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Original Article

Influence of Selected Communication Strategies on Substance Abuse Among Young Adults in Ilorin West Local Government Area, Kwara State, Nigeria

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ABSTRACT

Background: Substance abuse is a pressing public health concern among young adults, and communication shapes health behaviours. This study assessed the influence of selected communication strategies on alcohol and tobacco use among young adults in Ilorin West Local Government Area (LGA), Kwara State, Nigeria.

Methods: A descriptive cross-sectional study of 384 young adults aged 18–35 years (response rate 87.3%) used multistage sampling across five wards and a structured interviewer-administered questionnaire. Exposure to interpersonal, mass media, digital/social media, and community-based communication was dichotomised as good or poor. Data were analysed using chi-square tests and multivariable logistic regression ($p < 0.05$).

Results: Current alcohol and tobacco use were 15.4% and 12.0%, respectively. Good interpersonal communication exposure was independently associated with current alcohol use (AOR = 5.42, 95% CI: 2.81–10.45) and tobacco use (AOR = 7.15, 95% CI: 3.25–15.72), as was community-based communication (AOR = 3.21 and 2.95; $p \leq 0.002$). Mass media was significant only in unadjusted analysis. Social media was not associated with use ($p > 0.05$), although 64.3% perceived it as most influential.

Conclusion: Interpersonal and community-based communication were independently associated with alcohol and tobacco use. Coordinated multi-channel prevention messaging and enforcement of advertising regulations are recommended.

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Introduction

Substance abuse remains a major public health concern because of its effects on physical and mental health, social functioning, productivity, and quality of life. Young people are particularly vulnerable, as the biological, psychological, and social changes of adolescence and young adulthood increase susceptibility through experimentation, peer

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influence, stress, and growing independence (Nath *et al*., 2022; Deep *et al*., 2024). Alcohol is associated with injuries, cancers, cardiovascular diseases, and mental health problems, while tobacco remains a major risk factor for non-communicable diseases (WHO, 2018).

Communication shapes knowledge, attitudes, risk perceptions, and health behaviours. Health communication can correct misconceptions and encourage healthier choices, whereas messages portraying substance use as desirable may normalize it. Young adults receive such messages through interpersonal, mass media, digital/social media, and community-based channels, and engagement with alcohol- and tobacco-related social media content has been linked to consumption and susceptibility to use (Curtis *et al*., 2018; Donaldson *et al*., 2022; Cheng *et al*., 2024). In Nigeria, Adejoh *et al*. (2020) reported that social media facilitated the sale and use of illicit drugs among undergraduates in Lagos State.

Ilorin West LGA is an important setting because young adults there are exposed to substance-related information through peers, media, social media, commercial outlets, and community communication, yet limited evidence exists on how these channels collectively influence alcohol and tobacco use. This study therefore examined the influence of interpersonal, mass media, digital/social media, and community-based communication on alcohol and tobacco use among young adults in Ilorin West LGA, Kwara State, to inform locally appropriate prevention interventions.

The specific objectives were to: (i) identify the substances commonly used by young adults in Ilorin West LGA; (ii) assess their exposure to selected communication strategies; and (iii)–(vi) determine the influence of interpersonal, mass media, digital/social media, and community-based communication, respectively, on alcohol and tobacco use. The null hypotheses were that interpersonal (H_{01}), mass media (H_{02}), digital/social media (H_{03}), and community-based (H_{04}) communication have no significant relationship with current alcohol or tobacco use.

Methods

Study design and setting

A descriptive cross-sectional study was conducted in Ilorin West LGA, Kwara State, Nigeria, an urban area of over 360,000 people in 12 administrative wards, with commercial centres, tertiary institutions, and diverse religious and community networks.

Study Population

Eligible participants were young adults aged 18–35 years who had lived in the LGA for at least 12 months, were willing to participate, and could respond to the questionnaire. Temporary residents, people outside the age range, and those visibly intoxicated during data collection were excluded.

Sample size and sampling

The minimum sample size of 384 was calculated using Cochran's formula ($n = Z^2p(1 - p)/d^2$) at 95% confidence, 5% margin of error, and an assumed prevalence of 50%. Allowing for about 15% non-response, 440 questionnaires were distributed. Five of the 12 wards (Adewole, Ajikobi, Ubandawaki, Warah/Oshin, and Baboko) were selected by balloting; households were then selected by systematic sampling using a sampling interval (k) from a random start, and one eligible young adult per household was chosen by balloting. In all, 384 valid questionnaires were retrieved (response rate 87.3%).

