

ALCOHOL USE AND ABUSE IN TRAINING CONSCRIPTS OF THE HELLENIC NAVY

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ABSTRACT

Alcohol abuse and addiction are big current problems of the developed world having multivariate causality and multiple effects. Alcohol abuse in young people is a matter of primary importance due to its wide range and long lasting effects. Especially so in Greece where the problem has only recently started growing. The Hellenic Navy is interested in estimating the extent and the complications of alcohol abuse not only because young conscripts will be placed in demanding positions, but also because in Greece the military service is an important period for the socialization of young men.

In the present study, levels of alcohol use and abuse are measured in a sample of 650 male training conscripts of the Hellenic Navy. The tools used are: (a) two questionnaires measuring frequency and quantity of alcohol consumption and psychosocial variables, (b) the Cage Test that is a questionnaire measuring hidden alcoholism.

The findings on the levels of alcohol use and abuse are presented as well as their relation to psychosocial complications and to demographic characteristics. The results are discussed in the light of Greek and international bibliography.

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INTRODUCTION

Alcoholism is considered to be a very important problem that has taken huge dimensions since World War II (WHO, 1986). In Greece the problem of alcohol use and abuse has been considered non-existent for a long time. Recent evidence, however, has changed the picture. Such evidence comes from studies that have shown an increase in the per person consumption of pure ethanol, and a change in the traditional manner of alcohol consumption (PGD, 1992), studies identifying alcohol use and abuse in clinical populations, in general hospitals (Mikirdisian & Moussas, 1995; Moussas, Athanasaki-Tsouroula, Stavrakakis, & Lykouras, 1989; Moussas & Kanavakis, 1993), as well as studies in the general population (Kokkevi & Stefanis, 1994; Madianos, Gefou-Madianou, & Stefanis, 1994).

Alcohol abuse among adolescents and its complications are considered to be major public health issues of the developed world (Barnes, Welter, & Dintcheff, 1992; Johnston, O'Malley, & Bachman, 1989; Kaplan & Sadock, 1982) since alcohol abuse in adolescents and young adults is known to be related to high risk for life loss (Glucksman, 1994; Delaunay, Balkau, & Papoz, 1991; Vine & Watson, 1983). Alcohol abuse is especially known to play a major role in traffic accidents and Greece has the highest rate of traffic accidents among the countries of the European Union. Thus it is clear that alcohol abuse among young people is a major issue in this country.

Training conscripts of the Hellenic Navy can be considered to be a good sample of healthy young males as their ages normally fall between 18 and 24 years. However, about 10-20% of the conscripts are usually older than 25 years (Menoutis, 1997; Menoutis, Pavlopoulos, Tzemos, Dimitrakopoulos, Georgopoulos, & Larentzakis, 1998). The tools used to measure alcohol consumption are different for adolescents/young adults and for older age groups (Madianos et al., 1994). Thus due to the peculiarity in the age range of conscript personnel in the Armed Forces, any research studying alcohol consumption among such a sample should be very carefully designed. It is very important for the Hellenic Navy to have a profile of

alcohol use and abuse of the training conscripts firstly because the Navy is responsible for the conscripts health while they are in service and secondly because the conscripts are placed in responsible and demanding positions.

The aim of the present study is to measure problematic drinking among training conscripts of the Hellenic Navy both by adult and by adolescent standards and to measure levels of hidden alcoholism in the same sample. Problematic drinking is a bi-axial measure involving frequency and quantity of alcohol use along with psychosocial complications related to alcohol use. It is considered to be a predictor for future alcohol abuse and/or addiction problems which are not expressed due to social factors or young age (Madianos et al., 1994). Hidden alcoholism is an indirect measure of existing alcohol abuse and/or addiction which is employed in order to avoid the large number of false negatives produced by traditional tools measuring alcoholism (Ewing & Rouse, 1970).

METHOD

Sample

Six hundred and sixty (660) training conscripts of the Hellenic Navy participate in the study. The subjects' age ranges from 18 to 37 years (Mn=22.0, St.dev=2.8). Almost 20% (N=118) are older than 25 years of age. They come from different parts of Greece (63.8% from Athens, Thessaloniki or other big cities, 25.6% from little towns or villages, and 10.6% from islands). Their education varies from Compulsory (8.0%) and Secondary (17.3%) to Technical/Professional (39.1%) and University (35.5%). Only 18 (2.7%) conscripts are married, while the parents of 50 (7.6%) are separated or divorced. It must be noted that all subjects are qualified as being capable of serving the Armed Forces (subjects suffering from serious physical or psychiatric diseases have already received a deferment or a discharge).

