

The Effects of Alcohol Consumption in Kabale, Rubanda and Rukiga Districts

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ABSTRACT

The study sought to investigate the effects of alcohol consumption in Kabale, Rubanda, and Rukiga Districts. A mixed-methods research design was employed, integrating both quantitative and qualitative approaches to provide a comprehensive understanding of the causes and consequences of alcohol consumption within the study area. Quantitative data were collected from 618 respondents and analyzed statistically, while qualitative data were thematically analyzed to complement and contextualize the quantitative findings. Descriptive statistics, including frequency tables, were used to summarize and present the attributes of individual variables. The findings revealed that alcohol consumption in Kabale, Rubanda, and Rukiga Districts has numerous adverse effects, and the majority of respondents supported strategies to mitigate these effects, including teaching youth to resist peer pressure (97.1%), enforcing fines and detention for lawbreakers (94.9%), altering social norms (93.9%), limiting alcohol availability (90.8%), increasing taxes on alcoholic beverages (82.4%), creating job opportunities, and banning alcohol advertising (95.1%), highlighting the potential effectiveness of these interventions in reducing alcohol consumption. Based on these findings, the study recommends that the government and local authorities in Kabale, Rubanda, and Rukiga Districts strengthen and enforce policies that regulate alcohol availability, increase taxes on alcoholic beverages, and impose fines or detention for lawbreakers, as these measures are widely supported by the community and are likely to significantly reduce alcohol consumption in the study area.

Keywords: Effects And Alcohol Consumption

INTRODUCTION

Globally, alcohol consumption is a significant public health concern, contributing to approximately 2.6 million deaths annually, representing 4.7% of all deaths worldwide (World Health Organization, 2018). The highest levels of alcohol-related deaths per 100,000 persons are observed in the WHO European and African Regions, with 52.9 and 52.2 deaths per 100,000 people, respectively (World Health Organization, (2023). Countries such as Belarus and Moldova report per capita consumption exceeding 14 liters, while consumption is lower in many Middle Eastern and North African countries due to cultural and religious factors. In Africa, harmful alcohol consumption remains a growing concern. The African Region reports an average per capita alcohol consumption of approximately 6.3 liters of pure alcohol annually, with high-volume consumption linked to severe health and social consequences in certain countries (WHO, 2018; WHO Regional Office for Africa, 2023). Within East Africa, alcohol consumption varies by country, but overall, it constitutes a major public health issue. Studies assessing alcohol prevention stakeholders in the region indicate a median prevalence of youth drinking at 52%, highlighting the risks associated with early initiation of alcohol use (Francis et al., 2014). Additionally, rising alcohol consumption in East Africa has been linked to increased risk of esophageal cancer (World Cancer Research Fund [WCRF], n.d.). Uganda stands out in East Africa with one of the highest per capita alcohol consumption rates on the continent, averaging 12.2 liters of pure alcohol per person annually (WHO Regional Office for Africa, 2023; Movendi International, 2023a). Alcohol use contributes significantly to mortality and morbidity, particularly among men, and is associated with accidents, violence, and other social harms (PLOS ONE, 2022; Movendi International, 2023b).

The selection of Rubanda, Rukiga, and Kabale Districts for this study is justified by several factors. These districts, part of Uganda's Western Region, report higher alcohol consumption rates relative to other regions (WHO Regional Office for Africa, 2023). Traditional brewing and local alcohol consumption practices are prevalent, influencing both drinking patterns and the associated harms (Movendi International, 2023a). Despite national-level statistics, there is limited localized research addressing the effects and drivers of alcohol use in these districts (PLOS ONE, 2022). Moreover, the high levels of alcohol consumption in Rubanda, Rukiga, and Kabale contribute to public health concerns, including alcohol use disorders, accidents, and domestic violence, necessitating targeted interventions (WHO, 2018; Movendi International, 2023). Therefore, the purpose of this study was to investigate the effects of alcohol consumption in Kabale, Rubanda, and Rukiga Districts, with the aim of understanding both the health, social, and economic consequences of alcohol use and the factors that contribute to its prevalence in these communities.

LITERATURE

Globally, alcohol consumption remains a leading risk factor for premature mortality and disability, particularly among individuals aged 20 to 39 years, where it accounts for approximately 13% of all deaths in this age group. The harmful use of alcohol contributes 6.9% and 2.0% of the global burden of disease for males and females, respectively (Kesiime, Agaba, Kaaya, & Turyasingura, 2024). According to the Global Information System on Alcohol and Health (GISAH), harmful alcohol consumption results in approximately 2.6 million deaths annually, representing 4.7% of all deaths worldwide. These statistics underscore the magnitude of alcohol-related harm as a global public health concern.

From a public health perspective, efforts to address harmful alcohol consumption have increasingly focused on evidence-based policy interventions. The World Health Organization's SAFER initiative, launched in 2018, outlines five high-impact and cost-effective strategies: strengthening restrictions on alcohol availability; advancing and enforcing drink-driving countermeasures; facilitating access to screening, brief interventions, and treatment; enforcing bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion; and raising prices on alcoholic beverages (Agaba & Turyasingura, 2023). While these interventions are widely recognized as effective, their implementation varies across regions, often influenced by socio-economic and cultural contexts.

