

# Family and Societal Factors as Predictors of Illicit Alcohol Consumption

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## Abstract

This paper investigates the complex social phenomenon of illicit alcohol abuse in Embakasi East, which is attributed to a combination of family and societal environment. The primary hypothesis is that family and social environment factors have a statistically significant influence on the high consumption of illicit alcohol. Using a quantitative research design with descriptive and correlational approaches, data were collected from 119 adults that illicit alcohol consumers through a structured survey. The analysis, which included an ANOVA model, revealed a significant relationship between both family and social environments and the frequency and quantity of illicit alcohol consumption. Key findings indicate that a worsening financial situation was the most significant family environment trigger ( $p=.001$ ); while affordability and accessibility ( $p=.000$  and  $p=.002$ , respectively) and peer influence were found to be the most significant societal triggers. The affordability and accessibility of illicit alcohol outlets appear to correlate directly with the financial hardships experienced within families. The findings indicate that as the price of legal alcohol rises, consumption of cheaper illicit alcohol increases, highlighting the need for policies that consider the financial context of consumers alongside traditional enforcement measures.

**Keywords:** *Illicit alcohol consumption, social environment, family environment, Embakasi East.*

## 1. Introduction

### 1.1. Background

Alcohol abuse in Embakasi East Sub-County creates significant social, economic, and health problems for individuals, families, and the community. A central issue is the high consumption of unrecorded and illicit alcohol. This behaviour is often attributed to the high cost of regulated beverages, weak regulatory enforcement, and its acceptance as a cultural norm (Ren et al., 2020). The consequences include a greater risk of toxicity, accidents, and violence.

Family and peer environments are critical determinants of alcohol use, particularly among adolescents. Early initiation into drinking is often influenced by factors such as family conflict, parental drinking habits, and permissive parenting styles (Njeru, 2021). Peer pressure typically becomes a more dominant influence as individuals mature (Gitatui et al., 2019). Easy access to alcohol, combined with challenging socioeconomic conditions and experiences of discrimination, further increases consumption rates (Lee et al., 2015).

Widespread alcohol consumption must be understood as a complex social phenomenon rather than a series of individual failings. Its roots can often be traced to historical and structural factors, such as discriminatory state policies (NACADA, 2020). Legacies of this history and related intergenerational trauma contribute to psychosocial difficulties (Giusto et al., 2020; Isobel et al., 2021), which are in turn strongly associated with harmful drinking behaviours (Aguiar & Halseth, 2015). Persistent social and health inequalities, including poverty and inadequate access to public services, exacerbate these challenges (Desai, 2020).

This research adopts a social determinants of family and environment framework to analyse alcohol consumption patterns (Park et al., 2020). The framework organises influencing factors into three interconnected levels. Proximal determinants include immediate life conditions such as socioeconomic status and environmental aspects. Intermediate determinants relate to community systems, available resources, and cultural continuity. Distal determinants encompass broad historical and political forces like colonialism and social exclusion. This multi-level approach is optimal for interpreting the various risk factors involved.

Embakasi East Sub-County was selected as the study site due to its high population density (Gathirwa, 2022) and its reputation as a centre for illicit alcohol production and consumption. The prevalence is linked to the local availability of cheap ethanol, a high concentration of low-income households, and the high cost of regulated alternatives (Ren et al., 2020). This study therefore seeks to investigate the complex factors contributing to these harmful consumption patterns within this specific urban informal settlement context.

## **1.2. Hypothesis**

The primary hypothesis of this study is that family and social environment factors have a statistically significant influence on the high consumption of illicit alcohol. This is supported by secondary hypotheses, which posit that specific family-related factors such as a worsening financial situation, being a school dropout, or having a family member who drinks; and specific social environment factors such as the affordability of illicit alcohol, ease of accessibility; and peer influence are associated with significant mean differences in the frequency and quantity of alcohol consumed.

