Research Paper

Alcohol and drug use in a sample of Brazilian Army soldiers

DOI: http://doi.org/10.15446/av.enferm.v40n3.101457

1 Suellen Cristina da Silva Chaves
2 Maria do Perpétuo Socorro de Sousa Nóbrega
3 Divane de Vargas

Abstract

Objective: To identify the pattern of use of alcohol and other drugs and its related sociodemographic variables in a sample of Brazilian Army soldiers.

Materials and method: Cross-sectional study conducted with 229 soldiers from an infantry battalion at the Brazilian Army. Data were collected in 2019 with the application of a sociodemographic and employment instrument, the Alcohol Smoking and Substance Involvement Screening Test (ASSIST), and the Pearson correlation test.

Results: The prevalence of alcohol use was present in more than half of the studied sample, followed by tobacco and cannabis sativa. Regarding the pattern of use, alcohol (22.2%), tobacco (31%), and cannabis sativa (9.7%) reported significant results. The sociodemographic variables of the individuals in the sample, their educational level (years of schooling), and economic-related issues were the main variables associated to alcohol and drug use.

Conclusions: The consumption of alcohol and other drugs by the military is lower than that identified for the general population in the Brazilian territory. The use of psychoactive substances in the military context is often part of an attempt to deal with stress. Therefore, it is necessary to implement strategies aimed at preventing alcohol and drug use and promoting mental health among this population.

Descriptors: Military Personnel; Alcohol Drinking; Drug Users; Mental Health; Disorders Related to Substance Use (font: DeCS, BIREME).

1 Universidade de São Paulo (São Paulo, São Paulo, Brazil).
ORCID: https://orcid.org/0000-0003-3234-9752
E-mail: suellenchaves29@gmail.com
Contribution: data collection, analysis and interpretation of data, writing of the article, and formatting.

2 Universidade de São Paulo (São Paulo, São Paulo, Brazil).
ORCID: https://orcid.org/0000-0002-4974-0611
E-mail: perpetua.nobrega@usp.br
Contribution: review, writing of the article, and discussion.

3 Universidade de São Paulo (São Paulo, São Paulo, Brazil).
ORCID: https://orcid.org/0000-0003-3140-8394
E-mail: vargas@usp.br
Contribution: review, writing of the article, and translation.

How to cite: Chaves SCS; Nóbrega MPSS; Vargas D. Alcohol and drug use in a sample of Brazilian Army soldiers. Av Enferm. 2022;40(3):408-420. http://doi.org/10.15446/av.enferm.v40n3.101457

Received: 03/03/2022
Accepted: 14/08/2022
Published: 24/08/2022

ISSN (impreso): 0121-4500
ISSN (en línea): 2346-0261

Consumo de alcohol y otras drogas en una muestra de soldados del Ejército Brasileño

Resumen

Objetivo: identificar el patrón de consumo de alcohol y otras drogas, y sus variables sociodemográficas relacionadas, dentro de una muestra de soldados del Ejército Brasileño.

Materiales y método: estudio transversal realizado con 229 soldados de un batallón de infantería. Los datos fueron recolectados en 2019 mediante la aplicación de un instrumento sociodemográfico y laboral, el Alcohol Smoking and Substance Involvement Screening Test (ASSIST) y el test de correlación de Pearson.

Resultados: la prevalencia del consumo de alcohol estuvo presente en más de la mitad de la muestra estudiada, seguido del consumo de tabaco y de cannabis sativa. En cuanto al patrón de consumo, destacan el alcohol (22,2%), el tabaco (31%) y el cannabis sativa (9,7%). Las variables sociodemográficas de los individuos de la muestra, su nivel de educación (años de estudio) y determinados aspectos económicos fueron las principales variables asociadas al uso de alcohol y otras drogas.

Conclusiones: el consumo de alcohol y otras drogas por parte de militares es menor que el reportado para la población general en Brasil. El uso de sustancias psicoactivas en el contexto de la milicia es generalmente un mecanismo para lidiar con el estrés. Por lo tanto, es necesario implementar estrategias para prevenir el uso de alcohol y otras drogas, así como promover la salud mental en esta población.

Descriptores: Personal Militar; Consumo de Bebidas Alcohólicas; Consumidores de Drogas; Salud Mental; Trastornos por Uso de Sustancias (fuente: DeCS, BIREME).

Consumo de álcool e outras drogas em uma amostra de militares do Exército brasileiro

Resumo

Objetivo: identificar o padrão de consumo de álcool e outras drogas e as variáveis sociodemográficas relacionadas em uma amostra de militares do Exército brasileiro.

Materiais e método: estudo transversal realizado com 229 militares de um batalhão de infantaria. Os dados foram coletados em 2019 com a aplicação de um instrumento sociodemográfico e laboral, o Alcohol Smoking and Substance Involment Screening Test (ASSIST) e o teste de correlação de Pearson.

