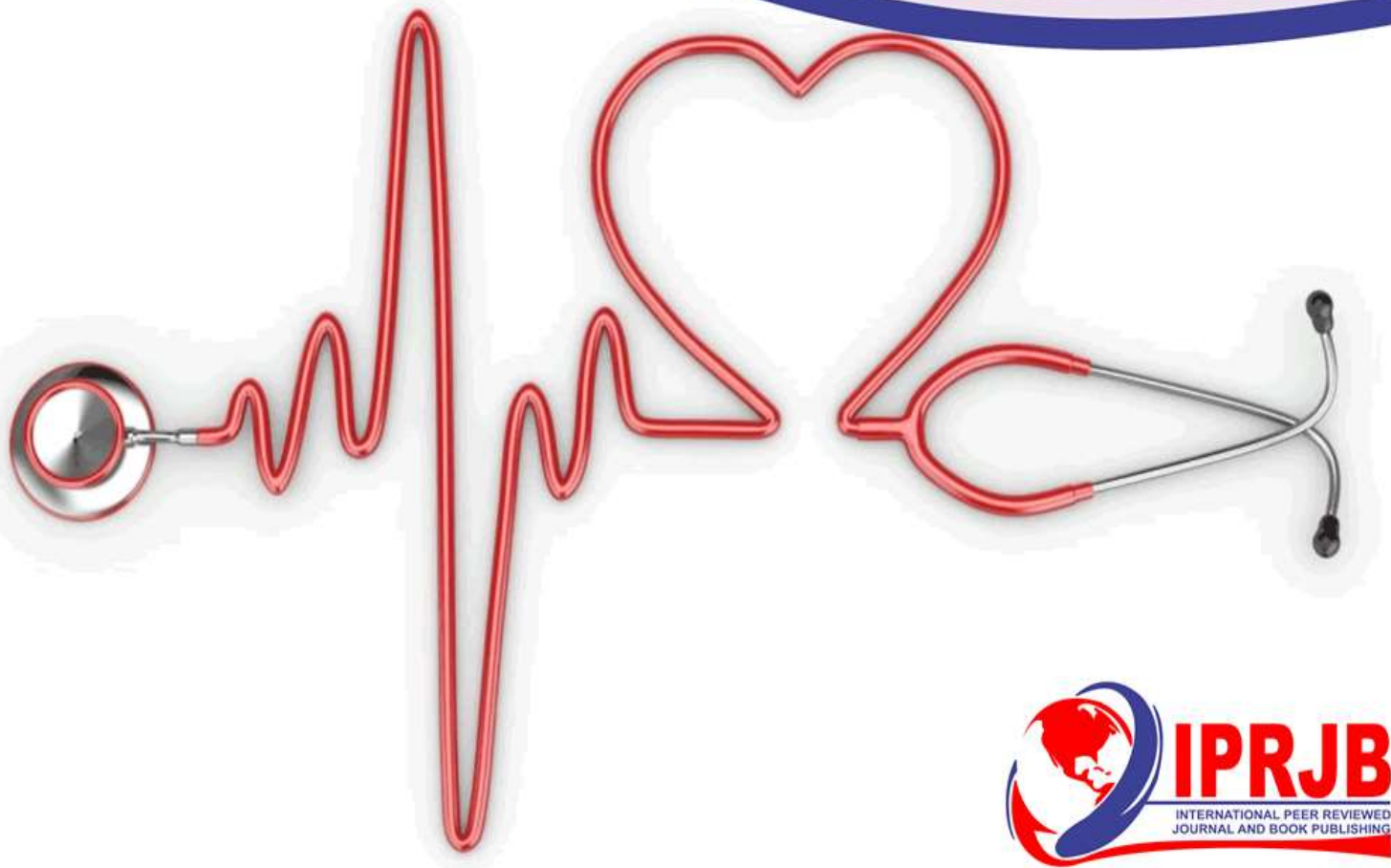


Journal of Health, Medicine and Nursing (JHMN)

**Social-Economic and Social-Demographic Determinants of Alcohol Abuse among
Residents of Kajiado County, Kenya**

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Determinants of Alcohol Abuse among
Residents of Kajiado County, Kenya**