## **2. Methods**

### **2.1. Study Design**

A quantitative research design was employed, incorporating both descriptive and correlational approaches. The descriptive design was used to analyse numerical data and describe emerging social trends of illicit alcohol consumption (Van, 2012). Furthermore, a correlational design was used to quantitatively analyse the relationship between independent and dependent variables, helping to determine the factors that lead to increased illicit alcohol consumption.

**2.2. Population and Sample**

The study population consisted of current and past illicit alcohol consumers in the informal settlements of Embakasi East Sub-county. This population is considered "hidden" due to the stigmatised nature of their activities (Ellard-Gray et al., 2015; Otzen & Manterola, 2017). The sample size was determined using a multiplier method (Rutterford & Eldridge, 2015), drawing on population data from NACADA (NACADA, 2022) and the Kenya Population Census (KNBS, 2019). This process resulted in a determined sample size of 119 participants, distributed between active and former consumers. Male were the majority representing 92(77.3%).

The estimate is achieved by multiplying the number of attendees during a period by the proportional inverse of the population who said they attended during the same period when answering the survey designed for a research project, using the following formula (Rutterford & Eldridge, 2015):

$$Possible\ sample\ Size\ (N) = \frac{x}{X} * 100 [1]$$

N = size of the estimated population;

x = size of the selected subgroup for which good information is available;

X = proportion of the population taking survey.

According to NACADA<sup>1</sup> (2022, p.22), the estimated number of illicit alcohol users is estimated to be 57,982 in Nairobi, which represents 10.9% of total 531946 alcohol users in Kenya. Given that Embakasi East Sub-county presents 5.6% of entire Nairobi population according to 2019 Kenya population census<sup>2</sup>, the proportion of 3,860.87 adults illicit alcohol consumers would be 3247 (KNBS, 2019). Thus, after determining possible total population of illicit alcohol users in Embakasi East, the formula proposed in [1] to identify an appropriate sample size that could guide purposive and snow-ball sample till the target is made. The steps are documented in equation [2];

$$Sample\ Size\ (N) = \frac{x}{X} * 100 [2]$$

$$N = \frac{x}{X} * 100$$

Where x = 3860.87 according to Conroy (2015), for large population of less than 10,000, it is advisable to utilize a minimum ratio of more than 10% of the entire population number. Therefore, X= would be 3247.

$$N = \frac{3860.87}{3247} * 100$$

$$N = 118.6.$$

The determined sample size is 119; and it is therefore distributed based on different type of illicit alcohol as presented in Table 1

**Table 1: Sample size distribution**

|                  | Target sample size | Obtained sample size |
|------------------|--------------------|----------------------|
| Active consumers | 95                 | 87                   |

<sup>1</sup><https://nacada.go.ke/sites/default/files/2023-05/National%20Survey%20on%20the%20Status%20of%20Drugs%20and%20Substance%20Use%20in%20Kenya%202022.pdf>

<sup>2</sup> <https://www.knbs.or.ke/2009-kenya-population-and-housing-census-volume-1a-population-distribution-by-administrative-units/>

|                  |     |     |
|------------------|-----|-----|
| Former consumers | 23  | 31  |
| Total            | 118 | 119 |

### 2.3. Sampling Procedure

Sampling procedure are techniques and scientific approaches used to arrive at a certain sample size. In hidden populations, the true size is unknown, and individuals often refuse to provide information about other members of the group for fear of being stigmatised or identified, prosecuted, and sometimes abused because of their characteristics (Ellard-Gray et al., 2015). As a result, this research study seek to identify individuals belonging to these illicit alcohol consuming subgroups must be extensive and contain a number of subjects that allows for a correct estimate of sample size.

The next step involved determining the sample selection across various locations within Embakasi East Sub-county in order to prevent potential sample bias, particularly stemming from sampling frame bias. With 15 locations in Embakasi East, it was necessary to evenly distribute the total target sample size from Table 3.1 across the villages. To achieve this, a two-stage cluster sampling technique was utilized to select a subset of villages from the 15 available. According to Wu et al. (2020), this technique involves random sampling within clusters, each comprising multiple elementary units that are sampled twice. Two-stage cluster sampling is often a cost-effective design for obtaining required information without needing to recruit study participants from all villages in the study area. This method differs from stratified sampling, where all strata are represented in the sample with the aim of reducing estimator variance (Wu et al., 2020).