Resultado: a prevalência do uso de álcool mostrou-se presente em mais da metade da amostra estudada, seguido do tabaco e do uso de *cannabis sativa*. Com relação ao padrão do uso, foi significativo para as substâncias álcool (22,2%), tabaco (31%) e *cannabis sativa* (9,7%). As variáveis sociodemográficas, o nível educacional (anos de

estudos) e as questões econômicas foram as que apresentaram maior relação com o uso de álcool e outras drogas.

Conclusões: o consumo de álcool e outras drogas por militares é menor do que o encontrado na população geral em território brasileiro. O uso de substâncias psicoativas no contexto militar, por vezes, faz parte da tentativa de lidar com o estresse vivenciado. Assim, faz-se implementar estratégias de prevenção do uso de álcool e outras drogas, bem como promover a saúde mental dessa população.

Descritores: Militares; Consumo de Bebidas Alcoólicas; Usuários de Drogas; Saúde Mental; Transtornos Relacionados ao Uso de Substâncias (fonte: DeCS, BIREME).

Introduction

In Brazil, the Armed Forces (AF) are permanent national institutions, traditionally conservative, under the authority of the Ministry of Defense, consisting of the Navy, Army, and Air Force. The AF are intended to defend the homeland and guarantee the constituted powers, law, and order (1). The military is responsible for protecting the national territory against transnational threats such as terrorism and criminality. They have profound knowledge in surveillance, inspection, and special operations. In terms of health, the military provides psychological support and medical transport to the national territory and abroad, if necessary (2).

For the International Labor Organization (ILO), certain working conditions can promote or increase psychoactive substances consumption among the military population (3). It is inferred that these substances are used as a blowoff valve from the harsh routine and psychological tension, working in remote locations, commuting far from home, handling equipment, workloads, and unsatisfactory communications, situations that can lead to the breakdown of social and working life, as well as the emergence of harmful cognitive and organic effects (3).

The rigors imposed on discipline, respect for hierarchy and physical conditioning are the AF's institutional bases, guiding individual and collective conducts within the organization and acting as a principle of social division of task, roles/status, and command and obedience relation structures (2, 4). These requirements appear as main stressors and triggers of health problems for the military and can become predictive for the consumption of psychoactive substances (PSAS) (5). In a global scenario, the consumption of illicit drugs (all natural or artificial chemical substances or chemical compounds with a psychoactive effect that are prohibited by law) by the military is strictly prohibited, liable to be classified as a military crime, being subject to disciplinary measures, including restriction of freedom (6). Alcohol consumption is tolerated in the military —but not drunkenness—, although never within the context of national and international missions (7).

The largest contingent of the Brazilian Army (BA) is composed of a variable effective force, largely made up of young male soldiers with relatively low levels of education. According to a study, these characteristics are crucial to establish the risk profile for substance consumption (7). Therefore, studying the prevalence of consumption, identifying the substance being used, and knowing the pattern and variables associated with consumption will allow the implementation of preventive and protective actions against alcohol and drug consumption in this population and this work organization. With that in mind, the direction and deployment of health actions will become effective, thanks to a global understanding of the phenomena and not only of the biological aspects

of human health, but also of the psychological and social aspects (5). Nursing is present in the military scenario and, therefore, could outline actions and strategies for individual and contextual interventions such as the implementation of measures to promote mental health, prevent the abusive/harmful use of psychoactive substances, and contribute to the discussions on the work process by the military and its related illness factors and problems (8).

Given this scenario, this research aims to identify the pattern of consumption of alcohol and other drugs and the related sociodemographic and clinical variables to said pattern in a sample of BA soldiers.

Materials and method

This is a cross-sectional study conducted in a mechanized infantry battalion —a federal organization under a military regime— located in the state of Paraná, Brazil. Military personnel over 18 years old were included, using convenience sampling for their selection. The individuals who were on a mission outside the organization for a prolonged period (more than 30 days) and those who had a medical certificate/license and/or other type of license at the time of data collection were excluded.

Military personnel were invited to participate in the study during routine activities taking place in the battalion auditorium. During the data collection period, the organization had 533 active-duty military personnel, of which approximately 25% were on mission, vacation, or medical leave. Given the statistical dimension of 228 military personnel, the final survey sample was comprised of 229 individuals. Data collection was carried out in a two-day period in July 2019, with 75% of the active military who were in the organization, divided by graduation. On the first day, 28 corporals and 165 soldiers participated. On the second, 21 sergeants and 15 officers.

To establish a consumption pattern, we applied the Alcohol Smoking and Substance Involvement Screening Test (ASSIST) (9), a tool developed with the support of the World Health Organization (WHO) designed to screen the pattern of consumption of psychoactive substances and related problems. The ASSIST contains eight questions about the use of nine classes of psychoactive substances (hallucinogens, tobacco, stimulants, marijuana, cocaine, sedatives, inhalants, alcohol, and opiates). The questions address consumption frequency (currently and in the last three months), the problems related to usage, concerns about the use by people close to users, impairment in the execution of expected tasks, unsuccessful attempts to cease or reduce consumption, failed attempts to stop or reduce use, and compulsion to consumption and injectable use (9).