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Article History

Received 13th February 2025

Received in Revised Form 15th March 2025

Accepted 22nd April 2025



How to cite in APA format:

Mukilya, S., Gachohi, J. M., Nyaberi, J. M., &
Mwiti, P. K. (2025). Social-Economic and Social-
Demographic Determinants of Alcohol Abuse
among Residents of Kajiado County,
Kenya. *Journal of Health, Medicine and
Nursing*, 11(2), 19–30.
<https://doi.org/10.47604/jhmn.3304>

Abstract

Purpose: The purpose of the study is to determine social-economic and social-demographic factors associated with alcohol abuse among residents of Gataka settlements in Ongata Rongai ward, Kajiado County, Kenya.

Methodology: A Cross sectional study design was conducted in Ongata Rongai ward at Kajiado County. Data was collected using a structured interviewer administered questionnaire from the participants. The study population consisted of residents who were above the age of 18 years. The inclusion criteria were residents aged 18 years and above living in Gataka settlements at Kajiado County who gave informed consent to participate in the study. Stratified sampling technique was used to sample the residents based on estates. Both descriptive and inferential statistics were used to analyse data with the aid of SPSS version 22. The results were presented using frequency tables, charts. The study protocol was reviewed and cleared by the University of East Africa Baraton Ethics Review committee with approval no UEAB/08/042019.

Findings: The total response rate was 390 (98.9%), majority were males 205(52.6%), married 101(26%), and separated 102(26%). Most of the participants had attained post-secondary education, were not employed (28%), and most 150(38%) earned monthly income of less than USD 50 (Ksh 5,000). The study findings indicated that some socio-demographic and socio-economic factors are predictors of alcohol abuse. Being single or separated was significantly associated with alcohol abuse. Participants with post-secondary education and an income above Kshs.5, 000 were found to be associated with alcohol abuse.

Unique Contribution to Theory Practice and Policy: This study has contribute to body of knowledge that individual being single or separated proved to be significantly associated with alcohol abuse. Based on the findings of this study, there is need to assess the root causes of alcohol abuse especially among the young people, address unemployment and put policies in place that enable healthcare systems better detect and address the vulnerabilities of individuals to alcohol abuse.

Keywords: *Alcohol Use, Economy*

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INTRODUCTION

According to the World Health Organization, alcohol consumption is one of the most important risk factors for burden of disease and injury globally. Alcohol, a psychoactive substance with dependence-producing properties has been widely used in many cultures for centuries. The harmful use of alcohol causes has been associated with a high burden of disease and has significant social and economic consequences (WHO, 2022). Globally, alcohol consumption trend is worrying. Past research has indicated that the harmful use of alcohol is a causal factor in more than 200 disease and injury conditions. It is estimated that worldwide, close to 3 million deaths every year result from harmful use of alcohol, this represents 5.3% of all deaths. Beyond health consequences, the harmful use of alcohol brings significant social and economic losses to individuals and society at large. Alcohol consumption causes death and disability relatively early in life. In people aged 20–39 years, approximately 13.5% of total deaths are attributable to alcohol. Additionally, studies have shown that there is a causal relationship between harmful use of alcohol and a range of mental and behavioural disorders, other non-communicable conditions, and injuries (WHO, 2014). Globally alcohol consumption causes around 2.8 million premature deaths per year (Ritchie & Roser, 2018). The distribution of alcohol consumption across countries in Africa is very heterogeneous and the type of drinks consumed differ geographically. It is estimated that around one third of all the alcohol consumed in Africa is “unrecorded” (1.8 L per capita, per year). Alcohol consumption has been identified as the leading risk factor for death and disability in sub-Saharan Africa (Mungai and Mindigo, 2019).

