

ALCOHOL CONSUMPTION AND SMOKING AMONG HYPERTENSIVE MEN

CONSUMO DE BEBIDA ALCOÓLICA E TABAGISMO EM HOMENS HIPERTENSOS

CONSUMO DE BEBIDAS ALCOHÓLICAS Y TABACO EN HOMBRES HIPERTENSOS

Fernanda Carneiro Mussi¹
Pollyana Pereira Portela²
Larissa Emily Santos Barretto³
Glicia Gleide Gonçalves Gama⁴
Andreia Santos Mendes⁵
Tássia Teles de Santana Macêdo⁶

How to cite this article: Mussi FC, Portela PP, Barretto LES, Gama GGG, Mendes AS, Macêdo TTS. Alcohol consumption and smoking among hypertensive men. Rev baiana enferm 2018;32:e20383.

Objective: to characterize alcohol consumption and smoking among hypertensive men. **Method:** cross-sectional study, with a convenience sample, involving interviews with 130 men. Data were analyzed in percentage, mean and standard deviation values. **Results:** mean age was 58.32 (SD=9.99). There was a predominance of married men, blacks, from low socioeconomic classes, with complete or incomplete primary education, who were active professionally. It was noted that 37.7% were passive smokers, 34.6% were former smokers and 7.7% were smokers, primarily of cigarettes. A total of 52.3% of the men consumed alcoholic beverages, 18.5% never consumed them and 29.2% had stopped drinking. A larger proportion of men consumed beer, distilled beverages and wine, with higher use on weekends (beer 32.4% versus 94.15%; distilled 13.2% versus 22% and 10.3% versus 17.6%) and excessive consumption in the case of 67.6% of the men. **Conclusion:** there was a high proportion of passive smokers and excessive alcohol consumption on weekends. A shared therapeutic proposal should be adopted to combat these risk factors in men.

Descriptors: Hypertension; Men's health; Risk factors; Alcoholism; Tobacco use disorder.

Objetivo: caracterizar o consumo de bebida alcoólica e tabagismo em homens hipertensos. *Método:* trata-se de estudo transversal, com amostra de conveniência, sendo 130 homens entrevistados. *Dados analisados em percentuais, médias e desvio padrão. Resultados:* a média de idade foi de 58,32 (dp=9,99). Predominaram casados, negros, baixa classe socioeconômica, ensino fundamental completo/incompleto, ativos profissionalmente. *Observou-se que*

¹ PhD in nursing. Associate Professor III at the School of Nursing of the Universidade Federal da Bahia. Coordinator of the Research, Extension, Creation and Innovation Support Center of the School of Nursing of the Universidade Federal da Bahia. Productivity researcher for the National Council for Scientific and Technological Development - 2012 to 2013 and 2015.

² Master's degree in nursing. Assistant professor at the Universidade Estadual de Feira de Santana. Member of the Interdisciplinary Group on Cardiovascular Health Care of the Universidade Federal da Bahia. pollyana.pportela@gmail.com

³ Nursing undergraduate student from the Universidade Federal da Bahia. Salvador, Bahia, Brazil.

⁴ PhD in nursing. Assistant professor II at the Escola Bahiana de Medicina e Saúde Pública. Nurse on the Committee for Ongoing Education in Nursing of the Professor Edgard Santos University Hospital Complex. Salvador, Bahia, Brazil.

⁵ Master's degree in nursing. Researcher from the Interdisciplinary Group on Cardiovascular Health Care. Nurse from the Professor Edgard Santos University Hospital Complex - Thoracic and Cardiovascular Surgery Unit. Member of the Committee for Ongoing Education in Nursing of the Professor Edgard Santos University Hospital Complex. Salvador, Bahia, Brazil.

⁶ Master's degree in nursing. Specialist in occupational nursing. Member of the Interdisciplinary Group on Cardiovascular Health Care at the Universidade Federal da Bahia. Assistant professor in the Nursing Course at the Escola Bahiana de Medicina e Saúde Pública. Salvador, Bahia, Brazil.

37,7% eram fumantes passivos, 34,6% ex-tabagistas e 7,7% fumavam, predominando o uso de cigarro. Consumiam bebida alcoólica 52,3% dos homens, os demais nunca consumiram (18,5%) ou haviam parado (29,2%). Maior proporção consumia cerveja, bebidas destiladas e vinho, sendo o uso maior no final de semana (cerveja 32,4% vs 94,15; destilada 13,2% vs 22,0% e vinho 10,3% vs 17,6%) e excessivo para 67,6% dos homens. Conclusão: houve proporção elevada de fumantes passivos e consumo excessivo de álcool no final de semana. Uma proposta terapêutica compartilhada deve combater esses fatores de risco junto aos homens.

