Interpersonal Communication and Alcohol Abuse among College Students: The Role of Demographic Characteristics

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Abstract

The paper sought to examine the effect of interpersonal communication on alcohol abuse among college students, and the moderating role of demographic factors. This comes amid growing concern of a surge in alcohol abuse among college students, a menace to the country's public health and overall socio-economic development. Despite empirical evidence showing a strong correlation between interpersonal communication and behaviours, this has not received adequate backing in Kenya's context, particularly on alcohol consumption behaviour among college students. The paper was anchored on social cognitive theory and used a descriptive cross-sectional survey design to survey 384 respondents drawn from Kenya Medical Training College. A questionnaire and key informant interviews were used to collect data from the respondents, which was analysed using quantitative (descriptive and inferential statistics) and qualitative (content analysis) approaches. The findings revealed that interpersonal communication had a strong and significant correlation with alcohol consumption among college students. Demographic factors were also found to significantly moderate the relationship between interpersonal communication and alcohol consumption among college students. The study concluded that interpersonal communication among college students was a major driver to increased alcohol consumption among the students. Further, it was concluded that demographic factors including age, gender and financial status stimulated the ability of interpersonal communication to influence alcohol consumption among college students. It is therefore recommended that policy makers and education stakeholders create awareness on the dangers of interpersonal communication on influencing alcohol consumption among college students. It is also essential for the college administrators and relevant ministries to undertake mentorship programs, embrace targeted communication strategies, and peer-led interventions tailored to students' age, gender, and economic backgrounds to curb harmful drinking behaviors among college students.

Keywords: Interpersonal Communication, Demographic Factors, Alcohol Consumptions, College Students.

Background

Background of Study

Alcohol consumption remains a persistent global and national public health challenge. Despite widespread awareness campaigns and the implementation of policy interventions, alcohol use continues to rise, particularly among young people. According to the World Health Organization (2024), an estimated 2.3 billion people globally consume alcohol, and approximately 383 million live with alcohol use disorders. In the African region, alcohol-related harm is disproportionately high, driven by factors such as weak policy enforcement, illicit brews, and hazardous drinking patterns. Kenya, in particular, reports one of the highest rates of episodic drinking despite a relatively low per capita consumption rate.

Current statistics show that only 15% of all alcohol consumed in Kenya is officially recorded, indicating widespread use of unregulated and often dangerous illicit brews (WHO, 2024). Among Kenyans aged 15 and above, the average annual per capita consumption stands at 1.9 liters of pure alcohol, with men accounting for the highest consumption rates. Notably, early initiation into alcohol use is prevalent, with the age of first use ranging between 11 and 20 years, an age bracket that encompasses secondary school students, college trainees, and university learners (NACADA, 2021).

Research highlights that alcohol use among college students in Kenya is significantly shaped by social and interpersonal factors. Many students view drinking as a socially acceptable behavior and often associate it with peer bonding, relaxation, and elevated social status (Brown & Murphy, 2020). A study by Cho and Yang (2023) revealed that most of young respondents engaged in heavy drinking, and many reported involvements in high-risk behaviors such as unprotected sex and sexual violence. These behaviors have far-reaching implications on students' physical health, mental well-being, and academic achievement.

Peers, through mechanisms such as pressure, modeling, and social reinforcement, play a central role in promoting alcohol consumption among students (Forster et al., 2023). These dynamic highlights the critical importance of interpersonal communication—defined as face-to-face and mediated interactions through which individuals exchange ideas, influence behaviors, and reinforce social norms. Evidence suggests that communication with peers, opinion leaders, and mentors can shape attitudes toward alcohol use and ultimately determine behavioral outcomes (Wandera et al., 2021).

However, while interpersonal communication has been widely acknowledged as a driver of alcohol-related behavior, less is known about how its influence is moderated by specific demographic factors such as age, gender, and financial status. These variables may affect not only how messages are interpreted but also how individuals respond to communication cues in the context of alcohol use. Older students may interpret peer messages differently compared to younger ones, and financially disadvantaged students may be more vulnerable to risky behaviors due to stress or lack of coping resources. Maina et al. (2023) established that students who had attained the legal drinking age of 18+ years had a high likelihood of engaging in alcohol as compared to their counterparts who were yet to attain the legal drinking age. The authors further noted that these students who had access to alcohol due to their age were highly associated with influencing their peers to engage in the behavior through interpersonal communication.

