Factors determining alcohol consumption in Burkina Faso

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ABSTRACT

Alcohol consumption in Burkina Faso is still relatively high, despite economic, social and health consequences on people, households and society as a whole, and despite the restrictive legislation adopted on production, importation, marketing and advertisement. Therefore, this study is undertaken to identify the main factors influencing the persistent use of these products by men and women in the country. The data used was generated from the Burkina Faso Demographic and Health Survey, conducted in 2021 on a representative sample of 7,720 men aged 15-59 and 17,659 women aged 15-49. The analyses began with a description of practice according to a number of salient characteristics. Ordered logistic regression was then used to identify the consumption determinants for each gender. Results showed that women consume less alcohol than men (9.8% and 27.1% respectively), that the more affluent consume more alcohol, while Muslims consume less. In addition, no longer being in union (divorced, separated, widowed), being older and living in the Sud-Ouest region are associated with higher alcohol consumption. Alcohol consumption also predisposes to smoking. These parameters help us to better target the categories and areas where to raise awareness of harmful effects of alcohol.

Keywords: *Alcohol, Gender, Consumption, Burkina Faso*

INTRODUCTION

Alcohol consumption in Burkina Faso is among the highest in the world. The country ranks third in Africa and 14th in the world, with an estimated 12 litres of pure alcohol consumed per person per year. Alcohol consumption is part of many communities' ceremonies and celebrations (Ministère de la santé, 2014). It is particularly prevalent among young people and adults: 21.8% among 25-34 year olds and 35.9% among 55-64 year olds. It is more common in urban than rural areas (79% compared with 46.9%). In recent years, it becomes even more dangerous with the invasion of so-called adulterated alcohol (CAPES,

2023). In response to this new development, Burkina Faso has banned the production, importation and marketing of liqueurs and other spirits in plastic bags and in bottles of less than 30 centilitres since 2019. In addition, a ban on the sale and supply of alcoholic beverages to persons under the age of 18 was introduced by 2023. This was reinforced by the mandatory inclusion of an explicit statement "It is prohibited to sell or offer alcohol to people less than 18-years of age", which must be displayed at the entrance of drinks shops. A specific code on alcohol advertising was also introduced in 2001. Radio and television advertisement of beverages containing more than 10% pure alcohol is actually prohibited (Law n°025-2001/AN of 25/10/2001, official journal n°52-2001). In addition, the Law on the General Status of Civil Servants prohibits alcohol drinking at work during official working hours (Law n°081-2015/CNT).

Unfortunately, these legal and administrative measures can hardly curb alcohol consumption, despite its numerous health, social and economic consequences. In order to better articulate this fight, it would be necessary to identify the underlying reasons of this consumption. Identifying the characteristics of consumers would help to calibrate interventions to better target concerned people. The formulation of appropriate interventions will help to increase their effectiveness. To this end, the aim of this study is to identify the determinants of alcohol consumption. The first step is to describe the characteristics of the consumers. Secondly, the predominant characteristics of the consumers are identified. In this way, sub-groups of people are formed according to the nature and extent of their consumption. The study highlights the factors that influence the consumption level for each gender.

II. METHODS

The data used in this study was generated from the fifth Burkina Faso Demographic and Health Survey, conducted in 2021. It is a two-stage stratified sample survey. The strata consist of urban and rural areas in the 13 regions of the country. The primary units, or clusters, are the enumeration areas (EA) drawn in the first stage. These EAs are derived from the latest population and housing census of 2019. For the second stage of the draw, all households in the previously selected clusters were enumerated. In each cluster selected in the Sahel region, 32 households were randomly selected, while in the other 12 regions, 26 households were chosen. Interviews were conducted with 17,659 women aged 15-49 from these households. In half of the households, 7,720 men aged 15-59 were interviewed (INSD & ICF, 2023).

Alcohol consumption is defined with four levels: no consumption, low consumption, moderate consumption and abusive consumption. In line with WHO recommendations, the levels are defined differently for men and women: None (never drinking), Low (drinking less than 40 g of pure alcohol per day for men and less

than 20 g for women), Moderate (drinking between 40 g and 59.9 g of pure alcohol per day for men and between 20 g and 39.9 g for women) and Abusive (drinking 60 g or more of pure alcohol per day for men and 40 g or more for women). The conversion is based on 10g of ethanol per 1 glass of alcohol and the reference period is the month. This four-level variable of alcohol consumption represents the dependent variable.