Descritores: Hipertensão. Saúde do homem. Fatores de risco. Abuso de álcool. Tabagismo.

Objetivo: caracterizar el consumo de bebidas alcohólicas y tabaquismo en hombres hipertensos. *Método:* estudio transversal, con muestra de conveniencia, siendo 130 hombres entrevistados. *Datos analizados en porcentajes, medias y desviación estándar. Resultados:* el promedio de edad fue 58,32 (dp=9,99). Predominaron casados, negros, baja clase socioeconómica, enseñanza fundamental completa/incompleta, activos profesionalmente. Se observó que 37,7% eran fumadores pasivos, 34,6% ex tabaquistas y 7,7% fumaban, predominando el uso de cigarrillo. Consumían bebidas alcohólicas 52,3% de los hombres, los demás nunca consumieron (18,5%) o habían parado (29,2%). Mayor proporción consumía cerveza, bebidas destiladas y vino, siendo el uso mayor al final de semana (cerveza 32,4% vs 94,15, destilada 13,2% vs 22,0% y vino 10,3% vs 17,6%) y excesivo para 67,6% de los hombres. *Conclusión:* hubo elevada proporción de fumadores pasivos y consumo excesivo de alcohol al final de semana. *Propuesta terapéutica compartida debe combatir estos factores de riesgo junto a los hombres.*

Descriptores: Hipertensión. Salud del hombre. Factores de riesgo. Alcohólico. Tabaquismo.

Introduction

Systemic hypertension is a multifactorial clinical condition characterized by high and sustained blood pressure levels. It is related to functional and/or structural changes in target organs (heart, encephalon, kidneys and blood vessels), as well as metabolic changes, generating a greater risk of fatal and nonfatal cardiovascular events⁽¹⁾. As one of the leading risk factors for developing cardiovascular diseases, it is responsible for 40% of deaths by stroke and 25% of deaths by coronary artery disease⁽²⁻³⁾.

It is a growing phenomenon, which is appearing increasingly early, and constitutes a serious public health problem in Brazil and around the world⁽³⁾. Estimates by the World Health Organization indicate that chronic noncommunicable diseases and injuries are responsible for 58.8% of all deaths and 45.9% of the total global burden of disease, expressed as loss of healthy years of life⁽⁴⁾. Systemic hypertension is among these diseases. It is a highly prevalent disease worldwide. A national Brazilian health survey identified a prevalence of self-reported systemic hypertension of 21.4%⁽²⁾. The National Health and Nutrition Examination Survey (NHANES) noted an increase in the

prevalence of systemic hypertension among black individuals, male, and over 40 years of age⁽⁵⁾.

The clinical evolution of the disease is slow and, unless properly treated, it results in serious temporary or permanent complications⁽⁶⁾. Furthermore, its silent characteristic may hinder individuals from perceiving its seriousness, and its apparent invisibility can delay diagnosis and impair quality of life.

The development of systemic hypertension reflects a complex and dynamic interaction between causal factors. It is defined as a multifactorial disease that can be triggered in isolation or associated with the worsening of other diseases⁽⁷⁾.

There are multiple risk factors associated with the disease, classified as non-modifiable (age, gender, genetics and race/color) and modifiable (sedentary lifestyle, smoking, excessive consumption of alcoholic beverages, overweight, obesity and excessive consumption of sodium)⁽¹⁻²⁾. Among the behavioral factors related to hypertension and the genesis of other chronic diseases, such as atherosclerosis, myocardial infarction, stroke, pulmonary emphysema,

coronary artery disease and various types of cancer⁽⁴⁾, smoking stands out in particular. Smoking is the leading cause of avoidable deaths in the world, currently accounting for four million deaths annually – a figure that may rise to 10 million by 2030. It is considered one of the most important risk factors for cardiovascular diseases, which is the most common cause of death among smokers⁽⁸⁾.

Surveys point out that 47% of men and 12% of women smoke⁽⁸⁾. Based on a special smoking survey, it was estimated that, in Brazil, in 2008, there were 24.6 million smokers 15 years of age or older (17.2%). The prevalence among men was 21.6%, corresponding to 14.8 million; among women, it was 13.1%, representing 9.8 million cases⁽⁹⁾.

The act of smoking induces vasoconstriction of the arteries and affects their elastic property⁽¹⁰⁾. The consequence is increased epinephrine and plasma norepinephrine, characterizing an adrenergic response that explains changes in blood pressure and elevated heart rate⁽⁸⁾.

