Evaluation of serum concentrations of total cholesterol in Pharmacy students of Instituto Politécnico de Bragança

Pereira, O. R.*, Silva, T.; Almeida, M.; Aragão, M.A.

DTDT, Escola Superior de Saúde, Instituto Politécnico de Bragança; *oliviapereira@ipb.pt

Introduction

Hypercholesterolemia is a risk factor involved in the development of atherosclerosis, which is related to cardiovascular and cerebrovascular diseases, the two main causes of death in the world[1,2]. The aim of the present study was determined the prevalence of hypercholesterolemia in Pharmacy students from the Instituto Politécnico de Bragança (IPB) and analyze other the cardiovascular risk factors.

Materials and Methods

Sample:

→ 64 students in the 1st and 4th year of Pharmacy course (32 students from each class) of IPB

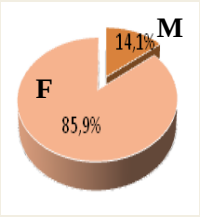
Data collection:

▪Total cholesterol screening

▪Questionary

- year, gender, age, weight, height
- history of smoking, diabetes, hypertension, family history of hypercholesterolemia, physical activity, alcohol consumption, diet

(A)



(B)

Mean	20.34
Median	21.0
Mode	21
Std. Deviation	1.65
Minimum	18
Maximum	24

Fig. 1- Sociodemographic characteristics of sample concernig gender (A) and age (B)

Results

Total Cholesterol (TC)

Global TC (mg/ dL)	TC in Male (mg/ dL)	TC in Female (mg/ dL)
197.06 ± 43.54	174.33	200.78

The prevalence of hypercholesterolemia in Pharmacy students of IPB was 53.1%:

- More prevalent at ages ≥ 20 years
- Higher average for students attending the 4th year (203.53 mg/ dL) than those attending the 1st year (190.59 mg/ dL)

Cardiovascular Risk factors:

- Overweight: 15.6%
-*Diabetes:* 11%
-Hipertension: 24.4%
-Familiar Hypercholesterolemia: 58% (about half use medication)
-Smoking: 25%
-Physical Exercise: 65.6% not practice

Diet and Local of Meals

Only the consumption of sausages showed association with higher serum concentrations of TC.

Students who make meals at home have higher TC than those who make their meals at school canteen (200.49 and 183.62 mg/ dL, respectively).

- **Gender influence in TC concentrations (p_{value}= 0.045);**
- **Consumption of sausages showed association with higher serum concentrations of TC(p_{value}= 0.017).**

References

1- Coronelli, C.L., Moura, E.C. Rev Saúde Pública 2003; 37(1): 24-31

2- Palomo, L. *et al.* Br J Gen Pract. 2014; 64(627):627-633

Conclusions

The high levels of TC obtained in young students alert the need for control the cholesterol levels and also take action with regard to food and physical exercise.