Measures and procedure

The following tools were used: (a) A questionnaire measuring frequency and quantity of alcohol consumption in adults (Madianos et al, 1994); (b) a questionnaire measuring frequency and quantity of alcohol consumption in adolescents (Madianos et al, 1994); (c) a questionnaire assessing psychosocial complications related to alcohol use (Madianos et al, 1994); and (d) the Cage test that traces hidden alcoholism (Ewing & Rouse, 1970; Mayfield, Macleod, & Hall, 1974; Athanasaki-Tsouroula, Moussas, Stavrakaki, & Lykouras, 1989). The score given to each participant for each questionnaire represents the number of positive responses given by the participant in the respective test. In addition, the subjects provided information concerning demographic characteristics.

The collection of data took place at the training campus of the Hellenic Navy on the island of Poros in November 1998. Groups of 20-30 people completed the questionnaires in the presence of a psychiatrist and two psychologists. The conscripts were free to decide whether to participate or not after they had been informed about the general purpose of the study.

RESULTS

Problematic drinking

A participant is considered to be a problematic drinker according to *adolescent* standards when he has a score of one or higher in the frequency/quantity questionnaire for adolescents *plus* a score of one or higher in the questionnaire measuring psychosocial complications related to alcohol use (Madianos et al., 1994). Using this criterion, 205 (31.8%) conscripts are characterized as problematic drinkers (see Table 1).

A participant is considered to be a problematic drinker according to *adult* standards when he has a score of two or higher in the frequency/quantity questionnaire for adults *plus* a score of two or higher in the questionnaire measuring psychosocial complications related to alcohol use (Madianos et al., 1994). Using this stricter criterion, 57 (8.9%) subjects are found to be problematic drinkers (see Table 2).

Table 1. *Frequency of problematic drinkers by means of adolescent criteria*

Frequency/quantity of alcohol use	Adolescents' scale score ≥ 1 plus 1 psychosocial variable	
	<i>f</i>	Valid %
Normal use	440	68.2
Problematic drinking	205	31.8
Total	645	100.0

Missing cases: 15 (2.3%)

Table 2. *Frequency of problematic drinkers by means of adult criteria*

Frequency/quantity of alcohol use	Adults' scale score ≥ 2 plus 2 psychosocial variables	
	<i>f</i>	Valid %
Normal use	584	91.1
Problematic drinking	57	8.9
Total	641	100.0

Missing cases: 19 (2.9%)

As expected, scores in the adolescent and in the adult questionnaires on frequency/quantity of alcohol consumption are highly correlated (Pearson's $r=0.56$, $p<.01$). However, correlation of score in the psychosocial complications measure with

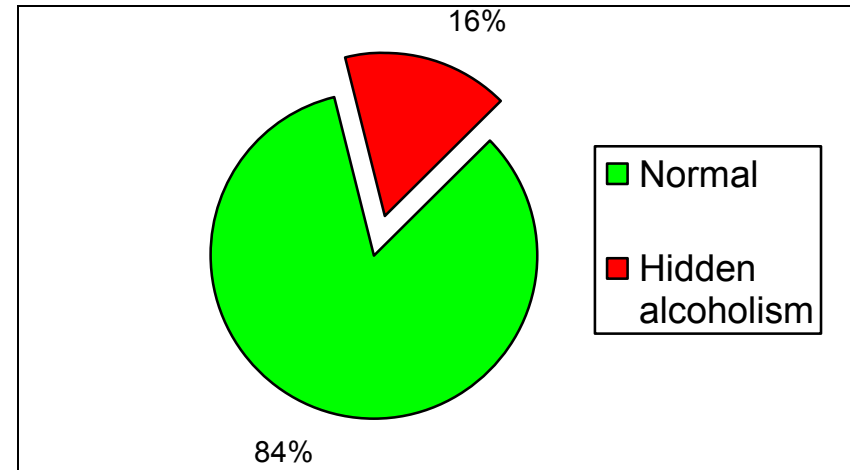
the scores in each of the two alcohol consumption measures produces considerably lower, though significant, coefficients: Pearson's $r=0.22$ ($p<0.01$) for the adults' questionnaire; and Pearson's $r=0.28$ ($p<0.01$) for the adolescents' questionnaire.