In Africa, the increase in alcohol consumption has been attributed to unobstructed religious sanctions against alcohol consumption coupled with increased supply as modern industries produce alongside local distilleries and breweries. Among the leading countries in alcohol intake per person per year include Nigeria (12.28 litres/year), Uganda (11.93 litres/year), Kenya (9.72 litres/year), Namibia (9.62 litres/year), Burundi (9.47 litres/year), and South Africa (9.46 litres/year) (WHO, 2014). Alcohol and Drug Abuse on the status of alcohol abuse in Kenya showed that approximately 5.8% of Kenyans are abusing alcohol and another 5.5% are dependent on Alcohol use. (Chege & Kathungu, 2021). Alcohol drinking has always had a significant effect to the families such as divorcing, family struggles, poverty and many more (Gatitu et al., 2019). Harmful use of alcohol is largely associated with social, economic, psychological, and physical consequences on individual, family and the community (Jacob et al., 2015). Kajiado County, Kenya has been identified as an area with rising alcohol consumption rates. Few studies have been conducted on the determinants of alcohol abuse in the region.

Statement of Problem

Alcohol abuse remains the major threat for all continents, it has dangerous and fatal consequences; that affects the individual, their family members, society, and the country to its physical, psychological, economic status. A survey conducted by National Authority for Campaign against Alcohol and Drug Abuse on the status of alcohol abuse in Kenya showed that approximately 5.8% of Kenyans are abusing alcohol and another 5.5% are dependent on Alcohol use. (Chege & Kathungu, 2021). Kajiado County has been identified as an area with rising alcohol consumption rates the number of studies conducted on the determinants of alcohol and drug abuse on families is still low. In addition, none of these studies has been conducted in Ongata Rongai ward which is one of the most affected area with alcohol abuse. People of Ongata Rongai which is rural urban are affected by alcohol-related problems, which

affects all groups of people, old and young, both men and women, married or single, economically stable or poorly economically. It is therefore against this background that the study sought to investigate determinants of the alcohol abuse in Gataka low-income settlements in Ongata Rongai ward, Kajiado County.

LITERATURE REVIEW

Globally, in the year 2019 alcohol use was the leading risk factor for attributable burden of disease among people ages 25 to 49, the second-leading risk factor among ages 10 to 24, and the ninth-leading risk factor among all ages. In 2019, alcohol use accounted for 2.07 million deaths of males and 374,000 deaths of females, globally. (WHO, 2022). Alcohol consumption contributes to 3 million deaths each year globally as well as to the disabilities and poor health of millions of people. Overall, harmful use of alcohol is responsible for 5.1% of the global burden of disease. Harmful use of alcohol is accountable for 7.1% and 2.2% of the global burden of disease for males and females respectively. Alcohol is the leading risk factor for premature mortality and disability among those aged 15 to 49 years, accounting for 10% of all deaths in this age group. Disadvantaged and especially vulnerable populations have higher rates of alcohol-related death and hospitalization. (WHO, 2022).

Alcohol abuse is one of the leading causes of death and disability worldwide. Alcohol abuse is responsible for 4 percent of global deaths and disability, nearly as much as tobacco and five times the burden of illicit drugs (WHO, 2022). In 2018, the World Health Organization (WHO) reported that alcohol contributed to more than 200 diseases and injury-related health conditions, including liver diseases, road injuries, violence, cancers, cardiovascular diseases, suicides, tuberculosis, and HIV/AIDS (WHO, 2018). In developing countries with low mortality, alcohol is the leading risk factor for males, causing 9.8% of years lost to death and disability. Alcohol abuse contributes to a wide range of social and health problems, including depression, injuries, cancer, cirrhosis, dependence, family disruption and loss of work productivity. Health and social problems from drinking often affect others besides the drinker. While men do the bulk of the drinking worldwide, women disproportionately suffer the consequences, including alcohol-related domestic violence and reduced family budgets. Heavy alcohol use takes a particular toll on the young, and has been linked to high rates of youthful criminal behavior, injury, and impaired ability to achieve educational qualifications. Many deaths and much disease and suffering could be prevented by reducing alcohol use and related problems (WHO, 2018).