The summary of independent variables is based on several studies in developing countries. Early initiation favours addiction. Adolescents who were allowed to drink were more likely to develop addiction (OR=2.40; CI= [1.96; 2.94]) (Staff & Maggs, 2020). There is also a gap between young and old. Young people (aged 20-29) are 4% less likely to drink alcohol than older people (aged 40-60) (Ouedraogo et al., 2019). Social network advertising has also been reported to have a positive impact on alcohol consumption, especially among young people (Saleem et al., 2022; Zürcher & Sadowski, 2014). Family instability, lack of parental authority and dissipated family life are detrimental to them. This includes the presence of an alcoholic member, a divorced head of household or sibling drinker (Boltana et al., 2023; Boua et al., 2021; Gitatui et al., 2019). Males also drink more than females (Makoutode et al., 2010; Senga et al., 2005), but alcoholism is mitigated by a stricter religiosity (Charro Baena et al., 2019; Rivera et al., 2018). On the other hand, the job arduousness leads to the alcohol use as a stimulant (Marchand& Charbonneau, 2009). Higher levels of education are also associated with an increase in consumption (Assari & Lankarani, 2016; Ouedraogo et al., 2019).

Given the ordinal nature of the dependent variable (level of consumption) with a limited number of items, the explanatory model used is the ordered logistic regression. Given a qualitative ordinal dependent variable Y with k modalities (k>2) and explanatory variables X1, X2, ..., XM, we model the evolution of the first k-1 probabilities as follows:

$\Pi j = P(y=j),\ j = 1, ..., k$

$j = P(y \leq j) = \pi 1 + ... + \pi j,\ j = 1, ..., k-1$

The logit corresponding to this probability is called the cumulative logit. It is equal to :

$gj = ln[j/(1- j)] = ln [(\pi 1 + ... + \pi j)/ (\pi j+1 + ... + \pi k)]\ \ j+\beta jx$

The odds equal is: $(\pi 1 + ... + \pi j)/ (\pi j + 1 + ... + \pi k) = exp(gj)$ and the odds ratio relative to xi and xi+1 is:

$P(y \leq j|xi+1)/[1-P(y \leq j|xi+1)]/ ((P\ (y \leq j\ \ xi)/ [1-P(y \leq j|xi)]) = exp(\beta).$

To implement the model, only the significant variables at the 20% threshold from the bivariate step are considered. The Hosmer and Lemeshow test determines the adequacy of the final model. The pseudo-R^2 indicates the significance of the overall model. The explanatory model used the Stata software Ologit procedure.

III. RESULTS

Results show that the proportion of women who drank alcohol was 15.4% overall (Table 1). Low drinkers accounted for

12.0%, moderate drinkers for 2.7% and abusive drinkers for 0.8%. The highest prevalence was found among Lobi/Dagara (58.6%), Animist/Atheist (55.8%) and Sud-Ouest (59.4%). These categories also had the highest prevalence of abuse, at 2.3%, 2.4% and 2.3% respectively. The lowest prevalences of drinkers were found in the Cascades region (6.1%), the Sahel region (0.0%), Muslim women (2.3%) and the Fulanis/Touaregs ethnicities (0.4%). Among men, the prevalence of use was 27.1%, with low use at 24.5%, moderate use at 1.1% and abusive use at 1.5% (Table 2). The highest prevalence was found among those in cohabiting relationships (49.6%), living in the Sud-Ouest region (62.4%), Catholic (62.2%) or animist/atheist (67.3%), and of Lobi/Dagara ethnicities (67.6%). The lowest prevalence was found among Fulani/Tuareg ethnicities (1.3%) and Sahel residents (1.3%). Abusive drinking was most prevalent among daily smokers (3.0%), those who were affected by weekly passive smoke (2.8%), the oldest (2.8%) and those who read newspapers at least once a week (3.5%).