Understanding the moderating role of these demographic factors is essential to design effective, targeted, and demographically responsive interventions. Such insights are particularly vital in government tertiary

medical colleges in Kenya, where students are being trained as future healthcare professionals and community role models. Left unaddressed, alcohol misuse among this group poses a dual threat: to their own health and academic progress, and to the credibility of the health sector as a whole.

Statement of the Problem

Although interpersonal communication is increasingly recognized as a significant factor influencing alcohol consumption among college students, the interplay between communication dynamics and individual demographic characteristics remains underexplored, particularly in the Kenyan context. While agencies such as the National Authority for the Campaign Against Alcohol and Drug Abuse have made progress in addressing youth alcohol abuse through policy reforms and awareness campaigns, recent data still indicate a troubling rise in alcohol-related disorders and harm among young adults, including students in medical colleges (NACADA, 2021).

In these institutions, where the stakes are high due to the professional responsibility of students, generic interventions have proven insufficient. Students are not a homogenous group—they differ in age, gender identity, and economic status, all of which can moderate how they receive, process, and act on alcohol-related messages. Unfortunately, existing interventions rarely account for these moderating factors, which limits the impact of communication and behavioral change strategies.

Furthermore, while global and national data provide valuable insights into alcohol consumption patterns, there is a notable research gap in understanding how interpersonal communication interacts with demographic factors to influence alcohol use behavior among students in Kenyan government tertiary medical colleges. Without addressing this gap, policymakers and educators risk implementing one-size-fits-all interventions that fail to account for the diverse experiences and vulnerabilities of students.

This study therefore aimed to analyze the moderating effects of demographic variables—specifically age, gender, and financial status—on the relationship between interpersonal communication and alcohol consumption. The goal was to generate evidence to inform targeted, culturally relevant, and demographically sensitive intervention programs for tertiary institutions in Kenya.

Objectives of the Study

The overall objective of this paper was to examine the moderating effect of demographic factors on the relationship between interpersonal communication and alcohol consumption among students in government tertiary medical colleges in Kenya. To achieve this objective, the study was guided by the following specific objectives:

- To examine the influence of interpersonal communication on alcohol consumption among college students in Kenya
- To establish the influence of demographic factors on alcohol consumption among college students in Kenya
- To determine the moderating effect of demographic factors on the relationship between interpersonal communication and alcohol consumption among college students in Kenya

Research Hypotheses

H_{O1}: Interpersonal communication has no significant influence on alcohol consumption among college students in Kenya
H_{O2}: Demographic factors have no significant effect on alcohol consumption among college students in Kenya
H_{O3}: Demographic factors have no significant moderating effect on the relationship between interpersonal communication and alcohol consumption among college students in Kenya.

Literature Review

Theoretical Framework

This study was anchored on the Social Cognitive Theory (SCT), which was developed by Albert Bandura in 1986 as an evolution of Social Learning Theory. The theory offers a comprehensive lens to understand the dynamics influencing alcohol consumption among students in government tertiary medical colleges in Kenya. SCT posits that learning occurs in a social context and is facilitated through observation, imitation, and modeling (Bandura, 1986). It emphasizes the dynamic interplay between personal, behavioral, and environmental factors—a concept known as "triadic reciprocal determinism"—which aligns well with the demographic factors this study seeks to analyze as moderators.