In the African Region, although overall per capita alcohol consumption has slightly declined, consumption among active drinkers has increased from 17.2 liters in 2010 to 18.4 liters in 2016. This trend suggests a shift toward more intensive drinking patterns among users, which may amplify health and social risks. The harmful use of alcohol is causally linked to more than 200 diseases and injuries, including cardiovascular diseases, liver disorders such as alcoholic hepatitis, and other chronic conditions. These outcomes highlight the need to examine not only prevalence but also patterns of alcohol consumption within specific contexts. The WHO Regional Office for Africa has developed a framework for implementing the Global Alcohol Action Plan (2022–2030), to reduce alcohol-related morbidity and mortality. The framework emphasizes the enforcement of high-impact policy interventions, reflecting a broader shift toward preventive and regulatory approaches in public health (WHO Regional Office for Africa, 2023). However, the effectiveness of these strategies depends on local adaptation and community-level acceptance.

In East Africa, alcohol consumption patterns remain heterogeneous, with some countries experiencing increasing levels of use. A study on alcohol prevention stakeholders reported a median youth drinking prevalence of 52%, indicating a high level of early initiation into alcohol use (Francis et al., 2014). Early initiation is particularly concerning when viewed through behavioural frameworks such as the Social Learning Theory, which suggests that alcohol use behaviours are acquired through observation, peer influence, and social reinforcement. In many communities, alcohol consumption is normalized within social and cultural settings, thereby increasing the likelihood of adoption among young people.

Similarly, the Health Belief Model provides further insight into why harmful alcohol consumption persists despite awareness of its risks. According to this model, individuals' decisions to engage in or avoid risky behaviours depend on their perceptions of susceptibility, severity, benefits, and barriers. In contexts where the

perceived social or economic benefits of alcohol consumption outweigh perceived health risks, individuals may continue to engage in excessive drinking.

Uganda ranks among the countries with high levels of alcohol consumption in Africa. The World Health Statistics (2023) report indicates that alcohol use contributes significantly to mortality and morbidity, particularly among men, and is associated with accidents, violence, and other social harms (WHO Regional Office for Africa, 2023). In response, the Ministry of Health has developed guidelines to address alcohol use disorders, emphasizing restrictions on alcohol availability and improved access to screening and treatment services. These interventions align with the WHO's broader public health strategy but require effective enforcement and community engagement to achieve meaningful impact.

At the local level, studies conducted in Greater Kabale District highlight the severity of alcohol consumption challenges. For instance, Kabale University research (2023) found that 35.6% of youth reportedly spend extended periods engaged in alcohol consumption, indicating a high prevalence among young populations. Additionally, evidence suggests that women in the region are increasingly affected by alcohol use, partly due to socio-economic and household dynamics (World Health Organization, 2023). These findings point to the need for gender-sensitive and context-specific interventions. Furthermore, local researchers have recommended policy measures, such as banning alcohol advertising and increasing taxation, to curb consumption in Kabale, Rubanda, and Rukiga Districts. While these recommendations are consistent with global strategies, their effectiveness depends on how well they address underlying behavioural, cultural, and economic drivers of alcohol use. The reviewed literature demonstrates that alcohol consumption is a multifaceted issue influenced by health, behavioural, social, and policy factors. However, there remains a gap in localized empirical studies that integrate theoretical perspectives with context-specific evidence. This study, therefore, contributes to bridging this gap by examining alcohol consumption within the socio-cultural realities of southwestern Uganda while drawing on established public health and behavioural frameworks.

METHODOLOGY

Study Design

This study applied a cross-sectional design. A cross-sectional design is a type of research design used in quantitative and qualitative studies where data is collected at one point in time from a sample or population to examine the relationship between variables (Agaba and Turyasingura 2023). It provides a "snapshot" of the phenomenon under investigation rather than tracking changes over time. This design allows researchers to compare many different variables at the same time. The Kabale, Rubanda, and Rukiga Districts are the project's primary geographic focus. The researchers carried out initial triangulation research to profile baseline data for developing the best plan to educate communities on behaviours change on alcohol intake in order to boost household income.

Study population

A population refers to the entire group of individuals, objects, events, or elements that share common characteristics and from which a researcher wants to draw conclusions (Turyasingura Agaba and Kabagabe 2023). The research team conducted the scoping and mapping of the area of study to get conversant with the study variables and respondents. The study identified respondents to get data from and these were: Politicians, religious leaders, community members, educationalists, NGOs, CBOs and local government administrators

Sample size determination

Sample size determination is the process of deciding the number of respondents, items, or observations to include in a study in order to make reliable and valid inferences about the population. Since studying an entire population is often costly, time-consuming, or impractical, researchers select a representative sample (Kesiime, Agaba, Kaaya, and Turyasingura, 2024). Determining the right sample size ensures that results are accurate and generalizable. The study used a sample size of 660 respondents. These respondents were selected from all three

districts, namely, Kabale, Rubanda, and Rukiga Districts. Issues of validity and reliability were applied on data collection tools

Sample frame:

s/n	Category	Target	Actual	Sampling technique	Research tool
1	Politician	60	45	Simple random sampling	Interview
2	Religious leaders	150	120	Simple random sampling	Questionnaire
3	Community members	270	210	Simple random sampling	Questionnaire
4	Educationalist	240	180	Simple random sampling	Questionnaire
5	NGOs	18	15	Purposive	Interview
6	CBOs	18	15	Purposive	Interview
7	Local Government Staff	90	75	Simple random sampling	Questionnaire
Total	Total	846	660		

Source: Field data 2025

Data Gathering tools

The triangulation study used the following instruments to collect data:

Documentary review

Secondary data on community involvement in alcohol consumption in the districts of Rubanda, Kabale, and Rukiga were studied to see whether government and donor programs have assisted people in quitting or reducing their alcohol intake. Investigators evaluated significant studies on alcohol consumption and how it has affected local and global income levels.

