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## Cardiovascular risk in the nursing team: a descriptive study

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### ABSTRACT

**Aim:** To analyze the cardiovascular risk factors in the nursing team. **Method:** a study with a quantitative and cross-sectional approach. The study population will comprise the nursing team, made up of 110 professionals. Data will be collected through a survey form for clinical, demographic and laboratory data about the population and the Framingham score. Furthermore, respondents will undergo measurements with regard to blood pressure, body mass index and waist circumference, collection of material for laboratory analysis of blood sugar, total cholesterol and HDL. A database for the analysis will be made with the use of the Statistical Package for Social Sciences 20.0 software, which will also be used to perform a descriptive assessment establishing mean and standard deviation for continuous variables, and frequency and percentages for categorical variables. This project was approved by the Research Ethics Committee of the Hospital.

**Descriptors:** Nursing; Risk Factors; Cardiovascular Diseases.

## SITUATION AND ITS SIGNIFICANCE

In most countries, cardiovascular diseases (CVD) are associated with high morbidity and mortality rates, accounting for about 20% of all deaths of individuals older than 30 years of age<sup>(1)</sup>. The drastic changes in lifestyle which characterize contemporary society contribute to the development of cardiovascular risk factors (CRF), and may be related to occupational or socioeconomic issues and dietary habits, among others<sup>(2)</sup>. In this sense, nursing staff professionals commonly show a history of physical inactivity, family history risk factors and relatively high waist circumference. In addition, this a profession with high levels of occupational stress<sup>(3)</sup>. Thus, considering that one's health conditions manifest themselves most often through one's physical and/or mental condition, we highlight the impact of these factors on the quality of life of the health professional.

The need for developing a study to analyze CRF in a nursing team is based on the fact that this population is involved in administrative and care activities that are subject to a high workload involving exhausting and stressful work, in fragile working conditions. Such circumstances, together with common social life activities, may affect the quality of their lives and increase the chance and magnitude of risks to their health. Providing guidance for health professionals with the aim of guarding against health risks contributes to a better understanding of nursing staff regarding the theme addressed here, since the adoption of preventive actions has been reckoned to be a measure of great importance in the approach to CVD matters in this scenario, and serves as a warning in terms of the CRF that can trigger heart disease, with possible harm to the health of this population.

We expect that the results will awaken and sensitize staff in the population being studied about those lifestyle habits that may have a negative effect on their health. In turn, this might stimulate the development of a healthy lifestyle after perceiving the possible modifiable cardiovascular risk factors that may exist.

## GUIDING QUESTION:

Which CRF are present in the nursing team, and what are their odds of developing cardiovascular disease, according to the Framingham score?

## MAIN GOAL

To analyze the CRF in nursing staff.

## SPECIFIC GOALS

- To identify CRF in this population;
- To stratify the cardiovascular risk found according to the Framingham score;
- To individually advise professionals about the risks of developing cardiovascular disease based on their stratified cardiovascular profile.

## METHOD

This is a study that adopts a quantitative and cross-sectional approach. The research will be conducted at a main cardiology state hospital, located in the city of Recife (PE). The study population will comprise the professionals who make up the day and night shift nursing teams in the following cardiology

departments: hemodynamics, ward, intensive care unit and surgical center, totaling 110 professionals. Data collection will occur between September and December 2015. Nurses, nursing technicians and assistants will be included in the study. The exclusion criteria will be as follows: workers on vacation or leave of any kind. The following instruments will be used for data collection: a form to survey the clinical, demographic and laboratory data of the population; and the Framingham score as a tool to stratify the cardiovascular risk of the individuals, considering the sum of individual clinical characteristics (age, total cholesterol, HDL, blood pressure, diabetes and smoking), and classifying the cardiovascular risk as low (below 10%), intermediate (10% to 20%) or high (above 20%). Then, the study participants will undergo the measurement of blood pressure, body mass index and waist circumference, and the collection of material for laboratory evaluation with regard to blood glucose, total cholesterol and HDL for the analysis and stratification of cardiovascular risk.

Subsequently, the results of the laboratory tests will be given to the professionals and they will receive individualized guidance about the risks regarding their cardiovascular profile. A database using the Statistical Package for Social Sciences (SPSS) software version 20.0 will be built for the data analysis, involving a descriptive assessment in terms of mean and standard deviation for continuous variables, and frequency and percentages for categorical variables. The study data will be

analyzed according to the stratification of the population into two groups: mid-level (nursing assistants and technicians) and higher-education professionals. In comparison, for the analysis of the frequencies, the chi-square test will be used. The study was approved by the Research Ethics Committee of the study site, under CAAE: 32557114.7.0000.5197 and complies with Resolution 466/2012 of the National Health Council that regulates research using human subjects.

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