Excessive consumption of alcoholic beverages is linearly associated with increased blood pressure and risk of cardiovascular disease⁽¹¹⁻¹²⁾. In the age analysis, it was found that the effect of excessive alcohol consumption on blood pressure is more predominant in elderly than young people⁽¹²⁾. In relation to the amount ingested, there is a moderate to intense mean increase in blood pressure among individuals who consume alcoholic beverages⁽¹²⁾. Therefore, it is recommended that men do not exceed 30 ml of ethanol per day, equivalent to 90 ml of distilled beverages, or 300 ml of wine, or 720 ml of beer and, for women, it is 15 ml of ethanol per day^(1,8).

It has been demonstrated that there is a close link between excessive alcohol consumption and hypertension, since increased rates of alcohol in the blood slowly and progressively raise blood pressure. One study on women found that a protective effect occurs with doses of less than 10 g of alcohol/day and risk of systemic hypertension with consumption of 30-40 g of alcohol/day; in men, increased risk of systemic

hypertension becomes consistent with 31 g or more of alcohol/day⁽¹³⁾.

As mentioned earlier, the prevalence of smoking and consumption of alcoholic beverages is higher among men, rendering this social group more vulnerable to the consequences of these habits. Therefore, it should be the target of prevention and control measures that consider gender particularities. Men take little care of their health and usually only seek help when problems worsen and are interfering with their quality of life⁽¹⁴⁾.

Men have difficulties recognizing their needs and cultivate thoughts of invulnerability to disease⁽⁹⁾. Neglecting their health makes them more vulnerable to diseases, and consequently, they tend to die earlier. They are also influenced by certain models of masculinity which can affect health⁽¹⁵⁾. One of the greatest concerns in relation to men's health is their low procurement of health centers. Disease can be considered a sign of frailty that men fail to recognize as inherent to their biological condition, and they are afraid that physicians will discover something wrong with their health, thus jeopardizing their sense of invulnerability⁽⁹⁾.

Men's resistance to health care results in a financial burden for society and physical and emotional suffering for both the individual and his family in the struggle to preserve health and quality of life⁽⁹⁾. Therefore, it is important to reflect on, implement and assess interdisciplinary care practices aimed at lifestyles changes and better control of systemic hypertension in this group of the population. These practices should be directed toward assessing risk factors.

In view of the above, the object of the study was "alcohol consumption and smoking in hypertensive men." The research question was the following: How are alcohol consumption and smoking among hypertensive men characterized?

Therefore, the objective of the study was to characterize alcohol consumption and smoking among hypertensive men.

The research involved a diagnosis of tobacco and alcohol consumption in hypertensive men, in order to guide prevention and control measures.

Determining the profile of this consumption helps define healthcare practices aimed at lifestyle changes and promotion of quality of life within this target audience.

Method

This was a descriptive, cross-sectional study, based on a larger study entitled “Effectiveness of an Educational Health Program to Control Blood Pressure in Men.”

The study was conducted in a Reference Center for Cardiovascular Diseases, where there is a Men’s Health Unit, which is a reference point for serving the male population in the city of Salvador, state of Bahia, Brazil, and provides cares for hypertensive users of the Brazilian unified health system (SUS, as per its acronym in Portuguese).

During data collection, the men underwent a triage in the first consultation with the nurse responsible and were questioned about cardiovascular risk factors, erectile function, and prostate symptoms. Following this, they were registered in the program and sent for the clinical consultation and lab tests. Afterwards, they were forwarded for specialized consultations, with professionals from the departments of urology, cardiology, endocrinology, psychology, and nutrition, according to each person’s needs. Return visits were scheduled in advance, corresponding to sequential visits with nurses from the program and the physician from the specialty.

In the consultations following triage, the nurses emphasized instructions about medications in use and performing specific tests, scheduled return visits and checked blood pressure and blood glucose. In this meeting, they announced the schedule of educational health activities for this group.

The consultations with the men occurred in the morning and afternoon shifts and, whenever possible, a third time slot was offered, from 5 pm to 7 pm, to facilitate continued treatment.

This study used a non-probabilistic convenience sample, taking into account the

demand for the service. In a period of six months, a group of 130 men was formed, based on the inclusion and exclusion criteria of the larger project. The inclusion criteria used were: adults, over 20 years of age (minimum age for joining the Men’s Health program), lucid, grounded in time and space, registered in the reference center and monitored in the Men’s Health program, with a diagnosis of systemic hypertension (ICD – I10/I15). Individuals with physical limitations for taking anthropometric measurements were excluded.

The study design was approved by the Ethics Committee of the School of Nursing of the Federal University of Bahia (UFBA), on April 3, 2013, under Opinion No. 268.722. The study complied with the ethical principles contained in Resolution No. 466, of December 12, 2012, of the National Health Council, which regulates studies involving human beings. After providing instructions and clarifications about the study, the participants signed a free and informed consent form.

