



Prevalence, Knowledge and Attitude Towards the Harmful Effects of Cigarette Smoking Among Adults in Abuja, Nigeria



INTRODUCTION

Tobacco consumption remains a global public health challenge, resulting in over 8 million fatalities annually. Over 7 million of these fatalities are attributable to direct tobacco consumption, whereas over 1.3 million are linked to secondhand smoke exposure (WHO, 2023). Cigarettes, the commonest form of tobacco use, contain nicotine, a highly addictive substance, and more than 7,000 chemicals, including multiple carcinogens with the potential to induce cancer-causing mutations in critical genes (NCI, 2025). Cigarette smoking exposes both smokers and non-smokers to harmful substances, increasing the risk of lung cancers and chronic respiratory and cardiovascular diseases (WHO 2023). All forms of tobacco use are harmful, and there is no safe level of exposure to tobacco, including exposure through other forms other than cigarettes (WHO, 2023).

In Nigeria, efforts have been made to control tobacco use, like the ratification of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) in 2004; in spite of these efforts, it still remains a public health concern. Knowledge about the harmful effes of smoking alone has not helped in preventing people from smoking, as poor attitudes and perceptions of the negative effects of their smoking behavior on their health also result in many of them being unwilling to quit smoking (O. Egbe et al., 2016).

This study assessed the prevalence of cigarette smoking, knowledge, and attitudes toward its harmful effects among adult residents of Abuja, Nigeria, and identified factors associated with smoking behavior.

METHODS

Study Design & Setting

Cross-sectional, community-based study conducted in **Abuja, Nigeria**, from **June to August 2025**.

Participants

Adults **≥18 years** who were residents of selected communities and provided informed consent.

Sample Size :

N = 153, calculated using Cochran's formula, based on an estimated smoking prevalence of 10% and 5% precision, with 10% added for non-response.

Sampling

Multistage stratified sampling was used: Urban and semi-urban → 3 randomly selected wards per stratum → systematic household sampling → eligible adults

Data Collection

Data were collected using an interviewer-administered, semi-structured questionnaire adapted from the **WHO Global Adult Tobacco Survey (GATS)**.

Measures & Analysis

Knowledge was scored across 10 items and categorized as **poor (<5)**, **average (5–6)**, or **good (7–10)**. Attitude scores were categorized as positive or negative based on the overall mean. Data were analyzed using **Stata v18** with descriptive statistics, χ^2 tests, and multivariable logistic regression.

DISCUSSION AND CONCLUSION

Actionable Take Away Message

- Smoking prevalence was 10.5%, highlighting a significant public health concern.
- Poor knowledge was strongly associated with smoking, underscoring a key prevention opportunity.
- Combine health education, behavioral support and accessible cessation services.
- Prioritize younger adults, males and vulnerable groups.
- Strengthen tobacco-control policies and smoke-free environments.

Future Direction for Research

- Test targeted, culturally appropriate cessation interventions.
- Use longitudinal studies and biochemical verification.
- Examine social, behavioral and structural drivers of tobacco use.
- Integrate tobacco screening and cessation into routine healthcare.

