Culture of masculinity, alcohol consumption and risk to cancer: an international

survey

Cultura de masculinidade, consumo de álcool e riscos de câncer: uma pesquisa internacional Cultura de masculinidad, consumo de alcohol y riesgos de cáncer: una encuesta internacional

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Abstract

Objective: To understand the underlying cultural effects of masculinity on alcohol consumption and the associated risk for cancer. Method: An exploratory online survey. Data was collected (2018-2019) from 176 men living in 9 countries who responded to an online survey in English, French, Italian, Portuguese, or Spanish. Socio-demographic data and responses to close-ended questions were compiled as descriptive statistics. Responses to the open-ended questions were analyzed using thematic analysis with the pre-established themes: alcohol consumption and its acceptance for men in respondents' ethno-cultural groups; and thoughts about scientific evidence concerning the consumption of alcohol in high concentration and heightened risk of cancer. Results: Most respondents were under 30 years of age (33.7%). Results across the linguistic sub-samples indicate that among 10 statements, alcohol consumption is part of most students' life (18.8%), it facilitates acceptance in social groups (16.9%), and it is not repressed at social gatherings (16.6%). Construction (27.5%) was the top among professions in which alcohol consumption is most common. Among situational factors related to alcohol consumption, respondents chose stress (18.1%), unemployment or unstable job (18.0%), and financial trouble (17.9%). Perceptions of acceptance of alcohol consumption are influenced by traditional masculinity-related values, beliefs, and behaviors and the acknowledged lack of cancer literacy were revealed as conditions promoting a risk for cancer. Conclusion- Alcohol consumption is normalized to a certain extent among men of different ages and backgrounds. Evidence informs policymakers and health promoters as they develop legislation and programming to limit unhealthy behavior related to alcohol consumption.

Keywords: Alcohol drinking; Cancer; Community survey; Culture; Latino; Masculinity.

Resumo

Objetivo: Compreender os efeitos culturais subjacentes da masculinidade sobre o consumo de álcool e o risco associado para câncer. Metodologia- Uma pesquisa exploratória online. Os dados foram coletados (2018-2019) de 176 homens residentes em 9 países que responderam a uma pesquisa online em inglês, francês, italiano, português ou espanhol. Os dados sociodemográficos e as respostas às questões fechadas foram compilados como estatística descritiva. As respostas às questões abertas foram analisadas por meio da análise temática com os temas pré-estabelecidos: consumo de álcool e sua aceitação pelos homens nos grupos etnoculturais dos entrevistados; e reflexões sobre evidências científicas sobre o consumo de álcool em alta concentração e risco elevado de câncer. Resultados- A maioria dos entrevistados tinha menos de 30 anos (33,7%). Os resultados das subamostras linguísticas indicam que, entre 10 afirmações, o consumo de álcool faz parte da vida da maioria dos estudantes (18,8%), facilita a aceitação nos

grupos sociais (16,9%) e não é reprimido nas reuniões sociais (16,6%). A construção civil (27,5%) foi a principal entre as profissões em que o consumo de álcool é mais comum. Entre os fatores situacionais relacionados ao consumo de álcool, os entrevistados escolheram estresse (18,1%), desemprego ou emprego instável (18,0%) e problemas financeiros (17,9%). As percepções de aceitação do consumo de álcool são influenciadas por valores, crenças e comportamentos tradicionais relacionados à masculinidade e a reconhecida falta de alfabetização em câncer revelouse como condição promotora de risco para o câncer. Conclusão- O consumo de álcool é normalizado até certo ponto entre homens de diferentes idades e origens. As evidências informam os formuladores de políticas e promotores de saúde à medida que desenvolvem legislação e programação para limitar comportamentos não saudáveis relacionados ao consumo de álcool.

Palavras-chave: Câncer; Consumo de bebidas alcoólicas; Cultura; Inquéritos e questionários; Latino; Masculinidade.

Resumen

Objetivo: Comprender los efectos culturales subyacentes de la masculinidad en el consumo de alcohol y el riesgo asociado al cáncer. Metodología: Una encuesta exploratoria en línea. Se recopilaron datos (2018-2019) de 176 hombres que viven en nueve países mediante la aplicación de una encuesta en línea en inglés, francés, italiano, portugués o español. Los datos sociodemográficos y las respuestas a preguntas cerradas se compilaron como estadísticas descriptivas. En las respuestas a las preguntas abiertas se realizó un análisis temático con los temas preestablecidos: consumo de alcohol y su aceptación para los hombres en los grupos etnoculturales que participan; y reflexiones sobre la evidencia científica acerca del consumo de alcohol en alta concentración y mayor riesgo de cáncer. Resultados: La mayoría de los encuestados tenían edad inferior a 30 años (33,7%). Los resultados de las submuestras lingüísticas indican que el consumo de alcohol es parte de la vida de la mayoría de los participantes (18,8%), facilita la aceptación en grupos sociales (16,9%) y no se reprime en las reuniones sociales (16,6%). La construcción (27,5%) fue la más alta entre las profesiones en las que el consumo de alcohol es más común. Entre los factores situacionales relacionados con el consumo de alcohol, los encuestados informaron estrés (18,1%), desempleo o trabajo inestable (18.0%) y problemas financieros (17.9%). Las percepciones de aceptación del consumo de alcohol están influenciadas por los valores, creencias y comportamientos tradicionales relacionados con la masculinidad, y la reconocida falta de conocimiento sobre el cáncer se reveló como condiciones que promueven un riesgo de cáncer. Conclusión: El consumo de alcohol se normaliza en cierta medida entre los hombres de diferentes edades y orígenes. La evidencia aporta datos relevantes a los formuladores de políticas públicas y promotores de salud para que desarrollen normas y programas con el fin de limitar el comportamiento poco saludable relacionado con el consumo de alcohol.

Palabras clave: Cáncer; Consumo de bebidas alcohólicas; Cultura; Encuestas y cuestionarios; Latino; Masculinidad.