Table 1: Level of alcohol consumption by women according to some characteristics

Variable	Modalities	No	Low	Moderate	Abusive	Total	P-value	Prevalence
Marital Status	Single	85.3	11.2	3.1	0.4	100	0.011	14.7
	Married	86.4	10.7	2.1	0.8	100		13.6
	Concubinage	80.9	15.0	3.0	1.0	100		19.1
	Out of union	71.4	21.0	6.6	1.0	100		28.6
Region	Boucle du Mouhoun	86.3	10.5	2.7	0.5	100	0.012	13.7
	Cascades	93.9	3.5	1.7	0.9	100		6.1
	Centre	86.2	10.2	3.1	0.5	100		13.8
	Centre-Est	86.6	10.8	1.3	1.3	100		13.4
	Centre-Nord	86.6	10.4	2.6	0.4	100		13.4
	Centre-Ouest	76.6	15.7	7.6	0.2	100		23.4
	Centre-Sud	81.5	16.0	1.7	0.8	100		18.5
	Est	88.1	9.5	1.7	0.7	100		11.9
	Hauts-Bassins	89.2	8.8	1.5	0.5	100		10.8
	Nord	87.6	11.0	0.4	1.0	100		12.4
	Plateau central	84.8	11.1	1.3	2.7	100		15.2

Variable	Modalities	No	Low	Moderate	Abusive	Total	P-value	Prevalence
Education	Sahel	100.0	0.0	0.0	0.0 -	100		0.0
	Sud-Ouest	40.6	52.2	5.0	2.3	100		59.4
	Not educated	84.9	11.9	2.3	1.0	100	0.01	15.1
	Primary	83.1	13.3	3.0	0.6	100		16.9
	Secondary	85.1	11.3	3.0	0.6	100		14.9
	Superior	78.2	14.0	7.8	0.0 -	100		21.8
Place of residence	Urban	87.2	9.4	2.9	0.5	100	0.009	12.8
	Rural	83.3	13.2	2.6	0.9	100		16.7
Religion	Muslem	97.7	1.8	0.5	0.1	100	0.007	2.3
	Catholic	55.8	33.6	8.1	2.5	100		44.2
	Protestant	88.2	9.6	2.0	0.2	100		11.8
Ethnicity	Animist/Atheist	44.2	47.2	6.3	2.4	100		55.8
	Bobo/Jula/ Senufo	79.1	15.8	4.3	0.8	100	0.01	20.9
	Fulani/Tuareg	99.6	0.4	0.0	0.0 -	100		0.4
	Gourmantche	88.4	9.1	2.0	0.5	100		11.6
	Gurunsi	77.1	14.4	8.2	0.3	100		22.9
	Lobi/Dagara	41.4	51.1	5.1	2.3	100		58.6
	Mossi/Bissa	86.1	10.8	2.3	0.8	100		13.9
	Other	84.0	12.6	2.2	1.1	100		16.0
Relation to head of Household	Head of HH	80.4	14.0	4.5	1.1	100	0.009	19.6
	Son/Grand Son	84.7	11.7	3.2	0.5	100		15.3
	Brother	80.3	14.3	4.4	1.0	100		19.7
	Other relation	84.9	11.9	2.4	0.8	100		15.1
Sex of head of household	Male	84.9	11.8	2.6	0.8	100	0.007	15.1
	Female	82.3	13.3	3.6	0.9	100		17.7

Variable	Modalities	No	Low	Moderate	Abusive	Total	P-value	Prevalence
Level of living standard	Very poor	81.0	14.8	2.8	1.4	100	0.011	19.0
	Poor	80.6	15.7	2.8	0.9	100		19.4
	Medium	84.7	12.1	2.5	0.7	100		15.3
	Rich	88.2	9.0	2.1	0.7	100		11.8
	Well-off	86.9	9.6	3.1	0.4	100		13.1
Occupation	Not working	88.7	8.7	2.3	0.3	100	0.011	11.3
	Technic/ managerial/ Clerical	76.3	17.6	5.7	0.5	100		23.7
	Sale	78.6	16.8	3.3	1.3	100		21.4
	Agriculture	84.1	12.6	2.1	1.2	100		15.9
	Domestic/ Service	79.9	15.0	3.9	1.2	100		20.1
	Manual	86.5	10.4	3.0	0.1	100		13.5
Frequency of newspaper reading	Not at all	84.6	12.0	2.6	0.8	100	0.005	15.4
	Less than once/ week	84.0	11.4	3.0	1.5	100		16
	At least once/ week	83.4	12.4	4.2	0.0 -	100		16.6
Frequency of radio listening	Not at all	84.6	11.6	3.0	0.7	100	0.011	15.4
	Less than once/ week	85.5	11.4	2.3	0.8	100		14.5
	At least once/ week	83.9	12.7	2.5	0.8	100		16.1
Frequency TV Watching	Not at all	82.9	13.3	2.8	1.0	100	0.01	17.1
	Less than once/ week	85.8	11.7	1.8	0.7	100		14.2
	At least once/ week	87.2	9.8	2.7	0.4	100		12.8