REFERENCES & ACKNOWLEDGEMENTS

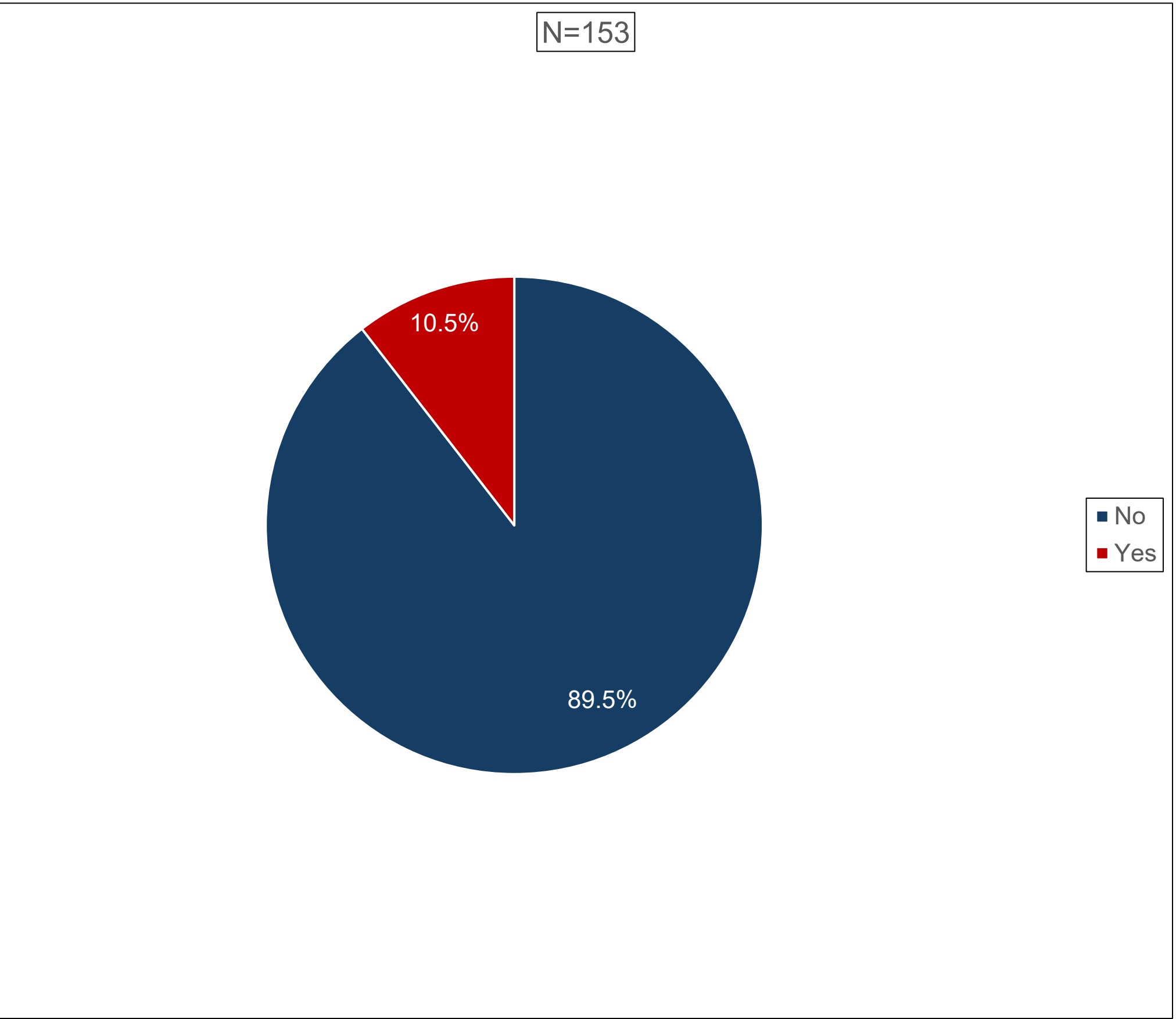
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References

