psychiatrist stands vis-a-vis his patient as compared with the civil psychiatrist and his patient.

The civil psychiatrist sees a patient and gives an opinion, with advice as to treatment and the future of the patient, which the patient in most cases can accept or reject as he chooses without any serious repercussions. The attempt at suicide in civil life has generally been planned to produce its effect on some one or some environment other than the psychiatrist or the hospital concerned.

In the service, however, the picture is quite different. There the psychiatrist and the hospital concerned are in a much closer and more personal relationship to the patient. The opinion formed by the psychiatrist may have an immediate and powerful effect on the patient's future; he may recommend his discharge from the service, change of employment in the service, or transfer from an unpleasant or difficult environment to one which the patient desires. In other words, in the writer's experience, the psychiatric interview in the service following an attempt at suicide should be considered as one part of the incident and not as something extraneous to the attempt. In both the attempt itself and in the interview the patient is endeavouring to develop as much pressure on his environment as possible with a view to obtaining some modification therein.

A further matter which also deserves note in relation to the patient's history as given by him after the attempt relates again to the differences between civil and service psychiatry. In civil life, at any rate in a settled and stable community such as Bristol, where the writer has recently been working and coming into contact with civil cases of attempted suicide, it is relatively easy to obtain some confirmation of the patient's history, if this is desired. There is generally a relation keen and eager to help, and willing to give a history of the patient and the attempt, or, failing this, a psychiatric social worker can visit the home, so allowing a picture of the patient to be built up which can be accepted as at least moderately correct.

In the service, however, the facilities are not available and no ready means of confirming or denying the history given by the patient are available.

In view of these points, no attempt to contrast this aspect of attempted suicide in the Royal Navy and in civil life is being made. All that is possible is an impression.

The writer's opinion is that neither the "optimistic" first histories nor the "pessimistic" later histories given by these cases are strictly in accordance with fact. He believes that at entry to the service, when enthusiasm for the service is at a premium, relevant past history is often "forgotten", and that later when it suits the man to do so this history is "remembered", probably in an exaggerated form with, at least in some cases, additions which the patient believes will influence the psychiatrist as he, the patient, wishes. The writer however believes that there is an element of truth in these histories and that, in fact, a positive early history of a disturbed home and early life with evidence of either neurosis or psychopathy is present to a greater or less degree in all these cases.

The composite figure which the present writer has built up over the years of these cases is one of a man who has never felt really secure or confident in any aspect of his life, who has not distinguished himself either at school or at work, who seems to be always either coming into conflict with his environment or meeting difficulties more frequently than most of his companions, and who finally, since joining the Royal Navy, has not managed to become part of the community group on the mess deck or in his barrack room. His intelligence is generally either slightly below or rather above the average; he seems to report sick more often than most of his messmates, and when he does so it is generally more difficult to account for his symptoms in terms of organic illness.

The Incidence of Attempted Suicide in the Royal Navy as compared with civil life in the United Kingdom

It has been shown earlier in this work that in the last five years there have been a total of 37 cases of suicide in the whole Royal Navy and 315 cases of attempted suicide in that part of it based on the United Kingdom. This suggests that the ratio of suicides to attempted suicides over this period has been 1 to 8.5 at least. This is at first sight an astonishing finding which is quite out of keeping with the experience of other workers on this matter. The Medical Officer of Health for Bristol has reported the following figures which cover a 10-year period from 1946.

TABLE XXIII.

Suicides and attempted suicides in Bristol

Year	Suicides	Attempted suicides	Total
1946	42	46	88
1947	42	35	77
1948	43	45	88
1949	45	31	76
1950	35	46	81
1951	42	42	84
1952	60	45	105
1953	52	56	108
1954	65	31	96
1955	44	41	85
Total	470	418	888

This series over a 10-year period gives a ratio of one suicide to almost 0.89 attempted suicide.

Stengel (1958) quoted a table giving figures for registered attempted and completed suicides in the London Metropolitan Police District. From this table the figures relating to male subjects have been extracted and are reproduced below.

TABLE XXIV.

Suicides and Attempted Suicides in London
(Males)

Year	Suicides	Attempted suicides	Total
1938	617	380	997
1939	548	344	892
1940	548	283	831
1941	396	232	628
1942	351	200	551
1943	339	225	564
1944	377	241	618
1945	379	271	650
1946	444	322	766
1947	445	378	823
1948	541	426	967
1949	508	454	962
1950	459	439	898
1951	476	418	894
Total	6428	4613	11041

This table - covering a 14-year period - shows a ratio similar to that for the Bristol area. The ratio in London is 1 completed suicide to almost 0.72 attempted suicide, or 100 to 72. These figures are part of a report by the Statistical Branch of the Metropolitan Police. There is no qualification expressed as to the validity of these figures; they are "thought to reveal the true incidence of the suicide problem", to use the words of the report.

Again, Batchelor and Napier (1953, 1954), while carrying out an investigation into attempted suicide, made a study of 200 consecutive cases admitted to a general hospital in Edinburgh. They believed that this series was a representative sample of attempted suicide in an urban area, as "the large majority of all suicidal attempts occurring in the city of Edinburgh are admitted to this hospital". This would suggest that the number of attempted suicides would not be much greater than 67 per year in a population of around 500,000; the number of suicides which might be expected in a group of this size in Scotland at this period would be between 50 and 60. This again suggests a ratio of about 1 to 1 for suicide to attempted suicide.

On the other hand, Schneider (1954), in discussing his series of 372 cases of attempted suicide admitted to hospital in Lausanne describes the total number of those admitted to hospital as the "minimum number of attempted suicides"; he pointed out that this figure was generally lower than the number of suicides in the same group and suggested that the figure of known attempted suicides probably represented only one-half to one-third of the actual number of cases.

Kersten (1955) also suggests that in the U.S.A. the ratio of suicide to attempted suicide is probably 1 to 5.

Stengel, writing on attempted suicide in London, believes that "the incidence of suicidal attempts will never be known but it is certainly several times, if not many times, the number of suicides".