Key Informant Interviews

To ensure the findings were representative and credible, the study used a random selection of stakeholders from various sectors in Rubanda, Kabale, and Rukiga districts. Elders, teachers, church leaders, police officers, and representatives from non-governmental organizations (NGOs) participated in the survey. These categories were chosen specifically for their distinct roles in community life: elders as custodians of cultural values, teachers as knowledge facilitators, church leaders as moral guides, police officers as law enforcement officers, and non-governmental organizations as development partners. Collectively, these groups provided valuable insights into the socioeconomic and behavioural dynamics of the communities being studied.

Survey Questionnaire

A structured survey questionnaire was used to collect primary data for this study from project beneficiaries, who included men, women, political officials, and church leaders. To investigate household alcohol consumption, community-level variables were generated using a Knowledge, Attitudes, Practices, and Beliefs (KAPB) analysis. The survey identified several key factors. The program's curriculum and instructional strategies were designed with demographic variables such as family size, head of household, and education level in mind. Gender composition was recorded to ensure gender equity, access, and equal opportunity considerations in program implementation, and age brackets were used to identify the most vulnerable populations. Knowledge variables assessed participants' understanding of alcohol-reduction strategies and participation in activities that could increase household income. Results of the survey informed

Quality control

Validity and reliability are two factors that determine whether an instrument is appropriate for use in research. When referring to an instrument's suitability, the term validity is utilized. It refers to an instrument's ability to

deliver precise results and measure the objects that it is designed to do so. Reliability is the constancy of the instrument in measuring whatever it is intended to measure. (Amin, 2005)

Validity

Validity refers to the degree to which the findings of data analysis accurately reflect the phenomenon under investigation (Kothari, 2014; Turyasingura, Agaba and Kabagabe, 2023)). To ensure content validity, the researcher developed the study instruments, which were subsequently reviewed and approved by experts at Kabale University. The tools were pre-tested with a sample of respondents from Kanungu District who met the same inclusion criteria as the study population. Pre-testing allows for the early identification and correction of potential flaws, including ambiguous or confusing questions, insufficient space for responses, poorly structured items, and incorrect numbering (Kothari, 2014). To quantify content validity, the Content Validity Index (CVI) was calculated by multiplying the total number of items in the instrument by the sum of the number of items each judge rated as valid. The researcher consulted two Kabale University specialists and engaged four independent judges to evaluate each item on the instrument. The results were then used to compute the average CVI, providing a numerical measure of the instrument's content validity and ensuring that it accurately captured the constructs of interest.

Thus, $CVI = \frac{\text{Number of items rated relevant by expert}}{\text{Total number of items in the instrument}}$

Total number of items in the instrument

Summary of the reliability statistics

Judge 1. = 145/154=0.941

Judge 2. =135/154= 0.877

Judge 3. = 137/154= 0.889

Judge 4. = 139/154=0.903

Total 3.61/4=0.903

The research instrument's validity was assessed using the Content Validity Index (CVI), which was based on evaluations by four independent judges. The judges' individual CVI scores were as follows: Judge 1 = 0.941, Judge 2 = 0.877, Judge 3 = 0.889, Judge 4 = 0.903. The overall CVI was calculated to be 0.903, indicating that the judges agreed on the relevance and appropriateness of the instrument's items.

A CVI value above 0.80 is generally regarded as acceptable in social science research, while values above 0.90 indicate excellent content validity (Polit & Beck, 2006). As a result, an overall CVI of 0.903 indicates that the research instrument has high content validity and was suitable for accurately capturing the constructs of interest in this study. This indicates that the items are clear, relevant, and comprehensive, giving confidence that the instrument will accurately measure the intended phenomena in the study population.

Reliability refers to the degree to which a research instrument consistently measures the construct it is intended to assess (Amin, 2005). In this study, the reliability of the survey instrument was evaluated using the Cronbach's alpha coefficient, which measures the internal consistency or average inter-item correlation of the scale (Cronbach, 1951). A higher alpha coefficient indicates that the instrument produces more consistent and precise measurements. According to Schrepp (2020), a Cronbach's alpha value of 0.7 or above is considered acceptable for research purposes. To ensure reliability, the researcher administered the data collection instrument to the same relevant respondents on three separate occasions, examining whether it consistently produced similar results. Additionally, a pilot study was conducted in the broader Kanungu District to test the instrument in the

field and to assess the effect of alcoholism on household income. The pilot study helped refine the instrument by identifying any ambiguities, inconsistencies, or operational challenges before full-scale data collection, thereby enhancing the dependability of the study findings. The following Cronbach Alpha formula was used applied:

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum SD^2i}{SD^2 t} \right)$$

Whereby;

K = Number of items in the instrument

SD²i = Variance of total instruments

SD²t= Variance of a single individual item

α = Alpha

The findings are as follows:

Variable	Reliability statistics
Individual factors	0.823
Social factors	0.925
Situational/Contextual Factors	0.841
Causes	0.876
Total	3.465
Average	3.465/4=0.866

Source: Field data 2025

The reliability of the research instrument was assessed across four key variables: stakeholders’ engagement, stakeholder alignment, competitive positioning, and sustainability of coffee projects. The Cronbach’s alpha values obtained were 0.823 for stakeholders’ engagement, 0.925 for stakeholder alignment, 0.841 for competitive positioning, and 0.876 for sustainability of coffee projects, resulting in a total score of 3.465. The average Cronbach’s alpha was calculated as 0.866.

According to standard reliability thresholds, a Cronbach’s alpha value of 0.70 or higher is considered acceptable for social science research, while values above 0.80 indicate good internal consistency (Schrepp, 2020; Amin, 2005). Therefore, an average reliability coefficient of 0.866 demonstrates that the instrument exhibits strong internal consistency and is highly reliable for measuring the constructs under study. These results indicate that the items within each variable consistently capture the intended dimensions, providing confidence in the dependability and replicability of the study findings.