Table 3. Scores of Cage Test measuring hidden alcoholism

Category	Score	<i>f</i>	Valid %	Cum %
Normal	0	394	64.1	64.1
	1	120	19.5	83.6
Hidden alcoholism	2	66	10.7	94.3
	3	29	4.7	99.0
	4	6	1.0	100.0
Total		615	100.0	

Missing cases: 45 (6.8%)

Figure 1. Percentage of hidden alcoholism



Hidden alcoholism

A participant is considered to be a hidden alcoholic when he scores two or higher in the Cage test (Ewing & Rouse, 1970; Mayfield et al., 1974; Athanasaki-Tsouroula, et al., 1989). According to this criterion, 101 (16.4%) subjects are found to be positive (see Table 3).

A positive correlation coefficient is found between the score in the Cage test and the score in the psychosocial complications questionnaire (Pearson's $r=0.35$, $p<0.01$). As shown in Table 4, participants who are found positive on hidden alcoholism as measured by the Cage test give significantly more positive responses in seven out of the eight items of the questionnaire assessing psychological complications related to alcohol. Moreover, correlation of scores in the Cage test

with the scores of questionnaires measuring problematic drinking in adults and adolescents produced rather low coefficients (Pearson's $r=0.27$ and 0.30 , respectively; $p<.01$).

Table 4. *Psychosocial complications related to alcohol use by hidden alcoholism*

Psychosocial complications	Hidden alcoholism				Total	
	No		Yes			
	<i>f</i>	Valid %	<i>f</i>	Valid %	<i>f</i>	Valid %
Drink when in bad mood	121	23.6**	50	49.5**	171	27.9
Alcohol use depresses me	48	9.4*	17	16.8*	65	10.6
Accident after alcohol use	39	7.6**	21	20.8**	60	9.8
Strong need for alcohol	36	7.0**	15	14.9**	51	8.3
Work problems	31	6.0*	12	11.9*	43	7.0
Family problems	12	2.3**	16	15.8**	28	4.6
Study/school problems	6	1.2**	11	10.9**	17	2.8
Drink alone or first thing	10	1.9	5	5.0	15	2.4

* $p < .05$; ** $p < .01$

DISCUSSION

The major finding of this study is that almost one third (31.8%) of the training conscripts are found to be problematic alcohol drinkers according to adolescent standards. According to the demographic characteristics of our sample, these standards seem to be the most appropriate to use as 80% of the subjects are younger than 25, mean age of the sample is 22 years, and 97% of the participants are unmarried. However, when the adult criterion is used, which is generally stricter and applies to samples of older age (Madianos et al., 1994), about one in ten subjects (8.9%) still scores positively in problematic alcohol drinking. The above high percentages are in accordance with the results of other studies among young people in Greece (Hyphantis, Koutras, Liakos, & Marselos, 1991) and they allow us to make a safe claim that there exists a problem of alcohol use among training conscripts of the Hellenic Navy.

The high level of problematic drinking is impossible to be due to conditions within the Navy as the testing of the conscripts was done during the very beginning of their service, i.e. second and third week. However, the oncoming enlistment in the Armed Forces can be perceived by the conscript as a stressful event. Stressful events are known to be related to increased alcohol consumption (Allan & Cooke, 1985; Finney & Moos, 1984; Wilsnack, Klassen, & Wilsnack, 1986). This may explain the high scores in the frequency/quantity questionnaires found in the sample. However, high scores in the psychosocial complications measure do not coincide with the presence of a circumstantial increase in alcohol consumption.

Since training conscripts are a representative sample of the healthy young males in Greece (as described in the Method section) the present results can safely be generalized to the above mentioned population. Thus the findings support the recent view that problematic alcohol use in Greece is high (PGD, 1992).

A very serious finding is that 16% of the participants are shown to be positive in hidden alcoholism. Even if we consider that about 10% of the subjects give false positive answers in the Cage test (Ewing & Rouse, 1970; Mayfield et al., 1974;

Athanasaki-Tsouroula et al., 1989), this result is very worrying since it can be compared to results of hospital inpatient samples of older age (Mikirdisian & Moussas, 1995; Moussas et al., 1989). Moreover, it seems that the results of the Cage test represent a real problem in our sample since scores in that test significantly correlate with report of psychosocial complications, such as accidents after alcohol use, work and family problems due to alcohol use, etc. (see Table 4).

On the whole, the results support the view that alcohol use and abuse has risen to a major health problem in Greece (Kokkevi & Stefanis, 1994; Madianos et al., 1994). They also show that the Hellenic Navy is not immune to health problems of the community; and thus stress the need for the existence of structures in the Hellenic Navy that can investigate the extent and nature of such problems and produce educated proposals for their solution and prevention.

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