Harrington and Cross (1959) also refer to the difficulties in obtaining reliable evidence and representative samples when considering attempted suicide.

Epps in her paper points out that only 9% of the cases of attempted suicide in Stengel's series were referred by the police and that many cases are not referred to or known by the police.

The Metropolitan Life Insurance Company of New York, in their Statistical Bulletin of May 1941, suggest that the ratio is 18 to 100, or 1 to almost 6. This information was based on studies carried out in Los Angeles and Detroit.

This wide range of opinion and statistical evidence suggests that in fact there is no generally accepted standard by which the incidence of attempted suicide in the Royal Navy can be compared with that in civil life. Even in a relatively small community such as Bristol, there are two entirely differing sets of figures available in this matter. The first has already been quoted, giving a ratio of suicide to attempted suicide of 1 to 0.89. If hospital figures are taken, however, the picture is quite different. Admissions to a civil mental hospital in the area following attempted suicide are known to have been 380 during a period when the number of suicides was 199, giving a ratio of 1 to almost 2.

There are possibly two points on which a valid comparison can be made, however.

The first point is the rate of admission to a civil mental hospital, observation ward, or service psychiatric centre of cases of attempted suicide in relation to the total number of cases.

Stengel reports that the proportion of admissions following attempted suicide to the total admissions to mental observation wards in London is around 10%. In his series of cases the ratio varied in the four groups from 6.3% to 12.2%.

In Bristol, in a total of 5615 admissions during the 5 years 1954-1958 to Barrow Hospital, which deals with the bulk of psychiatric emergencies in the area, there were 470 cases of attempted suicide, or 8.37% of total admissions.

In the principal psychiatric centre of the Royal Navy, there were 32 cases of attempted suicide in a total of 284 new cases over a two-year period, or 11.2% of the total series.

These figures do not show any major difference; the variation from Bristol at 8.37% to the Royal Navy at 11.2% and to one of Stengel's London groups at 12.2% suggests that the figure for the Royal Navy can be accepted as "within normal limits for this country".

It is perhaps of interest here to note that Fisch (1954) reports that the comparable proportion of service patients admitted to the U.S. Naval Hospital at Philadelphia is 15%, made up of 7.4% who had attempted suicide and 7.6% who had threatened suicide.

The second point of comparison is possibly between the number of cases in the Royal Navy in this five-year period in whom the attempt justified, or might have been considered to justify, admission to hospital and the number in the population of Bristol who were similarly admitted to hospital.

In the Royal Navy the number of cases over the five-year period in which the attempt did carry some danger to life and some varying degree of intent to die was 129, an average of 26 cases a year.

The admissions to the civil mental hospital in Bristol after attempted suicide during the same period totalled 470 cases in all or an average of 94 a year.

Correcting these figures for the numbers at risk, comparable yearly figures were 104 for the Royal Navy and 94 for Bristol.

These figures, while no claim is made that they are worthy of close consideration, do suggest that there is no substantial difference between the incidence of "serious or moderately serious attempts" at suicide in the Royal Navy and in civil life.

Finally, with regard to the attempts which might be regarded as coming into what has been described by Epps as "the nuisance category". These cases would be unlikely to be referred to a psychiatrist as a general rule in civil life and no one can do more than hazard a guess at the incidence of such gestures in the community.

Summarising this discussion, the impression that the writer is left with is:

1. There is no common standard known of the incidence of attempted suicide which will allow a detailed comparison of naval and civil figures.
2. The apparent high incidence of attempted suicide in the Royal Navy as compared with officially reported statistics for the civil population is probably only a reflection of the lack of any real knowledge of the incidence of attempted suicide in civil life.
3. On the two points on which comparison has been attempted, no special tendency to attempted suicide in the Royal Navy has been demonstrated.

OTHER ASPECTS OF SUICIDE AND ATTEMPTED SUICIDE IN THE ROYAL NAVY

So far in this work, both attempted and completed suicide have been considered in terms which may have suggested that it is considered that these happenings were essentially reactions to external stresses. This is of course not so and an attempt will now be made to discuss these acts in their other aspects.

Attempted Suicide

In the earlier section of this study dealing with attempted suicide, the cases were classified in groups according to the motive ascribed by the patient to the attempt. The three main motives described were: psychiatric illness; marital and related problems; and maladjustment to the Royal Navy.

In the first group, the attempt at suicide was precipitated by schizophrenic illness, depression or anxiety. The schizophrenic wanted to kill himself because his delusions or hallucinations had led him to the conclusion that he should die; in these cases the

idea of sacrifice for the benefit of the world was the main theme. With the depressives, on the other hand, ideas of guilt and unworthiness predominated; they were unfit to live, they should be punished, the world would be better off without them. As regards the cases which were classified under the heading of anxiety, there were none in which the anxiety was free from admixture with depressive symptoms; the anxiety might have been provoked initially by some specific stress, but by the time of the attempt it had invaded most if not all aspects of the patient's life and had led him to wonder if he would ever be fit and well again.

In the second group, marital and related problems provided the ostensible reason for the attempt. Most of this group of attempted suicides admitted afterwards that among the factors they considered in relation to the attempt were the possibilities that it would bring them greater help and assistance in dealing with material problems and that it might also provoke greater kindness and affection in the family towards them. None of these cases, when asked why they had attempted suicide, replied simply "because I wanted to die" - they answered instead "I tried to kill himself because my wife had been unfaithful" or "because I could not pay my bills". Few if any had thought that they would die; most agreed that the nature of the attempt precluded any real risk of death.

With regard to the third and largest group, namely, those who were discontented and dissatisfied with the Royal Navy, the attitude of the vast majority in this category can be summed up in the answer of one rating who, when asked why he made an attempt to kill himself, replied "because I wanted my ticket to return to civvy street" - in English, he wanted discharge from the Royal Navy. Very few in this group had seriously considered the possibility of death resulting from the attempt; even fewer had any desire to achieve this end.