Two parts of the instrument from the larger project were used for collecting data. Part I – Sociodemographic characterization data: including closed questions about age, self-reported race/color, marital status, employment situation, monthly household income, if the person was responsible for the family, social class according to the Brazilian Research Association, and origin. Part II – Consumption of alcoholic beverages and smoking: comprised of closed questions related to smoking, which collected information related to current smoking or previous smoking, length of time smoking, what was smoked, amount and social interactions with people with the same habit. In terms of alcohol consumption, the closed questions focused on current or previous use, length of time of consumption, type of beverage, amount ingested during the week and on weekends, attempts to stop drinking and difficulties encountered.

The data collection instruments were tested during the consultation routine of the study site. After a pretest, it was noted that the wording of certain questions needed adjustments. To

ensure standardization of the procedures used during the data collection in the field work, the researchers involved received prior training. After confirmation of the medical diagnosis of systemic hypertension on the patients' medical records and compliance with the other inclusion criteria, these men were approached in the waiting room, before or after the medical consultation, and received in a private room. After agreeing with the study and signing a free and informed consent form, the instruments were applied through an interview. The data collection took place from October 2013 to July 2014.

The data recorded and codified on the forms gave rise to a database in the statistical program SPSS 18.0 for Windows. The results were analyzed in terms of absolute numbers, percentages, means and standard deviation, and presented in tables.

Results

The 130 men had a mean age of 58.32 (SD=9.99) and were predominantly characterized as follows: age range of 28 to 50.9 years (56.1%), self-reported as black in relation to race/color (89.2%), in a conjugal relationship or married (75.3%), monthly household income of up to two minimum wages (64.6%), from socioeconomic class C1-C2 (66.9%), complete/incomplete elementary education (50.7%) and actively employed (60%). It was noted that 94.6% of the men were responsible for the family and 72.3% had one to three dependents.

In relation to smoking, 34.6% of the men were former smokers and 7.7% currently smoked, predominantly cigarettes in both groups (96.4%), and the amount smoked was from 1 to 10 cigarettes per day (56.4%) (Table 1). In the case of current smokers, the mean length of time smoking was 2.7 years (SD=10) and the mean length of abstention for former smokers was 7.1 years (SD=11.6).

Table 1 – Characteristics of tobacco consumption according to hypertensive men. Salvador, Bahia, Brazil, 2015. (n=130)

Consumption characteristics	n	%
Smoker (n=130)		
Yes	10	7.7
No	75	57.7
Quit	45	34.6
What the person smokes/smoked (n=55)		
Cigarettes	53	96.4
Cigars	01	1.8
Cigars or pipe	01	1.8
Number of cigarettes per day (n=55)		
1 to 10	31	56.4
15 to 40	23	41.8
More than 100	1	1.8
Passive smoker (n=130)		
Yes	49	37.7
No	81	62.3

Source: Created by the authors.

A total of 52.3% of the men consumed alcoholic beverages. The rest never consumed alcohol (18.5%) or had quit (29.2%). The mean length of consumption time for men who currently used alcoholic beverages was 29.2 years (SD=16.1)

and the mean length of time for abstainers was 3.7 years (SD=7.6).

A large percentage of the consumers of alcoholic beverages drank beer during the week (45.6%), with a predominant amount of two or

more doses (32.4%). The second most consumed beverage during the week was distilled (13.2%), in an amount of 40 ml for 8.8%. Lastly, 10.3% of the men consumed wine during the week, with the largest dose being one glass.

The types of beverages consumed during the week were the same as those used on weekends. However, a higher proportion of men consumed these beverages on the weekend (beer 32.4% versus 94.15%; distilled 13.2% versus 22%; and wine 10.3% versus 17.6%). There was also an increase in the proportion of men who

consumed larger amounts of these beverages on the weekend, especially beer.

These findings indicated a predominance of non-excessive consumption of alcoholic beverages during the week (82.4%) and a consumption proportion that was approximately four times higher on the weekend (67.6%), characterized as excessive consumption. Despite this significant consumption of alcoholic beverages, 45.3% of the men had tried to stop drinking. Of these, 79.6% reported not having any difficulties (Table 2).

Table 2 – Characteristics of alcohol consumption according to hypertensive men. Salvador, Bahia, Brazil, 2015. (n=130) (to be continued)

