

Research Article

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[Effects of the Snuff with Sodium Bicarbonate \(Toumbak\) on the Blood Pressure among Sudanese Users](#)

Background: Toumbak, a form of smokeless tobacco made from *Nicotiana rustica* and sodium bicarbonate, is widely used in Sudan and poses potential health risks, particularly concerning cardiovascular function. Despite its high prevalence, especially among adult males, limited data exist regarding its impact on blood pressure.

Objective: To assess and compare blood pressure parameters among Sudanese Toumbak users and non-users, and to investigate the association between Toumbak use, age, and gender with systolic blood pressure (SBP), diastolic blood pressure (DBP), and pulse pressure (PP).

Methods: A comparative cross-sectional study was conducted from 2022 to 2025 among 1000 Sudanese adults (500 Toumbak users and 500 matched non-users) aged 18–60 years in Khartoum State. Blood pressure measurements were recorded using a digital sphygmomanometer following WHO guidelines. Independent t-tests and ANOVA were used to compare SBP, DBP, and PP between groups. A p - value < 0.05 was considered statistically significant.

Results: Toumbak users exhibited significantly elevated SBP (141.7 ± 21.9 mmHg), DBP (89.3 ± 6.0 mmHg), and PP (52.4 ± 19.3 mmHg) compared to non-users (SBP: 121.2 ± 3.2 mmHg, DBP: 80.5 ± 3.8 mmHg, PP: 40.7 ± 3.9 mmHg), with $p < 0.001$ for all parameters. Males demonstrated significantly higher SBP (145.6 ± 24.0 mmHg) and PP (56.7 ± 22.1 mmHg) than females (SBP: 137.8 ± 18.6 mmHg, PP: 48.2 ± 14.5 mmHg). While no statistically significant differences were observed in BP across age groups, adolescents and middle-aged users had the highest SBP.

Conclusion: Toumbak use is significantly associated with elevated blood pressure and increased cardiovascular risk, particularly among male users. These findings highlight the need for targeted public health interventions and awareness campaigns addressing the health consequences of smokeless tobacco in Sudan.

Research Article

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[Clinical Severity of Sickle Cell Anaemia in Children in the Gambia: A Cross-Sectional Study](#)

Background: Sickle cell anaemia (SCA) in children demonstrates a broad range of clinical manifestations and serious complications. Assessment of disease severity in specific populations is necessary to plan services and optimise care.

Aim: To describe the clinical severity of SCA and associated sociodemographic and clinical factors in children in Gambia.

Methods: The presence of lifetime complications was confirmed by history and review of medical charts. We determined clinical severity using a validated scoring system and related the severity to sociodemographic and clinical factors.

Results: In 130 study participants, ages ranged from 5 to 15 years with a mean (SD) age of 9.74 (2.81) years. Eleven (8.5%) children had had acute chest syndrome, 7 (5.4%) avascular necrosis of the femoral head, 6 (4.6%) gallstones, 5 (3.8%) stroke and 1 (0.8%) priapism over their lifetime. Disease severity was classified as mild in 108 (83.1%) children, moderate in 17 (13.1%) and severe in 5 (3.8%). Age, age at diagnosis, sex, ethnicity, social class, and treatment with hydroxyurea was not significantly correlated with SCA clinical severity (P values 0.10-0.84).

Conclusion: The high proportion of children with mild disease may be due to the high prevalence of Senegalese ?-haemoglobin haplotype in the Senegambia subregion. However, the presence of moderate or severe disease in almost 1 in 5 children calls for concerted efforts in SCD care in this region.