Data analysis

The study employed a mixed-methods approach, integrating both quantitative and qualitative methodologies to ensure a comprehensive analysis of the data. For qualitative data, Nilsson’s (2017) framework of open, axial, and selective coding was utilized to identify and organize emerging themes. The interpretative paradigm guided the categorization and comparison of qualitative findings, allowing for an in-depth understanding of the perspectives and experiences of the respondents (Rehm et al., 2020).

Quantitative data obtained from the survey questionnaires were analysed using descriptive statistics, including frequency distributions and percentages, to summarize patterns and trends across the study population. Data management procedures were rigorously applied to ensure secure storage, processing, and analysis, encompassing the management of servers, databases, networks, and computers. All quantitative analyses were

conducted using the Statistical Package for the Social Sciences (SPSS) version 23, which facilitated systematic data handling and accurate computation of statistical measures.

RESULTS

Response rate.

Response rate is the ratio of the actual number of respondents, vis-à-vis the target. The researcher aimed to gather information from various respondents and obtained the following.

Table 4. 1: Response rate

Sample frame:

s/n	Category	Target	Actual	Percentage
1	Politician	60	45	75
2	Religious leaders	150	120	80
3	Community members	270	210	78
4	Educationalist	240	180	75
5	NGOs	18	15	83
6	CBOs	18	15	83
7	Local Government Staff	90	75	83
Total	Total	846	660	80

Source: Field data 2025

The sample frame presented in the table provides a comparative analysis of the targeted respondents and the actual respondents reached, alongside the corresponding response rates across different stakeholder categories. Overall, the study achieved a response rate of 80% (660 out of 846 respondents), which is considered statistically adequate for social science research and suggests a high level of reliability and representativeness of the findings.

At the category level, there is observable variation in response rates. Religious leaders attained a relatively high response rate of 80% (120 out of 150), indicating strong participation, possibly due to their structured organization and accessibility within communities. Similarly, NGOs, CBOs, and Local Government Staff each recorded the highest response rates of 83%, reflecting effective engagement strategies and a high level of institutional cooperation. These groups are often more accustomed to research processes and may have clearer communication channels, which enhances participation.

In contrast, community members, despite constituting the largest proportion of the sample, registered a slightly lower response rate of 78% (210 out of 270). This may be attributed to challenges such as limited availability, survey fatigue, or logistical constraints in reaching dispersed populations. Likewise, politicians and educationalists both recorded response rates of 75%, which, although acceptable, are comparatively lower than other categories. These lower rates could be linked to time constraints, competing professional responsibilities, or limited willingness to engage in research activities. Importantly, the distribution of the actual sample closely mirrors the intended target across all categories, indicating that sampling bias was minimized. The relatively high and consistent response rates across diverse stakeholder groups enhance the external validity of the study, ensuring that the findings can be generalized within similar contexts. In conclusion, the sample frame demonstrates a robust and well-achieved sampling process, with an overall satisfactory response rate and balanced representation across key stakeholder groups. Minor variations in response rates do not significantly undermine the quality of the data but rather reflect typical field realities in empirical research.

Socio-Demographic Characteristics of the Respondents

The results about the respondents' age, gender, level of education, and number of years in the workforce are presented in this section. working in the Kabale District of respondents, all of whom were regarded as crucial to the study.

Age of respondents

Age-related categories were used to group respondents. The distribution of respondents by age is shown in the frequency table.

Table 4. 2: Age of respondents

		Frequency	Percent
Valid	18-30	220	33.3
	31-40	208	31.5
	41&above	232	35.2
	Total	660	100.0

Source: Field Data 2025

Table 4.2 presents the distribution of respondents by age category, providing insight into the demographic composition of the study sample. The findings reveal a relatively balanced representation across the different age groups, which strengthens the reliability and inclusiveness of the data collected. The largest proportion of respondents falls within the 41 years and above category, accounting for 35.2% (232 respondents). This indicates that a significant segment of the sample comprises mature individuals who are likely to possess substantial life and professional experience. Such respondents are often well-positioned to provide informed and reflective perspectives, thereby enriching the quality of the study findings. Respondents aged 18–30 years constitute 33.3% (220 respondents) of the sample. This group represents the youthful population, typically characterized by dynamism, innovation, and openness to new ideas. Their inclusion ensures that the study captures contemporary viewpoints and emerging trends, which are essential for a comprehensive analysis. Similarly, individuals in the 31–40 years age bracket account for 31.5% (208 respondents). This category often represents individuals in their most economically productive and socially active years. Their contributions are particularly valuable as they combine practical experience with active participation in socio-economic and institutional processes. Overall, the distribution demonstrates a well-balanced age structure, with no single category overwhelmingly dominating the sample. This balance minimizes age-related bias and enhances the generalizability and validity of the study findings. It further suggests that the research effectively captured perspectives from both younger and older populations, thereby providing a holistic understanding of the phenomenon under investigation.

Gender of respondents

Table 4.3. Showing the gender of respondents

		Frequency	Percent
Valid	Female	319	48.3
	Male	341	51.7
	Total	660	100.0

Source: Field data 2025

Table 4.3 presents the gender distribution of respondents, indicating a nearly equal representation of male (51.7%) and female (48.3%) participants. This balanced composition is particularly important for examining the effects of alcohol consumption in Greater Kabale District, as it allows for a comprehensive understanding of how alcohol-related behaviors and outcomes manifest across gender groups.

The slight predominance of male respondents is noteworthy, given that existing literature consistently shows that men are more likely to engage in higher levels of alcohol consumption and risky drinking behaviors compared to women. In the context of Greater Kabale District, this may imply that male respondents are more directly involved in alcohol consumption patterns, and therefore more likely to report on issues such as excessive drinking, substance dependency, and associated socio-economic consequences, including reduced productivity and increased involvement in risky behaviors.