Data Collection Instrument

A structured interviewer-administered questionnaire covered sociodemographic characteristics, alcohol and tobacco use, and communication exposure and perceptions. Content validity was established by experts in public health, health communication, and research methodology, and the questionnaire was pretested in a neighbouring LGA excluded from the study (Cronbach's $\alpha = 0.78$).

Measurement of Variables

The outcomes were current alcohol and tobacco use (past 30 days; yes/no), with frequency of use and age at first use also recorded. Perceptions were rated on four-point Likert scales. For analysis, exposure to each channel was dichotomised as "good" or "poor" using one indicator item per channel: respondents were "good" if they agreed or strongly agreed with the interpersonal item on substance use with family members, the mass media item that media messages encourage alcohol and tobacco use, or the social media item that social media makes alcohol and tobacco look attractive, or if they had attended a community programme on substance abuse. "Good" denotes greater exposure, not necessarily more favourable content.

Data analysis

Data were analysed using IBM SPSS Statistics version 25. Pearson's chi-square test and crude odds ratios (COR) with 95% confidence intervals (CI) assessed bivariate associations. Multivariable binary logistic regression, including the four communication variables and the covariates shown in Table 6, gave adjusted odds ratios (AOR); $p < 0.05$ was considered significant.

Ethical considerations

Ethical clearance was obtained from the Ministry of Health Ethical Research Committee (approval number ERC/MOH/2026/09/869). Written informed consent

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was obtained from all participants before questionnaire administration, and voluntary participation, confidentiality, and anonymity were ensured.

Results

Of the 440 questionnaires distributed, 384 were analysed (response rate 87.3%). All respondents were aged 18–35 years; most were aged 23–32 years (72.9%), female (53.6%), married (60.4%), and had tertiary education (45.6%) (Table 1).

Table 1: Sociodemographic characteristics of respondents (N = 384)

Variable	Frequency (n)	Percentage (%)
Age group (years)		
18–22	75	19.5
23–27	148	38.5
28–32	132	34.4
33–35	29	7.6
Sex		
Male	178	46.4
Female	206	53.6
Marital status		
Single	143	37.2
Married	232	60.4
Divorced/separated	9	2.3
Highest educational attainment		
Tertiary	175	45.6
Secondary	154	40.1
Primary	36	9.4
No formal education	19	4.9

Table 1 shows that most respondents were young adults aged 23–32 years (72.9%), with 19.5% aged 18–22 and only 7.6% aged 33–35. Slightly more were female (53.6%) than male (46.4%), and most were married (60.4%), against 37.2% single and 2.3% divorced or separated. The sample was well educated: 45.6% had tertiary and 40.1% secondary education (85.7% combined), while 14.3% had primary or no formal education.

Table 2: Alcohol and tobacco use (N = 384)

Variable	Frequency (n)	Percentage (%)
Alcohol		
Ever consumed alcohol	88	22.9
Currently consume alcohol (past 30 days)	59	15.4
Frequency among current users (n = 59): daily	6	10.2
Weekly	16	27.1
Occasionally	31	52.5
Rarely	6	10.2
Tobacco		
Ever smoked or used tobacco products	66	17.2
Currently smoke or use tobacco (past 30 days)	46	12.0
Frequency among current users (n = 46): daily	10	21.7
Weekly	14	30.4
Occasionally	18	39.1
Rarely	4	8.7

Table 2 shows that 22.9% had ever consumed alcohol and 15.4% were current drinkers, mostly occasional (52.5%); 17.2% had ever used tobacco and 12.0% were current users, mostly occasional (39.1%). Among ever-users (n = 112), 54% began at 15–19 years, 36% at 20–25 years, 6% before 15 years, and 4% after 25 years.

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Table 3: Communication exposure categories and perceived most influential strategy (N = 384)

Variable	Frequency (n)	Percentage (%)
Exposure category		
Mass media: good / poor	230 / 154	59.9 / 40.1
Digital/social media: good / poor	217 / 167	56.5 / 43.5
Interpersonal: good / poor	152 / 232	39.6 / 60.4
Community-based: good / poor	119 / 265	31.0 / 69.0
Communication strategy perceived as most influential		
Social media	247	64.3
Interpersonal communication	77	20.1
Mass media	39	10.2
Community programmes	21	5.5

Good = greater exposure; poor = lesser exposure (see Methods).

Table 3 shows that good exposure was commoner for mass media (59.9%) and social media (56.5%) than for interpersonal (39.6%) and community-based communication (31.0%), yet social media was most often named the most influential strategy (64.3%).

