Exploring the predictors of alcohol consumption intensity among men: Empirical evidence from Nigeria

Abstract

Alcohol remains one of the most abused psychoactive substances. High consumption affects the mental health and results in the death of millions of people on yearly basis. Intensity of consumption is associated with some non-communicable diseases. Identifying the predictors of alcohol consumption intensity could be vital for prevention and control strategies and initiatives. Hence this study identified the predictors of the alcohol consumption intensity (number of alcohol drinks usually consume) among men in Nigeria. The study used data from the 5th round of the multiple indicator cluster surveys for 2015/16. The data was analyzed using the poisson regression for modelling count data. It was found that the predictors of alcohol consumption intensity among men in Nigeria include age, age at which alcohol was first taken, household wealth index and ethnic group of a man. Control and prevention initiatives should be more sensitives to the socio-economic and demographic characteristics of individual.

Introduction

Alcohol use is part of many cultural, religious and social practices, and provides perceived pleasure to many users. While its consumption brings so much pleasure, it also comes with its other side including triggering of diseases especially non-communicable diseases, causing violence and injuries, impacting mental health of individuals and so on (Courtney & Polich, 2009; Kabiru, Beguy, Crichton, & Ezeh, 2010; King, Frank, Vidourek, & Merianos, 2018; Lasebikan & Ola, 2016; Millwood et al., 2013; WHO, 2018b). The harmful use of alcohol can also result in harm to other people, such as family members, friends, co-workers, and strangers. Moreover, the harmful use of alcohol results in significant health, social and economic burden on society at large (Ritchie & Roser, 2019). Despite all of these identified effects of excessive intake of alcohol, it has been labelled as one of the most used and abused psychoactive substances around the world (Francis, Grosskurth, Changalucha, Kapiga, & Weiss, 2014; Getachew et al., 2017; Nelson, 2018). Statistics further shows that harmful and excessive use of alcohol results in the death of more than 3 million people across the world on yearly basis, with majority of this casualty being men and this figure represents about 5.3% of all deaths worldwide (Easwaran, Bazroy, Jayaseelan, & Singh, 2015; WHO, 2018a). However, moderate consumption is always preached in many climes with policies and plans abounding to check the availability, sales, purchases, and consumption of alcohol including putting age limits on the consumption but in Nigeria, a pure alcohol policy is yet to be formulated (Dumbili, 2013).

Empirical evidence from past studies have identified the predictors of alcohol consumption majorly include socio-demographic characteristics of the individuals (Cheah & Rasiah, 2017; Getachew et al., 2017; Heckley, Jarl, & Gerdtham, 2017; ICAP, 2009; Lasebikan & Ola, 2016; Owolabi, Goon, Adeniyi, & Seekoe, 2017). In Nigeria, not much evidence exists on the predictors of the intensity of consumption i.e. the number of drinks consumed by individuals and modelling the dependent variable as a count variable. This study hence seeks to understand the factors that predict the number of drinks

that men consume in Nigeria. This would be having great implications for control and prevention strategies thereby curbing the undesired effects on the mental health of individuals and the public health challenges that excess consumption of the substance brings. Also, alcohol related harm has an impact on health-related SDG targets. Ensuring that that it is controlled would serve any country well in achieving the health-related goals of the SDGs.

Method

The study utilized men data from the 5th round of the Multiple Indicator Cluster Survey conducted in Niger between 2015-16. The sample size for the study is 3,128 men who reported having ever taken alcohol. The data was analyzed using the poisson regression analysis which is used to model count data, which in most cases refers to the number of occurrences of an event and due to the fact that this present study intends to focus on the intensity of alcohol consumption among men in Nigeria. In the case of this study, the dependent variable is the number of drinks usually consumed by the respondents and the independent variables included the socio-economic and demographic characteristics of the respondents, exposure to mass media and age at which respondent first took alcohol.