At the core of SCT is the idea that individuals learn by observing others, processing those observations cognitively, and choosing whether to adopt observed behaviors based on expected outcomes (Govindaraju, 2021). In the context of alcohol consumption among students, interpersonal communication—especially among peers—serves as a powerful modeling mechanism. Peer interactions can create strong social reinforcement, encouraging behaviors perceived as acceptable or beneficial within the group (Forster et al., 2023). As Bandura (2009) emphasized, past experiences shape reinforcements, expectations, and motivations that ultimately influence behavior. The interaction of these elements is moderated by personal attributes such as age, gender, and socio-economic status, making SCT especially relevant for this study's focus on moderating effects (Fussell & Kreuz, 2014; Harinie et al., 2017). Research shows that interpersonal communication is a major avenue through which students receive new information and form behaviors, including risky ones such as alcohol use (Piacentini, Chatzidakis, & Banister, 2012). This is especially critical in environments like tertiary medical colleges, where new social dynamics and peer pressures converge. As Pálsdóttir (2013) argued, communication is not merely about message exchange but also a process of behavioral modeling and learning. The conflicting perceptions about alcohol—those brought from home versus those acquired in college—can create cognitive dissonance, a phenomenon that SCT can help explain.

By applying SCT to this study, it becomes possible to analyze how interpersonal communication interacts with individual-level demographic factors to influence alcohol consumption. The theory provides a robust structure for investigating how social reinforcement, observational learning, and cognitive appraisal shape student behavior and how these processes are moderated by age, gender, and financial status.

Conceptual Framework

Figure 1 shows the conceptual framework that was used to outline the relationships among variables in the study.

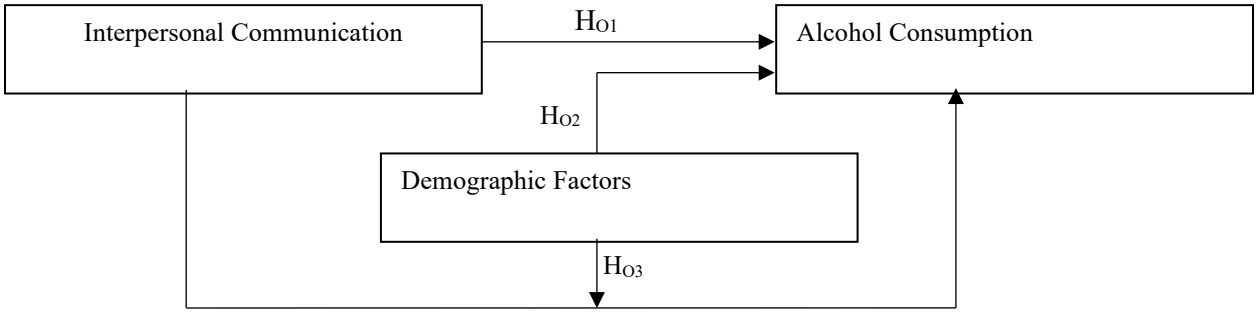

Figure 1: Conceptual Framework

Review of Empirical Literature

Demographic factors significantly moderate the relationship between interpersonal communication and alcohol consumption among college students. These factors, gender, and financial status—not only influence how alcohol-related messages are framed and received but also shape students' susceptibility to peer and parental communication about drinking behavior. Age plays a crucial role in how parents communicate alcohol-related messages to adolescents. Merrill et al. (2023) highlighted that the nature of parental messaging varies by the adolescent's developmental stage. Two types of parental messaging have been identified: negative alcohol messages, which focus on consequences and discipline, and permissive messages, which suggest acceptance of alcohol use. Egunjobi (2021) found that negative messages are more frequently used across age groups, though permissive messaging becomes more prevalent as children grow older. This suggests that age moderates both the content and effectiveness of interpersonal communication aimed at reducing alcohol consumption.

Gender norms further moderate the communication around and perception of alcohol use. In many societies, alcohol use by women is stigmatized, yet paradoxically, some drinks consumed by women are not considered "real alcohol," allowing cultural contradictions to flourish (Botwright et al., 2023). The symbolic classification of alcoholic beverages reinforces gendered expectations, with some drinks being labeled "masculine" or "feminine" (Morris et al., 2023). Abed, Abed, and Shackelford (2023) argue that female consumption of male-associated drinks can serve as a feminist act, illustrating how gendered identity moderates both behavior and communication surrounding alcohol.