In all these attempted suicides, however, no matter what the ostensible motive, there is a constant theme - that by some contact with death, no matter how remote, a change can be effected in their circumstances.

Another point which is common to almost all the cases in the present series is that there was no real expectation of death. The attempt was undertaken in relation to difficulties in the subject's environment; it was a method of drawing attention to the difficulties he was meeting in his day to day life and of asking for help in resolving these. In some cases of course this appeal for help became more than just an appeal, it became a threat, an attempt to blackmail authority into acquiescing in the patient's ambitions - "if I dont get what I want I will do it more seriously next time".

Looking now at this matter from another point of view and considering the difficulties that these men were meeting in their everyday lives, one is struck by the relatively simple nature of these difficulties. Taking the matter of maladjustment to the Royal Navy as an example, as it bulked largest in the series, a closer examination on this point shows clearly that they might well have achieved more by other means.

The sources of maladjustment to the Royal Navy have already been discussed; it might have seemed from this discussion that the Royal Navy was a hard taskmaster and that "once in" the man was fixed rigidly in a mode of life from which there was no escape. This however is far from the truth; there are more than adequate welfare services in the Royal Navy and any rating who finds himself in difficulties is sure of help, both in the matter of expert advice on all social problems and of financial assistance if this is required. If his presence at home will help in settling marital and allied problems, he will be sent home on compassionate leave with full pay for a period; if this is not sufficient, he will be

given a temporary release from the service for a matter of months or, if more is required, he will be discharged completely and finally from the service, to remain at home.

Equally, the rating who becomes unsettled, discontented and dissatisfied in the service can obtain his discharge without completing his engagement. He can buy his discharge without being obliged to produce any exorbitant sum of money; equally he can, if he is unable to settle in the service, be discharged by administrative action as "temperamentally unsuited for service life". He can also, of course, choose simply to be so lazy or so unreliable that the service will seek to discharge him as soon as possible.

The histories given by many of these men of their discontent and dissatisfaction with the service and of their intense desire to leave it and return to civil life accordingly cannot be taken at their face value. This is confirmed when one enquires more deeply and discovers that most have made no real attempt to explore the other "avenues of escape" before attempting suicide.

Inevitably, the more one sees of these cases the more one is driven to the conclusion that the reason given by the patient for the attempt is of comparatively little significance; that, whether the ostensible reason be mental illness or extraneous stress, all that happens is that this stress added to the normal ordinary stress of life either releases or triggers off some deeper mechanism of which the patient is unconscious. This will be further discussed later.

Turning now to other aspects of attempted suicide as demonstrated in this series, physical illness, alcoholism, overt psychiatric illness and major disorders of personality have played little part in any of these cases. Minor psychiatric illness and disorder of personality, in particular inadequacy and temperamental instability, have commonly been observed. All or almost all have claimed to have morbid family and personal histories

though how valid these claims are is considered to be doubtful; claims of suicide and attempted suicide in other members of the family have also not infrequently been made, but again this claim is considered of doubtful validity in view of the earlier denial of morbid family histories on entry.

A further point, referred to earlier, is the almost constant aura of failure which seems to surround these men. They have not been successful in their chosen career in the Royal Navy; they seem constantly to come up against difficulties that are by-passed by most other ratings; they fail to develop any real sense of loyalty to or identification with the Royal Navy as a whole and their ship or establishment in particular; equally they fail to achieve assimilation into the communities of the mess deck and barrack room. Even in the delinquency which was noted as the factor provoking the attempt in just over 10% of the cases, there is still this air of mediocrity, inadequacy and failure. The crimes were all of a negative character - failure to return from leave, desertion, minor larceny or smuggling; there was no major crime of a positive or aggressive nature.

Suicide as a threat

Earlier, it has been noted that in one series of 66 consecutive cases referred for psychiatric examination because of attempted or threatened suicide, 20 were men who had threatened suicide only and who were considered by General Duties Medical Officers to be cases which justified such examination.

This group of 20 cases did not include men who were suffering from overt and serious psychiatric illness in which suicide might have been a complication of the illness; neither did it include men who threatened violence to themselves in a fit of temper or when under the influence of alcohol. They were men who, in the opinion of medical officers, might put their threats into action.

No real knowledge of the frequency of such cases can be claimed; it is known however, from conversation with other medical officers, that threats of suicide are more frequent than attempts, that such threats are commonly made in anger or under the stress of emotion or when under the influence of alcohol, and that relatively few deserve any attention with regard to the chance of a "successful suicide act".

The group is interesting, however, as exemplified by these 20 cases, in that it displays the same characteristics as those shown by the "attempted suicide" group. These men are endeavouring to manipulate their environment to their own design by a threat of violence. The mechanism already described is in action; they are choosing, due to a mechanism of which they are unaware, to solve or attempt to solve their problems by invoking death, not in these cases in any concrete form, but almost as a mystical charm in the way that other men might invoke the protection and help of a patron saint or deity.

The same absence of any logical or reasoned approach to their problems and the failure to make adequate use of welfare and other facilities open to them to help them with their difficulties, which has been noted with attempted suicides, is also noted here.

These are all young men; none of the difficulties they have described seemed to the writer to be insoluble; none was suffering from major psychiatric illness; all, however, showed signs of tension or depression, and all claimed previous neurotic traits or showed evidence of inadequacy or temperamental stability.

Suicide

It is less easy to form a picture of the man who commits suicide in the Royal Navy. He has not been available for interview by anyone after the act and one feels that accounts of the man and his suicide may have been influenced by factors, some conscious,

some unconscious, which may be best expressed in the phrase "de mortuis nil nisi bonum" - or unwillingness to discuss in detail any shortcomings or failures in any part of the man, and a tendency to highlight both the unexpected nature of the suicide and the "good points" in the individual concerned.

As regards those suicides which took place in the setting of major psychiatric illness, the motivation was as described in similar cases in the attempted suicides. Guilt, unworthiness, the idea of punishment and reparation were noted among depressives. The schizophrenic suicide, again, was influenced by delusions and hallucinations.