Variable	Modalities	No	Low	Moderate	Abusive	Total	P-value	Prevalence
Age Group	15-19	87.8	8.9	2.9	0.4	100	0.012	12.2
	20-24	87.4	9.7	2.3	0.5	100		12.6
	25-29	85.7	11.4	2.2	0.7	100		14.3
	30-34	85.8	11.1	2.5	0.6	100		14.2
	35-39	80.6	14.4	3.6	1.4	100		19.4
	40-44	79.3	17.2	2.2	1.2	100		20.7
	45-49	77.3	18.3	3.1	1.3	100		22.7
Frequency of home smoking	Never	85.5	11.2	2.6	0.8	100	0.009	14.5
	Daily	82.1	14.3	2.5	1.1	100		17.9
	Weekly	80.3	14.7	4.8	0.2	100		19.7
	Monthly	87.3	10.5	1.5	0.6	100		12.7
	Less once/month	79.4	17.1	3.0	0.5	100		20.6
Level of tobacco consumption	No tobacco	85.0	11.6	2.7	0.7	100	0.004	15.0
	Occasional	70.6	25.9	2.6	0.9	100		29.4
	Daily	63.6	28.0	4.4	4.0	100		36.4
Overall		84.6	12.0	2.7	0.8	100		15.4

Table 2: Level of alcohol consumption by men according to some characteristics

Variable	Modalities	No	Low	Moderate	Abusive	Total	P-value	Prevalence
Marital Status	Single	76.5	22.3	0.4	0.8	100	0.013	23.5
	Married	72.5	24.2	1.4	1.9	100		27.5
	Concubinage	50.4	43.7	2.6	3.2	100		49.6
	Out of union	56.8	38.5	2.7	2.0	100		43.2
Region	Boucle Mouhoun	73.7	25.6	0.6	0.1	100	0.015	26.3
	Cascades	82.8	17.2	0.0	0.0	100		17.2
	Centre	71.1	27.0	0.8	1.2	100		28.9
	Centre Est	70.1	27.5	1.9	0.6	100		29.9
	Centre Nord	83.2	15.2	0.4	1.2	100		16.8
	Centre Ouest	63.5	35.9	0.5	0.1	100		36.5
	Centre Sud	72.7	24.5	1.9	0.9	100		27.3
	Est	70.6	28.3	0.4	0.6	100		29.4
	Hauts-Bassins	79.3	18.2	1.4	1.1	100		20.7
	Nord	76.6	18.4	0.3	4.7	100		23.4
	Plateau Central	76.5	21.1	0.5	1.9	100		23.5
	Sahel	98.7	1.3	0.0	0.0	100		1.3
	Sud-Ouest	37.6	38.0	8.2	16.1	100		62.4
Education	Not educated	77.0	20.0	1.2	1.8	100	0.013	23.0
	Primary	70.1	26.9	1.6	1.3	100		29.9
	Secondary	70.2	28.2	0.6	0.9	100		29.8
	Superior	58.0	39.7	0.2	2.1	100		42.0
Place of residence	Urban	71.0	26.9	0.8	1.3	100	0.028	29
	Rural	73.8	23.3	1.2	1.6	100		26.2

Religion	Muslem	90.7	8.6	0.3	0.4	100	0.011	9.3
	Catholic	37.8	56.9	2.3	2.9	100		62.2
	Protestant	68.9	30.2	0.4	0.6	100		31.1
	Animist/Atheist	32.7	53.4	4.9	9.0	100		67.3
Ethnicity	Bobo/Jula/ Senufo	64.5	32.4	2.3	0.8	100	0.013	35.5
	Fulani/Tuareg	98.7	1.3	0.0	0.0	100		1.3
	Gourmantche	66.1	33.3	0.3	0.3	100		33.9
	Gurunsi	63.3	35.4	0.6	0.6	100		36.7
	Lobi/Dagara	32.4	43.1	7.1	17.3	100		67.6
	Mossi/Bissa	73.8	24.2	0.8	1.2	100		26.2
	Other	73.2	23.8	1.4	1.6	100		26.8
Relation to head of household	Head of household	69.8	26.8	1.4	2.1	100	0.013	30.2
	Son/Grand Son	77.2	21.4	0.7	0.8	100		22.8
	Brother	74.2	23.9	0.6	1.2	100		25.8
	Other relation	74.3	23.2	1.0	1.5	100		25.7
Sex of head of household	Male	73.1	24.3	1.1	1.5	100	0.006	26.9
	Female	69.3	28.5	0.6	1.6	100		30.7
Level of living standard	Very poor	75.9	20.6	1.1	2.4	100	0.014	24.1
	Poor	70.1	26.4	1.5	2.0	100		29.9
	Medium	75.2	22.1	1.4	1.4	100		24.8
	Rich	74.9	23.1	0.9	1.0	100		25.1
	Well-off	69.3	28.9	0.6	1.1	100		30.7