Perception also serves as a moderating element in communication, particularly in the context of alcohol and sexuality. Most communication research has focused on how alcohol impairs perception of verbal cues, overlooking its impact on nonverbal behavior (Lannutti & Monahan, 2019). In studies where relationship type and persistence of advances were considered, alcohol was not found to significantly change women's refusal strategies, suggesting other social and relational factors moderate the impact of alcohol (Lannutti & Camero, 2020).

Social environments, especially peer groups, are critical to understanding how communication moderates drinking behavior. Carey et al. (2016) affirms that peer contexts provide fertile ground for alcohol consumption, with interpersonal communication acting as a facilitator. Conversations about alcohol among peers predict both current and future drinking intentions (Kianersi et al., 2023). These discussions intensify the impact of peer norms, acting as a moderator between descriptive norms and actual alcohol consumption (Evans et al., 2021).

Family communication dynamics further moderate adolescents' attitudes toward alcohol. In open communication families, adolescents are more likely to align with parental attitudes and resist peer influence (Gómez-Galán et al., 2020). Merrill et al. (2023) emphasize that high parental disapproval significantly reduces susceptibility to peer pressure, thereby strengthening self-efficacy and reducing alcohol use. This suggests that family expectations serve as a strong moderating force in shaping students' communication and behavioral outcomes.

Finally, financial status is a demographic factor that not only influences access to alcohol but also moderates its integration into student culture. In Kenya, Chebukaka (2014) reported that alcohol use has evolved into a cultural practice within universities, perpetuated through peer influence and affordability. Gitatui et al. (2019) argue that societal leniency toward alcohol consumption, combined with the financial capacity to purchase alcohol, fosters an environment where drinking is normalized. Thus, economic status moderates both the reach and impact of communication on alcohol behavior.

Research Methods

Research Design

This study adopted a descriptive cross-sectional survey design utilizing a mixed methods approach, collecting both quantitative and qualitative data concurrently. This design enabled a comprehensive understanding of how interpersonal communication influences alcohol consumption among medical students in government tertiary colleges in Kenya. Cross-sectional studies allow researchers to generalize findings to real-life contexts, enhancing external validity (Weyant, 2022). They are conducted in natural settings and assess variables at a single point in time (Siedlecki, 2020). The approach is ethically sound since participants are not exposed to harmful conditions (Muzari et al., 2022) and is cost-effective (Ansari et al., 2022).

Target Population

The study targeted all students enrolled in Kenya Medical Training College (KMTC), the sole government-owned tertiary medical institution in the country. As of December 2022, KMTC had 71 campuses spread across 43 counties, with a total student population of 46,750 in years one to three. These campuses served as the units of analysis, while students and staff were the units of observation. Additionally, the study included 71 student counselors—one from each campus—as key informants. Counselors were selected due to their critical role in addressing student welfare issues, particularly those related to alcohol and substance abuse among medical trainees.

Sampling

This study employed a multi-stage sampling approach integrating both quantitative and qualitative strands to address the moderating objective. The target population included all students enrolled in Kenya Medical Training College (KMTC), which had a total of 46,750 students across 71 campuses by December 2022. To determine the appropriate sample size for the quantitative component, the formulae developed by Cochran (1977) and Fisher et al. (1991) were applied. These are widely recognized for use in large population studies (Taherdoost, 2017; Daniel, 2019). The formula used is as follows:

$$n = \frac{z^2 p(1-p)}{e^2}$$

Where: n = required sample size, Z = standard normal deviation at 95% confidence level (1.96), p = estimated proportion of the population (0.5, for maximum variability), e = margin of error (0.05)

$$n = \frac{1.96^2 0.5(1-0.5)}{0.05^2}$$

$$n = 384$$

This yielded a minimum sample size of 384 respondents.Stratified random sampling was employed to select 384 students from 11 campuses (15% of 71 campuses), in line with Kothari and Garg (2014), who recommends sampling 10–30% of the units of analysis. The 11 campuses chosen had the highest student enrollments, aligning with Creswell's (2013) guidance that groups with larger populations better represent target population characteristics. Within these campuses, stratified sampling was used to ensure proportional representation by gender and academic year. Simple random sampling identified departments within campuses, and systematic sampling (every nth student) was applied to student class lists to reach the required sample.