Again, in the cases in which anxiety was noted as the principal psychiatric symptom, this was not ever free from an admixture with depressive elements; one case of obsessional neurosis seemed however to be completely free of any symptoms other than constant rumination on suicide, and repeated psychiatric examination failed to reveal any objective signs of other psychiatric illness.

As regards the other stresses noted as principal factors precipitating the suicide, namely, marital problems, disciplinary action and maladjustment to the Royal Navy, these stresses were all of a much more serious nature than those noted in the previous group of attempted suicides. Most had explored other means of solving their problems and it was only after an apparent inability to find a solution by other means that the suicide took place.

Looking now at the men themselves, they are relatively older than those who attempted suicide. More have achieved some success in their careers - the relatively greater proportion of officer suicides is ample evidence of this. Several had received decorations for gallantry during the last war. Many had no history of any previous illness during their service in the Royal Navy; many were described as cheerful, efficient and hard-working men,

able to enjoy life and to join in the various activities, both at work and at play, of their mess decks, barrack rooms and ward rooms. In fact, the most striking finding in relation to this group is that in 43.82% of the cases there was absolutely no reason at all, even considering the matter retrospectively, to believe that the individual was considering suicide.

This suggest that once again, with suicides as with attempted suicides, while there may be some extra stress in the form of illness or extraneous factors which provoke the incident or determine the timing of the matter, the act itself is a reaction to forces extraneous to ordinary consciousness.

The Psychopathology of Suicide and Attempted Suicide

There have been many attempts to explain the nature of these acts, which have been known to all cultures and civilizations, all religions and all races in this world, as long as the human race has existed. In classical times the defeated general fell on his sword, the defeated king took poison; in modern times there is the tradition that the captain goes down with his ship; in some military circles, an officer who has broken the code by which he must regulate his life is left alone with a revolver as an alternative to court-martial, disgrace and subsequent expulsion from the company in every sense of his fellow officers. In some cultures, suicide has been elevated into a formalised and ceremonial procedure, for example, suttee in India and hara-kiri in Japan; it is not only a formal ceremony - it is the "right thing to do" - it is expected of the individual by that culture. In western lands, death in defence of a principle or religious belief has been accepted by many as an ideal, that should be praised; scrutiny of the finer details of the lives of these men and women suggests that in some at least of these cases the individual concerned was positively attracted by the idea of death and that he courted it

deliberately, as, by adopting other tactics, he could have maintained both his principles and his life. Among Muslims, too, death seems to have been courted at various periods in the history of Islam with a fanaticism which would appear to be akin to suicide.

The ubiquity of suicide in time and place, of course, has called forth reaction from the community from time to time, and in various civilizations strenuous attempts have been made to suppress this problem, for example, the burying of the suicide in unconsecrated ground or under a cross-roads with a stake through his body. It has also led to much philosophical discussion of the moral principles involved. Some philosophers, for example Hume and Schopenhauer, have accepted the right of the individual to commit suicide; others, as James and Kant, have condemned suicide as a violation of the moral law.

It is only comparatively recently, however, that any attempt has been made to study this matter on a systematic and scientific basis. Durkheim was the pioneer in this work; he considered suicide in its ecological aspects and related suicide to social factors. He distinguished three main categories of suicide, viz: (i) egoistic suicide which results from lack of integration of the individual into society; (ii) altruistic suicide which results in the individual taking his own life because of a habit of obedience to higher commandments of a religious nature or from unthinking political allegiance; (iii) anomic suicide which results from lack of regulation of the individual by society. He also in the course of his study disproved theories which ascribed suicide to extra-social factors, for example, climate and temperature.

Since then Durkheim's work and conclusions have been confirmed by many other workers. Sainsbury (1955) in London carried out an investigation showing the relationship between suicide and social characteristics of the population in 28 London boroughs. Cavan (1928) related suicide rates in urban areas of Chicago to the social

disorganisation in those districts. Gruhle (1940) studied the distribution of suicide in Germany and related the differences in various parts of the country to social and cultural differences. Ogburn and Nimkoff (1947) blame the impersonality of city life for the frequency of suicide among urban populations.

Dunkheim placed "military suicides" as occurring in the second of his main groups, i.e. altruistic suicide, where the act is the result of a habit of unswerving obedience to the orders of superiors. He made the following points.

1. The incidence of suicide among military personnel is much greater than that among a civil population of the same age group.
2. The incidence of suicide rises sharply the longer the man is a soldier, much more sharply than would be accounted for simply by the increase in the age of the group.
3. The incidence of suicide is much higher in the "elite soldier" group than among soldiers forming the "tail of the army", e.g. engineers, medical personnel and administrative troops.
4. Suicide cannot be related to hardship or compulsion to service. Officers, who are possibly less exposed to hardship than other ranks, commit suicide relatively more frequently. Volunteers and re-enlisted men commit suicide more frequently than conscripts.
5. Alcoholism plays no real part in suicide, even though both suicide and alcoholism are more frequent in military circles than in civil life.
6. Wars have a restraining effect on suicide. When the rate of homicide rises, suicide declines.
7. Trivial incidents may provoke suicide among military personnel, e.g. refusal of leave, a reprimand, unjust punishment, a delay in promotion, a question of honour, a flush of momentary jealousy or even simply because other suicides have occurred before the individual or to his knowledge.
8. The profession of a soldier develops a moral constitution powerfully predisposing a man to do away with himself.

Considering these points in relation to the present study, two can quickly be disposed of - Nos. 5 and 6. Alcoholism has been found to be of no importance in the present study; it was not found in any of the 32 officer suicides and was of importance in only 2 out of 130 rating suicides. The other point, namely, the inverse relationship of suicide to homicide and war is demonstrated clearly in the tables showing the incidence of suicide in the Royal Navy included earlier in this study; every fall in the tables can be related to war or near-war, for example, the Spanish civil war, the Abyssinian war, the Second World War, the Korean war, and eventually the Suez incident. The period of the Suez incident in fact shows the lowest known rate for suicide in the Royal Navy; this is possibly a reflection of the fact that this was an amphibious operation with the bulk of the active navy employed but without "dilution" of the service by extraneous elements, i.e. civilians quickly turned into servicemen, as happens in major conflicts. Thoms (1944) also reports that during World War I suicide was less frequent in the American Expeditionary Force, exposed to all the stresses of active service in a foreign country, than among the U.S. civil population.