Occupation	Not working	85.1	14.2	0.5	0.2	100	0.014	14.9
	Technic/ manag./Admin.	54.7	42.9	0.5	2.0	100		45.3
	Sale	81.1	17.4	0.3	1.2	100		18.9
	Agriculture	74.6	22.1	1.5	1.8	100		25.4
	Domestic/ Service	66.1	31.7	0.9	1.4	100		33.9
	Manual	68.1	29.0	1.3	1.6	100		31.9
Frequency of newspaper reading	Not at all	74.1	23.5	1.0	1.4	100	0.009	25.9
	Less than once/ week	67.1	31.4	0.8	0.6	100		32.9
	At least once/ week	64.7	30.1	1.7	3.5	100		35.3
Frequency of radio listening	Not at all	77	20.7	1.2	1.2	100	0.013	23.0
	Less than once/ week	71.9	26.4	0.7	1.0	100		28.1
	At least once/ week	71.2	25.8	1.1	1.9	100		28.8
Frequency TV Watching	Not at all	76.1	21.4	1.3	1.3	100	0.013	23.9
	Less than once/ week	72.4	24.7	1.0	2.0	100		27.6
	At least once/ week	69.9	27.7	0.9	1.6	100		30.1
Age Group	15-19	83.2	15.8	0.2	0.8	100	0.014	16.8
	20-24	73.5	25.3	0.6	0.6	100		26.5
	25-29	69.6	27.7	1.0	1.7	100		30.4
	30-34	71.0	26.9	1.0	1.0	100		29.0
	35-39	67.2	29.1	1.2	2.6	100		32.8
	40-44	70.5	26.2	1.1	2.2	100		29.5
	45-49	69.2	26.8	2.2	1.8	100		30.8
	50-54	69.3	25.5	2.5	2.7	100		30.7
	55-59	66.1	28.2	2.8	2.8	100		33.9

Frequency of home smoking	Never	74.8	22.7	1.0	1.4	100	0.012	25.2
	Daily	65.5	31.8	1.1	1.7	100		34.5
	Weekly	69.5	26.5	1.1	2.8	100		30.5
	Monthly	73.3	23.9	1.6	1.2	100		26.7
	Less once/month	74.9	23.5	0.5	1.1	100		25.1
Level of tobacco consumption	No tobacco	76.2	21.5	0.9	1.3	100	0.010	23.8
	Occasional	52.4	43.3	2.0	2.3	100		47.6
	Daily	51.5	43.6	1.8	3.0	100		48.5
Overall		72.9	24.5	1.1	1.5	100		27.1

Ordered logistic regressions show that women in the Centre-Est, Centre-Nord, Centre-Ouest, Nord, Plateau Central and Sud-Ouest regions had a higher risk of alcohol consumption than those living in the Boucle du Mouhoun (Table 3). If they were Muslim, they drank less alcohol. Compared with Muslim women, Catholic, Protestant and Animist/Atheist women were at least five times more likely to be at higher levels of drinking. Fulani/Tuareg, Gourmantche, Mossi/Bissa and Gurunsi women were less likely to increase their alcohol consumption than Bobo/Jula/Senufo women. Fulani/Tuareg women were 90.8% less likely to increase their alcohol consumption than their Bobo/Jula/Senufo counterparts. Mossi/Bissa women had the lowest reduction in the risk of increasing their consumption (49.6%). Their risk decreased with the living standard. There was a clear gap between women from rich or well-off households and those from lower standard households. For richer women, the risk was 34.6% lower than for poorer women. In terms of occupation, sellers consumed more than unemployed women (aOR=2.02). Age increased the risk of higher alcohol consumption. Older women tended to drink more. Smoking seemed to increase their alcohol consumption. For every single unit increase in tobacco consumption, the risk of increased alcohol consumption was 57.4%.

