

THE ACCURACY OF THE CLINICAL SYMPTOM-BASED METABOLIC SYNDROME SCORING SYSTEM

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ABSTRACT

Background: Metabolic syndrome is a group of several symptoms of metabolic disorders, including dyslipidemia, hyperglycemia, hypertension, and central obesity. Metabolic syndrome occurs in adults and young people. It is associated with an increased risk of Type 2 Diabetes Mellitus and cardiovascular diseases. Early detection and management of this syndrome in young people is important for disease prevention. This study aimed to determine the accuracy of the clinical symptom-based metabolic syndrome scoring system.

Subjects and Method: This was a cross sectional study conducted in several senior high schools in Bogor, West Java, in 2012. A total of 262 students aged 15 to 19 years were selected for this study. The metabolic syndrome scoring system was based on the measurement of several variables, including gender, body mass index, abdominal circumference, waist circumference, fasting blood sugar, triglyceride, and blood pressure. The results of the metabolic syndrome scoring system were compared with The US National Cholesterol Education Programme Adult Treatment Panel III (NCEP ATP III) method as the gold standard. Sensitivity and specificity were used to indicate the accuracy of the scoring system.

Results: The prevalence of metabolic syndrome among young people in Bogor was 50.4% using the NCEP ATP III method and 14.9% using the scoring system. The sensitivity and specificity of the scoring system were 25% and 96%, respectively.

Conclusion: The very low sensitivity indicates that the scoring system is inappropriate for use in early detection of the metabolic syndrome at the primary care level. However, the very high specificity suggests that the scoring system has the potential for use as an alternative diagnostic test in the secondary care level.

Keywords: metabolic syndrome, early detection, diagnostic test, young people.

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