With regard to Durkheim's first point, viz. the higher incidence of suicide generally in military service than in civil life, this has not been confirmed in the present study.

One very important point arises, however, in connection with this and with the other points made by Durkheim. This is that both suicide and attempted suicide in the Royal Navy are confined to very definite groups in the service and that other groups are quite free of these features. No suicides or attempted suicides have been demonstrated in the groups which have a high value in terms of aggression and danger.

This, of course, is further confirmation of the point made earlier of the inverse relationship of suicide to war and homicide.

When allowance is made for these groups which represent about one-third or so of the Royal Navy (the figure is not constant from year to year but one-third represents a fair average over the period), this leads to a sharp increase in the naval suicide rate for the group which contains the suicides. This completely confirms points Nos. 1 and 2 referred to earlier, viz. that the incidence of suicide is higher among military personnel not actively employed in aggressive activity than in a similar civil community, and also that the rate of suicide rises more sharply in military circles than in civil life with advancing age.

The point that Durkheim makes re the increased tendency to suicide in officers and NCO's as compared with private soldiers is also confirmed in this study: 32 officers and 130 ratings killed themselves - a ratio of 1 to 4; there are more ratings per officer in the service than this. In 1958 the ratio was 11,500 to 88,600 or 1 to 8. With regard to ratings the tendency is again confirmed; 55 ratings who would correspond to the NCO's in Durkheim's study killed themselves and 75 who would correspond to the private soldier did so; this time the ratio is almost 1 to 1.4, which is fully in keeping with Durkheim's findings, as obviously there are many more privates to NCO's than this.

Durkheim's point re the increased tendency to suicide in elite troops as compared with lines of communication and base troops is, however, in direct opposition to the findings in this study. He showed quite clearly that troops trained primarily for fighting duties kill themselves more frequently than other troops. In this study the sections of the Royal Navy in which suicide does not occur form the "fighting element of the service" - submarines, flyers, small craft and commando personnel. It is believed, however, that this does not in fact contradict Durkheim; instead it is the opinion of the writer that it simply represents a change in the activities of these troops, which is important in considering later the psychopathological mechanism at work in suicide.

In the period covered by Durkheim's study, the "fighting soldier" was trained to achieve a high standard of efficiency in his "killing ability". Having achieved this, he then sat about in a barracks or camp without any opportunity except in formal war to exercise his skill. In the modern setting of the Royal Navy this does not happen. The submariner faces danger of a very positive nature as soon as his boat goes to sea and even in peace-time it will be at sea most of the time; every time flying personnel take off, they too face very real dangers; this also applies to personnel in small craft. With regard to Royal Marine commandos, during the period of this study they were constantly in action in Palestine, North Africa, Egypt, Korea and Malaya; circumstances gave them no chance to vegetate in barracks.

A further point in connection with this matter is that no difference can be drawn between the various branches in the service as was drawn by Durkheim in relation to the lowered incidence of suicide in ambulance and engineer personnel. In a naval setting all these different groups are included in a ship's company or in a Commando. They face the same perils and dangers. This is quite unlike the position in an army as envisaged by Durkheim, where these groups were exposed to quite different training and degrees and forms of stress from the "fighting soldier".

Durkheim also made the point that hardships such as the soldier or sailor meet in the course of their duties do not have any tendency to provoke suicide. This point is fully confirmed in the present study, where in fact it is the men who are most exposed to hardship who do not commit suicide; the submariners are cooped up in cramped and uncomfortable surroundings, submerged for long periods, and eating a diet which is restricted and boring compared with a civilian diet, though nutritious and energy-giving; the commando personnel by reason of the nature of their duties are constantly on the move, living often in active service conditions in the field and very often separated from home, wife and family -

nothing could be more arduous and more stressful than life in a Commando. Yet these men do not commit suicide, a further striking confirmation of Durkheim's hypothesis - that suicide is not related to external social factors.

A further point made by Durkheim is that suicides are frequently provoked in military circles by trivial incidents. This is fully confirmed in the present study, where in 43.82% of the cases no explanation of the suicide was available even on a superficial level when considered in retrospect. It can only be assumed that in these cases the incident provoking the act was so trivial that onlookers either did not notice it or dismissed it as of no significance.

The final point made by Durkheim, that the soldier develops a moral constitution powerfully predisposing to suicide, leads on naturally to a consideration of the psychopathology proper of suicide.

Strauss (1956), while not accepting fully the psychoanalytical approach to this matter, describes this in terms of:
(i) The Freudian theory of the death wish, with the death wish overpowering the various ego instincts and death being sought for its own sake.
(ii) Aggression - suicide is the final act of aggression directed against the self rather than elements in the outside world. This act of self-aggression covers three main wish - derived impulses: the wish to die (Freud's death instinct); the wish to be killed; and the wish to kill.

Other writers on this subject support these views. Carmichael (1943) discusses the many and various ways in which he sees the death wish occurring in everyday life. He believes that drug addiction and gambling are substitutes for suicide. War he regards as a mass suicide. "If men wanted to live much more than they want to die, they would simply refuse to go to war."

Menninger (1938, 1947) regards suicide as the "grand and ultimate example of cutting off one's nose to spite one's face". Suicide he believes can be complete or "focal", i.e. it can be concentrated on part of the body; he quotes as examples self-mutilation, compulsive polysurgery, impotence and frigidity. Schneidman and Farberow (1957) state: "The suicidal person is an individual who, when he is really faced with the prospect of seriously considering leaving this world, departs with a blast of hate and self-blame and an attempt to leave definite instructions and restrictions on those he has left behind". Schilder (1942) believes that one of the factors facilitating suicide is the impossibility of disposing of dammed-up aggression in any other way.