In most countries in Africa a general perception persists that there are more urgent public health problems than harmful use of alcohol. Because infectious diseases still outnumber chronic diseases as a cause of death in most countries and because (WHO, 2013). In Kenya, prevalence of alcohol abuse by youths aged 18-35 years was 17.6% against the national average of the general population which is at 13.6%. (Matara C, 2021). Alcohol consumption in Kenya was measured at an average of nearly 1.7 liters of pure alcohol per capita in 2019. Beer was the source of around 0.81 liters of pure alcohol consumed per person in the country, same amount registered with the consumption of spirits. There is minimal evidence of a direct causal link between socio-economic status and alcohol dependence. Rates of alcohol dependence in one study were found to be significantly higher in families with lower socio-economic status compared with those families from higher socio-economic status (Collins S, 2016). The effects associated with alcohol abuse to the family can be estimated in terms of social and economic costs. (Manthey *et al.*, 2021).

The study conducted by NACADA in Kenya has noted all ages and group of people are affected by alcohol use and Abuse. Few studies have been done in rural urban related with social economic and social demographic in Kenya, where age, Gender, religion and income may contribute to Alcohol abuse. (Nacada 2017).

Conceptual Framework

The conceptual framework describes the association between social demographic and social economic characteristics and alcohol abuse. This conceptual framework will be utilized to study determinants of alcohol abuse among residents of Gataka settlements in Ongata Rongai ward, Kajiado County, Kenya.

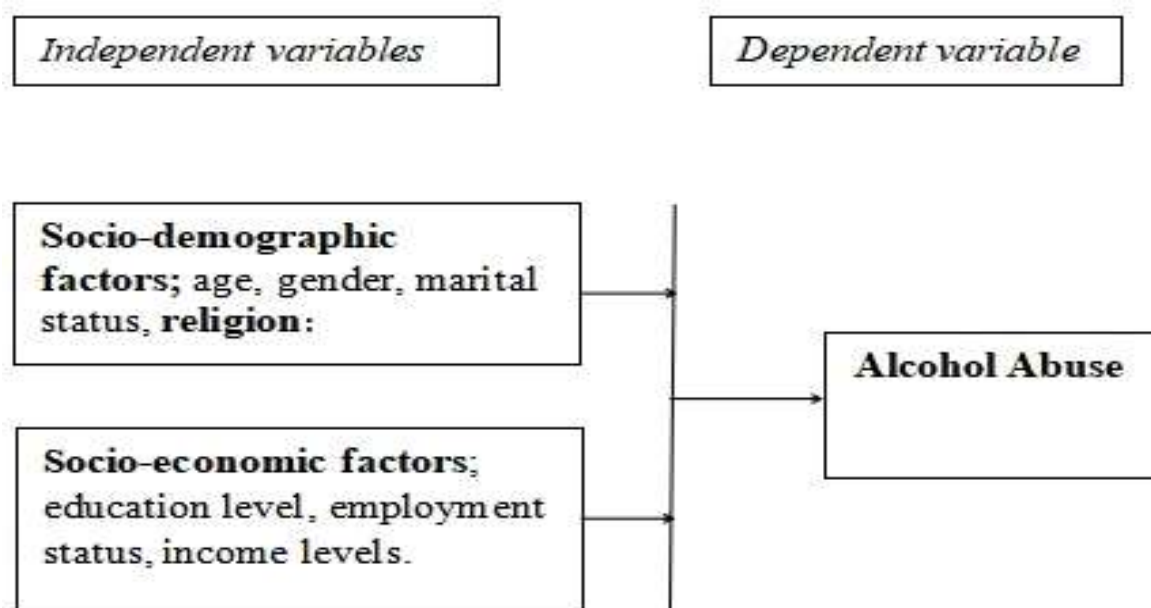


Figure 1: Conceptual Framework for Factors Associated with Alcohol Abuse

Theoretical Framework

Resource Theory

Resource theory defines family wellbeing as multidimensional it links together the concept of 'personal needs' being met through 'resources' that in turn produce 'life satisfactions. Further arguments for the theory's relevance to family wellbeing research are its recognition of the importance of both economic and social-psychological human needs and that it explicitly acknowledges the interaction between these domains (Foa. Et al 1993). According to resource theory model, family wellbeing is the property of an individual, and the combined wellbeing of individuals constitutes the family's overall life quality. Social economic factors and social demographic factors among an individual in a family set up will affect the whole family's economy and involvement such as alcohol abuse and this will influence the overall life quality of the family (Takahashi et al.,2017).This will limit family members to meet their personal needs and this will cause both economic and social-psychological problems among family members. This theory is found to be relevant to this study as its able to links the family economic factors and social demographic with behavior of alcohol abuse.