Response levels range from occasional consumption to abuse and dependence. Answer scores range from 0 to 39 points, where 0 to 3 is considered occasional consumption (or low risk), 4 to 26 is indicative of abuse, and 27 or higher is suggestive of dependence. As for alcohol consumption, scores range from 0 to 10 as indicative of occasional consumption (or low risk), 11 to 26 as a predictor of abuse, and 27 or more as indicative of dependence (9).

For sociodemographic and labor categorization we applied a questionnaire that included variables such as age, sex, years of schooling, professional status, length of service, participation in regional, national or international missions, consumption of controlled drugs, and family income.

The Statistical Package for Social Sciences (SPSS), version 24, was used for data analysis. Association tests involved the use of Pearson's and Kendall's rank correlation and product-moment correlation (cor) analysis. This analysis and/or coefficient (normally represented by ρ) has only values between -1 and 1,

where cor = 1 represents a perfect positive correlation between the two or more variables (this means that when one increases the other also increases); cor = -1 stands for a perfect negative correlation between the variables, *i.e.*, if one increases, the other always decreases (they are inversely proportional); and cor = 0 represents that the variables do not linearly depend on each other (10). For the level of significance, a $p = 0.05$ was used.

To ensure the confidentiality of responses, all collection instruments and the free and informed consent form were given to each participant individually. They were instructed not to interact with each other and to deposit the completed questionnaires and the signed term separately in a set of urns strategically placed at the location. The research was approved by the Institutional Review Board, under the number 3.389.563. All participants signed an informed consent form before answering the questionnaire.

Results

Sociodemographic data

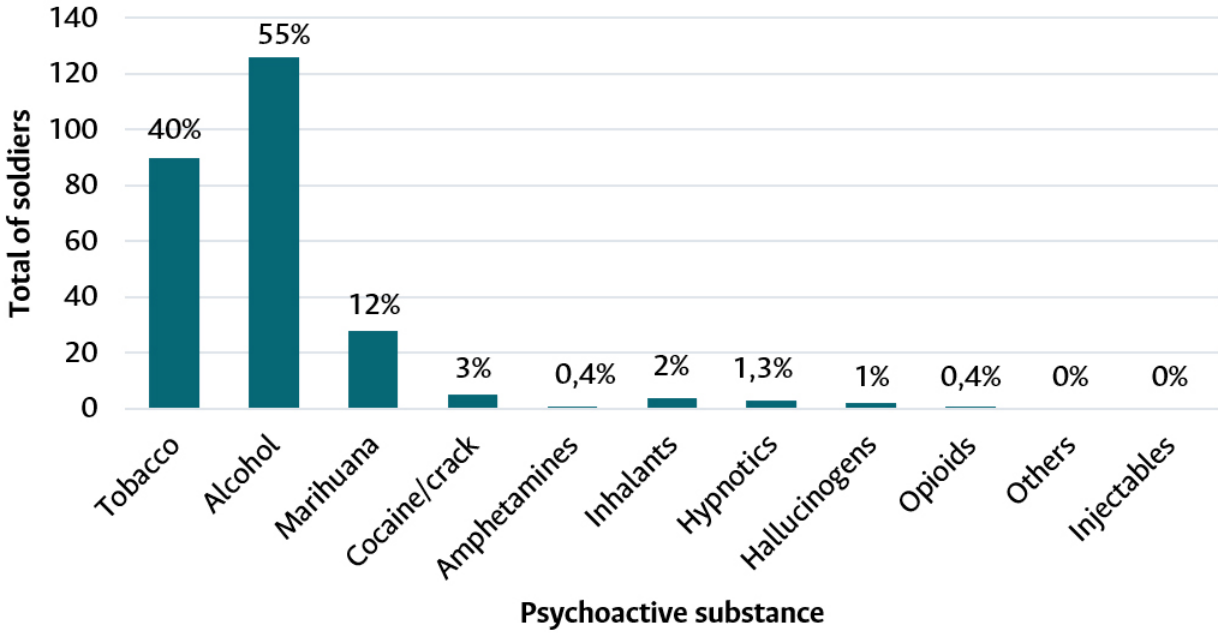
The total number of soldiers who were present on the day of data collection was 391. Of these, 229 agreed to participate in the survey, whose distribution according to military rank was the following: 165 (72.05%) soldiers, 28 (12.23%) corporals, 21 (9.17%) sergeants, and 15 (6.55%) officers. Among these individuals, 220 (96.07%) were male and 9 (3.93%) female. Regarding age, there was a predominance of young participants (76.85%), with a minimum age of 18, a maximum of 50 years, and a mean age of 21. As for sexual orientation, 3 participants identified themselves as bisexual (1.31%), 15 as homosexual (6.55%), and 211 as heterosexual (92.14%).