Data Collection Procedures

The study employed a mixed-methods approach to collect both quantitative and qualitative data from students and key informants across eleven KMTC campuses. A structured self-administered questionnaire was issued to 384 sampled medical students, facilitated by the researcher and four trained assistants. The drop-and-pick method and Google Forms were used to enhance flexibility and response rates. For qualitative data, eleven student counselors—one from each campus—were interviewed using a pre-prepared guide in silent, conducive environments. Appointments were scheduled in advance, and interviews lasted 15–25 minutes. Additionally, two gender-balanced focus group discussions were conducted with students purposefully selected from the main campus to capture diverse views.

Data Processing and Analysis

Quantitative data obtained through questionnaires were coded and classified to facilitate analysis. The data was cleaned to reduce entry errors and entered into the Statistical Package for the Social Sciences (SPSS). Descriptive statistics (mean scores and standard deviations) were computed to effectively summarize and organize the data (Cronjé, 2020; Nachmias & Nachmias, 2006). To examine relationships and test hypotheses, inferential statistical techniques including regression analysis were employed.

Results and Discussion

Response Rate

The study sought to find out the rate at which the targeted respondents participated in the study. This determined whether the study attained a reliable number of respondents to make conclusions and recommendations. The study had a sample of 384 respondents who were surveyed using a structured questionnaire. A response rate of 70.6% (271 respondents) was achieved and the data used for analysis. This therefore makes the study appropriate to make conclusions and recommendations since according to Kothari and Garg (2014) a response rate of 30-60% in a study is adequate for making conclusions and recommendations. The response rate is as shown in table 1.

Table 1: Response Rate

Category	Frequency	Percentage
Sampled Population	384	100%
Responses	271	70.6%
Non-Responses	113	29.4%

Interpersonal Communication on Alcohol Consumption

The study evaluated the interpersonal communication and extent to which it influenced alcohol consumption among students. The results as shown in Table 2 portray that majority of the respondents were in agreement that interpersonal communication influenced their behavior, including alcohol consumption. The findings of this study underscore the significant role of interpersonal communication in shaping alcohol consumption behaviors among college students. The results reveal that peer influence, whether through direct discussions, phone calls, or social interactions, plays a dominant role in encouraging alcohol use, with statements such as *"I feel influenced to take alcohol by the messages and phone calls I receive from drinking friends/classmates"* (M = 3.92) and *"There are times me and my friends often discuss about alcohol consumption and other related behaviour"* (M = 3.91) receiving the highest mean scores. This supports the assertion of Bandura's Social Learning Theory (1977), which emphasizes that behaviors are learned through observation, imitation, and reinforcement within social networks. Similarly, Oetting and Beauvais (1987) in their Peer Cluster Theory argue that adolescents and young adults are most influenced by the attitudes and behaviors of their peer groups, especially in high-risk contexts such as substance use. Beyond peer networks, social media and celebrity influence emerged as significant, with respondents acknowledging that online posts and celebrity lifestyles increased their desire to consume alcohol (M = 3.71 and M = 3.79 respectively). This aligns with a study by Noel et al. (2020) who found that frequent exposure to alcohol portrayals on digital platforms fosters permissive attitudes and normalizes risky behaviors among youth. Cultural practices and role modeling were also evident, as students reported that both cultural norms within their friend circles and mentor behaviors shaped their drinking attitudes (M = 3.77 and M = 3.83). These findings resonate with Perkins and Berkowitz's (1986) Social Norms Theory, which posits that young people often conform to perceived group or authority expectations, whether accurate or not. The results reveal that interpersonal communication, mediated through peers, mentors, and media, exerts a moderate to strong influence on alcohol-related intentions and behaviors. This corroborates global evidence (WHO, 2018; NACADA, 2022) that identifies peer pressure and social norms as primary

drivers of youth alcohol initiation, thereby highlighting the urgent need for peer-based interventions, positive mentorship, and digital literacy programs to counteract harmful influences.