Research Gaps

The status of alcohol abuse in Kenya showed that approximately 5.8% of Kenyans are abusing alcohol and another 5.5% are dependent on Alcohol use. Although Kajiado County has been identified as an area with rising alcohol consumption rates in Kenya (Chege & Kathungu, 2021), the number of studies conducted on the social-economic and social-demographic factors associated with alcohol abuse on families is still low. In Kenya lack of studies demonstration the relationship of these factors and coming up with ways of addressing them will continue to increase alcohol abuse in Gataka which have social, economic, psychological and physical harmful consequences on individual, family, and the community and sometimes risking their life. It is therefore against this background that the study sought to determine social-economic and social-demographic factors associated with alcohol abuse among residents of Gataka settlements in Ongata Rongai ward, Kajiado County, Kenya.

METHODOLOGY

Cross sectional study design was conducted in Ongata Rongai ward at Kajiado County. The ward is well served with a vast number of entertainment facilities in its urban centres and therefore access to processed liquor as well as local brew is high. The study population consisted of residents who are above the age of 18 years in Ongata Rongai ward, Kajiado County. Inclusion Criteria; residents aged 18 years and above living in Gataka settlements at Kajiado County who gave informed consent to participate in the study.

Sample Size Determination

This study used sample size determination formula for finite population by Nassiuma (2000) to determine the sample size.

$$n = \frac{N}{1+N(e^2)}$$

Where: n = Sample size, N = Target Population, e = Error Term (5%)

$$n = \frac{26384}{1 + 26384(0.05^2)} = 394$$

Therefore, the study used a sample of 394 participants as a representative of the Ongata Rongai residents.

Sampling Procedures

Multi-stage sampling technique was used to select the participants. Stratified sampling technique was used to sample the residents based on estates in Ongata Rongai. The residents were stratified according to the different estates in Ongata Rongai. From each stratum, the researcher utilized simple random sampling to pick a representative number of samples to include in the study. This was achieved through listing the number of households with unique codes and using computer generated random numbers to select the desired number to be included in the study. This was repeated until the desired sample size was achieved.

Data Collection

Structured interviewer-administered questionnaires were used as the key data collection tools for the residents. The two trained research assistance collected the data after pilot study.

Data Management and Analysis

The data collected were analysed using the Statistical Package for Social Science (SPSS v25). The processed data were summarized using tables and figures and presented as frequencies and percentages. Association between variables were assessed using the Pearson's Chi square test. Binary logistic regression analysis was performed to determine the association of social demographic and social economic characteristics with alcohol abuse.

Ethical Considerations

All research related ethical standards were observed throughout the course of the study. Permission to conduct the study was sought from the Jomo Kenyatta University of Agriculture and Technology (JKUAT) department of environmental health and disease control. The research ethics committee approval no UEAB/08/042019 to carry out this study was sought from the University of East Africa Baraton Ethics and Research committee. Further formal permission to collect data was sought from the various administrators in the study area. Informed consent was obtained from the participants and high integrity and confidentiality was adhered to throughout the study. All data obtained was treated with high confidentiality with no identifying details being collected and all documents containing the data collected kept under lock and key.

RESULTS

The study achieved a high response rate probably due to the utilization of an interviewer administered approach which gives much control of the data collection potential to the investigators. There was an overall response rate of 98.9% in the study which gives a good strength to the findings as they are captured from this study.

Socio Demographic and Socioeconomic Characteristics of Study Participants

Of the respondents, majority were males (52.6%), married (26%), and separated (26%). Most of the respondents had attained post-secondary education, were not employed (28%), and most (38%) earned monthly income of less than USD 50 (Ksh 5,000). The residents were spread across the entire Gataka low-income settlement in Ongata Rongai ward.