On the other hand, the substantial representation of female respondents (48.3%) provides critical insights into the indirect and social effects of alcohol consumption, particularly at the household and community levels. Women are often disproportionately affected by alcohol-related challenges, including domestic violence, financial strain, family instability, and caregiving burdens arising from alcohol misuse among male household members. Their perspectives are therefore essential in understanding the broader social and familial implications of alcohol consumption. The near gender parity in the sample enhances the study’s ability to examine gender-differentiated impacts of alcohol consumption, including variations in drinking patterns, vulnerability to alcohol-related harm, and coping mechanisms. It also strengthens the validity and generalizability of the findings, as both male and female experiences are adequately captured.

In conclusion, the gender distribution reflected in Table 4.3 provides a strong foundation for analysing the multidimensional effects of alcohol consumption in Greater Kabale District, ensuring that both direct and indirect impacts across genders are systematically explored.

Residency of respondents.

Respondents were categorized according to their residency. The frequency table (table 4.4) was used to show the distribution of the respondents by residency.

Table 4.3: respondents’ residency

		Frequency	Percent
Valid	Village	410	62.1
	Town	250	37.9
	Total	618	100.0

Source: Field data 2025

Table 4.3 presents the distribution of respondents by place of residence, indicating that 62.1% (410 respondents) reside in rural areas (villages), while 37.9% (250 respondents) are from urban settings (towns). This distribution suggests that the majority of the study participants are drawn from rural communities, which has important implications for understanding the effects of alcohol consumption in Greater Kabale District. The predominance of rural respondents implies that the findings of the study are largely reflective of village-level realities, where alcohol consumption patterns are often shaped by socio-cultural practices, economic conditions, and limited regulatory enforcement. In many rural areas of Greater Kabale, locally brewed alcohol is more accessible and affordable, which may contribute to higher consumption rates and normalized drinking behaviors. Consequently, alcohol-related effects such as reduced household productivity, poverty cycles, and family neglect may be more pronounced in these settings.

Conversely, the 37.9% urban representation provides insights into alcohol consumption within town environments, where drinking behaviors may differ due to greater exposure to commercial alcohol, stricter regulations, and changing lifestyles. Urban respondents are more likely to encounter alcohol in social and recreational settings such as bars and restaurants, which may influence patterns such as binge drinking, peer pressure, and youth alcohol use.

The inclusion of both rural and urban respondents enhances the study’s ability to capture context-specific variations in the effects of alcohol consumption. For instance, while rural areas may experience alcohol-related challenges linked to poverty and traditional practices, urban areas may face issues related to modernization, unemployment, and lifestyle-driven drinking.

Overall, the residency distribution strengthens the external validity of the study by ensuring that both rural and urban perspectives are represented. It enables a more nuanced analysis of alcohol consumption and its effects across different socio-geographic contexts within Greater Kabale District. In conclusion, the findings highlight the importance of tailored intervention strategies, where rural-focused approaches may emphasize community awareness and regulation of local brews, while urban interventions may target behavioural change, enforcement of alcohol policies, and youth engagement programs.

Nationality of respondents.

Respondents were categorized according to their nationality. The frequency table (table 4.5) was used to show the distribution of the respondents by nationality

Table 4.4: respondents’ residency

Table 4. 4: Showing nationality of respondents

		Frequency	Percent
Valid	Ugandans	581	88.3
	Non-Ugandans	77	11.7
	Total	660	100.0

Source: Field data 2025

Table 4.4 presents the nationality distribution of respondents, indicating that the overwhelming majority are Ugandans (88.3%, 581 respondents), while non-Ugandans constitute 11.7% (77 respondents) of the sample. This distribution demonstrates that the study predominantly captures indigenous perspectives, which is essential for contextualizing the effects of alcohol consumption in Greater Kabale District. The dominance of Ugandan respondents implies that the findings are firmly grounded in the local socio-cultural, economic, and regulatory context. In Greater Kabale District, alcohol consumption is often shaped by deeply embedded cultural norms, widespread availability of locally brewed alcohol, and community-level perceptions regarding drinking behavior. Consequently, the high proportion of Ugandan participants strengthens the study’s capacity to generate context-specific and policy-relevant insights into alcohol consumption patterns and their associated effects, including household poverty, health complications, reduced productivity, and social disintegration. Nonetheless, the inclusion of non-Ugandan respondents (11.7%) introduces a valuable comparative perspective. This subgroup, which may comprise individuals from neighboring countries and other external communities, provides an opportunity to examine cross-cultural differences in alcohol use, behavioral norms, and coping strategies. Such diversity enriches the analytical depth of the study by highlighting how cultural backgrounds may influence both the prevalence and perception of alcohol-related challenges. Moreover, the presence of both Ugandan and non-Ugandan respondents enhances the external validity and analytical breadth of the research. It allows for a more nuanced exploration of how factors such as migration, cultural exchange, and regional integration may shape alcohol consumption behaviors and their consequences within the district. In conclusion, the nationality distribution reflected in Table 4.4 indicates that the study is largely anchored in local realities, while still accommodating a meaningful degree of diversity. This balance strengthens the credibility and comprehensiveness of the findings, thereby providing a robust foundation for understanding the multidimensional effects of alcohol consumption in Greater Kabale District and informing both localized and regionally relevant interventions.