For men, the explanatory analysis shows that those whose union had been dissolved (divorced/separated/widowed) were 57.8% more likely to drink more alcohol than single men and those in union (Table 3). Compared with men in the Boucle du Mouhoun, those in the Cascades, Centre, Centre-Nord, Hauts-Bassins and Sahel regions consumed less alcohol. However, in the Sud-Ouest region, the risk of alcohol consumption was 2.1 times higher. Alcohol consumption increased with education. Compared to men with no education, those with higher education had a 72.6% higher risk of drinking. Muslims, on the other hand, had a low risk of drinking alcohol. Animists/atheists were 20.5 times more likely to increase their consumption than Muslims. For Catholic men, the

multiplication factor was 17. If they were Fulani/Tuareg, Gurunsi or Mossi/Bissa or Other, they drank less alcohol than Bobo/Jula/Senufo. If they were not working, consumption was lower, while it was higher for those who worked in domestic/service, technical/managerial/clerical or manual workers. Consumption by manual workers was multiplied by 3.5. Watching television increased the risk of alcohol consumption by 25.9%. Smoking also increased the risk of alcohol consumption. Smoking doubled the risk of moving to a higher level of alcohol consumption.

Table 3: Ordered logistic regressions of alcohol consumption level by women and men

Variable	Modalities	Women		Men	
		Odds ratio	Pvalue	Odds ratio	Pvalue
Marital status	Single (ref)	1.000		1.000	
	Married	0.926	0.527	1.112	0.440
	Concubinage	1.028	0.827	0.992	0.965
	Out of union	1.284	0.082	1.578	0.028
Region	Boucle du Mouhoun (ref)	1.000		1.000	
	Cascades	0.777	0.523	0.391	0.000
	Centre	1.359	0.194	0.596	0.016
	Centre Est	2.136	0.001	1.388	0.114
	Centre Nord	1.840	0.015	0.478	0.002
	Centre Ouest	1.881	0.004	0.985	0.940
	Centre Sud	1.546	0.059	0.956	0.860
	Est	1.373	0.379	0.900	0.772
	Hauts-Bassins	1.211	0.393	0.577	0.011
	Nord	1.993	0.002	1.091	0.753
	Plateau central	1.883	0.004	0.788	0.250
	Sahel	0.163	0.081	0.180	0.000
	Sud-Ouest	2.727	0.000	2.143	0.019

Education	Not educated (ref)	1.000		1.000	
	Primary	1.102	0.323	1.290	0.026
	Secondary	0.982	0.851	1.338	0.020
	Superior	1.433	0.199	1.726	0.006
Place of residence	Urban (ref)	1.000		1.000	
	Rural	1.288	0.058	0.986	0.921
Religion	Muslim (ref)	1.000		1.000	
	Catholic	33.064	0.000	16.999	0.000
	Protestant	5.312	0.000	4.791	0.000
	Animist/Atheist	21.894	0.000	20.474	0.000
Ethnicity	Bobo/Jula/Senufo (ref)	1.000		1.000	
	Fulani/Tuareg	0.091	0.000	0.099	0.000
	Gourmantche	0.218	0.000	0.476	0.063
	Gurunsi	0.603	0.049	0.586	0.018
	Lobi/Dagara	0.739	0.185	1.172	0.662
	Mossi/Bissa	0.504	0.000	0.619	0.004
	Other	0.780	0.182	0.597	0.003
Relation to HH head	Head of HH (ref)	1.000		1.000	
	Son/Grand Son	1.055	0.799	0.842	0.435
	Brother	1.492	0.093	0.963	0.865
	Other relation	0.864	0.388	1.058	0.822
Sex of HH head	Male (ref)	1.000		1.000	
	Female	0.881	0.380	1.016	0.925
Level of living standard	Very poor (ref)	1.000		1.000	
	Poor	0.968	0.735	1.266	0.047
	Medium	0.907	0.372	1.121	0.368
	Rich	0.709	0.010	1.195	0.223
	Well-off	0.654	0.017	1.345	0.160

Occupation	Not work (ref)	1.000		1.000	
	Technic/managerial/ Admin	1.896	0.001	3.286	0.000
	Sale	2.018	0.000	2.107	0.015
	Agriculture	1.185	0.071	2.448	0.002
	Domestic/Service	1.657	0.001	3.481	0.000
	Manual	1.254	0.126	3.458	0.000
Frequency of newspaper		0.983	0.840	0.964	0.629
Frequency of radio		1.105	0.013	1.009	0.860
Frequency TV		0.984	0.752	1.259	0.000
Age of HH head		0.999	0.727	1.003	0.627
Age		1.024	0.000	1.018	0.009
Freq. of home smoking		1.574	0.000	2.091	0.000
Pseudo R2		0.324		0.309	