In this case, the sampling frame consisted of the list of villages and the household size in each village. The first stage of sampling involved selecting 7 clusters (villages) out of the total 15 villages in Embakasi East Sub-county using Probability Proportion to Size (PPS). The estimator utilized the formula [3].

$$n = N * X(X + N - 1) \quad [3.1]$$

Where,

$$X = Z\alpha/22 * p * (1 - p) / MOE2 \quad [3.2]$$

Where the 5% is the MOE margin of error, p is the sample proportion, and N is the population size. Z/2 is the critical value of the normal distribution at /2 (for example, for a confidence level of 95%, is 0.05 and the critical value is 1.96). The sample size formula was adjusted to account for the finite population. By using PPS sampling, it was determined that villages with more households would have a larger probability of being chosen from the sampling frame than would villages with fewer households, who would have a lesser chance. The seven (7) villages from Embakasi East Sub-county made up the study sampling frame. The sample distribution is presented in Table 2.

**Table 2: Locational Cluster Sampling**

| Locational Cluster | Population Fraction | Sample size |
|--------------------|---------------------|-------------|
| Donholme           | 0.05                | 17          |
| Lower Savannah     | 0.04                | 16          |
| Kayole North       | 0.07                | 23          |
| Kwandege           | 0.06                | 21          |
| Mihang'o           | 0.04                | 16          |
| Embakasi Village   | 0.03                | 14          |
| Utawala            | 0.02                | 12          |
| Total              |                     | 119         |

After determining the number of clusters in each location and the corresponding sample size in each village, the final respondents were randomly selected from the list of villages. After establishing the sample, the researcher conducted data collection across the sub location in Embakasi East Sub County

using purposive sampling and snowball where the initial contact was asked to refer any potential sample candidate given there is a high likelihood of social circle connection till the target sample size is obtained. Purposive sampling and snowball sampling procedure is the most appropriate for unknown and hidden population in quantitative research studies.

The two sample selection technique only give chance to a section of qualified population candidates that meets the purpose of the study. Equally, snowballing sampling gives chance for the first sample contact to refer the researcher to other potential sample candidates till the required sample size is obtained. (Baker & Edwards, 2017; Ellard-Gray et al., 2015). This helps to address integrity and quality emanating from the data. As Baker and Edwards (2017) and Mthuli, Ruffin, and Singh (2022) allude, the most appropriate sample size for any hidden population can be exhaustive as fortune would allow based on data collection timeline Therefore, such sampling method does not allow scientific calculation of sample size. Though, a study can develop a scientific formula to determine possible strategy for getting samples as maintained by Mugenda and Mugenda, (2003).

After determining the sample size for each location, the researcher embarked on the selection procedure. In this case, a non-probabilistic convenience sampling, including purposive and snowball sampling techniques, was used to recruit respondents. This approach was considered appropriate for accessing a hidden population where individuals might be reluctant to participate or reveal others (Baker & Edwards, 2017; Ellard-Gray et al., 2015).

#### 2.4. Instrument

Survey questionnaire with closed, open, and semi-open questions was administered. The validity of the instrument was further assessed using confirmatory factor analysis, with the model's appropriateness evaluated using Chi-square, Comparative Fit Index, and Tucker-Lewis Index tests (Bezuidenhout, 2018). Reliability was measured for each variable's responses using simple and weighted Kappa methods and the Intraclass Correlation Coefficient, with a threshold of 0.5 (de-Felício et al., 2010; Mugenda & Mugenda, 2003).