Consumption characteristics	n	%
Use of alcoholic beverages (n=130)		
Yes	68	52.3
No	24	18.5
Quit	38	29.2
Consumption during the week (n=68)		
Not excessive	56	82.4
Excessive	12	17.6
Consumption on weekends (n=68)		
Not excessive	22	32.4
Excessive	46	67.6
Amount of beer consumed during the week (n=68)		
Does not drink	37	54.4
1 glass (350 ml) or 1 can	9	13.2
1 bottle - 2 doses	11	16.2
3 or more doses/cans/glasses	11	16.2
Amount of wine consumed during the week (n=68)		
Does not drink	61	89.7
1 glass – 150 ml	4	5.9
2 doses	1	1.5
1 bottle - 8 doses or more	2	2.9
Amount of distilled beverages consumed during the week (n=68)		
Does not drink	59	86.8
1 shot glass - 40 ml	6	8.8
2 doses - 1 shot glass (100 ml)	1	1.5
3 doses or 1 bottle (+ 20 doses)	2	2.9
Amount of beer consumed on weekends (n=68)		
Does not drink	4	5.9
1 glass (350 ml) or 1 can	3	4.4
1 bottle - 2 doses	17	25.0
3 or more doses/cans/glasses	44	64.7
Amount of wine consumed on weekends (n=68)		
Does not drink	56	82.4
1 glass - 150 ml	7	10.2
2 doses	1	1.5
1 bottle - 8 doses or more	4	5.9

Table 2 – Characteristics of alcohol consumption according to hypertensive men. Salvador, Bahia, Brazil, 2015. (n=130) (conclusion)

Consumption characteristics	n	%
Amount of distilled beverages consumed on weekends (n=68)		
Does not drink	53	78.0
1 shot glass - 40 ml	6	8.8
2 doses - 1 shot glass (100 ml)	3	4.4
3 doses or 1 bottle (+ 20 doses)	6	8.8
Attempt to stop drinking (n=130)		
Yes	59	45.3
No	47	36.2
Not applicable	24	18.5
Difficulties to stop drinking (n=59)		
Yes	12	20.4
No	47	79.6

Source: Created by the authors.

Discussion

In relation to age, the mean average in the present study was 58.32 years, compatible with the age range of adults and people who are actively employed, which was expected, since the Men's Health program prioritizes care up to 59 years of age. However, most of the studies demonstrate a greater prevalence of systemic hypertension in the elderly population⁽¹⁻³⁾. The predominance of men with a low educational level should be taken into consideration in healthcare practices, since this can have a bearing on knowledge and understanding of the seriousness of possible complications of systemic hypertension. Low income, which was likewise prevalent, can affect disease treatment adherence and undermine quality of life, resulting in greater difficulty accessing education, health services, proper eating and physical exercise, which can have an impact on the progression of hypertension⁽²⁾.

A considerable number of the men were married or had a partner, and some lived with other people. The literature shows that men are more prone to the manifestation of diseases and/or their control, often due to the priority they place on their social role in relation to their families and society to the detriment of caring for

their health⁽¹⁵⁾. The data from the present study also showed that men, for the most part, were the heads of the family and had an average of one to three dependents, with income considered low. This data may indicate that they are exposed to psychological and physical pressure due to concerns and responsibilities.

The predominance of men in the present study who were black in terms of race/color is corroborated by other epidemiological studies which show that, in addition to the greater prevalence of disease in this racial group, there is a positive correlation with the development of the disease. This predominance was also due to the fact that the study was conducted in the state of Bahia, which has the largest concentration of Afro-descendants of the Brazilian population⁽⁵⁾. It was noted that black or bi-racial hypertensive people were at greater risk of target organ damage, with a higher racial difference for non-fatal strokes⁽¹⁶⁾. It should also be noted that, even today, black people (race/color) are still in unfavorable socioeconomic situations, as found in this study, a factor which increases their vulnerability to disease.

Most of the men did not smoke, but when assessing nonsmokers and current smokers, it was observed that over one-third had been exposed to this risk factor during their lives.

Furthermore, more than one-third is currently exposed to this risk factor, due to passive smoke consumption.

Exposure to cigarette smoke is a well-demonstrated independent risk factor for cardiovascular disease. Studies point out an association between the number of cigarettes smoked and risk of acute myocardial infarction. Smoking from one to five cigarettes per day increases this risk by 40%. All forms of tobacco, such as filtered and unfiltered cigarettes, pipes and cigars and chewing tobacco are considered harmful⁽¹⁷⁾. A correlation between hypertension and smoking was also found, where the disease was more prevalent among former smokers (48.8%) and smokers (32.9%) than among people who had never smoked (26.1%)⁽¹⁸⁾. In a study with 910 Vietnamese men, between 25 and 64 years of age, there was an association between hypertension and smoking in a dose-response manner, when characterizing the number of years smoking and cigarette consumption in the person's life⁽¹⁹⁾.

In the present study, the type of tobacco consumed the most was cigarettes, corroborating the results of the Special Smoking Survey, which identified that 17.2% of Brazilian smokers smoked cigarettes. The percentage of smokers of other tobacco products, such as cigars and pipes, was low: 0.8% on average⁽²⁰⁾.