In terms of education, 190 soldiers (82.97%) completed high school, 9 (3.93%) vocational training, and 30 (13.10%) higher education. For the economic class item, according to the Brazilian Institute of Geography and Statistics (11), 1.75% of the participants belong to class B, 13.54% to class C, 16.59% to class D, and the majority (68.12%) was placed in economy class E. The length of service of these military ranged from 6 months to 30 years.

Consumption of psychoactive substance

Our results show that alcohol was used by more than half of the individuals in the sample, with 126 (55.02%) soldiers, followed by tobacco consumption (90; 39.30%), and cannabis sativa (28; 12%). The consumption of other substances ranged from 0.4 to 3% (Figure 1).

Figure 1. Distribution of psychoactive substance use in the Infantry Battalion, Brazil, 2019

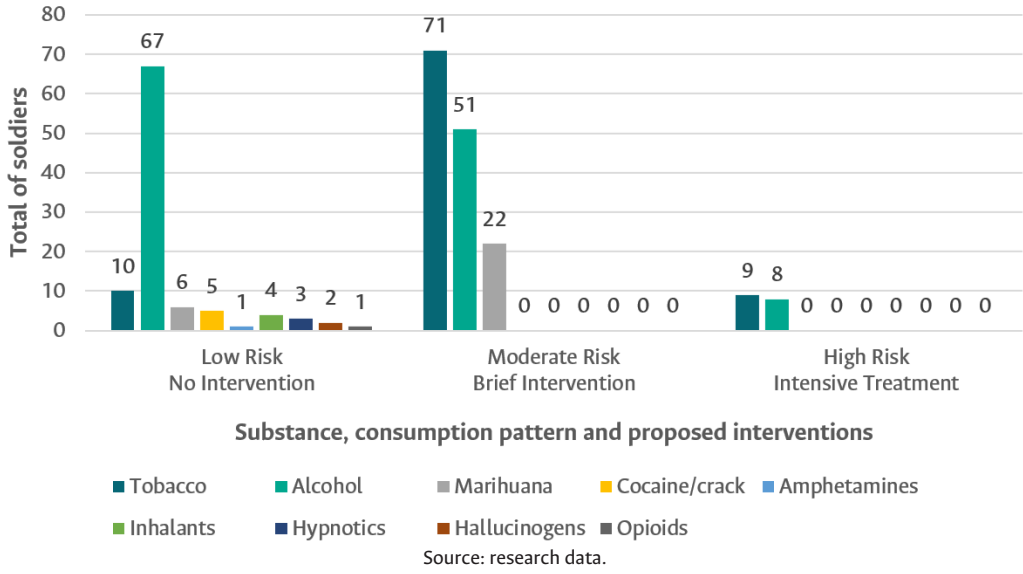


Source: research data.

Psychoactive substance abuse and dependence

Alcohol abuse was detected in 51 (22.2%) AF members. According to ASSIST, these individuals require brief intervention (BI). The pattern of dependence was detected in 8 (3.4%) soldiers, thus being an indication of the need for specialized treatment. As for tobacco use, 71 (31%) of the military report an abusive use and 9 (3.9%) are addicted and require specialized treatment. Regarding the use of cannabis sativa, 22 (9.7%) of the participants required BI due to its abusive use, and none of them were dependent on this substance (Figure 2).

Figure 2. Pattern of use and dependence and interventions suggested by the Alcohol Smoking and Substance Involvement Screening Test, Brazil, 2019



Source: research data.

Relationship between the use of psychoactive substances and sociodemographic characteristics

The study findings show a significant and positive relationship for hypnotics vs. length of service. This means that as length of service increases, so does the consumption of hypnotic substances (Table 1). The use of inhalants is also significant when examining the relation between age and length of service.

Table 1. Relationship between the use of psychoactive substances and sociodemographic and labor variables, Brazil, 2019 (N=229)

Substance	Sociodemographic variable	cor	95% ci.lo	95% ci.hi	*p* value
ASSIST Tobacco	Age	-0.106	-0.232	0.024	0.110
	Children	-0.026	-0.155	0.104	0.700
	Training	-0.043	-0.172	0.087	0.518
	Length of service	-0.047	-0.176	0.083	0.477
	Missions	-0.081	-0.208	0.049	0.224
	Education	-0.084	-0.211	0.046	0.158
	Economic class	0.045	-0.085	0.174	0.436
ASSIST Alcohol	Age	0.020	-0.110	0.150	0.760
	Children	0.079	-0.051	0.206	0.235
	Training	-0.063	-0.191	0.067	0.345
	Length of service	0.018	-0.111	0.148	0.781
	Missions	0.034	-0.096	0.163	0.604
	Education	0.076	-0.054	0.204	0.189
	Economic class	-0.111	-0.237	0.019	0.049