1. Introduction

To understand cancer literacy among contemporary men who self-identify themselves as a member of a Latin ethnocultural group, a brief review of Latin history and culture is necessary. Historically, the Latin language was a powerful tool used by the Church and Kingdoms in what would become Europe in their clerical, administrative and political decisions. However, Latin was not restricted to the territories of kingdoms; it spread throughout the European continent and its colonies and resulted in the emergence of other modern languages such as French, Italian, Portuguese, Spanish and Romanian (Katzner & Miller, 2002), which maintained Latin's influential roots and flourished with cultural nuances.

For centuries, European cultures, with their stories of Spanish, Italian, and Portuguese navigators' conquests, and bravery in the Americas, were influential consolidating ideas of manhood and patriarchy (e.g., domination of women and children, preference for male heirs, etc.) (Gruber & Szołtysek, 2016). In the American continents, conquerors exchanged goods with native people, including alcohol, which historians have argued has played the role of the "perfect colonizer" (McPherson & Wakefield, 2015), and disseminated the Catholic faith through Latin-based languages and culture.

Today, scholars acknowledge that European colonialism remains influential in the relationships between men and social power, the creation of social problems, and how masculinity is performed (Gualtieri, 2018). For example, among men living in Latin American countries, notable historical and cultural similarities exist regarding masculine identity in various ethnocultural groups (e. g., Indigenous peoples, Afro descendants, European descendants) (Flood et al., 2007). Despite the linguistic diversity and the global intersectionality of identifiers (e.g., sex, gender, social class, ethno-affiliation), the roots of masculinity have been shared, lived, and reinforced throughout generations of men across all nations settled by Europeans

(Hearn, 2015). To date, men's global mobility remains a steadily growing phenomenon, with an influx of adult male migrants in high-income and middle-income countries, including those men originating from the aforementioned countries historically influenced by Latin language/culture (United Nations, 2020). In their decision to live abroad, resettle, and integrate into a new social context, men bring various lifestyles to a host society including values, beliefs, and health practices, some of which include risky behaviors such as alcohol consumption.

An important asset for playing men's role is any society is the personal sense of masculinity guiding men's multidimensional health-related attitudes and behaviors. The influence of "traditional masculinity" on men's health has been extensively studied, revealing both the complexity of masculinity and the damage caused by this social construct to men's health, such as risk taking, abuse of illicit substances, and neglect of self-care (Costa, 2002). Our work is guided by the understanding of gender and masculinity that emerged from influential late-twentieth century feminists (Bordo, 1989; Butler, 1990; Scott, 1989) and theorists in men's studies (Carrigan et al., 1985; Connell, 1995; Kimmel, 1987). Drawing on these works, we understand masculinity as a social construct performed in specific ways by men born and raised in Latin American societies. These expressions of masculinity have their roots in societal and economic changes, political instability, and gendered socialization including acceptance of plural masculinity (Zanchetta et al., 2010). Within traditional conceptions of masculinity, alcohol is frequently seen as a key aspect a man's life (Gough, 2013). However, how alcohol is understood is influenced by cultural normalization, social class and professional activity associated with danger, risk and high stress, sexual orientation (when overcoming inhibitions is sought), as well as social context or situation-determined differences such as peer-pressure and social role affirmation (Tremblay & L'Heureux, 2011).

It is difficult to determine the cultural significance of alcohol consumption in different regions of the world due to its long-standing use, but from a social epidemiological perspective, there are patterns shaped by socioeconomic status and health behaviors that are related to alcohol consumption. For instance, consumption is positively correlated with income, education, and type of jobs (World Health Organization [WHO], 2018). Increasing alcohol consumption is a current global health issue affecting low- and middle-income countries (Sørensen et al., 2022). Despite its widespread use, the harms of alcohol consumption have been well documented. Low levels of alcohol use have been significantly associated with an increased risk of cancer mortality in both men and women. Indeed, a large cohort study concluded that there is no safe level of alcohol consumption in relation to cancer mortality (Ko et al., 2021). Epidemiological evidence suggests that cancer of the oropharynx, larynx, esophagus, liver, colon, rectum, and breast can be attributed to alcohol consumption (WHO, 2018). Worldwide, 237 million men suffer from alcohol-use disorder (WHO, 2018), and disorder-related hazards are well analyzed (Jani et al., 2021; Rehm & Shield, 2021). Alcoholic beverages are among the over 100 known human carcinogens recognized by both the International Agency for Research on Cancer and the US National Toxicology Program (American Cancer Society, 2016).

The impacts of alcohol consumption are also shaped by demographic and social factors. For instance, racial/ethnic differences in alcohol-related health consequences relate to genetic factors (Delker et al., 2016). In the USA, alcohol consumption is a socially and commercially accepted cultural practice, and abstinence is often stigmatized. Individuals recovering from alcohol use disorder often have trouble disclosing their non-drinking status for fear of being stigmatized, that is, either being judged negatively for abstaining from use or being judged for having had an alcohol use disorder (Romo et al., 2016). This stigma frequently negatively affects recovering alcoholics' social status and chances of employment (WHO, 2018). Despite comprehensive research on the risks associated with alcoholic beverages, the general public's knowledge on alcohol is not easy to define. Participants in one study (May et al., 2017) who self-identified as light to moderate drinkers responded that cancer is unavoidable and so it is futile to change their behavior. They saw alcohol consumption as a normal and necessary part of life.

Men's literacy of cancer risk should be seen as an aspect of their wider health literacy, which can be understood as a socially constructed array of skills and competencies, typically developed through the accumulation of family, school, social, and cultural assets gathered over time, through exposure to information about health, attitudes toward health, and health behaviors (Zanchetta et al., 2021). Men's perceptions of the risk of cancer associated with alcohol consumption is shaped by their understanding of masculinity. For instance, the risks of alcohol consumption can conflict with the traditional portrayal of men as being strong, authoritative, in control, and fighters (Verdon, 2015). Traditional masculinity also commonly associates vulnerability with weakness and femininity and thus something to be avoided or denied (Wooldridge, 2023). Men's cancer-risk literacy is also shaped by their exposure to popular discourses about alcohol consumption and cancer. It can be understood as a social image created within a structure composed of the real, the imaginary, and the symbolic components of a given reality as proposed by Durand (2012).