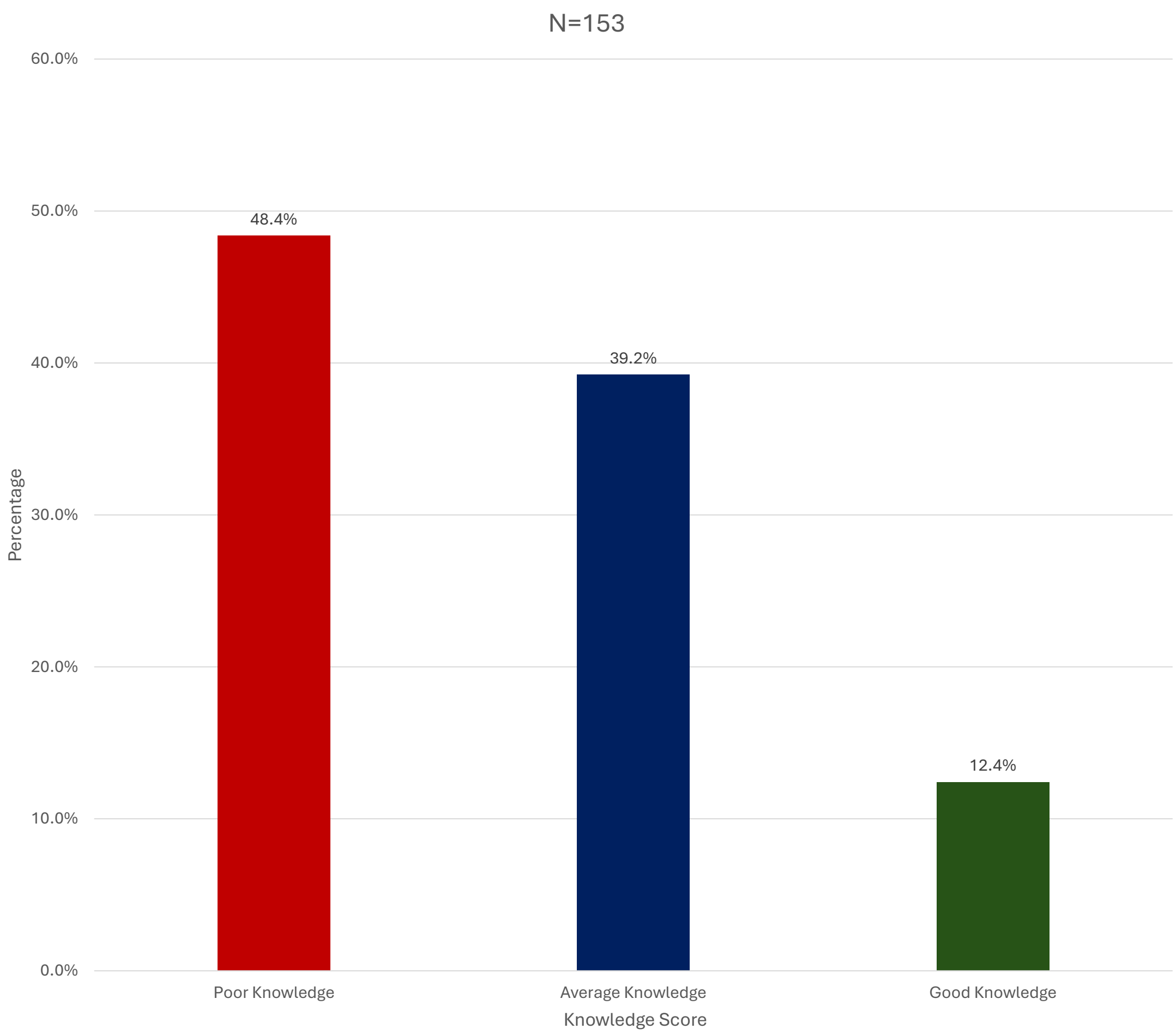


RESULTS

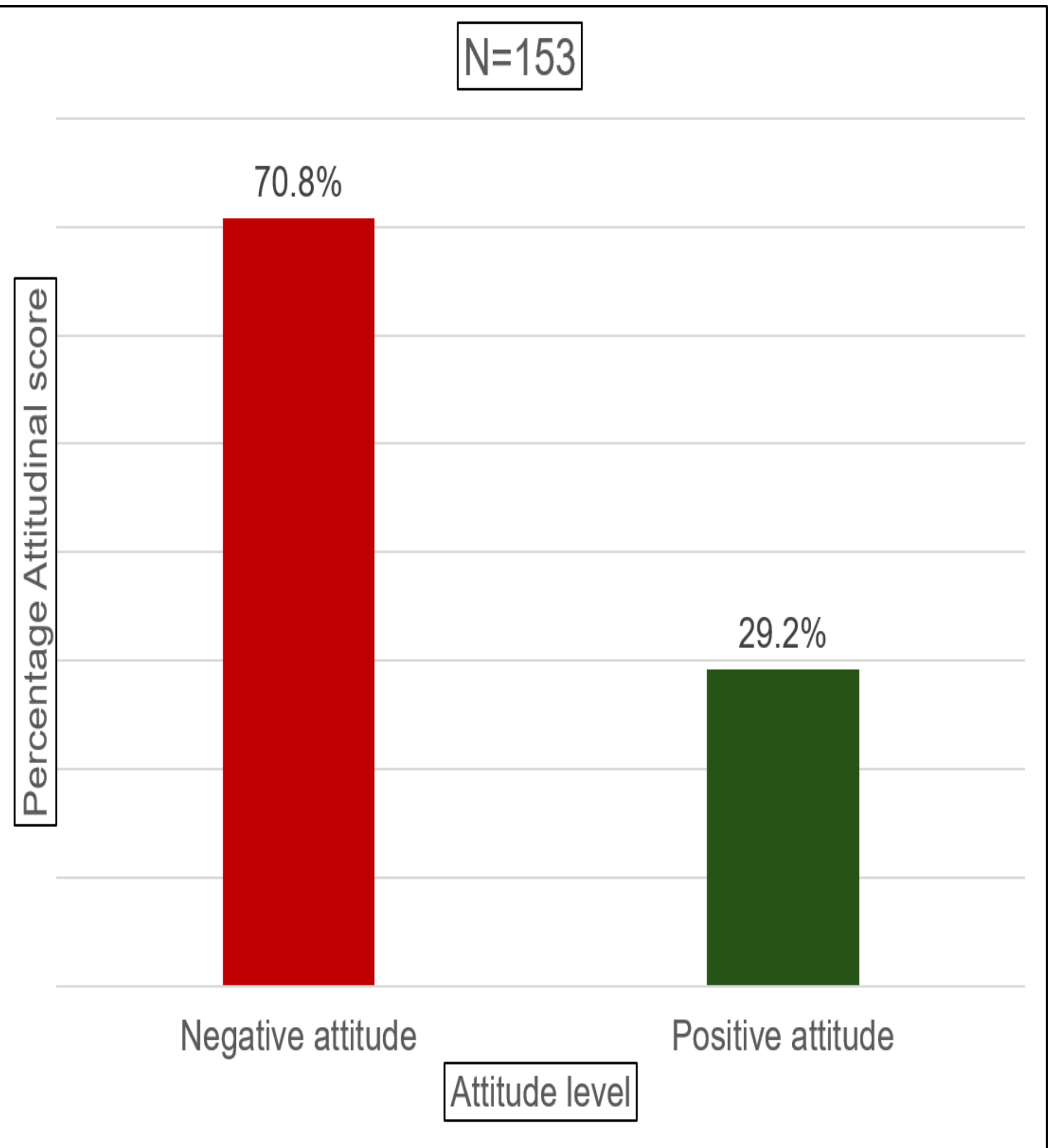
The prevalence of cigarette smoking was 10.5%. Smoking was highest among individuals with poor knowledge (23.1%) and negative attitudes (17.2%), while non-smokers were more likely to have good knowledge or positive attitudes. Knowledge and attitudes were significantly associated with smoking behavior ($p < 0.05$). Age, gender, education, occupation, religion, and income influenced smoking patterns, with younger adults and those with higher education and income less likely to smoke. Marital status showed no significant effect. Participants with both poor knowledge and negative attitudes had the highest likelihood of smoking.



Prevalence of Cigarette Smoking among Adult Residents of Abuja



Knowledge of the Harmful Effects of Cigarette Smoking of Adult Residents of Abuja



Attitude Towards the Harmful Effects of Cigarette Smoking of Adult Residents of Abuja

Smoking cigarette				
Variable	Total N	No n (%)	Yes n (%)	χ ² (P-value)
Total	153	137 (89.5%)	16 (10.5%)	
Knowledge of harmful effect of smoking cigarette score				19.26 (<0.001)
Poor Knowledge	65	50 (76.9%)	15 (23.1%)	
Average Knowledge	68	67 (98.5%)	1 (1.5%)	
Good knowledge	20	20 (100.0%)	0 (0.0%)	
Attitude towards smoking score				11.53 (0.001)
Negative attitude	93	77 (82.2%)	16 (17.2%)	
Positive attitude	60	60 (100.0%)	0 (0.0%)	

Relationship Between Knowledge, Attitude, and Smoking Behavior of Adult Residents of Abuja