Table 2: Descriptive Results on Interpersonal Communication

Statements	Mean	Std. Dev.
I feel convinced by the stories I hear on alcohol consumption and yearn to have the experience some day	3.73	1.09
I feel influenced to take alcohol by the messages and phone calls I receive from drinking friends/classmates	3.92	0.95
I have previously desired to consume alcohol based on posts I have seen on social media	3.71	1.04
There are times me and my friends often discuss about alcohol consumption and other related behavior	3.91	1.03
My behavior has previously been influenced by the cultural practices of my friends whom I spend most of the time with	3.77	1.07
My behavior is influenced by the characteristics of my friends that I hang out with	3.53	1.07
I always listen and adhere to what my peers say or do	3.77	1.02
My peers share any information with me including issues on alcohol and drug abuse	3.67	1.03
I feel obliged to do what my mentors do regardless of whether its right or wrong	3.83	1.05
I perceive what celebrities do to be right for them and their status	3.79	1.03

Demographic Factors Influencing Alcohol Consumption

The results on demographic factors influencing alcohol consumption (*table 3*) revealed that demographic factors exert a noticeable influence on alcohol consumption patterns among college students, with varying levels of significance across age, gender, and financial background. Age-related perceptions emerged as moderately influential, with respondents noting that being "old enough" empowers them to make independent choices about alcohol use (M = 3.49, SD = 1.06), while simultaneously acknowledging that their age has also constrained them from adopting certain behaviors such as alcohol consumption (M = 3.65, SD = 1.03). This duality reflects developmental theories such as Arnett's (2000) concept of emerging adulthood, where individuals strive for autonomy in decision-making but remain sensitive to age-related expectations and social norms.

Gender-related perceptions also showed moderate influence, with students agreeing that gender norms sometimes limit participation in drinking groups or practices (M = 3.55, SD = 1.09). Similarly, the perception that certain behaviors are gender-specific scored a mean of 3.51 (SD = 1.10). These findings align with previous studies (Gitatui et al., 2019) showing that cultural constructions of masculinity and femininity significantly shape alcohol consumption, with men generally reporting higher levels of drinking due to social expectations, while women often face greater stigmatization. This highlights how gender norms in college environments perpetuate differentiated patterns of alcohol engagement.

Financial background was also identified as a relevant factor, with a mean score of 3.60 (SD = 1.04), indicating that economic capacity shapes students' decisions toward alcohol consumption. This finding corroborates research by Banerjee et al. (2015), who noted that disposable income among college students

is positively correlated with risky drinking behaviors, while financial constraints often act as a deterrent. Together, these results suggest that demographic factors—particularly age maturity, gender roles, and financial capacity—play a moderating role in shaping alcohol-related choices. In line with global evidence (WHO, 2018), interventions should therefore consider tailored approaches that address gender-sensitive programming, financial realities, and age-specific vulnerabilities when designing alcohol prevention and awareness initiatives in college settings.

Table 3: Demographic Factors on Alcohol Consumption

Statements	Mean	Std. Dev.
I feel that I am old enough to make my own choices including whether to consume alcohol or not	3.49	1.06
My age has limited me from adopting some behaviors such as alcohol consumption	3.65	1.03
My gender limits me from joining some groups and doing some practices such as alcohol consumption	3.55	1.09
I perceive some activities and behaviors to belong to certain gender than the other	3.51	1.10
My financial background has influenced my decision towards alcohol consumption	3.60	1.04