To better understand the existing influences between masculinity, alcohol consumption, and men's understanding of associated cancer risks, the following research questions guided this study: (a) How do men who self-report affiliation to Latin ethno-cultural groups understand how this affiliation shapes their views of masculinity and alcohol consumption? and, (2) How do respondents perceive alcohol use in relation to its associated risk for cancer among men? Conceptual framework

The Population Health Promotion Model (PHPM) (Hamilton & Bhatti, 1996) framed this research. The PHPM considers the impacts of social determinants of health (SDH) (e.g., age, gender, social support networks, personal health practices, coping skills, access to health services). It is recognized that SDH relate to places, contexts and conditions which contribute to the health inequities experienced by individuals who are socially positioned in various ways, for example, as a citizen, worker, or student (Government of Canada, n.d.). The PHPM proposes five comprehensive health promotion (HP) actions: strengthen community action, create supportive environments, develop personal skills, build a healthy public and reorient health systems. Related interventions may unfold at the individual, family, and society levels.

The PHPM supports understanding specific and multilevel SDH. Within the individual level, the following factors are of interest for this study: (a) at the individual level it includes age, sex, working conditions (and the perception of stressful professions), meaning of masculinity, health literacy and health practices; (b) the family level includes norms and practices, and (c) the society level includes representation of masculinity, practice of social gatherings, peer influence, and alcohol-related culture. It should be noted that our survey did not include geographic location as a SDH due to the impossibility of analyzing respondents' complex lifestyles and health habits in many international locations.

This study aimed to (1) identify the perception of alcohol consumption through the lens of masculinity in respondents' ethno-cultural groups; (2) review similarities and particularities across respondents' ethno-cultural groups regarding alcohol knowledge and the risk of cancer; and (3) examine individuals' values and beliefs about alcohol consumption and risks of cancer for men.

2. Methodology

Ethical considerations: This study was approved by the Canadian University Research Ethics Board protocol #2018-119. Respondents provided their consent based on the principles of explicit consent, by proceeding to the web link provided in the research ads. Only those consenting to participate in the online questionnaire advanced to the questionnaire via the web link.

Design: A nonexperimental, descriptive research design was used to gain information to clearly identify the phenomenon under study, generate information about its characteristics, describe co-existing problems, and examine individual behaviors (Grove et al., 2013). This design neither sought causality among variables nor did it attempt to manipulate the

variables. An online survey with a questionnaire was used because this method tends to have a better response rate than questionnaires sent by mail (Smith et al., 2013).

Population: Men self-reporting affiliation to Latin ethno-cultural groups, regardless of alcohol use. The population size was unknown. It is important to note that this research considered language as the main feature of cultural identity. Since there was self-identification for each Latin sub-group, the questionnaires could also be responded to in languages spoken by other subgroups.

Sampling: Purposeful sampling considered communication skills in one of the five languages of the survey.

Criteria of inclusion: (a) at least 19 years of age (despite the variation in the legal age permission for alcohol consumption among countries); (b) originating from a Latin ethno-cultural background; (c) self-identification as a man; (d) able to read and write in one of the following languages: English, French, Italian, Portuguese, or Spanish; and (e) voluntarily participation in an online questionnaire. It should be noted that due to the nature of online surveys, the criteria could not be verified by the researchers.

Recruitment: From May 30th, 2018 to March 30th, 2019 the researchers employed the following strategies: (a) the coinvestigators sent out the ads for recruitment by email to individuals within their professional and social networks to reach out to under-served or distant prospective respondents; (b) the co-investigators, who are professors, approached several student associations on their respective campuses to request their help in circulating ads among their male student populations; (c) recruitment also included reaching out to online research networks established in the province of Quebec, Canada as well as in the city of Paris, France, where the first author (a Brazilian woman) was a research associate; (d) the first and fourth authors of this study used a social media platform to distribute the ad to their Brazilian acquaintances and other men and women living in North and South America; (e) Italian-speaking respondents were recruited through the personal social media accounts of the second author (an Italian woman) and the first author's personal contacts in Italy and Canada; and (f) the fifth author, a Frenchspeaking man from Quebec, distributed the ad on his social networks. Even though the research team had no contacts in Portugal, USA, Peru and Argentina, recruitment ad was also spread to these countries.

Instrumentation: A team of content experts (including bilingual and cultural insiders) from the fields of anthropology, oncology and HP created 8 questionnaire items in the English language. The survey items were freely translated by bilingual individuals to French (a male researcher), Portuguese (a female researcher), Italian (a female researcher) and Spanish (a male non-researcher). All translated questionnaires were reviewed by men living in Brazil, Canada, and Mexico, who were considered as natural experts due to their local cultural immersion. Their review focused on the use of plain language and observed the high semantic diversity within the five languages to facilitate respondents' full understanding of each question. The questionnaire's internal consistency was not evaluated by external experts and its validity was not established, which threatens construct validity and external validity (Pedhazur & Schmelkin, 1991).

Three socio-demographic questions explored age, ethno-cultural identification, and country of residence. Two openended questions explored alcohol consumption and cultural acceptance of men's alcohol consumption and asked for their thoughts on research evidence concerning the elevated risk of cancer. Three multiple-choice questions were also asked. The first concerned barriers men might have to perceiving the risk of cancer associated with alcohol use. The second focused on which jobs men believed were associated with heavy alcohol consumption. The final question asked which conditions caused men to consume alcohol as a coping strategy. No questions directly addressed matters of HP for men who consume alcohol and its influence on men's professional and socio-affective lives.

Data collection and storage: Data was collected through the *Opinio* Survey platform hosted by the Canadian university.

Analysis: Socio-demographic data and responses to close-ended questions were compiled as descriptive statistics (Grove et al., 2013). Descriptive statistics as a measure of variability (frequency and percentage) was chosen to describe, summarize and synthesize data (LoBiondo-Wood & Haber, 2018) regarding a new, unexplored aspect or characteristics of the new data set (Kleinbaum et al., 1988). Responses to the open-ended questions were analyzed using thematic analysis (Paillé & Mucchielli, 2018) with the following modified procedures: (a) identification of emergent ideas after repeated readings; (b) grouped the ideas and reflected on them to identify themes; and (c) use of preestablished themes (based on the research questions) to respond to the research question. The analysis was conducted using two preestablished themes: alcohol consumption and its acceptance for men in respondents' ethno-cultural groups; and thoughts about scientific evidence concerning the consumption of alcohol in high concentration and heightened risk of cancer.