Turning now to consideration of the present series of cases, it is postulated:

(a) That suicide can be explained only in terms of the death wish of Freud and of aggression.

(b) That where adequate opportunities for expressing aggression are given suicide seldom occurs.

(c) That social factors and mental illness simply facilitate suicide - they disinhibit the individual and potentiate aggression.

The first point to be considered is the "naval individual" himself. Why does he join the Royal Navy and what happens to him once he has joined?

No formal psychiatric study has been made of the motivation of entry to the Royal Navy so far as is known to the present writer. His impression however is that the young man enters the service because he wishes adventure, travel and excitement. He does not wish to live quietly at home, going to work each morning and coming home each evening to dig in his garden. He has a picture of the service, consciously or unconsciously, as a place where he can "do things" - he pictures himself in danger, as a hero, with bands playing, flags flying, guns firing, victory or death; he has seen cinema or television films exploiting the aggressive

components of the Navy; these films seldom if ever lay stress on the often boring nature of naval duties, for example, chipping decks, painting or polishing, peeling potatoes, or sweeping a barrack square. He has read books recording the exploits of the service. In short, he joins the Royal Navy because he is attracted by the idea of aggression, representing something which he feels he needs to experience and express in himself and his relations with his environment.

Once in the Royal Navy or in any fighting service, he is well fed, well clothed, well accommodated and looked after in every way. He is encouraged to maintain a high state of physical fitness, and his problems regarding home and family, money, and any other matter can be quickly dealt with for him by people who have much experience in handling such matters. He is encouraged to concentrate on his training; he is indoctrinated with naval history and tradition. Inevitably he develops the basic aggression which led to his entry in the first place. This is recognised by authority, which gives him as much opportunity as possible to "work off" this by playing games. Games are always very popular in any service; less aggressive activities, such as reading, while they may be encouraged also by authority, are much less popular.

Now he is trained, what value does he place on life? He has learned that the absolute barrier to homicide and suicide which he accepted as normal in civil life no longer applies to him. He has been taught that he must remain at his place of duty, no matter what the risk, till he is told to leave; he cannot leave his duty in a ship simply because he may be in danger of death; a ship must be fought and steamed in action even though men die. Equally he has learned that homicide is encouraged in certain circumstances; he knows when he presses a trigger in action that he is endeavouring to commit homicide.

This then is the picture of the service man, a man with his basic instinctual aggressive drives strengthened and the inhibitory action of the superego weakened.

What happens now to him in the service? Once he is trained, he is allocated almost at random to one branch of the service. There is definite, positive and very careful selection of flying personnel, but in the other branches this does not exist. If he is a Royal Marine who is finishing his basic training, he may either be trained later for commando duties or for ordinary sea-going service in the old-fashioned conception of the Royal Marine. This selection is purely random; one recruit squad on completing basic training goes to the Commando; the following squad goes to train for sea service. There is no initial selection of recruits into special squads; they are grouped together in the order in which they arrive at the barracks. Later on in their careers, they are likely to change round, so that the sea-going Royal Marine becomes a Commando and the Commando a sea-going Royal Marine. The ultimate objective is that all Royal Marines should be trained for duty in both spheres of action.

This means in fact that there are no differences of a basic nature between these two groups. The social factors present in the one group should also be present in the other. There should be no difference in standards of aggression in the individual; their levels of intelligence should correspond; heredity, family background, educational standards and work records should present the same features in both groups. Extraneous stresses will, of course, be more marked in the commando group in view of the nature of their duties. The basic training will be identical.

Yet in these two similar groups over a period of 13 years the findings are: there have been no suicides in the commando personnel, actively employed as such; among the other group there have been 15 suicides, or just over 1 per year on the average.

There has also been a complete absence of suicide among men in the other actively aggressive sections of the Royal Navy, as has been stated earlier in this work.

This finding, it is considered, is of great importance. The only essential difference between these two groups is that in the one group aggression can be worked out on a major scale; in the other - the sea-going group - aggression must be carefully controlled and cannot be given overt expression.

This finding also suggests that social factors, as described by Durkheim and other workers, do not provoke suicide if aggression can be freely expressed.

Further weight may be given to this hypothesis by considering the nature of the duties of the commando in recent years.

Many commandos spent long periods finding the terrorists in the jungles of Malaya. This service exemplifies in terms of military life the "gamble with death" described by Weiss (1957). He describes the dynamics of the true suicidal attempt as complicated and involving in all cases a discharge of self-directed aggressive tendencies, a gamble with death and a trial by ordeal. Patrolling in heavy jungle looking for terrorists is indeed a gamble with death and would certainly afford ample opportunity for the discharge of self-directed aggression.

The same is equally true of submarine personnel and flyers. The gamble with death is a constant part of their lives.

Looking at the reverse of the above picture, it is seen that suicides in a naval setting are confined to the groups where aggression cannot be expressed. These men have been trained to express aggression on behalf of their country; having been so trained, aggression must be carefully controlled by them and cannot be openly expressed; suicide can be expected in such circumstances if the original hypothesis is correct. This is in fact what happens and the incidence of suicide is greater

than in comparable civil age groups, where the individual may be exposed to many factors - social isolation, social degeneration and lack of regulation - all of which are known to be potent factors provoking suicide and which are not present in the naval cases. This further confirms the role aggression plays in suicide.

In fact, Durkheim's finding that the moral constitution of the soldier powerfully predisposes to suicide is fully substantiated; substantiated also in its turn is the opinion expressed earlier that it is the main characteristic of the serviceman, namely, aggression, and a relative increase in the destructive tendencies of the individual, i.e. Freud's death wish, which leads to suicide.

Turning now to the matter of attempted suicide, the same relationship which has been noted as existing between suicide and aggression also exists here. Cases of attempted suicide are rarely, if ever, found among men who are allowed to show aggression in a major form; attempted suicide is again centred on men serving in the less aggressive sections of the Royal Navy.

