

Chapter 03

*Cardiovascular Risk Factors in Adolescence. Clinical
Epidemiology and Early Prevention (English Version)*

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Clinical and epidemiological findings

Hallazgos clínicos y epidemiológicos

Variables such as sex, age, race, risk factors, family medical history, symptoms, and complementary factors were interrelated, yielding the following results. The total number of cases in this period was 132, with a predominance of females, accounting for 82 cases (62 %), and a higher incidence in the 14-15 year age group, with 73 cases (55,3 %). There were a total of 50 cases among males, accounting for 37 % (figure 1).

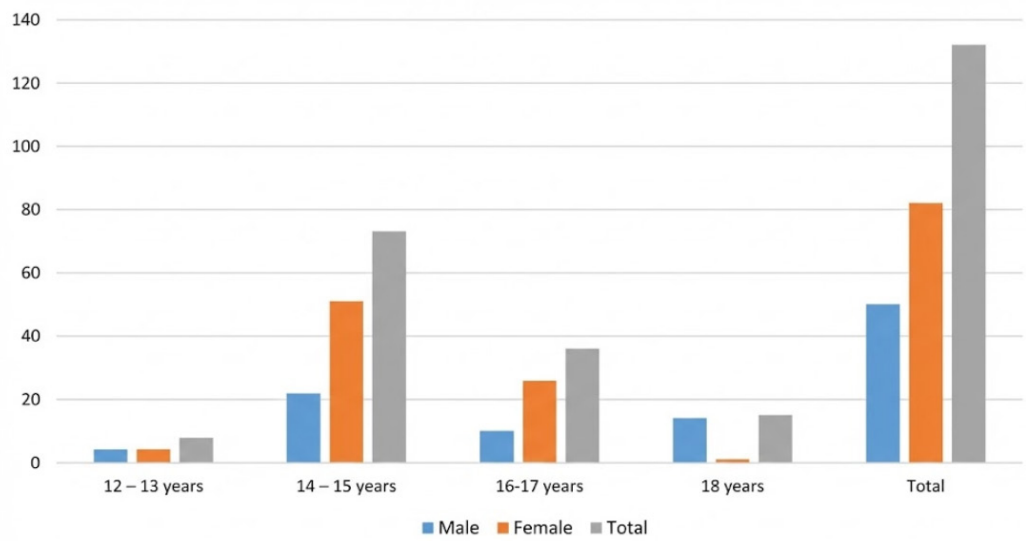


Figure 1. Distribution of cases by age and sex

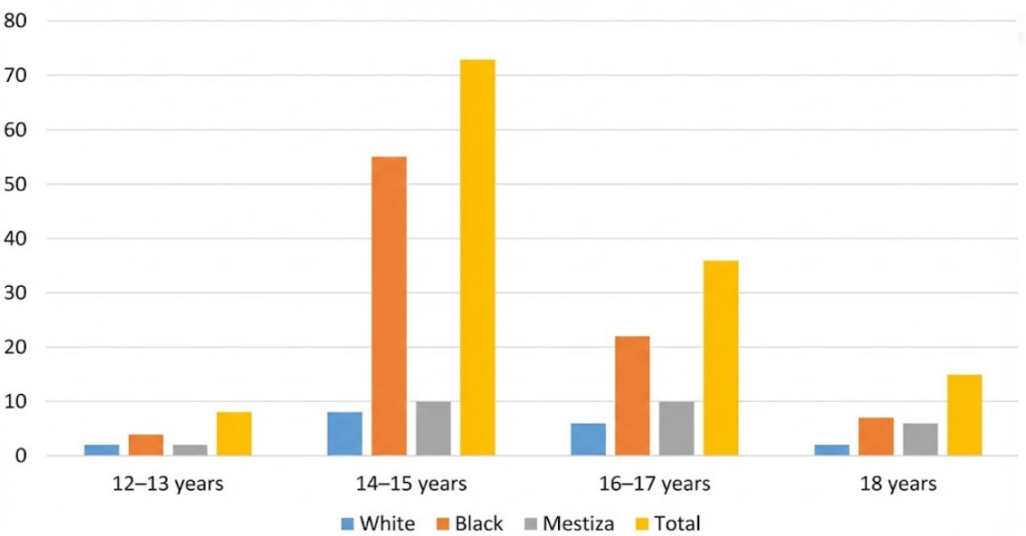


Figure 2. Distribution according to the age-race relationship

When the race-age relationship was analyzed, a predominance of black and mestizo races was found in all age groups, with 86 cases (65 %) in the black race and 28 cases (21 %) in the mestizo race. The age group between 14 and 15 years remained predominant, accounting for 55,3 % of the sample (figure 2).