3. Results and Discussion

Below, the results of the survey are presented according to sample size. The small sample size of each language group (English, French, Italian, Portuguese, and Spanish), as well the socio-cultural perceptions of masculinity, alcohol consumption, and risk of cancer in 8 of the 9 countries (Argentina, Canada, Dominican Republic, France, Italy, Peru, Portugal, and United States of America) do not allow for analytical comparison. Therefore, the evidence is mostly presented in its descriptive form. Some of the descriptive numerical results are corroborated by our qualitative findings (gleaned from short written responses from respondents), specifically through examples provided by the respondents that may be understood as possible real-life connections with the three variables explored in the survey. The results are presented according to the respondents' language of choice and no information was collected about bilingualism or multilingualism.

The survey was completed by 176 men whose rate of participation per each language of choice was as follows: Portuguese (n=139; 78.9%), English (n=17; 9.7%); Spanish (n=14; 7.9%), French (n=4; 2.3%) and Italian (n=2; 1.2%). Researchers had no access to the raw data in the platform prior to the generation of the report produced by the platform itself. It should be noted that of the 6,197 male French-speakers who accessed the online informed consent form, 4,542 of them clicked "no" when asked to give their consent, just six (0.09%) gave their consent and only four (0.06%) fully responded to the questionnaire. No other language group showed the same significant loss of respondents.

Table 1 summarizes data about respondents' age, country of residence, and cultural self-identity according to language of choice in responding to the survey. With respect to age, most respondents were in the youngest (19-29 years) and oldest (50+ years) age ranges. Respondents informed nine countries of residence and five categories cultural self-identity (see Table 1). A question about perception of alcohol consumption in respondents' country of residence with multiple possible responses drew 733 responses. The three top statements were: "alcohol is a part of male students' lives" (n=138; 18.8%), "alcohol is a good way to feel accepted in social groups" (n=124; 16.9%), and "alcohol is not repressed at social gatherings" (n=122; 16.6%). These results revealed the social context of alcohol consumption including the spirit of comradery. Other statements selected by respondents provide some clues regarding consumption habits: "alcohol is a useful way to handle stressful situations (n=117; 16.0%) and "it is not unusual to have a drink after getting home from work" (n=98; 13.4%). It is also important to note that a small percentage (n=74; 10.2%) of respondents indicated that their families had engaged in the practice of encouraging boys to drink alcohol at gatherings at a young age, which is indicative of cultural reinforcement of hegemonic masculinity by the normalization of alcohol use. One Spanish-speaker (n=1; 2.3%) identified alcohol being used in baby bottles. Neither of the Italian speakers knew about alcohol perception in their country of residence. It is noteworthy that the statement "I do not drink alcohol" was chosen by 40 respondents (5.5%) (see Table 2).

Socio-demographics	Absolute and relative frequency per language of choice			
Age	(n /%)			
19 - 29 years: 58 (33.7%)	English: 14 (24.1%), French: 1 (1,7%), Italian: 1 (1.7%), Portuguese: 32 (89.6%), Spanish: 10 (17.2%)			
30 - 39 years: 39 (22.7%)	English and French: 0, Italian:1 (2.5%), Portuguese: 37 (94.8%), Spanish: 1 (2.5%)			
40 - 49 years: 29 (18.9%)	English, French and Italian: 0, Portuguese: 28 (96.5%), Spanish: 1 (3.4%)			
50 years or more: 46 (26.7%)	English: 2 (4.3%), French: 2 (4.3%), Italian: 0, Portuguese: 40 (86.9%), Spanish: 2 (4.3%)			
Total*: n= 172				
Country of residence	(n/%)			
Brazil: 164 (75.9%)	English, French, Italian and Spanish: 0, Portuguese: 164 (100%)			
Canada: 30 (13.9%)	English: 16 (53.3%), French: 1 (3.3%), Italian: 0, Portuguese: 12 (40%), Spanish: 1 (3.3%)			
Portugal: 4 (1.8%)	English, French, Italian, and Spanish: 0, Portuguese: 4 (100%)			
United States of America: 4 (1.8%)	English, Italian: 0, French: 1 (25%), Portuguese: 1 (25%), Spanish: 2 (50%)			
Italy: 2 (0.9%)	English, French, Portuguese, Spanish: 0, Italian: 2 (100%)			
Dominican Republic: 8 (3.7%)	English, French, Italian, and Portuguese: 0, Spanish: 8 (100%)			
Peru: 1 (0.4%)	English, French, Italian, and Portuguese: 0, Spanish: 1 (100%)			
Argentina: 2 (0.9%)	English, French, Italian, and Portuguese: 0, Spanish: 2 (100%)			
France: 1 (0.4%)	English, Italian, Portuguese, and Spanish: 0, French: 1 (100%)			
Total*: n= 216				
Cultural self-identity	(n /%)			
Brazilian: 129 (74.56%)	English, French, Italian, and Spanish: 0, Portuguese: 129 (100%)			
Portuguese: 8 (4.62%)	English, Italian, and Spanish: 0, French: 1 (12.5%), Portuguese: 7 (87.5%)			
Italian: 21 (12.13%)	English: 16 (76.2%), French:1 (4.8%), Italian: 2 (9.5%), Portuguese: 1 (4.8%), Spanish: 1 (4.8%)			

Table 1 - Respondents' Sociodemographic Data.

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French: 3 (1.73%)	English, Italian, and Portuguese: 0, French: 2 (66.6%), Spanish: 1 (33.3%)	
Other: Argentinian: 12 (6.93%)	English, French, Italian, and Portuguese: 0, Spanish: 12 (100%)	
Total*: n= 173.		

Note: ** Not all questions were responded to by respondents. Source: Authors.