Table 1: Socio Demographic and Socioeconomic Characteristics of Study Participants

Socio-Demographic Characteristics		Freq.	Percent
Gender	Female	185	47.44
	Male	205	52.56
Marital Status	Married	101	25.9
	Single	91	23.33
	Divorced	96	24.62
	Separated	102	26.15
Education	None	89	22.82
	Primary	99	25.38
	Secondary	100	25.64
	Post-Secondary	102	26.15
Age Category	30-34	10	2.56
	35-39	99	25.38
	40-44	165	42.31
	45-49	106	27.18
	50-54	10	2.56
Religion	Christian	124	31.79
	Muslim	128	32.82
	None	138	35.38
House floor	Earthen	147	37.69
	Cement Unfinished	123	31.54
	Cement Smooth	120	30.77
House wall	Canvas/Plastic	81	20.77
	Mud/Clay	70	17.95
	Bricks	86	22.05
	Wood	58	14.87
House roof	Canvas/Plastic	94	24.1
	Thatch	91	23.33
	Corrugated sheets	94	24.1
	Cement Smooth	111	28.46
Employment Status	Formally employed	89	22.82
	Informally employed	92	23.59
	Self employed	98	25.13
	None	111	28.46
Income	Less than 5000	150	38.46
	5000-10000	118	30.26
	Above 10000	122	31.28

Socio Demographic and Socioeconomic Determinants of Alcohol Abuse

The study sought to investigate the Determinants of alcohol abuse among the study participants. As indicated in *Table 2*, being single is significant (p-value 0.005 (OR = 2.555316, CI [1.3370, 4.8835])). This implies that a respondent being single is 2.555316 times more likely to abuse alcohol compared to when they are married. A respondent being separated is also significant (OR = 2.520026, CI = [1.31265, 4.837948]). Being separated as a marital status, a respondent who is separated is 2.520026 times more likely to abuse alcohol compared to married respondents. In level of education, only secondary education is significant. This means

that a person who has attained secondary education is 2.4666 times more likely to engage in alcohol abuse compared to the one who has not attained any education. Income level of the respondents, those who earn between 5000 and 10000 is significant. This implies that a respondent whose family income is 5000-10000 shillings is 0.544 times more likely to engage in alcohol abuse compared to the one who earns less than 5000. For the respondents earning above 10000, they are 0.587 times more likely to engage in alcohol abuse compared to those earning less than 5000.

Table 2: Socio-demographic and Socio-Economic Determinants of Alcohol Abuse

Alcohol Abuse		Odds Ratio	Std. Err.	Z	P>z	[95% Conf.	Interval
Marital	Married	Reference					
	Single	2.5553	0.8444	2.84	0.005	1.3371	4.8835
	Divorced	1.6049	0.5464	1.39	0.165	0.8234	3.1279
	Separated	2.5200	0.8386	2.78	0.005	1.3127	4.8379
Education	None	Reference					
	Primary	0.6785	0.2121	-1.24	0.215	0.3677	1.2522
	Secondary	2.4664	0.7468	2.98	0.003	1.3625	4.4648
	Post-Secondary	1.3028	0.3940	0.87	0.382	0.7201	2.3568
Religion	Christian	Reference					
	Muslim	0.8516	0.2742	-0.5	0.618	0.4531	1.6006
	None	1.5411	0.4269	1.56	0.118	0.8955	2.6522
Income	Less than 5000						
	5001-10000	0.5441	0.1490	-2.22	0.026	0.3181	0.9308
	More than 10000	0.5787	0.1622	-1.95	0.051	0.3341	1.0023
Cons		0.3178	0.1208	-3.02	0.003	0.1509	0.6695

DISCUSSION

Socio-Demographic and Socio-Economic Determinants of Alcohol Abuse

Marital Status

One of the factors that this study investigated was marital status and its influence on Alcohol abuse. While the distribution of the participants was almost uniform into the various marital status categories in the study, a majority were married and separated. Marital status proved significant ($p=0.046$) after being subjected to a univariate analysis. After undertaking a further multivariate analysis, it emerged that being single ($p=0.005$) and being separated ($p=0.005$) proved to be significantly associated with alcohol abuse among dwellers of low-income settlements in Gataka, Kajiado County. Keenan *et al.* (2015) investigated changes in the distribution of alcohol consumption by education and marital status in Russia during the period of societal transformation after 1990. The study has pointed out that divorced, and widowed men tended to drink most, Makau *et al.*, (2023) and the difference between divorced and married men also narrowed over time. A study showed that alcohol intake increased among divorced men who had high rates of frequent drinking Keenan *et al.* (2014) which may be due to increased stressors and reduced family engagement. These findings are consistent with our study findings.