#### 2.5. Data Collection Procedure

Data were collected physically at the study site among the sampled villages and population in Embakasi East. The field survey method was used, as it allows for large-scale quantitative data collection while maintaining respondent anonymity and a high degree of answer reliability (Dawadi et al., Giri, 2021; Mugenda & Mugenda, 2003). Respondents completed the semi-structured questionnaire with guidance from the researcher.

#### 2.6. Data Analysis

Multivariate ANOVA with repeated measures was used to test for significant mean differences across social norms and environmental factors (Kaplan-Singapore, 2019). Multiple linear regression was employed to ascertain the relationship between illicit alcohol price and consumption metrics (Zafeiris et al., 2022). All analyses were performed using the Statistical Package for Social Science (SPSS) Version 25.0, with a significance level of 95 percent. The unit of analysis was the frequency of visits and quantity consumed by active or former illicit alcohol consumers (Sedgwick, 2014).

### 3. Findings

#### 3.1. Descriptive

Table 3 presents a consolidated summary of the descriptive statistics related to the perception of social and family environments, as well as the outlets and operational structures of illicit alcohol sales in Embakasi East. The data highlights key factors encouraging illicit alcohol tolerance among residents.

**Table 3:** *Perceptions of Illicit Alcohol Tolerance and Related Descriptive*

| Variable | Category | Frequency (%) |
|----------|----------|---------------|
|----------|----------|---------------|

|   |  |      |
|---|--|------|
| <b>Perception that social and family environment encourage high illicit alcohol tolerance</b>                           | Agree  | 80.5 |
|   | Disagree   | 19.5 |
| <b>Society environment and high illicit alcohol tolerance based on type</b><br><i>Homemade illicit brew/Moonshining</i> | Agree  | 92   |
|   | Disagree   | 8    |
|   | <i>Decontaminated ethanol intended for industrial use/ Counterfeiting of legal alcohol</i> |      |
|   | Agree  | 88   |
| <b>Family environment and high illicit alcohol tolerance based on type</b><br><i>Homemade illicit brew/Moonshining</i>  | Disagree   | 12   |
|   | Agree  | 88   |
|   | <i>Decontaminated ethanol intended for industrial use/ Counterfeited legal alcohol</i>     |      |
|   | Disagree   | 34   |
| <b>Main family-related issues encouraging tolerance</b>   | Worsening financial situation  | 25.0 |
|   | Having one family member who drinks  | 20.9 |
|   | Stress from losing a job   | 13.6 |
|   | Domestic violence  | 10.0 |
|   | Stress from losing a family member   | 8.5  |
|   | Being a school dropout   | 8.5  |
|   | Single parent  | 8.5  |
|   | Child-headed family  | 5.1  |
| <b>Main social environment issues encouraging tolerance</b>   | Price of illicit alcoholic vis-à-vis licit alcohol   | 37.3 |
|   | Distance to find illicit alcohol vis-à-vis licit one                                       | 22.0 |
|   | Seen peer who drinks illicit alcohol   | 10.2 |
|   | Pressure from advertising  | 10.2 |
|   | High population density  | 9.3  |
|   | Laxity in alcohol-control policy implementation  | 5.9  |
|   | The student's environment  | 2.5  |
|   | Underserved public and social facilities   | 2.5  |
| <b>Main outlets for illicit alcohol sales</b>   | Rented houses (Homemade Moonshine)   | 41   |
|   | Local bars/clubs (Decontaminated ethanol)  | 41   |
|   | Local bars/clubs (Counterfeited legal alcohol)   | 30   |
| <b>Structure of illicit alcohol outlets</b>   | Independently (Homemade Moonshine)   | 53   |
|   | Organised group (Decontaminated ethanol)   | 34   |
|   | Organised group (Counterfeited legal alcohol)  | 41   |
| <b>Information on location of illicit alcohol sales</b>   | Social media platform  | 37   |
|   | Awareness of seller/producer location  | 33   |

A significant majority of residents (80.5%) agree that social and family environments contribute to a high tolerance of illicit alcohol. This perception is particularly strong for homemade illicit brews (92%), followed by decontaminated ethanol (88%) and counterfeited legal alcohol (77%). Similarly, over 55%

of respondents agreed that family environment predicts high illicit alcohol tolerance, although a notable proportion disagreed, particularly regarding counterfeited legal alcohol (41%) as presented in Table 3.