	A	Sub-total				
Choice/Language	English (n=17)	French (n=4)	Italian (n=2)	Portuguese (n=139)	Spanish (n=14)	Total perceptions
Alcohol is a part of most male student's life	14 (82.3%)	2 (50%)	0	116 (83.4%)	6 (42.8%)	138 (18.8%)
Alcohol is a good way to feel accepted in social groups	12 (70.6%)	2 (50%)	0	102 (73.4%)	8 (57.1%)	124 (16.9%)
Alcohol is not repressed at social gatherings	7 (41.2%)	1 (25%)	0	111 (79.8%)	3 (21.4%)	122 (16.6%)
Alcohol is a useful way to handle stressful situations	7 (41.2%)	0	0	93 (66.9%)	10 (71.4%)	117 (15.9%)
It is not unusual to have a drink after getting home from work	12 (70.6%)	2 (50%)	0	79 (56.8%)	5 (35.7%)	98 (13.4%)
It is common to encourage boys to drink alcohol at family gatherings at a young age	9 (52.9%)	0	0	62 (44.6%)	3 (21.4%)	74(11%)
I do not drink alcohol	1(5.8%)	1 (25%)	0	32 (23.0%)	6 (42.85%)	40 (5.4%)
Alcohol is a healthy way to help men fall asleep	4 (23.5%)	0	0	9 (6.5%)	1 (7.1%)	14 (1.9%)
I do not know	0	0	2 (100%)	0	0	2 (0.3%)
Alcohol is added to a baby boy's bottle for health benefits	0	0	0	0	1 (7.1%)	1 (0.1%)
Total	66 (9%)	8 (1%)	2 (0.3%)	604 (82.4%)	53 (7.2%)	733 (100%)

Table 2 - Chosen Statements about Perception of Alcohol in the Respondents' Country of Residence*.

Note: The respondents' country of residence was not identified. Source: Authors.

The Table 1 indicates that most of the respondents were young Brazilian men who self-identified as Brazilian for their cultural group. The success of recruitment and high participation rate of Brazilians may reflect their open-mindedness to discuss health-related matters as well as this group's interest in volunteering for research as a personal interest. While in Table 2, the results reveal the common socialization process of young men in a context of comradery, freedom, and interaction occurring mostly among the students where alcohol is part of the social context for relaxation, enjoyment, and well-being.

From a list of multiple statements, respondents' choices summed up 521 statements offering their perceptions about which jobs might lead men to consume more alcohol. The three top choices were construction (n=139; 27.5%), manufacturing (n=84; 16.1%), and police officers/firefighters (n=65; 12.5%). Law professionals were identified in our sample as being the least likely to consume alcohol due to their job (n=41; 7.86%) (see Table 3).

Absolute and relative frequency per language and by choice (%) Sub-						
Choice/language	English (=17)	French (n=4)	Italian (n=2)	Portuguese (n=139)	Spanish (n=14)	Chosen jobs
Construction	15 (88.2%)	3 (75%)	2 (100%)	108 (77.7%)	11 (78.6%)	139 (27.5%)
Manufacturing	9 (52.9%)	1 (25%)	1 (50%)	69 (49.6%)	4 (28.6%)	84 (16.1%)
Police officers and Firefighters	5 (29.4%)	0	0	56 (40.3%)	4 (28.6%)	65 (12.5%)
Politics	7 (41.2%)	0	0	46 (34%)	8 (57.1%)	61 (11.7%)
Healthcare	3 (17.6%)	0	0	51 (36.4%)	3 (21.4%)	57 (10.9%)
Sales	9 (53%)	0	0	37 (26.6%)	4 (28.6%)	50 (10%)
Law	9 (53%)	0	0	25 (18%)	7 (50%)	41 (7.9%)
Other	0	0	0	22 (15.8%)	2 (14.3%)	24 (4.6%)
Total	57(10.9%)	4(0.7%)	3(0.6%)	414(79.4%)	43(8.2%)	521 (100%)

Table 3 - Jobs Leading Men to Consume More Alcohol and to a Higher Risk of Cancer.

Source: Authors.

Results in Table 3 reinforce stereotype of professions requiring common attributes of hegemonic masculinity such as physical strength and endurance, courage, and emotional control to which the alcohol consumption may be perceived by men as a support tool.

Regarding the situational causes of alcohol consumption, respondents selected 777 statements. The most cited situational causes were stress (n=141; 18.1%), unemployment or unstable job (n=140; 18.0%), financial trouble (n=139; 17.9%), divorce or separation (n=135; 17.4%). Personal health-related situational causes for alcohol consumption were identified as mental illness (n=51; 6.6%), sickness or disability (n=49; 6.3%) and chronic pain (n=37; 4.8%). Emotional pain due to the death of a loved one was also chosen as a situational cause for alcohol consumption (n=76; 9.8%) (see Table 4).

	Absol	ute and relative f	requency per lang	guage and by choice	e (%)	Sub-total
Choice/language	English (=17)	French (n=4)	Italian (n=2)	Portuguese (n=139)	Spanish (n=14)	Chosen causes
Stress	13 (76.5%)	3 (75%)	1 (50%)	113 (81.3%)	11 (78.6%)	141 (18%)
Unemployment or Unstable job	14 (82.3%)	2 (50%)	1 (50%)	114 (82%)	9 (64.3%)	140 (18%)
Financial trouble	13 (76.5%)	1 (25%)	2 (100%)	111 (79.8%)	12 (85.7%)	139 (17.9%)
Divorce or Separation	15 (88.2%)	2 (50%)	1 (50%)	106 (76.2%)	11 (78.6%)	135 (17.4%)
Death of a loved one	12 (70.6%)	1 (25%)	0	55 (39.6%)	8 (57.1%)	76 (9.8%)
Mental illness	12 (70.6%)	1 (25%)	0	36 (25.9%)	2 (14.3%)	51 (6.6%)
Sickness or Disability	7 (46.2%)	1 (25%)	0	38 (27.3%)	3 (21.4%)	49 (6.3%)
Chronic pain	12 (70.6%)	1 (25%)	1 (50%)	21 (15.1%)	2 (14.3%)	37 (4.8%)
Other	0	0	0	9 (6.5%)	0	9 (1.1%)
Total	98 (12.1%)	12 (1.5%)	6 (0.7%)	603 (76.6%)	58 (7.5%)	777 (100%)

Table 4 - Situational Causes of Alcohol Consumption.