Result

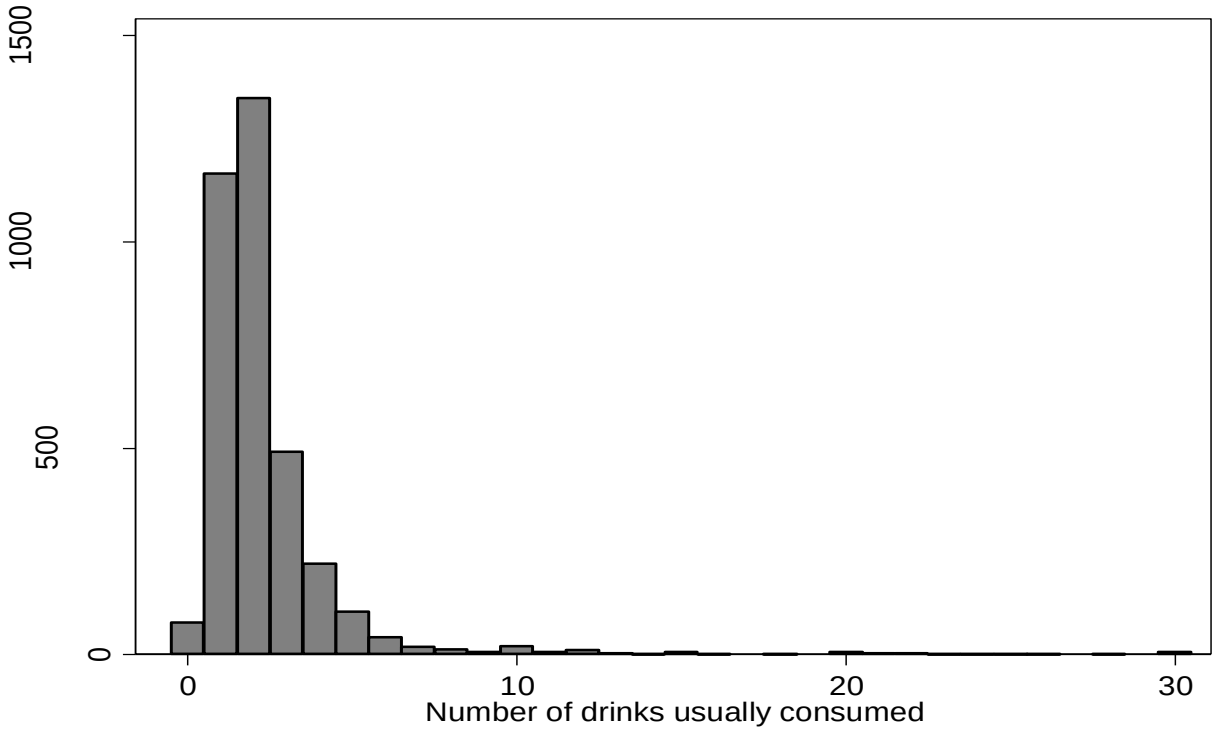

Figure 1: Histogram of the number of drinks usually consumed by men in Nigeria

Table 1: Poisson regression analysis of the predictors of alcohol consumption among men in Nigeria