Education

Education status and level is an important factor in influencing many health behaviours. Univariate analysis highlighted education as being significantly associated ($p=0.028$) with alcohol abuse among the participants. Further multivariate analysis proved that being with a secondary education is significantly associated with alcohol abuse ($p=0.003$). While education is important for the effective functioning of society and plays a key role in every individual's behaviour, it tends to affect to some extent, alcohol use and abuse. (Chege & Kathungu, 2021). The findings of this study however are in contrast with those of a previous study where the level of education was noted to have a significant effect on alcohol abuse with the number of teachers with lower educational qualifications being associated with alcohol abuse. (Muthoni, 2018). In most cases, higher educational attainment spending more years in education may impact people's drinking behaviours and reduce their risk of alcohol dependence/abuse.

Religion

Religion is another important factor that often either positively or negatively affects health behaviours. Whereas in this study participants were almost uniformly distributed in terms of religious affiliation, analysis showed no significant association with alcohol abuse. The connection between lower alcohol use and religiousness has been extensively examined. The world's religions have had differing relationships with alcohol. (Roche, *et al* 2015). Many religions forbid alcoholic consumption or see it as sinful or negative. Others have allocated a specific place for it, such as in the Christian practice of using wine during the Eucharist rite. Those with high levels of religiousness support more restrictive alcohol policies. These findings corroborate previous studies showing that religious people consume less alcohol and have fewer alcohol-related problems. Kenya is principally a Christian country with an estimated 82% of the population professing one form of Christianity or the other. The voice of the Faith Based Organizations (FBOs) in combating alcohol and drug abuse has been gradually increasing overtime. Most religions discourage the use of alcohol and have gone ahead and initiated rehabilitation programs and centres for countering alcohol abuse by training, counselling and psychological support. (Muthoni, 2018).

Income

Income is an important factor in influencing many health behaviours (Gatitu *et al.*, 2019). Alcohol use and abuse is also influenced by individuals' level of income. Just like for religion, income levels for individuals can either affect their health behaviours positively or negatively. In this study, the analysis showed that those earning an income above 5,000 were significantly associated with alcohol abuse ($p=0.026$ for 5,000-10,000 category). Income may be an important driver of alcohol use. Income directly measures access to material resources and to health-enhancing environments and services, as well as exposure to material stressors such as financial problems and deprivation. Our study findings are consistent with prior research which had shown higher income is associated with a higher frequency of alcohol drinking, as individuals with high income may be related to the availability of disposable income leading to more purchasing power of alcohol, (Cerdeira *et al.*, 2011).

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Marital status and education level are the Socio-demographic and socio-economic predictors of alcohol abuse. Being single or separated are factors that are significantly associated with alcohol abuse. Having post-secondary education and earning an income above 5,000 are significantly associated with alcohol abuse among the participants. Alcohol abuse among people in Kenya calls for intervention to reduce its use and complication associated with it especially among the single and separated persons. The strength of this study was participants were willing to sacrifice their time to participate in this study on alcohol abuse. The weakness of this study was data was collected from one ward in Ongata Rongai, the researcher enhanced the study by use probability sampling to reflect the diversity of the population.

Unique Contribution to Theory Practice and Policy

This study has contributed to body of knowledge that individual being single or separated proved to be significantly associated with alcohol abuse. The Healthcare system should implement measures to check and address the high prevalence of alcohol abuse among the single and separated persons. Stricter measures should be put in place to control alcohol abuse and more awareness campaigns on the effects of alcohol abuse. Vigorous public health education should be delivered to at-risk populations to sensitize them on the negative and harmful effects of alcohol abuse. There is need to conduct further research on assessing the gaps existing in policy and legislations that allow alcohol abuse to persist despite the already implemented interventions.

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