Source: Authors.

Table 4 invites consideration of underpinning ideas about an increase in alcohol consumption related to situations where men are expected to remain in control of themselves and the surrounding context and circumstances. Low emotional control and having a job and financial stability are contrary conditions to what is socially expected for a man to keep. Respondents confirmed their perceptions about social expectations as related to masculine roles and social status.

Two open-ended questions allowed men to voice their opinions about use of alcohol, its social acceptance, and the risk of cancer. Similarities and particularities exist among the men's five self-identified ethno-cultural groups. Both questions seemed to pique the men's interest, and some of the respondents positioned their accounts in the context of their country of residence. For the question exploring alcohol consumption and its acceptance for men in respondents' ethno-cultural groups, there were 172 responses: Portuguese (n=130; 75.6%), English (n=16; 9.3%), Spanish (n=12; 7.0%), French (n= 3; 1.7%), and Italian (n= 2; 1.2%).

More detailed information regarding common drinking habits was provided by 11 respondents in English (6.4%). These respondents emphasized that men are exposed to alcohol consumption from a young age. Cultural differences between Italy and Canada (beer vs. wine) were cited twice (9.3%) among 16 narrative responses. For instance, the frequency of alcohol drinking was 1-2x/week, 7-10x/setting, at every meal. The three responses in French indicated that alcohol was culturally and socially accepted. All 12 respondents in Spanish agreed that it was very common for men of all social classes in their culture to use alcohol, and the age of onset varied slightly by country (17 years for Argentina, 15 years for Dominican Republic and Peru). In a narrative response, one man claimed that 80% of men in the Dominican Republic drink alcohol.

Regarding their thoughts about scientific evidence regarding the association between consuming alcohol in high concentrations and heightened risk of cancer, 160 responses were gathered: Portuguese (n=128; 80.0%), English (n=16; 10.0%), Spanish (n=11; 6.9%), French (n=3; 1.9%), and Italian (n=2; 1.3%). Of the responses in English, seven, or 4.4% of the total responses, believed the scientific evidence; three (1.9%) were not concerned by the evidence and stated that they would not change their behaviors; and six (3.8%) claimed they were unaware of the alcohol-cancer correlation but were interested in the topic. Seven responses in Spanish (4.4% of the total) indicated they were aware of the correlation, and three others (1.9%) were unaware of any risk. One response in Spanish (0.6%) revealed disbelief in any existing correlation, while

another respondent (0.6%) believed that alcohol was a necessity but should be regulated. Yet another individual (0.6%) stated that the correlation was new information to him. Two Spanish-speaking men (1.3%) stated that they were not affected by the scientific evidence. Other accounts are presented in Display 1, which provides many examples of men's thoughts, beliefs and reflections about masculinity, gendered-behavior, alcohol use, and the risk of cancer, expressing the lived masculine norms in their home countries.

It seems that there is some awareness about masculinity as an influence on men's health status, as stated by a Brazilian participant who shared his reflection (free translation):

Unfortunately, male socialization in different societies is often based on the demonstration of strength, power, and domination, which leads to displays of violence and sometimes self-destructive behavior.

The results of our study suggest alcohol consumption in the participating countries is quite common and available in many social settings. The study did not describe the influence of alcohol consumption on cancer literacy, which is rooted in intergenerational practice and understood through the lens of masculinity, nor the consequent interference on cancer prevention. The study attempted to reveal multiple dimensions of men's relationship with alcohol and the influence of common perceptions of masculinity on alcohol use. Our evidence may indicate some reflection by men is required regarding alcohol consumption in relation to jobs traditionally held by men that require manual skills, resistance to physical and emotional risk, physical endurance, and even preparedness for life-threatening situations. Our results suggest alcohol consumption is viewed by many men as a social activity carried out in the context of interpersonal relationships, social gatherings with family, friends, and peers. Alcohol is also expected to be part of men's attempts to endure unpleasant emotions related to professional, and affective losses.

In fact, men's perception of masculinity may impact how well they respond to contingent requirements for endurance, resilience, and coping (Roy et al., 2017). Our evidence indicates that cultural norms around alcohol consumption as a coping strategy may prevent men from developing a more accurate understanding of the risks of alcohol as they view consumption as a socially accepted form of self-care. Moreover, in a context in which alcohol consumption is normalized, some men's disinterest in self-protective behaviors and their compromised cancer-related health literacy led to an increased risk for cancer (Teese et al., 2023). This risky situation was documented by Teese et al. (2023), who demonstrated how the norms of hegemonic masculinity influence alcohol use and the consumption of illicit substances among adult men. Due to widespread social approval, binge drinking is associated with men's lack of concern for risk to their physical well-being, which is a key dimension of hegemonic masculinity (Luna-Cortes & Aristizabal Cuellar, 2022; Ramšak, 2022).

The large number of narratives in our sample provided by respondents in Portuguese allowed for an in-depth, qualitative intragroup analysis of this data (Zanchetta et al., 2021). Analysis uncovered an expression of fearless alcohol consumption among most respondents, and they provided minimal spontaneous comments about public preventive programs and policies. The small size of other language subsamples did not allow qualitative intragroup in-depth analysis or an intergroup analysis assembling all subsamples. Therefore, alcohol consumption as an unhealthy expression of masculinity and exposure to the risk of cancer could not be analyzed and compared by language and country of residence.

Overall, our results suggest that some respondents have limited knowledge of the scientific evidence linking alcohol consumption in high concentration and the heightened risk of cancer, revealing compromised health and scientific literacy on this issue. Throughout all sub-samples the respondents made few suggestions about dissemination of scientific information about alcohol and risk for cancer using a mass education approach as a possible intervention to promote both forms of literacy. For that, cancer prevention strategies should consider evidence-based interventions and public policies to reduce exposure and encourage the adoption of a healthier lifestyle (Rezende et al., 2020). Modifying the level of alcohol consumption by young

adults rather than only focusing on heavy drinkers would be more effective in reducing the harms of alcohol including the risk of cancer (van de Luitgaarden et al., 2022).