HH : Household

DISCUSSION

The study limitations relate to under-reporting in the collection of data on harmful substances. Negative perceptions of people who use substances may lead respondents to conform their answers to behavioural norms. When neighbourhood is unaware of their alcohol drinking, there is a strong tendency to hide it to avoid being blamed. Thus, answers regarding alcohol consumption may be deliberately underestimated as a denial (Charro Baena et al., 2019b). The discrepancy between reported consumption and actual reality may vary according to various individual and contextual considerations. In addition, the phenomenon of binge drinking is not included in this data collection. Intermittent use, but in disproportionate amounts on a single occasion, is a specific problem to be considered because of the intensity of its harmful effects. The effects of this practice are equally harmful and likely lead to foetal alcoholism or ethylic coma in those affected. There is also a lack of information on the types of products used. This makes it impossible to target the most popular products and their users. Moreover, the WHO's global approximation method,

which systematically assigns the equivalent of 10 g of pure alcohol to each drink, should be considered with caution. To overcome this weakness, an appropriate estimation grid should be developed for each type of alcohol, based on the degree and volume of every alcohol beverage. This would make it possible to refine the quantification of alcohol consumption at local level and provide an adequate overview of alcoholism magnitude.

The link between age and drinking is that a greater sense of control over the effects of ageing is associated with an increased risk of harmful drinking. This reflects excessive optimism about control over the potential negative effects of alcohol. The risk of harmful alcohol consumption increases with negative emotional perceptions of ageing and decreases with stronger perceptions of the acceptable effects of ageing (Villiers-Tuthill et al., 2016). With age, healthy people tend to develop a greater instinct for self-preservation by reducing harmful substance use as much as possible, in contrast to the laxity seen in people who accumulate chronic diseases of ageing. In addition, the sudden disruption of lifestyle caused by retirement or bereavement - which can lead to reduced social activity or psychological imbalance - is a major factor that increases with age, leading to loneliness and alcoholism. Some drinks act as an anaesthetic to alleviate illness and psychological pain, thereby accelerating the dependence onset (IAS, 2013).

It is not only religious faith that is in action in alcohol avoidance; it is rather linked to participating in a religious community. The activities organised by religious groups play an important role in reinforcing attitudes and behaviour towards alcohol. Participation in religious activities distracts individuals from harmful drinking by organising a network of sobriety around them. Adherence to religious beliefs is not limited to the strict application of religious precepts, but also translates into a community life that protects against alcohol consumption (Queiroz et al., 2015). Strict religiosity implicitly leads to a reduction or prohibition of consumption, even if this is not explicitly imposed by religion (Charro Baena et al., 2019b). This is the case for Catholics who consume less alcohol than non-believers (Queiroz et al., 2015). Among people who ascertain they have no religion, some admit to believing in a higher spirit; in reality, they are deists (Queiroz et al., 2015). However, as this form of spirituality is less communally active, it has little impact on consumption habits.

Men show a higher prevalence of alcohol consumption (26.6% vs 15.4%). This has both cultural and biological dimensions. The desire to conform to traditional norms partly explains this significant difference. During adolescence, a critical period for later addiction, alcohol consumption is formally banned in female socialisation. They are discouraged from drinking because it is considered incompatible with their traditional and family roles (Richard et al., 2000). The duty of sobriety is imposed on

women by the need to maintain the stability of the household and society. In this way, femininity becomes protector against alcohol (Sánchez-López et al., 2013). On the other hand, men drink more, partly because of a tendency to showcase their masculinity. By drinking more than normal, they demonstrate their strength, vitality, stamina, defiance of social rules and ability to take risks (Richard et al., 2000). For them, drinking is synonymous with strength; it contrasts with the sobriety expected from women as an expression of femininity, purity, stability and security (Beck et al., 2006).