There, however, the resemblance between the two groups largely ceases; the suicide is an end in itself, the attempted suicide is generally a means to an end. There is of course a no-mans-land between the two groups composed of the "failed and actively desired suicide" and the "attempted suicide which was successful". This middle group is however small.

In the present series of cases of suicide, 6 out of 162 cases had previously attempted suicide, all of them by serious attempts which might well have been successful. In the 315 cases of attempted suicide, 28 had a history of repeated attempts; these 28 showed no progression in the seriousness of the attempts; all these attempts had very little danger of death attached to them and the suicidal intent was minimal in most cases. Typical of these attempts were the three attempts made on successive days

by a sailor undergoing punishment. He tried to hang himself in his cell once; twice he scratched his wrists with a blunt knife. Once he had finished his punishment, he returned to his ordinary way of life and has not been known to make any further attempts in the last three years.

Returning to the psychopathology of attempted suicide, Weiss (1957), as already stated, described the dynamics of the attempted suicide as complicated and involving in all cases a discharge of self-directed aggressive tendencies through a gamble with death (of varying lethal probability), in most cases an appeal for help and in some cases a need for punishment and a trial by ordeal. He believes that suicide and attempted suicide probably represent different kinds of acts performed in different ways by different groups of people, though there is some overlapping. Attempted suicide, he believes, depends on three main factors:

1. The group attitude of the society.
2. Adverse extraneous factors which each person must meet.
3. The interaction of these with his personality and character.

Powers (1956) believes that the important factor in attempted suicide is the overwhelming sense of futility which the person experiences in the face of difficult circumstances under which he finds himself operating; he feels frustration in not being able to deal with these conditions; this leads ultimately to expressions of guilt and unworthiness and attempted suicide.

Sifneos, Gore and Sifneos (1957) believe that attempted suicide is the result of the interaction of external factors, emotional state and instincts leading to a state when suicide is considered. Harteluis (1955) believes that attempted suicide is a culmination of neurotic maldevelopment. Ringel (1952) also regards suicidal acts as the expression of a neurotic attitude.

Fisch (1954) suggests that attempted suicide is related to suicide but that the aggression noted in all cases of suicide has

not been internalised to the same extent in attempted suicide. Batchelor and others (1953, 1954, 1955) have investigated many cases of attempted suicide in Edinburgh. They draw attention to the role of extraneous factors in attempted suicide; as regards psychopathology, hate, evasion, identification with a dead person, fears, experimentation, demonstration of omnipotence and manipulation of the environment are considered important motives.

Stengel and others (1958), considering attempted suicide in relation to its social environment, also mention the appeal and ordeal character of the attempt, the social effects of the attempt and the part attempted suicide may play in mourning and reparation; the possibly punitive nature of society's reaction to the attempt is also referred to. He further draws attention to the fact that attempted suicide is rare in a hostile society. He quotes Tass (1951), Kral (1952) and Cohen (1954) on this matter, in relation to their experiences in German concentration camps where attempted suicide was rare. Cohen has explained this relative infrequency of suicidal acts in concentration camps in terms of the main function of suicide being escape. The camp and community by their very nature were part of the realm of death. In the 'realm of life', one could escape from life by committing suicide; in the 'realm of death' one could only escape by living. The point is also made by these writers that in contradiction to the rarity of attempted suicide, suicide itself was common in concentration camps.

Stengel also draws ettention to the fact that among suicides only a minority have attempted suicide before; among attempted suicides on the other hand, even among those who frequently react with suicidal attempts to stressful situations, only a very small proportion eventually kill themselves. This fact, he considers, argues against the all-importance of self-destructive influences in the motivation of suicidal attempts.

Stengel in 1952 described attempted suicide in the following terms: "To the patient the suicidal attempt stands for death and survival and often for a new beginning. To the relatives it stands for bereavement and mourning. It sometimes creates the peculiar situation in which some one has died and revived, is with us alive while we are mourning him. All this engenders renewal and revision of human relationships on the part of all concerned."

Siegal and Friedman (1955) described the threat of suicide, including the repetition of attempted suicide as follows: "Suicidal threats, other than psychotic reactions, pervade our entire social structure .... the threat of suicide forces people to marry, prevents marriage dissolution, coerces companionship between people despite their mutual infidelity, prevents marriages, forces parents to acquiesce in their offsprings' vicious habits, precludes hospitalisation, is rewarded by escape from military service, is used to obtain favoured treatment over siblings, is employed as a device to avoid military induction, etc.".

In this study of naval cases of attempted suicide, the act in almost every case is meaningful in relation to the environment of the patient. He wishes to leave the Royal Navy, he wishes to go to another ship, he wishes help to solve his problems. Accepting that this is so and that the act is meaningful, why does he choose this method of appealing for help and of stating his grievances?

This is, of course, the crux of the matter. From the picture already drawn of the serviceman, the question of aggression naturally comes into the picture. From the composite description given of the attempted suicide in the Royal Navy earlier, the picture of neurosis and inadequacy comes to mind.

It is suggested, therefore, that the development of aggression coupled with lowering of the value in which life is held leads, in a setting of neurosis or inadequacy to a pattern where the individual

attempts to resolve his problems by attempting suicide and so calling attention to his difficulties.

This occurs only when the individual cannot give open expression to his aggressive tendencies as in the positively aggressive sections of the service. In these sections of the service, attempted suicide is as rare as suicide; it is only when aggression must be bottled up and controlled that attempted suicide as well as suicide develop.

This suggests that basically suicide and attempted suicide are actions which spring from the same source. In suicide, as exemplified in this series of cases, the subject has achieved full or near full emotional development and maturity; his basic instinctual drives have been successfully confined by his ego, which has become strongly developed. When the basic instincts are encouraged by his training, everything goes well, he is able to achieve a controlled discharge of these drives; if he is unable to do this, there is conflict and an ultimate explosion between two strongly developed groups of forces, culminating in suicide.