Discussion

In this study, exploration of alcohol consumption with an internationally diverse sample of men with a Latin cultural background assumed that men would share common rationale in their decision to use this substance. Our evidence indicated that stressful situations may lead men to consume alcohol as a way of alleviating their concerns as well as stimulating their body and mind. This possibility has been targeted by health awareness interventions for men. While very few respondents they were completely unaware of the correlation between alcohol consumption and the risk of cancer, there is room for improvement in raising awareness through mass HP. Considering the gaps in some respondents' knowledge, some misconceptions expressed by participants, and unhealthy practices described by other respondents, it is clear that many of these respondents could benefit from moments of reflection regarding their alcohol consumption. More should be done motivate men to share information about risky behaviors, adopt a healthier lifestyle and share their new insights with their peers, thereby spreading awareness of the risks associated with alcohol consumption. Future health promotion actions could mirror the work done in some European countries, in which men's health promotion has been inspired by the idea that men can act as agents of change and positively influence their peers (Hearn & Kolga, 2006).

The importance of understanding how alcohol consumption differs among ethno-cultural groups is widely acknowledged. Our study documented some trends in alcohol consumption within ethnocultural groups in several countries, thus contributing to the international scientific literature about effective health promotion regarding men's consumption of alcohol. Our evidence corroborates other studies suggesting that attitudes concerning alcohol consumption can affect the health status of men (DiBiello, 2022; Rezende et al., 2020). In our sample, men living in France, Portugal and Italy highlighted how alcohol is seen differently in these cultures, having a particular focus on experience and gastronomy. In Portugal and France, individuals consume four times more wine per capita than in the US (Kinzler & Vanden Heuvel, 2016).

Our evidence about men living in Brazil is compatible with Macinko et al.'s (2015) study, which focused on patterns of alcohol consumption and related behaviors. Many men in their study reported that they started consuming alcohol around the age of 18 and consumed approximately five drinks at social events. Over half of the respondents indicated they had engaged in binge drinking, with 42% reporting having binge drinking more than four times in the previous month. Rezende et al. (2020; 2019) and van de Luitgaarden et al. (2022) studied several Latin American countries, including ones from which our sample drew, and found that the risk of cancer is higher with heavy drinking than with moderate drinking in these countries.

Our sample of residents in USA, led us to acknowledge local trend in the overall consumption corroborating a US study by Delker et al. (2016) who documented high alcohol consumption among White, Hispanic, and Black individuals, but found that weekly prevalence is slightly higher among Hispanics (14.1%) than among Whites (13.6%) and Blacks (11.4%). The U. S Dept of Health and Human Services (2015) stated that differences in ethnicity affect the early initiation of alcohol consumption, and, for Hispanic Americans, the level of acculturation is a significant factor in determining whether a person will drink. Moreover, Hispanic immigrants who experience cultural stressors reported positive attitudes towards alcohol (Grigsby et al., 2018).

A worrisome trend in non-Western countries, mainly in Nigeria, is consumption of alcohol by underage men in reaction to the stigma of not drinking, with abstinence commonly being viewed as a deviation of from heterosexual masculinity (Dumbili, 2022). Another stigma faced by men relates to mental health and coping mechanisms, especially for those living in rural areas where access to mental health services can be less available or socially acceptable. Consequently, alcohol

consumption can be easily perceived to alleviate emotional health issues (Hopkins, Proctor, Muilenburg, & Kershaw, 2022) as identified by our evidence.

Limitations

A possible methodological limitation in this study concerns our recruitment strategies. Despite having followed rigorous methodological fieldwork procedures, our decision to rely on existing social and professional networks may have constrained our sample. The recruitment team only had one young adult Mexican man and one male French-Canadian professor, while the other researchers involved in the recruitment were women belonging to different age groups. For instance, the second author is a young second-generation Italian woman, who contacted mainly young English-speaking men in Toronto and Italian-speaking men in Italy. The first and fifth authors are Brazilian women living in Toronto with extensive social networks in Brazil. They targeted adult women to help recruit men within their social networks and reposted the ads in social media. Both authors directly recruited adult and senior men using their social media as well.

However, it would be beneficial to have more diversity among the primary recruiters, since this would help us reach a wider range of prospective respondents. A larger and more diverse set of research respondents would support valid intergroup and intragroup comparisons. The small sample size of respondents in French and Italian language undermined these comparisons. Two other methodological limitations should be considered: the lack of back-translation of the five questionnaires to better grasp semantic differences, and the impossibility of grasping the meaning of words in the same language spoken with semantic variation within and among several countries.

Another methodological limitation relates to the impossibility of testing correlation variables (e.g., Pearson's r, Chi-Square, t-Test, and ANOVA) due to the nature of the exploratory questions.

Implications for Practice and/or Policy and Research

Evidence can influence policymakers and health promoters as they develop legislation and programming to limit unhealthy behavior related to alcohol consumption. Solid evidence is necessary to advance health literacy among individuals, health professionals and health care organizations, whose researchers can investigate which messages work best. Mass education campaigns can acknowledge the enjoyable aspects of drinking while also emphasizing associated cancer risks. Innovative campaigns should address the familial roots of drinking habits. Policymakers are invited to consider how to formulate international and cross-cultural alcohol policies, while researchers uncover the economic, moral, and emotional obstacles to promoting changes in consumption habits.

The global men's HP agenda should address the forms of masculinity embraced by boys, youth, and men, and the intersections between gender and other markers of identity like sexuality and class (Smith et al., 2020). A transparent and socially inclusive HP policy would support interagency collaboration to prevent and tackle discrimination and unsafe living conditions for male minority groups, whose experiences of discrimination, stress and social isolation sometimes lead them to use less healthy coping strategies. Moreover, any global HP initiative for men in this matter should critically review the alcohol industry's conflicting interests and role as financial stakeholders in many social sectors. It is particularly relevant for the World Health Organization development of alcohol-related to critically consider stakeholders' interest in any alcohol control policy to tackle such risks as recommended by Rinaldi et al. (2021).