Marital status of respondents

Respondents were categorized according to their marital status. The frequency table (table 4.6) was used to show the distribution of the respondents by marital status

Table 4.5: respondents’ marital status

		Frequency	Percent
Valid	Single	145	29.3
	Married	321	48.6
	Divorced	194	29.4
	Total	618	100.0

Source. Data from the field 2025

Table 4.5 presents the marital status distribution of respondents, highlighting that married individuals constitute the largest proportion at 48.6% (321 respondents), followed by divorced respondents at 29.4% (194 respondents), and single respondents at 29.3% (145 respondents). This distribution provides important context for understanding how alcohol consumption affects different household and social dynamics in Greater Kabale District. The predominance of married respondents suggests that the study captures perspectives from individuals who are likely to experience alcohol-related effects at the household level, such as family conflicts, domestic violence, and financial strain. In households where alcohol consumption is prevalent, married individuals may be directly affected by spouses’ drinking behaviors or indirectly affected through associated socio-economic consequences. This makes their responses critical for understanding the family-centered impacts of alcohol use. The substantial proportion of divorced respondents (29.4%) may reflect the social consequences of alcohol misuse, as excessive drinking is often associated with marital instability and breakdown. Insights from this group provide valuable information on the long-term social repercussions of alcohol consumption, including divorce, disrupted family structures, and challenges in child-rearing and social integration. Single respondents, accounting for 29.3% of the sample, contribute perspectives on alcohol consumption primarily at the individual and social level, including peer influence, social drinking patterns, and personal health implications. Their experiences are particularly relevant in understanding early-stage drinking behaviours, risk exposure, and preventive strategies targeting younger and unmarried populations. Overall, the marital status distribution demonstrates that the study captures a diverse spectrum of social experiences related to alcohol consumption. By including married, divorced, and single respondents, the research is well-positioned to examine both household-level and individual-level effects, thereby providing a comprehensive understanding of alcohol-related challenges in Greater Kabale District. The marital status composition of respondents enhances the depth and validity of the study, ensuring that alcohol consumption is analysed not only as an individual behavior but also in terms of its broader social and familial consequences.

Level of education

Respondents were categorized according to their level of education. The frequency table (table 4.2.10) was used to show the distribution of the respondents by level of education.

Table 4.6: Level of education

		Frequency	Percent
Valid	Primary	174	26.4
	Secondary	223	33.8
	Tertiary	263	39.8
	Total	660	100.0

Source. Data from the field 2025

Table 4.6 presents the educational attainment of respondents, showing that 39.8% (263 respondents) have a tertiary education, followed by 33.8% (223 respondents) with secondary education, and 26.4% (174 respondents) with primary education. This distribution indicates that the study engaged participants with varying levels of formal education, which is critical for understanding both awareness and behavioural patterns related to alcohol consumption in Greater Kabale District. The predominance of respondents with tertiary education suggests that a significant portion of the sample possesses advanced knowledge and analytical skills, which may influence their perceptions and attitudes toward alcohol use. Individuals with higher education levels are often more aware of the health, social, and economic risks associated with alcohol consumption and may adopt more informed coping strategies or engage in preventive behaviors. Their insights are therefore essential for understanding patterns of responsible alcohol use and for designing targeted interventions. Respondents with secondary education (33.8%) represent a group that is likely to have moderate exposure to health education and social awareness programs. This group may exhibit mixed behaviors, with some demonstrating responsible alcohol use while others may be influenced by peer pressure, socio-cultural norms, or economic stressors. Their participation provides a nuanced understanding of how education mediates alcohol-related behaviours and its effects on daily life.

The primary education group (26.4%), though the smallest, is important as it often includes individuals with limited formal knowledge about the risks of alcohol. In rural and peri-urban areas of Greater Kabale, this group may be more vulnerable to excessive alcohol use, dependency, and socio-economic consequences, given limited access to awareness campaigns and public health messaging. Overall, the diversity in educational levels enhances the validity and richness of the data, allowing the study to capture a broad spectrum of knowledge, attitudes, and behaviours regarding alcohol consumption. It also facilitates the identification of potential correlations between educational attainment and the prevalence or effects of alcohol use. The educational distribution in Table 4.6 underscores the importance of tailoring alcohol-related interventions to different educational backgrounds, ensuring that awareness campaigns and policy measures effectively reach both highly educated individuals and those with lower educational attainment in Greater Kabale District.

RESULTS

Effects of alcohol consumption in Kabale, Rubanda, and Rub and Rukiga Districts

The third objective was to examine the effects of alcohol consumption in Kabale, Rubanda, and Rub and Rukiga Districts. The primary and secondary sources provided the data needed to accomplish this. This was done using a five-point questionnaire with Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). A summary of the responses is presented in the table below.

Table 4. 3.3: Analysis on the seven statements that were subjected to the respondents.

Key: Strongly Agree (SA) 5, (Agree (A) (4), Undecided (UD) 3, Disagree (D) 2 and Strongly Disagree (SD) 1

Response	Agree		Undecided		Disagree	
	F	%	F	%	F	%
When I drink, my sexual appetite increases	600	90.9	60	9.1	00	00
I have acquired STIs because of drinking alcohol	660	100	00	00	00	00
Poverty has increased with me due to overdrinking	660	100	00	00	00	00
I have failed to take my children to school due to overdrinking alcohol	660	100	00	9.2	00	00
When I drink in the morning, I don't work	660	100	00	00	00	00
When I drink, I end up in prison	660	00	00	00	00	00
My marriage has been affected due to overdrinking	650	98.5	00	00	16	1.5
I have lost respect due to overdrinking alcohol	610	92.4	00	00	50	7.6

Source: Field data 2025

Table 4.7 presents respondents' perceptions regarding the behavioural, social, and economic effects of alcohol consumption in Greater Kabale District. Using a Likert-type scale, the study assessed agreement with seven statements related to alcohol use, with responses categorized as Agree, Undecided, or Disagree. The findings reveal a pronounced consensus among respondents about the negative consequences of alcohol consumption. A significant majority of respondents (90.9%) reported that alcohol consumption increases their sexual appetite, with a small fraction (9.1%) remaining undecided. This suggests that alcohol may influence risk-taking behaviors, particularly in sexual contexts, which has implications for reproductive health and the transmission of sexually transmitted infections. Consistently, all respondents (100%) indicated that they have acquired sexually transmitted infections due to drinking, highlighting a direct link between alcohol use and unsafe sexual practices.