Among the patients studied, inadequate nutrition was identified as a cardiovascular risk factor in all patients, followed by obesity in 87 % (table 1).

Table 1. Clinical and Environmental Risk Factors, Ángel Arturo Aballi Maternal and Child Teaching Hospital (April 2015-January 2018)		
Risk factors	N	%
Poor diet	132	100
Obesity	116	87,8
Sedentary lifestyle	108	81,8
High blood pressure	84	63,6
Smoking	83	62,8
Note: Chi-square = 1,062 Probability = 0,270. (Statistically insignificant)		

Specifically, the age-related risk factors identified were, in order of frequency, poor eating habits in 132 cases (100 %), obesity in 116 cases (87 %), a sedentary lifestyle in 108 cases (81 %), and smoking in 83 cases (62 %) (figure 3).

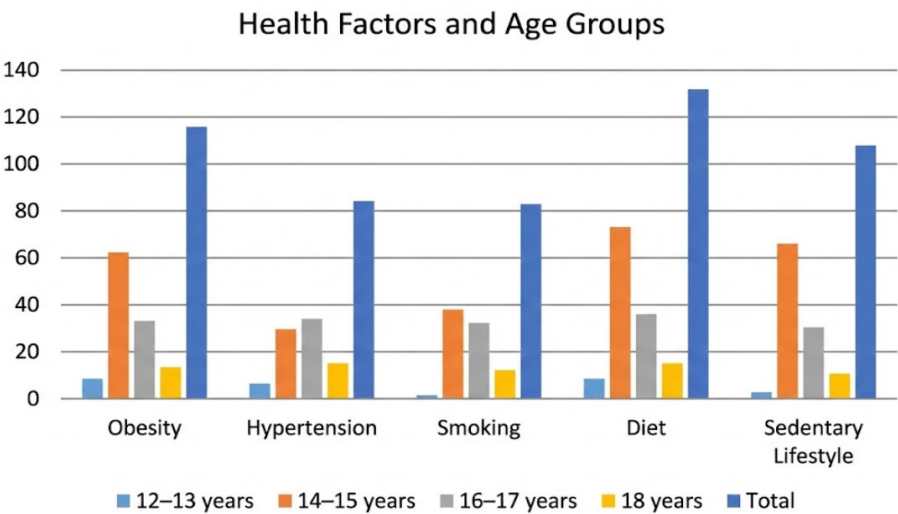


Figure 3. Clinical environmental risk factors by age

Table 2 shows the family and personal biochemical clinical environmental risk factors, with hypercholesterolaemia prevailing in the first case at 80,3 % and all patients in the second case having pathological triglyceride levels.

When comprehensively and uniformly evaluating the risk factors that prevailed, 65,9 % of the adolescents had 3 to 4 risk factors, followed by 35 (26,5 %) adolescents who had 1 to 2 risk factors.

Table 2. Distribution of cases according to Family Clinical Risk Factors and Personal Biochemical Risk Factors, Ángel Arturo Aballi Maternal and Child Teaching Hospital (April 2015-January 2018)		
Clinical Environmental Risk Factor	N	%
Family History		
Hypercholesterolemia	106	80,3
Hypertension	101	76,5
Heart disease	92	69,6
Personal Biochemicals		
Pathological triglycerides	132	100
Pathological cholesterol	110	83,3

The patients studied were asymptomatic in 96 cases (72 %), with hyperlipidemia being a finding in the study of these patients. However, in our study, symptoms such as fatigue were reported in 30 patients (46 %), and chest pain was reported in 6 patients (4,6 %).

Complementary studies revealed a high frequency of metabolic disorders in the population analyzed. All the adolescents had elevated triglyceride levels, revealing a markedly altered lipid pattern within the study group. Likewise, cholesterol concentrations above normal values were observed in most cases, reinforcing the presence of a predominant dyslipidemic profile.

From a structural point of view, echocardiographic findings revealed left ventricular hypertrophy in a significant proportion of patients, suggesting the possible existence of early cardiac adaptations associated with the accumulation of risk factors.