Substance	Sociodemographic variable	cor	95% CI.lo	95% CI.hi	*p* value
ASSIST Marijuana	Age	-0.084	-0.212	0.046	0.203
	Children	-0.066	-0.194	0.064	0.319
	Training	-0.098	-0.225	0.032	0.139
	Length of service	-0.092	-0.219	0.038	0.167
	Missions	-0.055	-0.183	0.075	0.410
	Education	-0.051	-0.179	0.079	0.426
	Economic class	0.019	-0.111	0.148	0.765
ASSIST Crack cocaine	Age	-0.024	-0.153	0.106	0.716
	Children	-0.028	-0.157	0.102	0.669
	Training	-0.063	-0.191	0.067	0.344
	Length of service	-0.028	-0.157	0.102	0.670
	Missions	-0.031	-0.160	0.099	0.636
	Education	-0.029	-0.159	0.101	0.652
	Economic class	0.043	-0.087	0.171	0.502
ASSIST Amphetamine	Age	0.122	-0.008	0.248	0.065
	Children	0.049	-0.081	0.178	0.458
	Training	0.014	-0.116	0.144	0.831
	Length of service	0.089	-0.041	0.216	0.181
	Missions	0.060	-0.070	0.188	0.367
	Education	-0.211	-0.083	0.331	**0.001**
	Economic class	-0.202	-0.323	-0.074	**0.001**
ASSIST Inhalants	Age	0.163	0.034	0.287	0.013
	Children	0.096	-0.034	0.223	0.149
	Training	-0.086	-0.213	0.045	0.197
	Length of service	0.134	0.005	0.259	0.043
	Missions	0.113	-0.017	0.239	0.087
	Education	-0.262	-0.137	0.378	< **0.001**
	Economic class	-0.193	-0.315	-0.065	**0.002**
ASSIST Hypnotic/sedative	Age	0.122	-0.008	0.248	0.066
	Children	0.163	0.034	0.286	0.014
	Training	-0.133	-0.258	-0.004	0.044
	Length of service	0.136	0.006	0.261	0.040
	Missions	0.119	-0.011	0.245	0.072
	Education	0.261	0.136	0.378	< **0.001**
	Economic class	-0.193	-0.315	-0.065	**0.002**
ASSIST Hallucinogens	Age	0.002	-0.128	0.131	0.982
	Children	-0.040	-0.169	0.090	0.544
	Training	0.015	-0.115	0.145	0.818
	Length of service	-0.028	-0.157	0.102	0.669
	Missions	-0.020	-0.150	0.110	0.759
	Education	0.086	-0.044	0.213	0.189
	Economic class	-0.048	-0.177	0.082	0.446

Source: research data (p = 0.05).

Discussion

This study identified the pattern of abuse and dependence on PSAS (alcohol and tobacco) in the military. Many studies point to the work environment as a predictor of consumption, because work's impact on mental health varies with the situation, capable of strengthening or weakening it and generating individual and collective disturbances (2-12). However, our findings contradict this statement, as there was no direct relationship between PSAS consumption and specific variables to military work; for example, missions. It is plausible to assume that as this study was composed mostly by young people recently incorporated into the Army ranks, who were in the process of adapting to military life, economic and educational issues stood out. For many young people, unless it is mandatory, serving in the Army can be a form of economic gain and prospect for better living conditions in Brazil. Therefore, it is essential to keep a follow-up of this phenomenon since the time, physical/mental effort, dedication, and devotion towards military life are impossible to be described, because the description would not correspond to the true expression of reality.

Authors point that PSAS use may not be directly linked to the suffering generated by work, as part of this behavior comes from individuals' personality structures (8, 9, 13). In this sense, the influence of the workplace in the process of illness and suffering of individuals will be presented by the most diverse facets. However, alcohol consumption, for example, can be used as a defense strategy against suffering at work. A study conducted on the profile of patients who attended psychiatric clinics and psychiatric hospitals revealed that mental disorders related to drug use are commonly detected in some professional categories, such as transport/driver, military police/police, construction workers, and mechanics (14). From this insights, it is possible to infer that illness has a causal connection with work. Furthermore, numerous studies point to the existence of a relationship between illness and certain forms of organization and certain working conditions (15, 16).

In the present study, the use of alcohol (55%) was similar to that found in a national survey conducted with 78 young people who had recently joined the army (53.8%), but lower than that found in (91.5%) and French (56%) military personnel and in surveys with the general Brazilian population (60.8%) (17-22). Although the reality and circumstances of the work process between countries and military corporations are different, it is inferred that the routine and demands in this environment impact PSAS use.

Being young, male, and having lower education attainment are risk factors for alcohol abuse (21). However, a study carried out with 990 French soldiers showed that, in addition to consumption being common in single men, aged between 18 and 25 (61% of the sample), the length of service is another relevant impact factor, since 37% of those who reported drinking up to 6 times a week had been in the military for more than 10 years (20).