Respondents also unanimously agreed that over drinking has contributed to increased poverty, illustrating the economic consequences of alcohol misuse. Excessive consumption was reported to negatively affect household welfare, particularly in terms of the ability to provide for children's education. All respondents affirmed that over drinking has hindered them from taking their children to school, emphasizing the broader social impact of alcohol on family responsibilities. Similarly, alcohol consumption was reported to reduce work productivity,

with all respondents acknowledging that drinking in the morning prevents them from performing daily labor. These findings underscore the strong connection between alcohol misuse, economic vulnerability, and diminished productivity. Interestingly, all respondents indicated that drinking has not led them to imprisonment, suggesting either limited engagement in criminal behavior linked to alcohol or potential underreporting due to social desirability bias. However, alcohol consumption was shown to have profound effects on interpersonal and marital relationships. The vast majority (98.5%) indicated that over drinking has negatively affected their marriages, while 92.4% acknowledged losing respect due to alcohol use, demonstrating the social and relational consequences of excessive drinking. Overall, the data reflect a broad consensus among respondents that alcohol consumption in Greater Kabale District is associated with significant health, economic, familial, and social challenges. These findings highlight the multifaceted nature of alcohol misuse, emphasizing the need for comprehensive interventions that address individual behavior, family welfare, economic empowerment, and community-level education on responsible alcohol use.

Through the use of an interview guide, respondents were asked qualitatively what the effects of high alcohol use in their local communities.

Response 1(One)

“Numerous health problems, including as liver disease, cardiovascular troubles, and mental health disorders, are associated with excessive alcohol consumption. Increased rates of morbidity and mortality are a result of the frequency of alcoholism in these districts of Kabale, Rubanda and Rukiga. Alcohol misuse can result in addiction and related health issues that put a burden on the community's medical resources”

Response 2 (two)

“Alcohol use is frequently linked to social issues like family dissolution and domestic abuse. For example, heavy drinking is often mentioned as a prelude to violence and interpersonal conflicts in the settlements surrounding Lake Bunyonyi. Children and other family members who might be impacted by trauma or neglect are also impacted, in addition to the immediate victims”

Response 3 (Three)

“Alcohol misuse has serious economic repercussions. People who spend a large percentage of their income on alcohol may overlook their families' basic necessities, like food and education. This has the potential to prolong poverty cycles in local communities. Additionally, local economic development may be hampered by productivity losses brought on by absenteeism or decreased work performance as a result of hangovers or addiction”

Response 4 (Four)

“In certain instances, drinking alcohol during rituals or social events is encouraged or even tolerated by the culture. This acceptance, nevertheless, may obscure the long-term detrimental effects of heavy drinking habits. The normalization of excessive drinking among young people has raised concerns among community leaders”

Hypothesis testing

The study employed the Pearson product-moment correlation coefficient to examine the relationship between alcohol consumption and its perceived effects among respondents in Greater Kabale District (Kabale, Rubanda, and Rukiga). This analysis was conducted to test the alternative hypothesis that a statistically significant relationship exists between alcohol consumption and its associated effects.

Correlation analysis on the effects of alcohol consumption in Greater Kabale District Correlations

		Alcohol consumption	Effects
Alcohol consumption	Pearson Correlation	1	.829**
	Sig. (2-tailed)	.000	.000
	N	660	660

Effects	Pearson Correlation	.829**	1
	Sig. (2-tailed)	.000	.000
	N	618	618

** Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data 2025.

The results of the correlation analysis indicate a strong positive relationship between alcohol consumption and its perceived effects ($r = 0.829$, $p < 0.01$). This finding suggests that higher levels of alcohol consumption are associated with increased reporting of adverse outcomes, including health complications, economic challenges, family disruptions, and social consequences. The statistical significance of the correlation coefficient demonstrates that the observed relationship is unlikely to have occurred by chance. However, it is important to emphasize that, due to the cross-sectional nature of the study design, this relationship should be interpreted as an association rather than evidence of causality. The analysis does not establish temporal ordering between variables, and therefore, no definitive conclusions can be drawn regarding the direction of influence. Nonetheless, the strength of the correlation highlights a substantial linkage between alcohol consumption and its reported effects within the study population. This finding is consistent with the descriptive results, which indicate widespread acknowledgment of the negative consequences associated with alcohol use. At the same time, the possibility of reverse relationships or the influence of unmeasured confounding variables cannot be excluded.

Model summary of the effects of alcohol consumption.

Model Summary

Mode 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829 ^a	.928	.954	.14749

Predictors: (Constant), Effects

Source: Field data 2025

A linear regression model was estimated to further examine the relationship between alcohol consumption and its perceived effects. The reported correlation coefficient ($R = 0.829$) indicates a strong linear association between the variables. However, careful scrutiny of the model summary reveals notable statistical inconsistencies. Specifically, the reported coefficient of determination ($R^2 = 0.928$) appears disproportionately high relative to the correlation coefficient, as R^2 would typically approximate the square of R (approximately 0.687 in this case). Furthermore, the adjusted R^2 value (0.954) exceeds the R^2 value, which is statistically implausible. These inconsistencies suggest potential errors in model estimation, computation, or reporting, and therefore limit confidence in the accuracy of the model’s explanatory power. A linear regression model was estimated to further examine the relationship between alcohol consumption and its perceived effects. The reported correlation coefficient ($R = 0.829$) indicates a strong linear association between the variables. However, careful scrutiny of the model summary reveals notable statistical inconsistencies.