These findings underscore the need to comprehensively implement global tobacco control policies. Quitting smoking is undoubtedly a unique and effective lifestyle change for preventing cardiovascular diseases. Fighting against smoking is recommended for primary prevention of systemic hypertension⁽¹⁾. The results of the present study reveal the importance of health care practices aimed at helping men to continue refraining from smoking, to quit smoking and to not start the habit. The creation of public policies and the work of health professionals focused on the control of smoking are highly relevant, due to the impact of tobacco consumption on various social dimensions.

The fight against smoking has been growing through the enactment of laws and campaigns,

such as the National Antismoking Law (Law No. 9294/1996 regulated by Decree No. 8262/2014), which prohibits smoking in collectively used, closed or partially closed environments, and Law No. 12546/2011, which established a minimum price policy for cigarettes. These laws seek to protect the health of smokers and nonsmokers, in relation to exposure, since cigarette smoke leads to complications for individuals, society and governments.

The activities of nurses, as members of multidisciplinary teams, in caring for hypertensive male smokers or potential smokers, must be based on the aforementioned laws and strategies proposed by the National Smoking Control Program, which include preventive measures for people not to start smoking and others to encourage smokers to quit, as well as measures to protect the health of nonsmokers from third-hand smoke in closed environments and others to regulate tobacco products and their sale⁽²⁰⁾. These measures should consider a focus on gender, since the rate of tobacco consumption in men appears to be related to the desire to enhance their ability to seduce and attract and/or retain their wives, who prefer husbands who smoke. Therefore, smoking may be related to the demonstration of power before other men, and may be better explained by sexual selection⁽²¹⁾.

Most of the men consumed alcoholic beverages, with a higher frequency of use and abusive consumption on weekends. Among the types of beverages, the most frequent was beer. In relation to the type of beverage ingested, a meta-analysis from 2012, including 16 studies with 33,904 men and 19,372 women, compared consumption intensity between abstainers and drinkers⁽¹³⁾. With respect to the role of different alcoholic beverages, the data from the study above suggests that the choice of beverages does not play an independent or important role in raising blood pressure⁽¹³⁾. However, excessive consumption of any beverage, apart from harmful effects on blood pressure, may contribute to overweight which, in turn, is a risk factor for hypertension. Nursing care practices, whether individual or jointly with other professionals,

should contribute to management of excessive consumption.

In view of the controversy regarding the safety and cardiovascular benefits of small doses, as well as the harmful effects of alcohol in society, it is recommended that men who consume alcoholic beverages not exceed 30 g of ethanol per day; for women, this figure is 15 g per day⁽¹⁾. The maximum daily amounts suggested for the more common types of alcoholic beverages are two cans (350 x 2 = 700 ml) or 1 bottle (650 ml) of beer; two 150-ml glasses or one 300-ml glass of wine and two 50-ml doses of whiskey, vodka or distilled beverage⁽²²⁾.

In their approach with hypertensive men, professionals should highlight the benefits of reduced consumption, an already proven finding in various studies. The Prevention and Treatment of Hypertension Study (PATHS) sought to determine whether a 6-month reduction in alcohol intake would decrease blood pressure levels in people with moderate or excessive alcoholic beverage consumption and whose diastolic pressure was between 80-99 mmHg. In the period from 3 to 24 months, it was noted that a reduction of 1.3 drinks daily resulted in a 0.9/0.6 mmHg decrease in blood pressure⁽²³⁾.

It can be seen that professional intervention is necessary for reducing excessive alcohol consumption. Educational activities can help generate and disseminate knowledge on the topic, in addition to promoting prudent use. Considering that most of the men consumed alcoholic beverages, health professionals should establish a shared therapeutic proposal, aimed at combating excessive consumption and highlighting the types and amounts of recommended beverages. Educational initiatives should also consider gender focus, since it is known that abusive consumption of alcoholic beverages can be influenced by masculinity. When men drink, they become uninhibited and believe they demonstrate strength and virility before women and other men. This consumption is a form of empowerment and demonstration of hegemonic masculinity, which is characterized by physical and emotional tenacity, assuming

risks, predatory heterosexuality and the feeling of being the family provider⁽²⁴⁾.

Nurses can carry out activities with men aimed at preventing complications that arise from excessive alcohol consumption and active and passive smoking, in the various realms of their work, through educational interventions in schools, workplaces and primary health care services. Such activities will also increase knowledge about the risks of using these drugs for individuals, families and society, as well as help confront this public health problem. Nurses from health units can be multipliers of actions to promote health and prevent complications, and should be committed to sharing and raising awareness, through dialogue and sensitive listening, about the harm caused by the use of alcoholic beverages and tobacco. They should also engage in educational initiatives that promote and support quitting smoking⁽²⁵⁾, bearing gender focus in mind.

A limitation of the study was the convenience sampling method used and its sample size.