Number of Drinks	IRR	95% CI	IRR	95% CI	IRR	95% CI
Age (ref: 15-19)						
20-24	1.35**	1.21-1.50			1.37**	1.23- 1.52
25-29	1.52**	1.36-1.68			1.55**	1.40-1.73
30-34	1.56**	1.40-1.74			1.61**	1.44-1.80
35-39	1.61**	1.44-1.80			1.67**	1.48-1.87
40-44	1.41**	1.25-1.59			1.47**	1.30-1.66
45-49	1.51**	1.33-1.71			1.57**	1.39-1.79
Household Wealth Index (ref: Poorest)						
Poorer	0.73**	0.65-0.83			0.75**	0.66-0.85
Middle	0.75**	0.67-0.84			0.77**	0.68-0.86
Richer	0.71**	0.63-0.80			0.73**	0.65-0.82
Richest	0.70**	0.62-0.78			0.72**	0.64-0.80
Ethnicity (ref: Hausa)						
Igbo	1.06	0.93-1.21			1.04	0.91-1.19
Yoruba	1.28**	1.11-1.47			1.27**	1.10-1.46
Other ethnic groups	1.18**	1.03-1.34			1.17**	1.02-1.33
Marital Status (ref: Married)						
Not married	0.98	0.92-1.04			0.98	0.92-1.04
Education (ref: No Education)						
Primary	0.95	0.71-1.28			0.95	0.70-1.28
Secondary/Tech. Education	0.97	0.73-1.31			0.97	0.72-1.30
Higher	0.95	0.70-1.28			0.94	0.70-1.27
Age at first drink (ref: <12)						
13-19			0.92**	0.86-0.99	0.92**	0.86-0.99
20-30			0.95**	0.89-1.02	0.88**	0.82-0.95
31+			0.66**	0.52-0.84	0.61**	0.48-0.77
Media Exposure (ref: Exposed)						
Not exposed			0.98	0.94-1.03	0.99	0.94-1.04

****p<0.05**

In the analysis, it was found that age, household wealth index, ethnicity, age at which alcohol was first consumed were all found to significantly predict the number of alcohol drinks consumed by men in Nigeria. The incidence rate of men aged between 20-24 is 1.35 times the incidence rate of those in the age group of 15-19 years assuming all other variables in the model are held constant. The incidence rate of men of alcohol consumption among men aged 25-29 and 30-34 are 1.52 and 1.56 times respectively higher than the incidence rate of the reference category. It was also found that the incidence rate of alcohol consumption for men between the age groups; 35-39, 40-44 and 45-49 are

1.62, 1.41 and 1.52 times respectively higher than that of the reference group holding all other variables in the model constant. For the influence of household wealth index, it was found that the incidence rate of alcohol consumption for men from poorer households is 0.73 times the incidence rate of the reference group (poorest). Likewise, the incidence rate for men from the middle, richer and richest households are 0.75, 0.71 and 0.70 times respectively higher than that of the reference group (poorest). The study also found that the incidence rate of alcohol consumption among Igbo men is 1.06 times the incidence rate for Hausa men, also, the incidence rate of alcohol intake for Yoruba men is 1.28 times that of the Hausa men and the incidence rate of alcohol consumption for men form other ethnic groups is 1.18 times that of Hausa men. For education, the incidence rate of the number of drinks for men with primary education is 0.95 times that of no education. Also, the incidence rate of the number of alcohols consumed for men with secondary or technical education is 0.97 times that of the reference category. Lastly, the incidence rate for men with higher education is 0.94 times higher than that of the reference group.

Furthermore, in the second model, the poission regression analysis showed that the incidence rate of the number of alcohol consumption for men who started drinking in their teenage years is 0.92 times that of men who started drinking before their teenage years. Also, it was found that the incidence rate of the number of alcohol drinks for men who initiated drinking between the ages 20-30 is 0.95 times that of the reference group. Likewise, the incidence rate of men the number of alcohol drinks who started drinking above 30 years of age is 0.66 times that of the reference group (<12 years). The incidence rate of alcohol drinking for men who are not exposed to mass media is 0.98 times that of those men who are exposed to mass media. In the full model where all the variables were included, the findings across the first two models for the predictors of the number of alcohols consumed remained the same.

Conclusion/ Recommendation

Age, wealth index, Age at which alcohol was first taken, ethnicity were all found to significantly predict the intensity of alcohol usage among men in Nigeria. Based on the corollary of high or excessive alcohol consumption as noted in previous studies, it is hereby recommended that control and prevention strategies should be age specific and should also consider those with history of alcohol consumption. Policy initiatives to curb and control consumption should be sensitive to the socio-economic and demographic characteristics of individuals in tackling excess alcohol consumption.

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