



P2.100: Gender Disparities in Adolescent Hookah Use: The influence of Social and Digital Environments in a population group in South Africa

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IASLC 2026 World
Conference on Lung Cancer

SEPTEMBER 12 - 15, 2026
SEOUL, REPUBLIC OF KOREA

INTRODUCTION

Adolescent hookah (waterpipe) use poses risks to lung health. It can lead to nicotine dependence, and the smoke produced by the hookah contains toxic agents that are known to cause lung cancer ¹.

METHODS

Design & Setting: A cross-sectional study (survey) was conducted among high-school students in Tshwane, South Africa.

Data Analysis: Pearson's Chi-square tests were used to assess associations between current hookah use and social (household and peer exposure) and digital factors (hours spent on social media and various social media platforms), as well as demographics (gender and age).

Risk Factors: To identify key risk factors for hookah use, a Multivariate Poisson Regression Model was used.

RESULTS

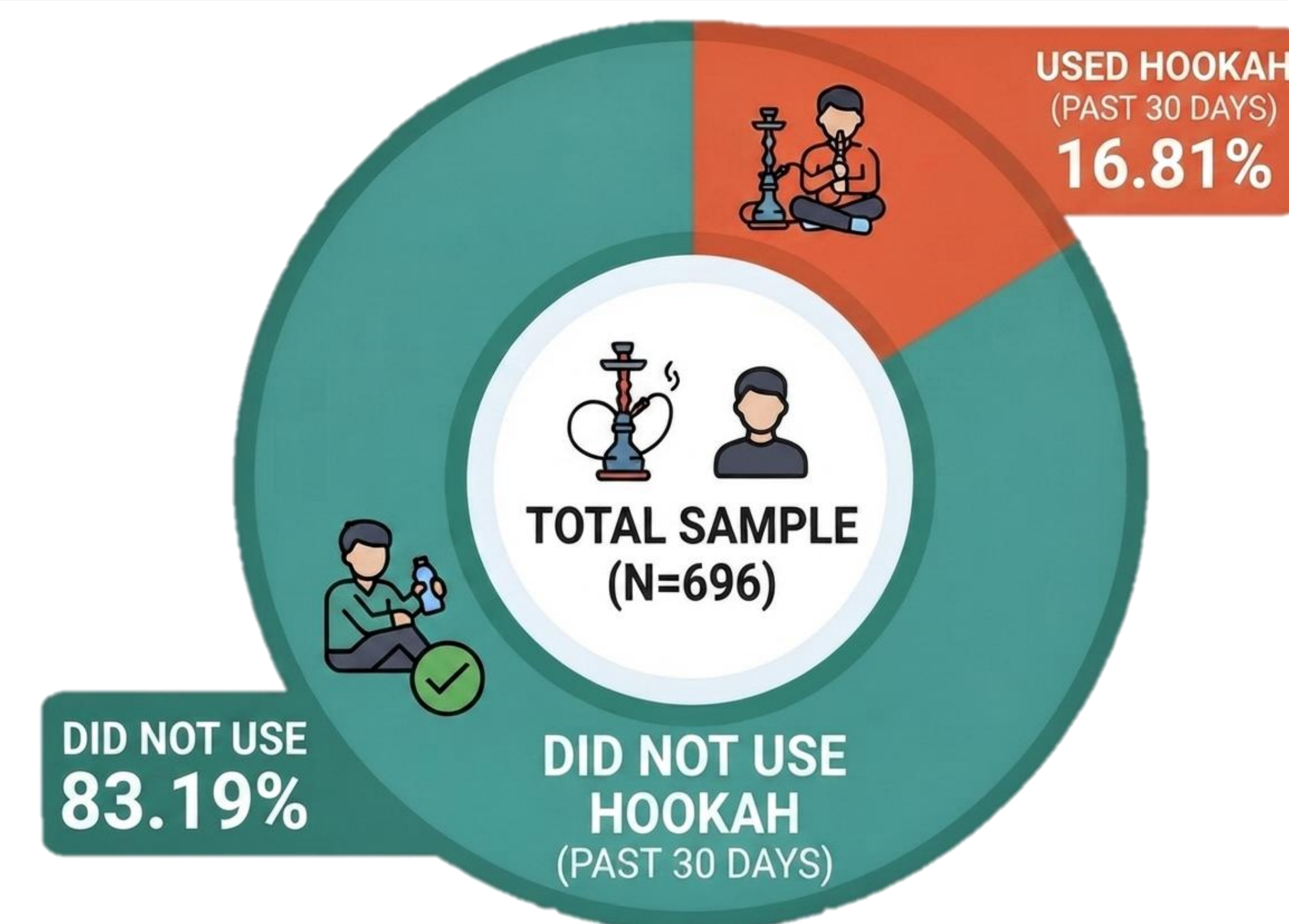


Figure 1: Current (past 30 days) Hookah use

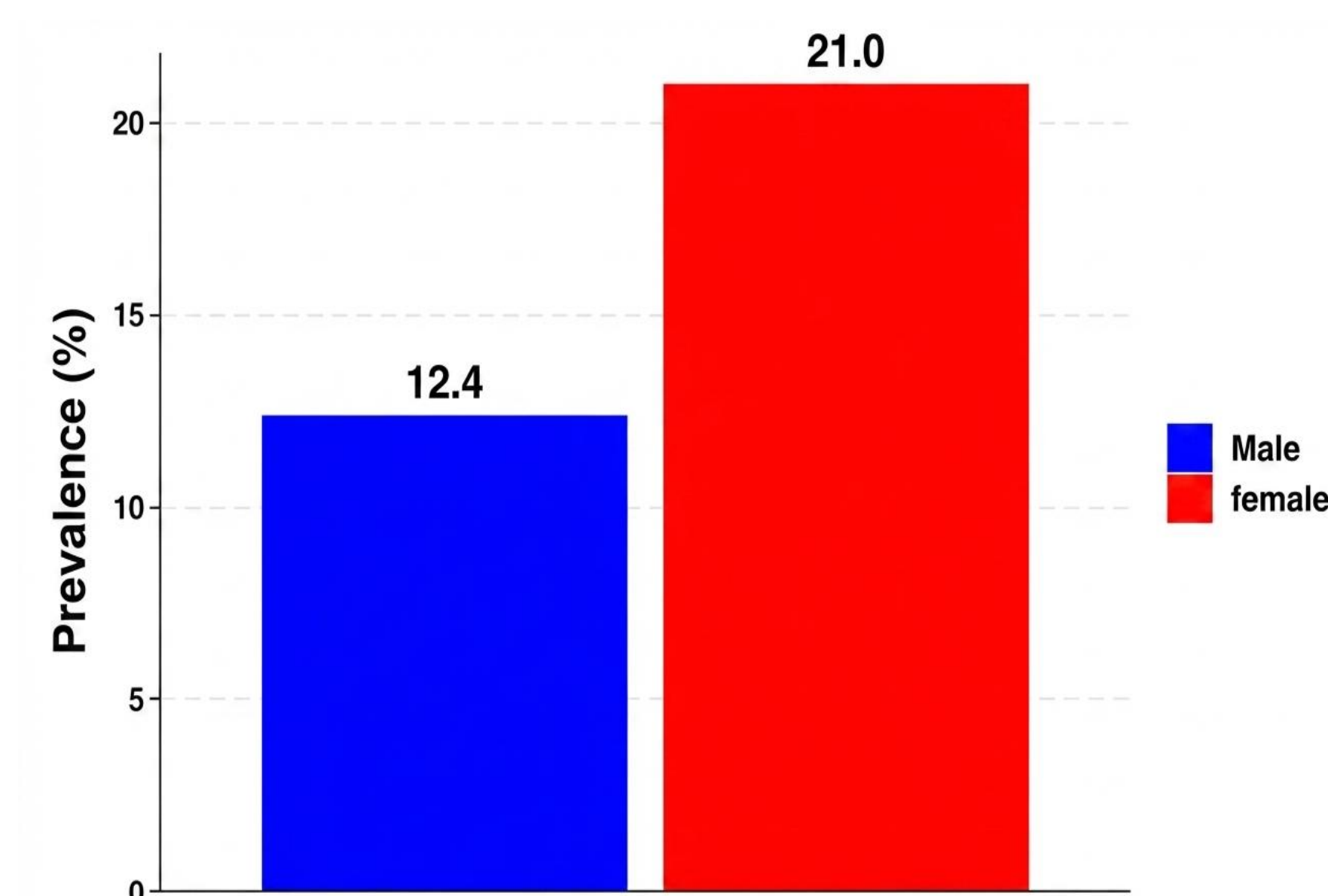


Figure 2: Current (past 30 days) Hookah use by Gender

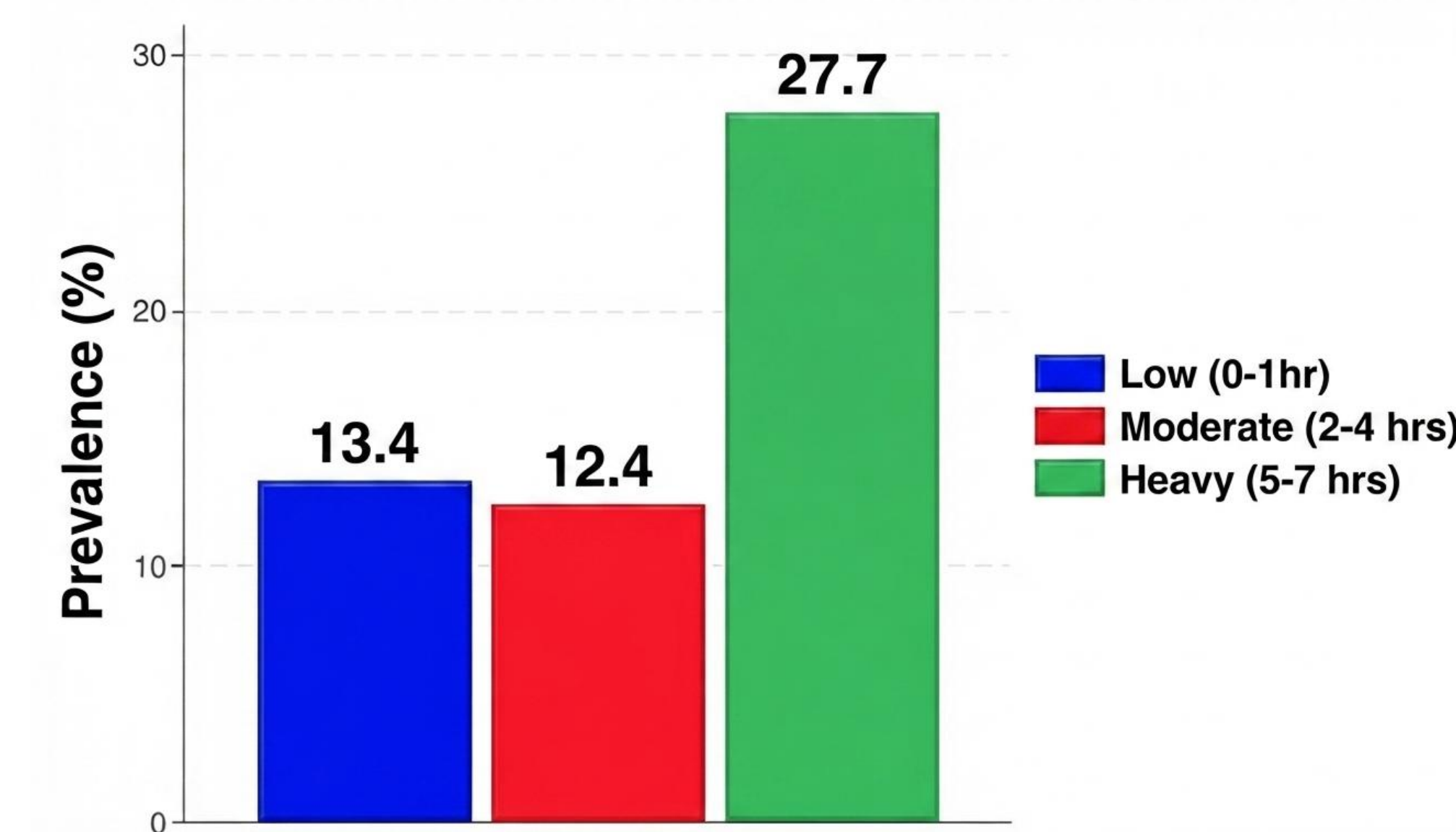


Figure 3: Current (past 30 days) Hookah use by Social Media Hours

Key Findings: Rate Ratios (RR)

Key Risk Factors (aRR > 1) ↑

Peers that use hookah
↑ nearly 4x higher risk
aRR = 3.75

Facebook profile
f 2x higher risk
RR = 2.01

Age ≥ 16
16+ 1.7x higher risk
RR = 1.68

Protective Factors (aRR < 1) ↓

Tobacco-free household
50% lower risk
RR = 0.50

YouTube profile
40% lower risk
RR = 0.60

Snapchat profile
56% lower risk
RR = 0.44

Non-Significant Variables
Gender, Social media hours, Twitter & Instagram

DISCUSSION AND CONCLUSION

Actionable Takeaway Message
In South Africa, the high prevalence of hookah use among female high school adolescents is not solely due to gender.

Current hookah use is influenced by the social and digital environment, particularly digital platforms such as Facebook.

Future Direction for Research
Focus group discussions will be conducted to explore how different social media platforms and social environments influence adolescent hookah use.

REFERENCES & ACKNOWLEDGEMENTS

1. Toorang F, Etemadi A, Dar NA, et al Waterpipe smoking and health outcomes: review of evidence and road map for an international consortium. Tobacco Control. Published Online First: 25 February 2026. doi: 10.1136/tc-2025-059374

Acknowledgements:

This project was funded by the Cancer Association of South Africa (CANSA)