Worsening financial situations (25%) and having a family member who drinks illicit alcohol (20.9%) are the most cited family-related issues that encourage this tolerance. On a societal level, the price difference between illicit and licit alcohol (37.3%) and the distance required to find it (22.0%) are the most significant factors, based on findings in Table 3.

The outlets for illicit alcohol vary depending on the type. Homemade moonshine is predominantly sold in rented houses (41%), while decontaminated ethanol is most often found in local bars/clubs (41%). In terms of operational structure, most homemade moonshine sellers operate independently (53%), whereas sellers of both decontaminated spirits (34%) and counterfeited legal alcohol (41%) are more likely to be part of an organised group. Social media is the primary source of information for locating these outlets (37%) as presented in Table 3 findings.

### 3.2. Empirical Findings

Analysis of variance tests were completed as part of follow-up inferential statistics to test hypothesis poised in the introduction section. Therefore, a battery of repeated ANOVA analyses with Bonferroni multivariate alpha tests of 0.5 significance level were completed to determine significant variations in family and social-environment that predict high illicit alcohol consumption. First, table 4 presents ANOVA repeated measures based interaction between social and family environment, frequency, and the quantity consumed.

**Table 4:** Interaction between within-subject mean (social and family environment) and within groups

| Type of interaction                     | Mean Square | F      | Sig.  |
|---|-------------|--------|-------|
| Quantity consumed * family environment  | 302.705     | 615.02 | 0.000 |
| Frequency_of_visit * family environment | 2.745       | 5.57   | 0.020 |
| Quantity consumed * social environment  | .492        | 491.30 | 0.03  |
| Frequency_of_visit * social environment | .486        | 237.04 | 0.05  |

Bonferroni alpha 0.345

The within-subject effect for ANOVA repeated measure results found statistically significant mean variance on social environment within-subject (high alcohol consumption) based on quantity consumed ( $F(1,0.492) = 491.30, p < 0.005$ ); Frequency of alcohol consumption ( $F(1, 0.486) = 237.04, p < 0.005$ ); family environment within-subject (high alcohol consumption) based on frequency of alcohol consumption ( $F(1,2.745) = 491.30, p < 0.005$ ); family environment and quantity of alcohol consumed per each visit ( $F(1,302.705) = 615.02, p < 0.005$ ). At 95% significance level, the study reject the null hypothesis and conclude that family and social environment factors have statically significant varying means as trigger of high illicit alcohol consumption.

To understand the specific family and social environment that have significant variances in terms of frequency of visits and quantity consumed, a follow-up multivariate analysis of variance were completed as presented in table 5 and 6 family environment and societal aspects respectively.

**Table 4.5:** Between-Subjects Effects for Family environment and high illicit alcohol consumption

| Independent variable indicators                    | Mean | Mean Square | F    | Sig.   |
|--|------|-------------|------|--------|
| Worsening of the financial situation in the family | 4.77 | 1.298       | 1.28 | .001** |

|  |      |       |       |        |
|--|------|-------|-------|--------|
| Being a school dropout                                     | 4.64 | 1.738 | 1.50  | .004** |
| Stress as a result of losing a family member               | 4.46 | .998  | 1.120 | .005** |
| Stress as a result of losing a job or source of livelihood | 4.40 | 1.773 | 2.032 | .003** |
| One of the family members drinks illicit alcohol           | 4.12 | 2.604 | 2.100 | .004** |
| Being child-headed family/Orphaned                         | 3.50 | 1.550 | 1.162 | .317   |
| Domestic violence  | 3.42 | 1.378 | 1.353 | .192   |
| Being a single parent                                      | 3.06 | 1.242 | 1.545 | .110   |

\*\* The mean difference is significant at the .05 level.