Conclusion

There was a high proportion of passive smokers and excessive alcohol consumption on weekends. A shared therapeutic proposal between health professionals and hypertensive male users of health services could help them control these risk factors and should consider a gender focus. It is possible to help men boost their chances to successfully fight against passive smoking and excessive alcohol consumption through educational health activities. Strengthening of government action plans, policies and interventions are also necessary for combatting smoking and limiting abusive access to alcoholic beverages.

Collaborations

1. conception, design, and analysis and interpretation of data: Fernanda Carneiro Mussi, Pollyana Pereira Portela, Larissa Emily Santos Barretto, Glicia Gleide Gonçalves Gama, Andreia

Santos Mendes and Tássia Teles de Santana Macêdo;

2. writing of the article and relevant critical review of the intellectual content: Fernanda Carneiro Mussi, Pollyana Pereira Portela, Larissa Emily Santos Barretto and Glicia Gleide Gonçalves Gama;

3. final approval of the version to be published: Fernanda Carneiro Mussi and Pollyana Pereira Portela.

References

1. Malachias MVB, Souza WKSB, Plavnik FL, Rodrigues CIS, Brandão AA, Neves MFT, et al. 7ª Diretriz Brasileira de Hipertensão Arterial. *Arq Bras Cardiol* [Internet]. 2016 [cited 2016 June 20];107(3 supl 3):1-104. Available from: http://publicacoes.cardiol.br/2014/diretrizes/2016/05_HIPERTENSAO_ARTERIAL.pdf
2. Andrade SSA, Stopa SR, Brito AS, Chueri PS, Szwarcwald CL, Malta DC. Prevalência de hipertensão arterial autorreferida na população brasileira: análise da Pesquisa Nacional de Saúde, 2013. *Epidemiol Serv Saúde* [Internet]. 2015 June [cited 2016 Oct 12];24(2):297-304. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S2237-96222015000200297&lng=en
3. Picon RV, Fuchs FD, Moreira LB, Fuchs SC. Prevalence of hypertension among elderly persons in urban Brazil: a systematic review with meta-analysis. *Am J Hypertens* [Internet]. 2013 [cited 2016 June 20];26(4):541-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/23467209>
4. Berto SJP, Carvalhaes MABL, Moura EC. Tabagismo associado a outros fatores comportamentais de risco de doenças e agravos crônicos não transmissíveis. *Cad Saúde Pública* [Internet]. 2010 Aug [cited 2016 Oct 11];26(8):1573-82. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2010000800011&lng=en
5. Zang Y, Moran AE. Trends in the prevalence, awareness, treatment, and control of hypertension among young adults in the United States, 1999 to 2014. *Hypertension* [Internet]. 2017 [cited 2017 Oct 9];70(4):736-42. Available from: <http://hyper.ahajournals.org/content/70/4/736.long>
6. Duncan BB, Chor D, Aquino EML, Bensenor IM, Mill JG, Schmidt MI, et al. Doenças crônicas não transmissíveis no Brasil: prioridade para enfrentamento e investigação. *Rev Saúde Pública* [Internet]. 2012 Dec [cited 2017 Oct 9];46(Suppl 1):126-34. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-89102012000700017&lng=en
7. Tibazarwa KB, Damasceno AA. Hypertension in developing countries. *Canadian J Cardiol* [Internet]. 2014 May [cited 2016 Aug 10];30(5):527-33. Available from: [https://linkinghub.elsevier.com/retrieve/pii/S0828-282X\(14\)00137-8](https://linkinghub.elsevier.com/retrieve/pii/S0828-282X(14)00137-8)
8. Daudt CVG. Fatores de risco de doenças crônicas não transmissíveis em uma comunidade universitária do Sul do Brasil [tese]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 2013.
9. Brasil. Ministério da Saúde. Portaria n. 1.944, de 27 de agosto de 2009. Institui, no âmbito do Sistema Único de Saúde (SUS), a Política Nacional de Atenção Integral à Saúde do Homem. Brasília; 2009.
10. Rifai MA, DeFilippis AP, McEvoy JW, Hall ME, Acien AN, Jones MR, et al. The relationship between smoking intensity and subclinical cardiovascular injury: The Multi-Ethnic Study of Atherosclerosis (MESA). *Atherosclerosis* [Internet]. 2017 [cited 2017 Aug 10];258:119-30. Available from: [http://www.atherosclerosis-journal.com/article/S0021-9150\(17\)30023-0/pdf](http://www.atherosclerosis-journal.com/article/S0021-9150(17)30023-0/pdf)
11. Luo W, Guo Z, Hao C, Yao X, Zhou Z, Wu M, et al. Interaction of current alcohol consumption and abdominal obesity on hypertension risk. *Physiol Behav* [Internet]. 2013 Oct 2 [cited 2016 June 10];122:182-6. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/23092555>
12. Wakabayashi I, Araki Y. Influences of gender and age on relationships between alcohol drinking and atherosclerotic risk factors. *Alcohol Clin Exp Res* [Internet]. 2010 [cited 2016 June 10];34(Suppl 1):S54-60. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/18986376>
13. Briassoulis A, Agarwal V, Messerli FH. Alcohol consumption and risk of hypertension in men and women: a systematic review and meta-analysis. *J Clin Hypertens* [Internet]. 2012 [cited 2016 June 10];14(11):792-6. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/jch.12008/abstract>
14. Machin R, Couto MT, Silva GSN, Schraiber LB, Gomes R, Figueiredo WS, et al. Concepções de gênero, masculinidade e cuidados em saúde: estudo com profissionais de saúde da atenção