Alcohol Consumption among College Students

The findings on alcohol consumption (*table 4*) reveal a moderately high frequency of alcohol use, with students reporting that they frequently consume alcohol (M = 3.77, SD = 1.23). A slightly higher mean was recorded for the statement "*I have never taken alcohol but would wish to try someday*" (M = 3.87, SD = 1.23), suggesting that beyond current consumption, there exists a significant latent demand among non-drinkers who view alcohol experimentation as an inevitable or desirable experience. This aligns with prior research (Oei & Morawska, 2004), which highlights curiosity, peer influence, and perceived social acceptance as strong motivators for initiating alcohol use among young adults. Students also reported frequent but small-quantity drinking (M = 3.80, SD = 1.20), a pattern that reflects what literature describes as "social drinking" behavior prevalent in college settings (Weitzman et al., 2003). Notably, the lowest score was recorded for the statement on self-regulation: "*I have set limits on the amount of alcohol I can take at a go*" (M = 2.25, SD = 1.56). This suggests that while students may drink frequently and under social influence, they exercise minimal personal control or monitoring over their consumption levels. The absence of firm self-imposed limits heightens vulnerability to binge drinking, risky behaviors, and health-related consequences. Overall, these findings underscore that alcohol consumption among college students is driven by curiosity, peer pressure, and social routines, with relatively weak self-regulation mechanisms—a trend well-documented in global studies (WHO, 2018).

Table 4: Alcohol Consumption among College Students

Statements	Mean	Std. Dev.
I frequently consume alcohol	3.77	1.23
I have never taken alcohol but would wish to try someday	3.87	1.23
I take small amounts of alcohol but frequently	3.80	1.20
I take alcohol because my friends are also taking	3.68	1.15
I have set limits on the amount of alcohol I can take at a go	2.25	1.56

Hypotheses Testing

H_{O1}: *Interpersonal communication has no significant influence on alcohol consumption among students in government tertiary colleges in Kenya.*

The model summary results (Table 5) reveal the coefficient of determination R^2 value of 0.435 an indication that a unit change in interpersonal communication could explain up to 43.5% variation in alcohol consumption. The ANOVA results revealed that an F of 206.815 was significant at P=0.000<0.05, implying that the model was statistically significant. The regression coefficients revealed that at the coefficient of determination, 73.2% of the alcohol consumption could be explained by a unit change in interpersonal communication as evidenced by the Beta coefficient of 0.732. With these results the null hypothesis that interpersonal communication has no influence on alcohol consumption among college students was rejected.

Table 5: Relationship between Interpersonal Communication and Alcohol Consumption

Model	**R**	**R Square**	**Adjusted R Square**		**Std. Error of the Estimate**	
1	.659[a]	.435	.433		.54198	
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	60.751	1	60.751	206.815	.000[b]
	Residual	79.018	269	.294		
	Total	139.769	270			
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	.731	.192		3.806	.000
	Interpersonal Communication	.732	.051	.659	14.381	.000
a. Dependent Variable: Alcohol Consumption						

H_{O2}:*Demographic Factors have no significant influence on alcohol consumption among students in government tertiary colleges in Kenya.*

The results for the second hypothesis testing are as shown in table 6. As the results portray, a R^2 value of 0.429 was obtained. This indicated that up to 42.9% of the variation in alcohol consumption was as a result of demographic factors. The ANOVA test showed that the model was statistically significant (F= 220.020; P=0.000<0.05). The regression coefficients revealed that a Beta coefficient of 0.705 was obtained for demographic factors, implying that a unit change in the demographic factors could lead to up to 70.5% increase in alcohol consumption. The P-value for the variable was 0.000<0.05, implying that the demographic factors significantly influenced alcohol consumption, thus the hypothesis was rejected.

Table 6: Relationship between Demographic Factors and Alcohol Consumption

R	**R Square**	**Adjusted R Square**		**Std. Error of the Estimate**	
.655[a]	.429	.427		.54473	
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	59.947	1	59.947	202.020	.000[b]
Residual	79.822	269	.297		
Total	139.769	270			
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	.970	.178		5.455	.000
Opinion Leaders	.705	.050	.655	14.213	.000
a. Dependent Variable: Alcohol Consumption					

H_{O3}: *Demographic Factors have no significant Moderating effect on the relationship between interpersonal communication and alcohol consumption among students in government tertiary colleges in Kenya.*

Table 7 shows the results on the moderating effect of demographic factors on the relationship between interpersonal communication and alcohol consumption. From the results, a R^2 of 0.623 was obtained, implying that when moderated by demographic factors, interpersonal communication influences up to 62.3% of alcohol consumption among college students. The ANOVA results revealed that the model was statistically significant ($F = 444.312$; $p = 0.000 < 0.05$). The regression coefficients showed that when interacted with demographic factors, interpersonal communication had a Beta coefficient of 0.327, which is statistically significant at $0.000 < 0.05$. This implies that demographic factors significantly moderated the relationship between interpersonal communication and alcohol consumption among college students.