The within-subject effect for multivariate ANOVA test results found statistically significant mean variance for some family-related environment that encourage high illicit alcohol within-subject (high alcohol consumption): Being school dropout ( $F(1,1.738) = 1.50, p < 0.005$ ); Worsening of the financial situation in the family ( $F(1, 1.298) = 1.28, p < 0.005$ ); Stress as a result of losing a job or source of livelihood ( $F(1, 1.773) = 2.032, p > 0.005$ ); One of the family members drinks illicit alcohol ( $F(14, 2.604) = 2.100, p > 0.005$ ), as per findings in Table 5. At 95% significance level, this study reject the null hypothesis and conclude that the five specific family environment have significant difference in mean values regarding the frequency of visits and quantity consumed.

**Table 6:** *Between-Subjects Effects for social environment and high illicit alcohol consumption*

| Independent variable indicators  | Mean | Mean Square | F     | Sig.   |
|--|------|-------------|-------|--------|
| The price of illicit alcoholic is cheaper and affordable   | 4.79 | 720.332     | 67.08 | .000** |
| This community has numerous clubs, abandoned buildings, farms or houses that act as illicit alcohol outlets  | 4.60 | 535.649     | 79.21 | .002** |
| Society normalisation of illicit alcohol drinking at social functions  | 4.48 | 578.101     | 70.46 | .005** |
| There are laxity in alcohol-control policy implementation such as no security patrol   | 4.22 | 619.107     | 55.97 | .003** |
| Have seen peer that drink illicit alcohol  | 3.96 | 570.710     | 75.88 | .004** |
| There is easier accessibility and availability of illicit alcohol than the illicit alcohol   | 3.95 | 648.837     | 57.87 | .004** |
| The student's environment at school support illicit alcohol distribution and sale  | 3.89 | 526.521     | 54.13 | .005** |
| There are more expose to illicit alcoholic beverage advertising  | 3.68 | 647.370     | 67.60 | .006   |
| This community is underserved with public and social facilities; thus leave residents with consumption of illicit alcohol as few available source of leisure and recreation activities | 3.58 | 526.549     | 59.95 | .006   |
| High population density and informal settlement lead to mushrooming of illicit alcohol outlets   | 3.40 | 439.343     | 48.62 | .006   |

\*\* The mean difference is significant at the .05 level.

The within-subject effect for multivariate ANOVA test results found statistically significant mean difference for some social environment that predict high illicit alcohol tolerance. The price of illicit alcoholic is cheaper and affordable ( $F(1, 720.332) = 67.08, p < 0.005$ ); there is easier accessibility and availability of illicit alcohol than the illicit alcohol ( $F(1, 648.837) = 57.87, p < 0.005$ ); student's environment at school support illicit alcohol distribution and sale ( $F(1, 526.521) = 54.13, p > 0.005$ ); have seen peer that drink illicit alcohol ( $F(1, 570.710) = 75.88, p > 0.005$ ); there are laxity in alcohol-control policy implementation such as no security patrol ( $F(1, 619.107) = 55.97, p > 0.005$ ); the

community has numerous clubs, abandoned buildings, farms or houses that act as hideouts for illicit alcohol activities ( $F(1, 535.649) = 79.21, p > 0.005$ ); society normalisation of illicit alcohol drinking at social functions ( $F(1, 578.101) = 70.46, p > 0.005$ ). These results were statistically significant at 95% significance level as per findings in Table 6. The study reject the null hypothesis and conclude that the seven specified social environment are associated with high mean variance based on frequency of visits and quantity consumed.

## 4. Discussion

### 4.1. Discussion

The findings of this study provide a detailed understanding of the factors influencing illicit alcohol tolerance and consumption in Embakasi East, aligning with and expanding upon existing literature in social and behavioural sciences. The descriptive findings presented in the previous sections indicate a high level of community acceptance, with over 80% of residents believing that the societal and family environment fosters tolerance for illicit alcohol. This general consensus challenges the social perception that there is no link between social settings and illicit alcohol consumption.

