Blood pressure was measured in the right arm while in a sitting position and after five minutes of rest. A mercury sphygmomanometer was used covering from 50 to 75% of the perimeter of the right arm. The measurement was taken twice with a two-minute interval between readings. A third measurement was taken if there was a difference of over 10 mmHg between the previous measurements. The average value of the measurements was used in analysis. Systolic (SBP) and diastolic blood pressure (DBP) were recorded. Systolic or diastolic hypertension was defined as SBP or DBP above the 95th percentile for gender, age and height.  

Early morning blood samples were taken after a 12-hour overnight fast. The parents as well as the children were reminded on the previous day in order to ensure compliance with fasting. Plasma glucose, total cholesterol, triglycerides, high density lipoprotein cholesterol (HDL-C) and low density lipoprotein cholesterol were measured (methods referenced in Hatzis et al). The National Cholesterol Education Program cut-off points for blood lipids were used to define dyslipidemias.  

The MetS was defined as the presence of ≥3 of the following factors among children/adolescents: impaired fasting blood glucose, hypertension, abdominal obesity, hypertriglyceridemia and low HDL-C. 

The statistical analysis was conducted in SPSS 20. Descriptive statistics were exported for all variables and are presented in the accompanying tables. No extended statistical tests are presented in order not to overestimate the results that were treated as secondary data.

Table 2 shows the frequencies of MetS among children and adolescents in Crete (2001-2011). More