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Sleeping Duration, Physical Activity and Alcohol Drinking as Potential Attributes of Metabolic Syndrome in Adults in Ethiopia: Urgency of large-scale Intervention for the Growing Burden**Tefera Chane Mekonnen***University of Medical Sciences, Tehran, Iran*

Background: Available evidence showed that metabolic syndrome in the adult population persistently elevated due to nutrition transition, genetic predisposition, individual-related lifestyle factors, and other environmental risks. However, in developing nations, the burden and scientific evidence on the patterns, attributable risk exposures and causal pathways for the development of the metabolic syndrome had not to be investigated. Thus, the study aimed to measure the prevalence of the metabolic syndrome and to identify specific risk factors among adult populations who visited Dessie Comprehensive Specialized Hospital, Ethiopia.

Methods: A hospital-based cross-sectional study was conducted among randomly selected 419 adults attending Dessie Comprehensive Specialized Hospital from January 25 to February 29, 2020. We used the WHO-STEP-wise approach for non-communicable disease surveillance in developing countries. The metabolic syndrome was identified using the 2009 harmonized definition made by the International Diabetes Federation Task Force.

Findings: The metabolic syndrome was identified using the 2009 harmonized definition made by the International Diabetes Federation Task Force. Being female [OR=1.85; 95% CI (1.01, 3.38)], urban residence [OR=1.94; 95% CI (1.08, 3.24)], increased age [OR= 18.23; 95% CI (6.66, 49.84)], no formal education [OR=0.30; 95% CI (0.12, 0.74)], shorter sleeping durations [OR= 4.62; 95% CI (1.02, 20.98)], sedentary behaviour [OR=4.05; 95% CI (1.80, 9.11)], obesity [OR=3.14; 95% CI (1.20, 8.18)] and alcohol drinking [OR=2.85; 95% CI (1.27, 6.39)] were the predominant covariates independently associated with the adult metabolic syndrome.

Interpretation: The prevalence of adult metabolic syndrome was high and very emerging. There were 'U-shape' relationships between sleeping duration, physical activity, educational status, and metabolic syndrome. Since most of the factors identified in the current study are modifiable, there should be urgent large-scale community intervention programs focusing on increased physical activity, weight management, minimize behavioral risk factors, and healthier food interventions targeting a lifecycle approach.

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