Consistent with previous research on hidden populations and substance use (Ellard-Gray et al., 2015), this study's findings reveal that family-related factors are significant predictors of illicit alcohol consumption. As detailed in Table 4 from the empirical findings, specific family variables such as a worsening financial situation, being a school dropout, and stress from job loss or losing a family member were found to have statistically significant mean differences regarding the frequency and quantity of alcohol consumed. This corroborates existing findings that family dysfunction and economic hardship can act as triggers for substance use, reinforcing the belief that all family environments do not have the same impact on drinking habits. The finding that having a family member who is also a consumer (cited by 20.9% of respondents) is a key factor also aligns with studies on peer and family influence (Baker & Edwards, 2017).

The results also highlight the profound impact of the social environment, a finding consistent with broader theories on substance abuse and social norms (Govaert & Nadif, 2018). The multivariate ANOVA test, as presented in Table 5, showed that social environments where illegal alcohol is more accepted have significantly different average values compared to those where it is not. This finding is supported by the descriptive statistics which show that the affordability and accessibility of illicit alcohol (37.3%), coupled with peer influence and the normalisation of its consumption at social functions, are key drivers. The presence of numerous outlets, such as abandoned buildings and local clubs, and laxity in policy implementation also contribute to this environment.

This study's findings also introduce new context-specific insights, thereby creating new knowledge within the local setting of Embakasi East. For instance, the role of social media as the primary source of information for locating illicit alcohol outlets (37%) represents a novel finding that reflects modern communication patterns and challenges for law enforcement (See table 6). Furthermore, the segmentation of operational structures where sellers of certain illicit alcohol types (decontaminated spirits and counterfeited legal alcohol) are more likely to be part of an organised group provides a detailed understanding of the supply chain, which is often a grey area in substance use research (Zafeiris et al., 2022). The finding that price is not the sole factor in high consumption, with a small increase in the price of regulated alcohol resulting in only a moderate increase in illicit alcohol consumption, suggests that other non-price factors, such as social norms and coping mechanisms, are equally important. These specific findings add a layer of detail to the general understanding of illicit alcohol consumption, providing actionable insights for policymakers in the region.

### 4.2. Limitations

The correlational approach, while useful for identifying relationships, cannot establish causality, meaning it is impossible to definitively conclude that specific family and social environments cause an increase in illicit alcohol consumption. Furthermore, the use of a non-probabilistic convenience sampling method, which included purposive and snowball sampling, was necessary to access the 'hidden population' of illicit alcohol consumers. However, this approach introduces a potential for

sampling bias and limits the generalisability of the findings to the wider population, as the true size of the target population is unknown. This was a key challenge in the study's design and execution.

## 5. Conclusion

The findings of this paper underscore the significant influence of both family and societal environment on the tolerance and consumption of illicit alcohol within Embakasi East. The empirical evidence demonstrates a clear and statistically significant relationship between specific familial and societal environment and the frequency and quantity of illicit alcohol consumption. This confirms the study's primary hypothesis, challenging the perception that these environmental factors are not linked to high illicit alcohol consumption.

The study's findings offer granular insights into the operational structures of illicit alcohol sales and the role of modern communication platforms, such as social media, in facilitating access. These findings offer a new layer of knowledge that can inform targeted interventions and policy frameworks beyond a simple focus on price and accessibility. From a sociological perspective, the results highlight the necessity of a multi-faceted approach to addressing illicit alcohol consumption. Effective practice should move beyond purely legal and enforcement measures to include social interventions that address the underlying familial and community-level triggers. For instance, the findings indicate that the affordability of illicit alcohol is a primary driver of consumption, particularly in the context of a worsening family financial situation. This suggests that policies focused solely on raising the price of legal alcohol may inadvertently increase the consumption of cheaper, more dangerous illicit alternatives. Therefore, effective strategies must consider the economic realities of consumers and combine enforcement with measures that strengthen family support systems and foster healthier social norms.

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### Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation, to any qualified researcher.

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