Original article

The reliability of the National Cholesterol Education Program's Adult Treatment Panel III (NCEP/ATP III) and the International Diabetes Federation (IDF) definitions in diagnosing metabolic syndrome (MetS) among Gaza Strip Palestinians

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1. Introduction

The metabolic syndrome (MetS) has been described as a cluster of multiple, partially or fully expressed, metabolic abnormalities within the single individual that increase the risk of developing cardiovascular disease and/or diabetes mellitus. The commonest metabolic abnormalities associated with MetS are: hypertension, dyslipidemia, obesity, and impaired glucose tolerance [1,2]. Realizing the MetS predictive risk factors and how these factors are distributed and interrelated within different cohorts are essential for identifying and targeting individuals at risk, thus giving a hand in the development and implementation of public health interventions [3].

The World Health Organization (WHO), in 1998 and 1999, was the earliest group that proposed the first diagnostic criteria for MetS, and these criteria have been used to identify individuals with MetS [4,5]. Afterward, many expert groups and related organizations modified the original WHO criteria and recommendations to fulfill the natural variations among populations, sex and age. However, the prognostic utility of MetS remains controversial because the different criteria and definitions provide differing results among different cohorts and settings [4–8]. Among these currently recommended diagnostic criteria for MetS, are the National Cholesterol Education Program's Adult Treatment Panel III (NCEP/ATP III) and the International Diabetes Federation (IDF) which are considered as the common definitions used to define MetS [6–8]. Both, NCEP/ATP III and IDF have been and still being tested for their trustworthiness and applicability in identifying individuals with MetS among different populations, age groups, sex, and other socio-demographic settings [9–19].