Table 4: Perceptions of communication influence and mediating factors (N = 384)

Statement	Agreed/strongly agreed, n (%)
Interpersonal communication	
Friends influence decision to drink or smoke	174 (45.3)
Parents discourage alcohol and tobacco use	293 (76.3)
Substance use with family members	152 (39.6)
Advice from mentors affects substance use	187 (48.7)
Mass media	
I often see alcohol or tobacco advertisements in the media	271 (70.6)
Media messages encourage alcohol and tobacco use	230 (59.9)
Health campaigns in the media discourage substance use	266 (69.3)
Digital/social media	
Influencers promote alcohol or smoking online	218 (56.8)
Social media makes alcohol/tobacco look attractive	217 (56.5)
Online health messages discourage me from substance use	226 (58.9)
Community-based communication	
Religious messages discourage substance use	346 (90.1)
Community leaders talk about dangers of alcohol/tobacco	346 (90.1)
Community campaigns influence my substance-use behaviour	306 (79.7)
Knowledge, attitude, perceived norms, and self-efficacy	
Alcohol can cause serious health problems	371 (96.6)
Smoking increases risk of cancer and heart disease	369 (96.1)
Drinking alcohol is socially acceptable	243 (63.3)
Most of my friends drink alcohol	191 (49.7)
My social circle approves of smoking	177 (46.1)
I can refuse alcohol even if offered by friends	361 (94.0)
I am confident I can avoid smoking	363 (94.5)
Overall	
Communication influences my substance-use behaviour	304 (79.2)
Health communication should be strengthened in Ilorin West	367 (95.6)

Table 4 shows that respondents saw communication as both protective and harmful. Parents (76.3%), religious messages and community leaders (90.1% each) and media health campaigns (69.3%) were seen as discouraging use. At the same time, 70.6% often saw alcohol or tobacco advertisements, and 59.9% and 56.5% agreed that media messages encourage use and

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that social media makes it look attractive. Knowledge of harm (about 96%) and refusal confidence (about 94%) were high, yet 63.3% found alcohol socially acceptable and about half perceived peer drinking (49.7%) or approval of smoking (46.1%). Overall, 79.2% agreed that communication influences their behaviour and 95.6% wanted it strengthened.

Table 5: Association between communication exposure and current alcohol and tobacco use

Communication channel	Good exposure: users/total (%)	Poor exposure: users/total (%)	χ^2	*p*-value	Crude OR (95% CI)
Current alcohol use					
Interpersonal	44/152 (28.9)	15/232 (6.5)	35.694	< 0.001	5.89 (3.14–11.06)
Mass media	46/230 (20.0)	13/154 (8.4)	9.476	0.002	2.71 (1.41–5.21)
Social media	35/217 (16.1)	24/167 (14.4)	0.224	0.636	1.15 (0.65–2.01)
Community-based	34/119 (28.6)	25/265 (9.4)	23.129	< 0.001	3.84 (2.17–6.81)
Current tobacco use					
Interpersonal	37/152 (24.3)	9/232 (3.9)	36.469	< 0.001	7.97 (3.72–17.09)
Mass media	35/230 (15.2)	11/154 (7.1)	5.703	0.017	2.33 (1.15–4.75)
Social media	25/217 (11.5)	21/167 (12.6)	0.099	0.753	0.91 (0.49–1.68)
Community-based	26/119 (21.8)	20/265 (7.5)	15.930	< 0.001	3.42 (1.82–6.43)

Pearson chi-square test (df = 1); OR = odds ratio for good versus poor exposure (reference: poor); CI = confidence interval. Unadjusted analysis.

Table 5 shows that current alcohol and tobacco use were significantly commoner among respondents with good interpersonal, mass media, and community-based exposure ($p \leq 0.017$); for example, 28.9% versus 6.5% for alcohol by interpersonal exposure (COR = 5.89). Social media showed no association ($p = 0.636$ and 0.753).

