

**RELATIONSHIP
BETWEEN LIFE HABITS
AND DEVELOPMENT
OF CHRONIC DISEASES
IN REGULAR PHYSICAL
EXERCISE**

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Abstract: NCDs such as Cardiovascular Diseases (CVD), Obesity, Arterial Hypertension (AH) and Diabetes Mellitus (DM), are the leading cause of death in the world. Excess body adiposity is the main modifiable causal factor that leads to the development of NCDs. Physical inactivity is one of the main public health problems worldwide and associated with inadequate diet culminates in excess adiposity, increasing the risk for these diseases. Individuals who regularly practice physical exercise have a lower prevalence of these diseases, even when they have a family history of NCDs. (NILSON *et al.*, 2020) diabetes and obesity in the Unified Health System of Brazil in 2018. Method. The study estimated the cost attributable to non-communicable chronic diseases based on relative risk and population prevalence of hypertension, diabetes, and obesity, considering the cost of hospitalizations, outpatient procedures, and medications distributed by the SUS to treat these diseases. Cost data were obtained from SUS information systems. The analysis explored the cost of disease according to sex and age in the adult population. Results. The total cost of hypertension, diabetes, and obesity in the SUS reached R\$ 3.45 billion (95%CI: 3.15-3.75).

Keywords: Chronic non-communicable diseases; Physical exercise; Obesity.

INTRODUCTION

Obesity and overweight are multifactorial conditions, related to inadequate diet resulting from the nutritional transition that Brazil has gone through in recent decades, characterized by changes in the food pattern and nutritional status of the population, in addition to physical inactivity. According to the World Health Organization, inadequate diet is the main risk factor for early mortality in the world, because excess weight is directly

associated with the growth of chronic non-communicable diseases (NCDs) (PRÉCOMA *et al.*, 2019).

AH is the most prevalent CNCD in the world, affecting approximately 1/3 of the world's population. Physical inactivity is one of the main public health problems in the world, and is strongly related to the risk of mortality from all causes, and the increase in the level of physical activity is related to health gains, improvement in quality and life expectancy. (PRÉCOMA *et al.*, 2019).

In addition, AH is still the greatest risk factor for the development of CVD, worldwide, and the number of deaths caused by high systolic blood pressure has increased, going from 3rd to 1st position, as a risk factor for the deaths. (NASCIMENTO *et al.*, 2020).

Together, NCDs burden the public health system in Brazil (SUS), and are responsible for about 74% of all deaths. Low consumption of fruits, whole grains, vegetables and greens, associated with excessive consumption of ultra-processed foods rich in sugars, oils, fats, characterize an inadequate dietary pattern culminating in excessive body adiposity, constituting the main risk factor for the development of CNCDs (BERTOLDI *et al.*, 2013), (NILSON *et al.*, 2020).

GOAL

To analyze the relationship between lifestyle habits and the development of chronic non-communicable diseases, comparing family background and food consumption and the prevalence of these diseases in practitioners of physical exercise.

METHODOLOGY

The research was carried out through an online questionnaire (google forms), arguing about life habits, family history of CNCDs and prevalence of CNCDs in adults who regularly practice physical exercise aged between 17

and 61 years, serving a public of 52 adults The questionnaire was sent randomly to the target audience, via whatsapp.

Studies such as scientific articles on the topic were analyzed, studies related to the topic from the last 10 years were selected, in Portuguese and English, in relation to the research the following descriptors were used: chronic non-communicable diseases/ chronic non-communicable diseases. The files were searched in the PUBMED, SciELO and BIREME databases.

The studies were first selected based on the title, then their abstracts were analyzed, and those that fit the theme were read in full. Of these studies, all that dealt with the occurrence of the main non-communicable chronic diseases (Hypertension, Obesity and *Diabetes Mellitus*) and modifiable causal factors were included, those that analyzed other non-communicable chronic diseases as well as non-modifiable causal factors were excluded.

RESULTS

58 individuals participated in the research, 79.3% women (46) and 20.6% men (12), between 17 and 61 years old, with an average BMI of 24.8 kg/m², with 88.5% (46) exercise more than 3 times a week, 80.7% (42) exercise for more than 45 minutes, 51.9% (27) consume 1 to 2 servings of fruit per day, 69.2% (36) consume 1 to 2 servings of vegetables a day, 52% (27) do not or rarely consume alcoholic beverages, 71.2% (37) consume sweets, soft drinks or processed foods rarely or 1 to 2 times a week, none participant reported having any of the NCDs, however, all reported having a family history of some NCDs.

DISCUSSION

It was observed that, despite the family history of CNCDs, regular practitioners of physical exercise, who have healthy eating

habits, are at lower risk for CNCDs. The global trend points to a growth in the number of people affected by some CNCD, with 1/3 of the world population having hypertension, approximately 20% of Brazilians are obese, in addition, Brazil is the 4th in the world ranking in the number of diabetics, according to PNS 2013, 75% of diabetics and 74% of hypertensive patients were overweight, a risk factor associated with diet inadequate (PRÉCOMA *et al.*, 2019), (NILSON *et al.*, 2020).

Together, NCDs burden the public health system in Brazil (SUS), and are responsible for about 74% of all deaths..(NASCIMENTO *et al.*, 2020).

Our results strongly indicate that modifiable causes overlap with family history, suggesting the need for public policies to contain the advance of overweight and obesity, in order to prevent NCDs.

CONCLUSION

The adoption of adequate eating habits, as well as the practice of regular physical activity, are preventive factors for the appearance of CNCDs, early death, complications associated with CVD, AH and DM, in addition to promoting improvement in health, quality and life expectancy. (PRÉCOMA *et al.*, 2019).

Thus, we can infer that individuals who regularly practice physical exercise, who consume fruits and vegetables daily, with a low intake of processed foods, tend to be eutrophic, with a reduced risk of developing NCDs, even in the presence of genetic inheritance.

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