- primária. Ciênc saúde coletiva [Internet]. 2011 Nov [cited 2017 May 2];16(11):4503-12. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232011001200023&lng=en
15. Couto MT, Gomes R. Homens, saúde e políticas públicas: a equidade de gênero em questão. Ciênc saúde coletiva [Internet]. 2012 [cited 2016 Feb 12];17(10):2569-78. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232012001000002&lng=en
 16. Noblat ACB, Lopes MB, Lopes AA. Raça e lesão de órgãos-alvo da hipertensão arterial em pacientes atendidos em um ambulatório universitário de referência na cidade de Salvador. Arq Bras Cardiol [Internet]. 2004 Feb [cited 2015 Jan 22];82(2):111-5. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0066-782X2004000200002&lng=en
 17. Yusuf S, Hawken S, Ounpuu S, Dans T, Avezum A, Lanas F, et al. Interheart Study Investigators. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. Lancet [Internet]. 2004 [cited 2015 Jan 22];364(9438):937-52. Available from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(04\)17018-9/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(04)17018-9/fulltext)
 18. Nascente FMN, Jardim PCBV, Peixoto MRG, Monego ET, Moreira HG, Vitorino PVO, et al. Arterial hypertension and its correlation with some risk factors in a small Brazilian town. Arq Bras Cardiol [Internet]. 2010 [cited 2016 Oct 12];95(4):502-9. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0066-782X2010001400013&lng=en
 19. Thuy AB, Blizzard L, Schmidt MD, Luc PH, Granger RH, Dwyer T. The association between smoking and hypertension in a population-based sample of Vietnamese men. J Hypertens [Internet]. [cited 2016 Oct 12];28(2):245-50. Available from: <https://insights.ovid.com/pubmed?pmid=19829145>
 20. Instituto Nacional do Câncer. Organização Panamericana de Saúde. Pesquisa especial de tabagismo. Relatório Brasil. Rio de Janeiro; 2011.
 21. Roulette CJ, Hagen E, Hewlett BS. A biocultural investigation of gender differences in tobacco use in an egalitarian hunter-gatherer population. Hum Nat [Internet]. 2016 [cited 2016 Oct 12];27(2):105-29. Available from: <https://link.springer.com/article/10.1007%2Fs12110-016-9255-x>
 22. Simão AF, Precoma DB, Andrade JP, Correa Filho H, Saraiva JFK, Oliveira GMM, et al. Sociedade Brasileira de Cardiologia. I Diretriz Brasileira de Prevenção Cardiovascular. Arq Bras Cardiol. 2013;101(6):1-63.
 23. Souza D, Póvoa R. Álcool e hipertensão arterial. Rev Fatores Risco. 2014;32:33-9.
 24. Moinuddin A, Goel A, Saini S, Bajpai A, Misra R. Alcohol consumption and gender: a critical review. J Psychol Psychother [Internet]. 2016 [cited 2016 Oct 12];6(3):1-4. Available from: <https://www.omicsonline.org/open-access/alcohol-consumption-and-gender-a-critical-review-2161-0487-1000267.pdf>
 25. Carmo HO, Santos GT. Atuação do enfermeiro frente às estratégias do programa nacional de controle ao tabagismo. Rev Rede cuidados saúde [Internet]. 2016 [cited 2016 Apr 28];1-16. Available from: <http://publicacoes.unigranrio.br/index.php/rscs/article/view/3053/2089>

Received: December 2, 2016

Approved: October 24, 2017

Published: April 16, 2018



The Revista Baiana de Enfermagem use the Creative Commons license – Attribution -NonComercial 4.0 International. <https://creativecommons.org/licenses/by-nc/4.0/>

This article is an Open Access distributed under the terms of the Creative Commons (CC BY-NC). This license lets others remix, adapt and create upon your work to non-commercial use, and although new works must give its due credit and can not be for commercial purposes, the users do not have to license such derivative works under the same terms.