Table 6: Multivariable binary logistic regression of current alcohol and tobacco use

	Current alcohol use		Current tobacco use	
Predictor	**AOR (95% CI)**	***p*-value**	**AOR (95% CI)**	***p*-value**
Interpersonal (good vs. poor)	5.42 (2.81–10.45)	< 0.001	7.15 (3.25–15.72)	< 0.001
Community-based (good vs. poor)	3.21 (1.78–5.79)	< 0.001	2.95 (1.52–5.73)	0.002
Mass media (good vs. poor)	1.68 (0.85–3.32)	0.134	1.45 (0.68–3.10)	0.338
Social media (good vs. poor)	0.94 (0.50–1.78)	0.852	0.82 (0.41–1.64)	0.581
Age group (28–35 vs. 18–27 years)	1.28 (0.68–2.41)	0.445	—	—
Sex (male vs. female)	1.52 (0.82–2.81)	0.182	1.78 (0.91–3.48)	0.092

AOR = adjusted odds ratio, adjusted for all other variables in the same model; CI = confidence interval. — = not included in the model.

Table 6 shows that after adjustment, good interpersonal communication (AOR = 5.42 for alcohol; 7.15 for tobacco) and community-based communication (AOR = 3.21; 2.95) remained significantly associated with current use. Mass media, social media, age group, and sex were not.

Accordingly, the null hypotheses for interpersonal (H_{01}) and community-based (H_{04}) communication were rejected, that for mass media (H_{02}) was rejected only in the unadjusted analysis, and that for digital/social media (H_{03}) was not rejected.

Discussion

This study examined how four communication channels relate to alcohol and tobacco use among young adults in Ilorin West LGA. Use was mostly occasional, and 54% of ever-users began between 15 and 19 years, consistent with evidence that adolescence is a critical period for initiation (UNODC, 2023; Ogbonna *et al*., 2024), underscoring the need for early prevention.

Interpersonal communication showed the strongest independent association with alcohol (AOR = 5.42) and tobacco use (AOR = 7.15). Although 76.3% reported that parents discourage use, about half agreed that friends (45.3%) and mentors (48.7%) influence decisions to use and that most of their friends drink (49.7%), so interpersonal networks may protect or promote use depending on their norms, in line with studies identifying peer norms as determinants of substance use (Awua *et al*., 2025; Murray *et al*., 2025). Because exposure and outcome were measured simultaneously, the direction of association cannot be established.

Mass media communication was associated with alcohol ($p = 0.002$) and tobacco use ($p = 0.017$) only before adjustment, suggesting overlap with

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interpersonal and community influences. Most respondents often saw alcohol or tobacco advertisements (70.6%), although 69.3% also agreed that health campaigns discourage use. This dual influence is consistent with reports that alcohol marketing fosters favourable attitudes towards drinking among young people (Giesbrecht *et al*., 2024; Getliff & Barker, 2025) and supports stronger regulation of advertising alongside health-promoting campaigns.

Although 56.5% believed that social media makes substance use look attractive and 64.3% regarded it as the most influential strategy, it was not associated with current use in crude or adjusted analysis. This differs from studies linking alcohol-related social media use to drinking (Curtis *et al*., 2018; Ridout, 2016; Cheng *et al*., 2024), possibly because we used a single perception item rather than the intensity of engagement with substance-related content. Perceived influence does not necessarily translate into behaviour, but the reach of social media makes it an important platform for targeted health communication.

Community-based communication was independently associated with alcohol (AOR = 3.21) and tobacco use (AOR = 2.95) despite limited reach (31.0% had attended a community programme). This is more plausibly explained by reverse causality, whereby people already using substances are more likely to be reached by prevention programmes, than by harm from the programmes. Working through trusted religious and community leaders may improve their reach.

Knowledge of harm (about 96%) and confidence in resisting use (about 94%) were high, yet 63.3% considered alcohol socially acceptable and about half perceived peer drinking (49.7%) or approval of smoking (46.1%). This gap between knowledge and behaviour highlights the role of social norms, in line with Awua *et al*. (2025).

Limitations

The cross-sectional design precludes causal inference, and reverse causality is possible, particularly for community-based communication. Use and exposure were self-reported and may be affected by recall and social desirability bias. Exposure to each channel was dichotomised using a single indicator item rather than a validated composite score, and adjustment was limited to age group and sex, so residual confounding cannot be excluded.

Conclusion and Recommendations

Alcohol was the more commonly used of the two substances studied, followed by tobacco. Interpersonal and community-based communication were independently associated with current use, mass media only in unadjusted analysis, and digital/social media, despite being perceived as the most influential channel, not at all. Government should enforce alcohol and tobacco advertising regulations, including around schools and residential areas, and support youth-focused prevention programmes starting before age 15. Community and religious leaders should institutionalize peer education and youth mentorship, and public health communicators should develop interactive digital campaigns that strengthen peer refusal skills and counter substance-use norms. Prospective studies with validated exposure scales and fuller adjustment for confounders are recommended.

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