The biological dimension also plays a role in this gender difference of alcohol consumption (Richard et al., 2000). This is partly due to the different perceived effects of alcohol. For the same weight and consumption, a woman's blood alcohol level is 20% higher. There are numerous explanations to this: the enzyme responsible for eliminating alcohol is less effective, there is more body fat, and hormonal and contraceptive cycles involved (Beck et al., 2006). In fact, the concentration of gastric enzymes is 50% higher in men. These enzymes metabolise about 15% of alcohol consumed. As a result, less alcohol reaches the small intestine for absorption in men, increasing the blood alcohol concentration in women by about 7%. In addition, men have more muscle volume, whereas women have more body weight. Muscles have a greater volume of blood that irrigates the muscle tissue, whereas fat mass has a smaller volume of blood. Alcohol is therefore more diluted in men, resulting in lower blood alcohol level. In addition, the female body contains approximately 45% to 50% water, whereas the male body contains approximately 55% to 65% water, resulting in a higher concentration of alcohol circulating in female body. Women are also disadvantaged by the interaction between alcohol and hormones. When a woman drinks, fluctuations in hormone levels during the menstrual cycle result in high and prolonged intoxication (ADCAS, 2003). This increased effect felt by women may discourage them from drinking.

Alcohol consumption decreases with living standard for women, while it increases for men. These findings confirm the ambiguity of previous studies. While Ntone Enyime et al. (2017) found that alcohol consumption by Cameroonian students does not depend on the monthly financial allowance received, others show that difficult economic conditions increase alcoholism (Chansonneuve, 2007; Collins, 2016). On contrary, some found that income increase is associated with alcohol consumption (Deonandan et al., 2016; Makoutode et al., 2010; Patrick et al., 2012). Others argued that socio-economic status has an influence on the type of drink. Beer consumption is more common among young people, while high strength alcohol consumption increases with purchasing power (Ivan et al., 1991).

Men who are not in union (divorced, separated, widowed) are 60% more likely to drink alcohol than never married men.

This excessive drinking could be explained by the failure or difficulties following the end of their union. Alcohol could provide psychological support for these people. However, Leonard et al. (2014), who analysed the impact of alcohol consumption on marital survival, concluded that unequal alcohol consumption between spouses was often the cause of divorce. Excessive drinking is the real reason for their marriage rupture.

The results confirm the positive influence of media on alcohol consumption. Saleem et al. (2022) found that of 204 studies carried out between 2009 and 2019 on this issue, 93.1% concluded that there was a positive relationship between alcohol consumption and use of social media. Arora et al. (2012) found that students exposed to advertising were at greater risk of smoking. All alcohol-related ads were associated with drinking by age (Osuafor et al., 2023). This is due to the alcohol industry's now aggressive advertising in Africa, which violates all the limits it has independently set for itself (Robaina et al., 2013). This deliberate approach is part of a race to capture new markets in countries with weak and/or permissive regulations (Ferreira-Borges et al., 2017).

Smokers have more problematic drinking than non-smokers (Friedman et al., 1991; Marmet et al., 2014). This association is dose-dependent; heavy smokers drink more than light smokers, and heavy drinkers smoke more than light drinkers. This vicious cycle creates a toxic synergy that increases mortality among alcoholics (Grucza & Bierut, 2006). Common genetic factors are thought to play an important role in this co-dependency (Marmet et al., 2014; Tyndale, 2003). Some genes have been identified that may be involved in both alcohol and tobacco use disorders (Grucza & Bierut, 2006). They act in the same area of the brain where addiction develops and is actively maintained. By releasing dopamine, alcohol and nicotine help trigger pleasure and create an imbalance. This state stimulates the desire to use the psychoactive substance again to avoid unpleasant privation effects. Parnell et al. (2006) suggest that the slowing of gastric function due to nicotine absorption may lead to drinking more alcohol to achieve the desired effect, i.e. to push back the limits of tolerance.

CONCLUSION

Alcohol consumption in Burkina Faso is multifactorial. For example, the effect of living standards is reversed between the sexes; while wealthy men and poor women drink more. Notably, religion either encourages or discourages alcohol consumption. Muslims occupy an intermediate position between heavy drinkers among Catholics and light drinkers among Protestants. This categorisation is reflected in the behaviour of the Lobi/Dagara, who come from the Sud-Ouest and are predominantly Christian. They contrast with the Fulanis/Tuaregs, who are the majority in the Sahel and are also almost exclusively Muslim. Moreover, variables related to

head of household, such as age, gender and relationship to the head of household, had no effect on alcohol consumption. This absence of influences suggests the need for a specific analysis of family parameters among adolescents. This study also reveals the rather ambiguous role of media. Their positive influence on consumption calls for a rebalancing of their advertising content. This should be accompanied by joint measures to combat alcohol and tobacco addiction, which are inextricably linked. For an in-depth assessment, a longitudinal study should be carried out to document the impact of alcoholism on marital, economic and social life.

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