A study points out that the search for alcohol can also be used as a collective relaxation strategy to better deal with emotions and conflicts, since alcohol has a gregarious and socializing characteristic (13). Furthermore, the influence of the social network on individuals' lives and behavior is conceived from a system of socially constituted individual schemes. According to the WHO, "of structured (in the social) and structuring (in the minds) dispositions, acquired in and through practical experiences (in conditions specific social existence) and constantly oriented towards the functions and actions of everyday action" (23, p. 20). In this sense, place and work processes can lead to alcohol consumption due to structural factors (19, 24).

Finally, reflections on cases of alcoholism in a military career indicate that in the military environment there is a fear of talking about the subject, as alcoholism (dependency) is considered a shameful act that can be interpreted as a moral decay, whether public or private (24). Thus, the fear of looking for help could be a result from the fear of suffering penalties, leading to a progressive depression of subjectivity that affects mental and physical health.

When the use of psychoactive substances occurs in an abusive and repetitive way, without control of consumption, dependence is installed. According to the International Classification of Diseases, chemical dependence is characterized by the presence of several behavioral and physiological symptoms that indicate that an individual will continue using a substance, despite the serious problems related to this habit (12). However, it is essential that healthcare providers working within the military context and their uniformed companions have a holistic look at the military who abuse alcohol. The late search for treatment, especially when workers are afraid of penalties or judgments, and the difficulty to access adequate treatment can lead to chronicity.

Added to the above, 39% of the military in the sample claimed to consume tobacco. This result is close to the findings with U.S. military personnel (40.7%), being higher than that found in Saudi Armed Forces soldiers (35%), and lower than among French soldiers (54.1%) (6, 18). However, all surveys showed a similar age group (between 18 and 34 years) and low education level as common traits. Data from the United States Department of Defense corroborate these findings, showing that 49.2% of all military personnel use some type of tobacco or nicotine, a rate considerably higher than among civilians (21%) (7).

This overview is worrisome since smoking is responsible for a high percentage of mortality annually in the world, but, according to the WHO, these are preventable mortalities. Considering that smoking is recognized as an etiological factor for numerous diseases, such as cancer, chronic obstructive pulmonary disease, coronary heart disease, arterial hypertension and stroke, this scenario adds a heavy burden for public expenditure and claims young people's lives. It is estimated that every day nearly 100.000 children become regular smokers around the world, about 90% of smokers start this behavior by the age of 19, and 50% of those who have tried a cigarette become smokers during adulthood (20, 23, 24).

Another issue related to the smoking habit is participation in social groups. Friends' influence is increasingly evident in research with young people, as shown, for example, by the fact that knowing or having friends who smoke increases the chance of starting smoking by five times (22). However, even though the damage caused to health by smoking is known and widely publicized, its control is still considered one of the greatest challenges for public health worldwide.

It is also noteworthy that 12% of the military use cannabis and 9.7% are in the pattern of abusive use, being most of these individuals in the age range of 18 to 24 years. A study with French military personnel with a similar percentage sample of individuals and ranks to those in this study, showed that the use of cannabis reached 52.6% for experimental use, 12.3% for occasional consumption, and 8.2% for regular use (15). Also, according to the literature, people in this age group (18-24 years) does not fully perceive the health risk arising from the use of this substance (18). Therefore, prioritizing actions of comprehensive health promotion that consider the physical, emotional and behavioral aspects of young people, and not just addressing the issue of PSAS consumption only based on the rules of military administration, becomes essential.

Another notorious fact in the results of this research is related to the consumption of hypnotics, amphetamines and opioids in the highest military ranks (sergeants and officers over 25 years). Although uncommon in the military, and not being significant in the present study, the positive relationship between the use of these substances and education and economic class shows a need for attention (24). Brazil is the country in South America and in the world with the highest rate of abuse of these substances, with young male individuals as the main consumers (18, 19).

Considering that the prevalence of the use of hypnotics, amphetamines and opioids was higher in the upper ranks, there is a perception that the requirements and responsibilities in these positions place individuals at higher risk for abuse and dependence on PSAS (25). When the length of service and labor demands rise, the capacity for confrontation, responsibility for subordinates, sections and missions also increases.

It is also important to consider the aging process, chronic diseases, the search for treatment and the strict routine of physical activity that, when associated, can trigger painful processes and lead soldiers to the consumption, prescription or self-medication of these substances (20). Thus, attention must be given to the work process, through occupational surveillance actions, in order to resolve the physical and mental illness of these military.

The use of inhalants is more prevalent in the young population, those with low education levels and socially exposed, a reality also found in the present study, since there was a negative relationship between the use of inhalants, education and being a soldier (young). In Brazil, serving the AF is mandatory. However, the reality has shown that young military personnel who have just entered a military career come mostly from a lower social class, generally associated with lower education levels and greater social vulnerability (20, 24). Consequently, entering the military career can be an opportunity for some of them to build a better future, which is why protection, promotion and prevention of health risks for first-year military personnel should be considered.