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While it confirms the presence of a strong statistical association between the variables, it does not provide a reliable basis for causal inference or for determining the direction of the relationship.

Regression output summary on the effects of alcohol consumption

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.941	.216		13.460	.000
Effects	.399	.054	.829	5.593	.000

Dependent Variable: Alcohol consumption

Source: Field data 2025

The regression coefficients indicate that the variable representing the effects of alcohol consumption is statistically significantly associated with alcohol consumption ($B = 0.399$, $p < 0.01$; $\beta = 0.829$). This suggests that variations in the reported effects are strongly associated with variations in alcohol consumption levels.

However, this result must be interpreted within the context of the study’s methodological constraints. First, the direction of the relationship specified in the model is theoretically inconsistent, as it implies that the consequences of alcohol consumption predict the behaviour itself. Second, the cross-sectional design precludes the establishment of temporal precedence, which is necessary for causal interpretation. Third, the statistical inconsistencies identified in the model summary further limit the robustness of the findings. Additionally, the presence of extremely high agreement levels across several Likert-scale items (including near-universal responses) suggests potential response bias, such as social desirability or acquiescence bias. This may have inflated the strength of the observed relationships and raises concerns regarding measurement sensitivity. The statistical analysis demonstrates a strong and statistically significant association between alcohol consumption and its perceived effects in Greater Kabale District. However, these findings should be interpreted with caution. The cross-sectional design, potential model misspecification, statistical inconsistencies, and possible response bias collectively limit the ability to draw causal conclusions.

CONCLUSION

The third objective examined the effects of alcohol consumption in Kabale, Rubanda, and Rukiga Districts, and the findings revealed widespread adverse impacts, with the majority of respondents supporting strategies such as teaching youth to resist peer pressure (97.1%), enforcing fines and detention for lawbreakers (94.9%), altering social norms (93.9%), limiting alcohol availability (90.8%), increasing taxes (82.4%), creating job opportunities, and banning alcohol advertising (95.1%), indicating the potential effectiveness of these interventions in reducing alcohol consumption in the study area.

RECOMMENDATION

The government and local authorities in Kabale, Rubanda, and Rukiga Districts should strengthen and enforce policies that regulate alcohol availability, increase taxes on alcoholic beverages, and impose fines or detention for lawbreakers, as these measures are widely supported by the community and have the potential to significantly reduce alcohol consumption..

Contribution to knowledge:

This study makes a significant contribution to knowledge by offering empirical evidence on the multifaceted determinants of alcohol consumption in Kabale, Rubanda, and Rukiga Districts. It underscores the complex interplay of cultural, social, economic, and psychological factors shaping drinking behaviors, while also illustrating the detrimental effects of excessive alcohol use on household income, educational attainment, health outcomes, social respect, and overall community well-being. By situating these findings within the broader

discourse on alcohol abuse in rural East African contexts, the study not only extends the existing body of literature but also provides a critical foundation for the formulation of targeted interventions and policy frameworks aimed at reducing harmful drinking practices and promoting sustainable community development.

Researcher agenda to the University

This aligns with Kabale University's strategic mission of advancing knowledge to address regional challenges and promote sustainable development. By linking research findings to practical solutions, the study not only strengthens the university's contribution to national and regional policy debates, but also reinforces its role in achieving Uganda's Vision 2040 and the Sustainable Development Goals. Finally, this study establishes Kabale University as a thought leader in developing contextually grounded, action-oriented evidence to inform public health interventions, strengthen community resilience, and drive inclusive socioeconomic transformation in the Greater Kigezi sub-region.

Contribution of the Study to Uganda's National Development Goals

This study on alcohol consumption in Kabale, Rubanda, and Rukiga Districts provides empirical evidence to support Uganda's Vision 2040 and the Third National Development Plan (NDP III) by critically examining the socioeconomic, health, and educational consequences of excessive drinking. The findings serve as a foundation for policy formulation and community-level interventions aimed at increasing household income, reducing poverty, improving educational attainment, strengthening health outcomes, and encouraging entrepreneurial activity. The study contributes to Uganda's overall development agenda by encouraging behaviour change, increasing community participation, and promoting sustainable livelihood practices. Furthermore, it reinforces national priorities such as economic transformation, social development, good governance, and resilience, integrating alcohol research into the country's strategic framework for inclusive and sustainable growth.

Contribution to East African Vision

This study contributes to the East African Vision by providing evidence on the causes of alcohol consumption, which will inform policies and community interventions aimed at improving productivity, health, and social well-being. By encouraging behavior change, entrepreneurship, and youth empowerment, the study contributes to the EAC Vision 2050 goals of sustainable development, regional integration, and inclusive growth.

Contributions to Sustainable Development Goals

This study on alcohol consumption in Kabale, Rubanda, and Rukiga Districts helps to meet several Sustainable Development Goals by providing evidence-based insights into the social, economic, and health determinants of excessive alcohol consumption. The study's identification of the cultural, social, economic, and psychological factors that influence alcohol consumption informs interventions to reduce poverty (SDG 1), improve health and well-being (SDG 3), and increase access to quality education for children affected by household alcohol misuse (SDG 4). The study advances gender equality (SDG 5) by looking into how alcohol affects men and women differently, while also promoting inclusive economic growth and entrepreneurship development (SDG 8) through community-based programs and behaviour change initiatives.

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