Future qualitative research (e.g., ethnography, narrative research, participatory action research or phenomenological study) could provide important insights about men's lived experiences and perceived individual and collective representations of alcohol consumption. The identification of testable, correlated variables based on culture will elucidate the relationships between masculinities, attitudes towards cancer and alcohol consumption. Research should advance knowledge in the field of

HP by pointing out key gaps in the information men receive which if filled would allow men to make informed decisions about alcohol and cancer prevention.

Our results suggest HP on this issue should be guided by the following principles: (a) democratization of knowledge about alcohol and risk of cancer is necessary to improve men's health literacy and specifically, cancer literary; and (b) mobilization of some aspects of traditional masculinity such as personal responsibility, and the society commitment to men's well-being to ensure men act on this knowledge.

4. Conclusion

Our results suggest that alcohol consumption is normalized to a certain extent among men of different ages and backgrounds living in various international contexts. The dyad of masculine risk-taking and the alcohol consumption was acknowledged by many men in our study. Alcohol consumption was described by respondents as a feature related to masculinity, and the overall social acceptance of drinking was evidenced by its consumption at social gatherings and within family homes as a symbol of maturity, independence, and autonomy. Our findings described how alcohol use relates to men's identity and self-image, which have been shaped by the respondents' Latin culture, beginning at a young age. Therefore, evidence suggest that high-impact preventative interventions would require careful redesign of strategies to reduce the influence of cultural (e.g., family's health beliefs and practices), social (e.g., boys' drinking initiation, peers' and media's influence, cancer prevention campaigns), and economic and political factors (e.g., consumption prohibition, ineffective policies) on men's alcohol consumption.

The need of future research invites researchers to build a strict collaboration with men in all age groups and social strata to define with them, a gender-, age- and culturally sensitive and relevant research program. With men, intriguing research questions could be established. Collaboration should be extensive to the innovative co-designed, non-threatening recruitment and data collection strategies to secure research buy-in and engagement by target groups of men. Some priority research themes include the impact of professional media's sale marketing of alcohol beverages on the family's acceptance of the use of alcohol consumption since early ages, the normalization attitude towards alcohol consumption and on the direct consumption behaviours by youth and young adult men. Research should explore alcohol consumption-related family values in the context of primary health care clinics, particularly in specialty, prenatal and pediatrics clinics. The health professionals' competencies and readiness for health promotion initiatives and social support for men should be explored in education evaluation research after offering them the necessary professional development and in-service education.

Language	Alcohol consumption and its acceptance for men in respondents' ethno-cultural groups.	Thoughts about scientific evidence on alcohol consumption in high concentrations and the heightened risk of cancer.
English	In Canada: Alcohol is acceptable for menespecially for someone of Italian background like me. Alcohol is marketed all over society wherever you look and has become ingrained in social gatherings as you grow older It is very commonand is encouraged by the culture. Casual drinks with friends, or at dinner appear to be part of life. There's even a joke about Canadians having stronger beer than Americans, while stronger beer is a Canadian country song alcohol is common pretty much everywhere. When I was younger, I often saw people around me consuming alcohol on a daily basis. Whether it be at a party, sports event or family function.	Unidentified country: I believe that like smoking cigarettes, drinking alcohol is very harmful for your body. However, I continue to drink alcohol socially as it is a good way to enjoy life in the momentdon't really think about the consequences for the future. Research is research, facts are facts. Need to live your life and have fun. Everything has pros and cons, don't get too caught up on this. I think this is concerning. This fact should definitely be more widespread. I have little to no knowledge on that subject. However, if that were true it would not shock me. That is scary but probably true as a result of cirrhosis.
French	In Canada: I live in Quebec. From advanced adolescence, say 18 years, it is considered acceptable in moderation. Acceptability then is always present according to a consumption considered reasonable in the sense of not too abundant "Moderation tastes much better".	Unidentified country: I do not know the state of the research on this. Some people in the world could tell us more! I guess that here too, it must be a question of the amount consumed.
Italian	Unidentified country: Until you have reached a dangerous level for your safety and of others and remain within the limits of modesty. One glass of wine for lunch, half a glass of wine for dinner.	Unidentified country: I think that's true. I agree.
Portuguese	In Brazil: this is very common and acceptable and even worthy of encouragement. the consumption of alcoholic beverages by men is extremely stimulated since childhood and, although there is a law prohibiting the sale to minors under the age of 18, in practice alcoholic beverages are easily accessible to adolescents. In Portugal: it is almost a must or imposition of masculinity to drink alcohol between men.	Unidentified country: It is possible, because the components of alcoholic beverages are most often unknown, consumption, type, frequency, the time of use and the path that the alcoholic beverage passes through the human body, can generate various types of cancers. There is scientific evidence that correlates the immoderate consumption of alcoholic beverages, particularly distilled alcoholic beverages, with the risk of cancer. There is also some evidence to suggest that moderate consumption of non-distilled alcoholic beveragescan help prevent cancer.

		I believe that the use of alcoholic beverages with this content routinely brings a series of associated disorders and consumption of other substances, such as a high-fat diet. Therefore, only with this information provided I cannot draw conclusions.
Spanish	 In Argentina: Alcohol consumptionis very common from the age of 17, in men and women almost equally. It's very common alcohol abuse among young people when they go out dancing. In the Dominican Republic: A large percentage consider drinking alcohol a practice common, with the difference that it is from the age of 15 onwards that he is given that privilege. In Peru: not only if you are older or the circle in which you participate accepts that you consume alcohol. Unidentified country: A lot, but especially in my age group. Young millennials have changed drinking alcohol with consumption of heroinAlcoholism is still very common among African American and Latino youth. 	Unidentified country: That at present consuming alcohol is like a basic need of the human being, the sale and consumption of it is legal in all areas, however, its sale should be considered restricted by the damage it causes to our organism. If we base ourselves on what the study says, they give us the understanding that there is a very great risk about the mismanagement of these liqueurs. In our country, although they know the statistics, the consumption of alcohol remains the same, the main stimulant before any activity.

Source: Authors.

Finally, the Display 1 presents the respondents' original thoughts about transnational and transcultural views of alcohol consumption and shared common elements. Such elements reinforce our interpretative insights about the long-lasting influence and presence of hegemonic masculinity as lived and rooted in a common history of colonization in Latin men's culture.

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