Table 7: Moderating Effect of Demographic Factors

R	**R Square**		**Adjusted R Square**	**Std. Error of the Estimate**	
.789[a]	.623		.619	.44431	
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	87.060	1	87.060	444.312	.000[b]
Residual	52.709	269	.196		
Total	139.769	270			
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	.009	.171		.053	.958
Interpersonal Communication * Demographic Factors	.327	.044	.363	7.509	.000
a. Dependent Variable: Alcohol Consumption					

Conclusion and Recommendations

Conclusion

The study established that demographic factors—specifically age, gender, and financial background—play a significant moderating role in the relationship between interpersonal communication and alcohol consumption among students in Kenya's government tertiary medical colleges. The findings confirmed that interpersonal communication influences students' behaviors, including alcohol consumption patterns. Secondly, demographic factors exert a direct effect on alcohol use, shaping both access and attitudes. Thirdly, these factors determine the extent to which interpersonal communication contributes to alcohol consumption outcomes.

Age was found to be particularly influential. Students who have attained the legal drinking age have greater access to alcohol, as bars and clubs often require identification before admission. Consequently, older students are more likely to consume alcohol. This observation aligns with NACADA's proposal to raise the legal drinking age to 21 as a strategy to reduce early exposure. Younger students, on the other hand, were more vulnerable to peer pressure and early experimentation with alcohol, while older students tended to exhibit greater restraint, possibly due to maturity and heightened academic responsibility.

Gender differences also emerged as important. Male students were found to be more prone to risky drinking behaviors, often shaped by prevailing social and cultural norms that associate masculinity with alcohol consumption. Female students, while not immune, generally demonstrated more cautious drinking patterns.

Financial background further influenced alcohol consumption. Students from wealthier households engaged in alcohol use as part of leisure and social activities, whereas those from low-income backgrounds often resorted to alcohol as a coping mechanism for stress and economic hardship.

Taken together, these insights demonstrate that demographic factors not only directly influence alcohol consumption but also moderate the role of interpersonal communication in shaping student behaviors. This underscores the importance of designing tailored interventions that are sensitive to students' demographic contexts—targeting age-specific risks, addressing gendered drinking norms, and considering socioeconomic realities—in order to effectively reduce harmful alcohol use within tertiary medical colleges.

Recommendations

The study underscores that demographic-sensitive interventions are crucial in addressing alcohol consumption among medical students, with interpersonal communication (IC) serving as a key pathway for change.

For younger students (18–22 years), who are more vulnerable to peer pressure, institutions should implement peer-led mentorship, orientation programs, and ongoing workshops that reinforce resilience and informed decision-making. Older students require interventions focusing on stress management, professional responsibility, and the long-term health risks of alcohol use.

Gender-specific strategies are also necessary. Male students, influenced by social norms that encourage risky drinking, should be engaged through role models and communication campaigns promoting

responsible masculinity. Female students, often affected by emotional stress or social pressures, need stronger access to counseling, safe spaces, and mentorship support.

Financial background further shapes behavior: affluent students often use alcohol for leisure, while those from low-income households may turn to it as a coping mechanism. Interpersonal communication can be leveraged to tailor messages accordingly, while parents should be sensitized on providing responsible financial support.

Finally, multi-sectoral action is needed. NACADA, the Ministry of Education, college administrators, parents, CBOs, and NGOs should adopt communication-based interventions and policies that both limit access and use IC to raise awareness of alcohol's risks. This integrated approach ensures interventions are not only demographic-sensitive but also communication-driven for greater impact.

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