In the attempted suicide, the development of the individual has been less complete, having been marred and distorted by some or all of the factors which prejudice development, for example, a disturbed home, unsatisfactory parent-child relationahip - factors which are known to provoke neurosis in the individual. He experiences the development of his aggressive tendencies in the Royal Navy; his ego is however less well equipped to deal with these drives than in other men; it cannot resist them so successfully; and so, instead of conflict developing till there is a massive explosion, as in the case of the suicide, in the attempted suicide any added stress the individual experiences helps to overpower the ego forces. There is an explosion of aggression, but the interaction is between one relatively strong

and one relatively weak force. This produces a reaction which obviously must be less dynamic and less impressive - attempted suicide. In other words, attempted suicide, as shown by other workers and as demonstrated in this series, results from the interaction of external stress with the individual's personality and character.

The third point made earlier in relation to attempted suicide, namely, that attempted suicide also depends on the group attitude of society, and that it is absent when the individual is in a society hostile to him, could not be tested in the present study. The group attitude here is always one in which the man is the centre of attention and care; he is a trained man on whom much public money has been spent; he is an asset to his group and must be shielded and protected when possible. This possibly helps to account for the high ratio of suicide to attempted suicide in the Royal Navy - 1 to 8.5, a figure rather higher than has previously been demonstrated by other workers.

CONCLUSIONS

I. Suicide

This study has confirmed that the numbers of cases of suicide in the Royal Navy is small and that in the Royal Navy as a whole the incidence of suicide is very much the same as in a civil community of the same age groups in this country. It has also shown that suicide is not basically a reaction to the stresses a serviceman encounters in the course of a career in the service.

It has also been shown however that suicide tends to be concentrated in the groups in the service where active expression of aggressive tendencies is severely controlled and where the men are not actively and purposefully employed.

II. Attempted Suicide

This study has shown that the ratio of attempted suicide to suicide in the service is about 8.5 to 1. Most of the attempts were histrionic, self-aggressive gestures, designed to influence the environment of the patient; few had any sincere or genuine desire to die.

Attempted suicide is largely influenced by a desire to change the environment of the patient; to this extent stressful situations in the Royal Navy determine the timing and place of the attempt.

At the same time, however, it has been shown that active aggressive employment in the service lessens the incidence of these gestures.

It has also been shown that attempted suicide in most cases is a neurotic manifestation.

III. Suggestions as to the future

Suicide is an act which generally is not amenable to influence by increased welfare and similar facilities. Attempted suicide, on the other hand, may be aborted by such facilities, though it is doubtful how much the rate for attempted suicide would be affected, as welfare and similar facilities are already freely available, effective and efficient in the service.

What would affect both the rate for suicide and attempted suicide would be more active employment in the service. Any scheme of training which would allow freer expression of the aggressive tendencies inherent in any service setting would quickly influence both the incidence of suicide and of attempted suicide. It is suggested that wider and more frequent training on the same basis as that undergone by the Royal Marine Commando would be of advantage and that periods of relative inactivity, as in a barracks, should be avoided as far as possible.

With regard to the question of "screening" on entry to the service from the psychiatric point of view, it is considered that the present system works well and does eliminate most if not all of the persons suffering from overt psychiatric illness. It is felt however that this process of selection could be improved by the use of a procedure such as the Cornell Medical Index Health Questionnaire (B.M.J. 1952; Brodman and others 1955, 1959; Cullen 1960). This would help to eliminate men who, though not showing positive signs of psychiatric illness at the time of initial entry medical examination, do show on such a test a morbid predisposition to such illness which might lead in due course to suicide or attempted suicide.

The number of cases involved, of course, is relatively small - an average of 75 cases a year, and it may be that, though such a procedure would be helpful in reducing the numbers of suicides and attempted suicides in the service, the extent of the problem barely justifies, from an administrative point of view, the employment of a more intensive and careful selection of recruits by the method suggested.

IV. Remarks as to the validity of the study

The number of cases included in this study is relatively small and when these cases are divided, as they have been in the course of this work, into smaller sub-groups, the numbers involved may be considered so small as to lack any statistical significance.

This is certainly true in some of the sub-groups and an effort to counter this has been made by spreading the period of the study over 13 years in the case of suicide and 5 years in the case of attempted suicide. It is considered that by doing so, though the resultant figures and the findings derived from them may not be suitable for statistical evaluation, they are representative of the various aspects of these problems of suicide and attempted suicide in the Royal Navy.

SUMMARY

A series of 162 cases of suicide over the last 13 years and of 315 cases of attempted suicide over the last 5 years in the Royal Navy have been collected for this study and have been analysed in detail.

It has been shown that the ratio of suicide to attempted suicide in the Royal Navy is approximately 1 : 8.5.

Suicide has been shown to be little influenced by stressful situations in the Royal Navy; attempted suicide is however influenced by such situations. It has also been shown that the majority of attempted suicides in the Royal Navy are histrionic and self-directed aggressive acts, in which the element of an appeal for help amounting almost to blackmail in such a setting as the Navy, was well marked; the attempted suicide was expected to influence the patient's environment and not to produce death.

It has also been shown that both suicide and attempted suicide tend to be concentrated in groups where aggressive tendencies must be carefully controlled. It is seldom encountered in groups in the service where aggression can be discharged, either directly as in conditions of active service or indirectly by frequent exposure to the risks of danger and death.

No findings contrary to those already recorded by other workers on these subjects in relation to the various aspects of suicide and attempted suicide (for example, the increasing tendency to suicide with increasing age, the methods used etc.) have been demonstrated.

Durkheim's original findings on suicide in military personnel have been confirmed.

A hypothesis has been put forward, linking suicide and attempted suicide under Royal Naval conditions of service in an inverse ratio with the ability and opportunity to discharge aggressive drives. It has been suggested that suicide and attempted suicide are basically the same act, performed by different groups of people, depending ultimately on the relative development of instinctual drives and ego strength.

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