Another finding of this study that deserves attention is the possibility that a large number of military personnel of all age groups and ranks may need BI due to the abusive use of alcohol, tobacco and cannabis sativa —a reality that can affect them in their daily activities. A psychosocial approach allows us to reverse this reality and generate behavioral changes (21). Likewise, education is important for health and prevention of risky behavior since the use of PSAS can serve as a coping strategy for coping with stressful situations at work (23).

In this context, and within the scope of the Brazilian Army Command, in 2016, the Regulatory Instructions for the Chemical Dependence Prevention Program were approved by Ordinance 183, which instructs, in Article 3, item I: "to make the military public aware of the damages caused by misuse and/or abuse and dependence on legal and illegal psychoactive substances as well as their consequences" (22, p. 7). To meet this ordinance, lectures on the prevention of problematic use of alcohol/drugs, training and qualifications on care protocols and referrals for potential cases are carried out by the Social Service, Psychology and Support Assistants from military organizations, on a monthly basis. Associated with these actions, medical and nursing consultations, health education through reports, leaflets on the subject, and self-assessment scales based on validated scales on PSAS use/dependence can be placed in the military work environment as a mechanism to improve the access and practices in the assistance offered.

The importance allocated to personal history should not be disregarded in the analysis of the pathogenic character of work, as mental health and work are integrated into a psychological context. The report on PSAS use by workers (first use and reasons for using it) helps to understand and treat this condition more assertively. In that sense, our findings are relevant to feed the Army's local and federal health information system. The implementation of health actions, of multi or interdisciplinary nature, based on evidence, makes the care resolutive, humanized, inclusive and with quality, as it favors breaking a health care approach focused on the dependence and helps to understand the subject-professional activity relationship and the impacts of such relationship on their psychological health and PSAS use.

The limitations of the study lie in the fact that the research design was transversal, carried out with a non-random sample of soldiers, and conducted in a specific battalion, making it impossible to generalize the results to other battalions of the Brazilian Army. Despite this, our results have the potential to foster discussions around the issue and promote the creation of internal policies in the field of mental health and PSAS use.

Conclusion

The investigation of the pattern of alcohol and other drugs use in the military environment proposed in this study pointed to alcohol and tobacco as the most widely consumed substances, where other associated factors —such as socioeconomic and psychological variables, precariousness, working conditions, and cultural factors— also have a role to play.

Elaborating and implementing individual and collective strategies to help AF members deal with military life's work is necessary to prevent or interrupt the use, abuse and dependence of alcohol and other drugs, in addition to promoting mental health. Therefore, further research must be conducted so that discussions on this topic are part of improvement processes in the workplace, considering the practices that influence PSAS consumption at work. With that in mind, it is important to disseminate knowledge about the consumption-dependence process within work organizations in order to make professionals the protagonists in the identification of problems and risks, and also make them responsible for the transformation of this context.

Data availability statement

The authors confirm that the data supporting the findings presented in this study are available within the article and/or its supplementary materials.

Financial support

This study did not receive any financial support.

Conflict of interest

The authors declare that there is no conflict of interest.

References

(1) Brazil. Presidência da República. Lei nº 6.880 de 9 de dezembro de 1980. Estatuto dos Militares. 1980. http://www.planalto.gov.br/ccivil_03/leis/l6880.htm

(2) Carvalho FC; Gomes AMS; Motta DP; Afonso VM; Senna GPS; Tarlé GSB. Homens a serviço da pátria: fatores de risco para o uso de drogas por soldados em cumprimento do serviço militar obrigatório. Enf. Brasil. 2018;17(4):354-360. https://doi.org/10.33233/eb.v17i4.1226

(3) Umann J; Silva RM; Kimura CA; Lopes VC; Guilhem DB. Validation of the work limitations questionnaire in Brazilian Army military personnel. Invest. Educ. Enferm. 2018;36(3):e06. https://doi.org/10.17533/udea.iee.v36n3e06

(4) Derefinko KJ; Hallsell TA; Isaacs MB; Salgado Garcia FI; Colvin LW; Bursac Z *et al*. Substance use and psychological distress before and after the military to civilian transition. Mil Med. 2018;183(5-6):258-265. https://doi.org/10.1093/milmed/usx082

(5) Ferrari AL; Caldas CP; Spindola T; Santos RS; Santos MLSC. Transtorno relacionado ao uso de substâncias psicoativas: transições na vida de militares em tratamento. Rev Enferm UERJ. 2021;29:e59088. http://doi.org/10.12957/reuerj.2021.59088

(6) Organización de los Estados Americanos (OEA). El problema de las drogas en las Américas. Washington D. C.: OEA; 2013. https://bit.ly/3onwwDb

(7) Calado VG. Consumo de álcool e alcoolismo durante a Guerra Colonial Portuguesa. Uma perspectiva antropológica. Configurações. 2021;27:5-21. https://doi.org/10.4000/configuracoes.11733

(8) Chaves SCS; Nóbrega MPSS; Fogaça N. Satisfação no trabalho e a relação com o transtorno mental comum em uma amostra de militares do exército brasileiro. Res Soc Dev. 2022;11(8):e46511831126. http://doi.org/10.33448/rsd-v11i8.31126

(9) Zanetti ACG; Cumsille F; Mann R. The association between the use of alcohol, marijuana and cocaine and the sociodemographic characteristics of university students of Ribeirão Preto, Brazil. Texto & Contexto Enferm. 2019;28(Spe):e110. https://doi.org/10.1590/1980-265X-TCE-CICAD-1-10

(10) Miot HA. Correlation analysis in clinical and experimental studies. J Vasc Bras. 2018;17(4):275-279. https://doi.org/10.1590/1677-5449.174118

(11) Brasil. Instituto Brasileiro de Geografia e Estatística. Censo Demográfico, 2010. Brasilia: Instituto Brasileiro de Geografia e Estatística. 2010. https://bit.ly/3dbRw8w

(12) Alavi SS; Ferdosi M; Jannatifard F; Eslami M; Alaghemandan H; Setare M. Behavioral addiction versus substance addiction: Correspondence of psychiatric and psychological views. Int J Prev Med. 2012;3(4):290-294. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3354400/

(13) Martins LCX; Kuhn L. Prevalência de transtornos mentais comuns em jovens brasileiros recém-incorporados ao Serviço Militar Obrigatório e fatores associados. Cienc. Saúde Coletiva. 2013;18(6):1809-1816. https://doi.org/10.1590/S1413-81232013000600031

(14) Fuehrlein BS; Mota N; Arias AJ; Trevisan LA; Kachadourian LK; Krystal JH *et al*. The burden of alcohol use disorders in US military veterans: Results from the National Health and Resilience in Veterans Study. Addiction. 2016;111(10):1786-1794. https://doi.org/10.1111/add.13423

(15) Rigod V; Pilard M; Paul F; Deparis X; Marimoutou C. Alcohol and cannabis consumption in the French Army: determination of consumer profiles to focus on prevention and care. Mil. Med. 2011;176(7):805-810. https://doi.org/10.7205/MILMED-D-10-00336

(16) Fundação Oswaldo Cruz (Fiocruz). Instituto de Comunicação e Informação Científica e Tecnológica em Saúde (ICICT). III Levantamento Nacional sobre o uso de drogas pela população brasileira. Rio de Janeiro: FIOCRUZ/ICICT; 2017. https://www.arca.fiocruz.br/handle/icict/34614

(17) Merchán-Hamann E; Leal EM; Musso LB; Estrada MG; Reid P; Kulakova OV *et al*. Comorbilidad entre abuso/dependencia de drogas y el distrés psicológico en siete países de Latinoamérica y uno del Caribe. Texto contexto enferm. 2012;21(Spe):87-95. https://doi.org/10.1590/S0104-07072012000500012

(18) Félix Junior IJ; Schlindwein VLDC; Calheiros PRV. A relação entre o uso de drogas e o trabalho: uma revisão de literatura PSI. Estud. Pesqui. Psicol. 2016;16(1):104-122. https://bit.ly/3S2p9ss

(19) Al-Khashan HI; Sabaan FS; Al-Nasser HS; Al-Buraid AA; Al-Awad AD; Horaib GB *et al*. The prevalence of smoking and its associated factors among military personnel in Kingdom of Saudi Arabia: A national study. J Family Community Med. 2014;21(3):147-153. https://pubmed.ncbi.nlm.nih.gov/25374464/

(20) World Health Organization (WHO). WHO guide to identifying the economic consequences of disease and injury. Geneva: WHO; 2009. https://apps.who.int/iris/handle/10665/137037

(21) World Health Organization (WHO). WHO alcohol brief intervention training manual for primary care. Copenhagen: WHO; 2017. https://apps.who.int/iris/handle/10665/346078

(22) Brazil. Ministério da Defesa. Portaria N. 183 - DGP, de 12 de setembro de 2016. https://bit.ly/3DikXR7

(23) United Nations Office on Drugs and Crime (UNODC). World Drug Report. Vienna: UNODC; 2018. https://www.unodc.org/wdr2018/

(24) Dorneles AJA; Dalmolin GL; Moreira MGS. Saúde do trabalhador Militar: uma revisão integrativa. Rev Enf Contemp. 2017;6(1):73-80. https://doi.org/10.17267/2317-3378rec.v6i1.1220

(25) Nazarov A; Fikretoglu D; Liu A; Thompson M; Zamorski MA. Greater prevalence of post-traumatic stress disorder and depression in deployed Canadian Armed Forces personnel at risk for moral injury. Acta Psychiatr Scand. 2018;137(4):342-354. https://doi.org/10.1111/acps.12866