



HEALTH-RISK BEHAVIORS FOR CHRONIC DISEASES IN WORKERS
COMPORTAMENTOS DE RISCO PARA DOENÇAS CRÔNICAS EM TRABALHADORES
COMPORTAMIENTOS DE RIESGO PARA ENFERMEDADES CRÓNICAS EN TRABAJADORES.

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ABSTRACT

Objective: to identify conditions and risk behaviors for chronic diseases in servers of a higher education institution. **Method:** a quantitative cross-sectional study with 134 employees of a higher education institution. A self-administered form was used. The data were tabulated in a Microsoft Excel® 2010 worksheet for further processing and analysis in the SPSS program using descriptive statistics. The results were presented in tables. **Results:** of the participants 62.7% were female, 32.1% had a doctorate, 81.3% did not own a house, and 44% had an income above 10 minimum wages. Regarding the risk behaviors, it was observed that 18.7 do not practice physical activity, 63.4% exchange dinner for snack and 15.7% feel anxious. **Conclusion:** that the servers presented conditions and risk behaviors for the chronic diseases signaling that actions of health promotion and prevention of diseases need to be permanently implanted in the studied institution. **Descriptors:** Workers; Disease Chronic; Risk-Taking; Occupational health; Risk Factors; Disease Prevention.

RESUMO

Objetivo: identificar as condições e comportamentos de risco para as doenças crônicas em servidores de uma instituição de ensino superior. **Método:** estudo quantitativo, transversal, com 134 servidores de uma instituição de ensino superior. Utilizou-se um formulário autoaplicável. Os dados foram tabulados em planilha do Microsoft Excel® 2010 para posterior processamento e análise no programa SPSS por meio de estatística descritiva. Os resultados foram apresentados em tabelas. **Resultados:** dos participantes 62,7% eram do sexo feminino, 32,1% possuíam doutorado, 81,3% não possuíam casa própria e 44% têm renda superior a 10 salários mínimos. Quanto aos comportamentos de risco observou-se que 18,7 não praticam atividade física, 63,4% trocam o jantar por lanche e 15,7% sentem-se ansiosos. **Conclusão:** que os servidores apresentaram condições e comportamentos de risco para as doenças crônicas sinalizando que ações de promoção à saúde e prevenção de doenças necessitam ser implantadas de forma permanente na instituição de ensino estudada. **Descritores:** Trabalhador; Doença Crônica; Assunção de Riscos; Saúde do Trabalhador; Fatores de Risco; Prevenção de Doenças.

RESUMEN

Objetivo: identificar las condiciones y comportamientos de riesgo para las enfermedades crónicas en servidores de una institución de enseñanza superior. **Método:** estudio cuantitativo, transversal, con 134 funcionarios de una institución de enseñanza superior. Se empleó un formulario auto-aplicable. Los datos se ordenaron en una planilla de Microsoft Excel® 2010 para posterior procesamiento y análisis en el programa SPSS por medio de la estadística descriptiva. Los resultados se presentaron en tablas. **Resultados:** de los participantes, el 62,7% eran del sexo femenino, 32,1% con doctorado, 81,3% no tenían casa propia y 44% tienen renta mayor que dos salarios mínimos. Respecto a los comportamientos de riesgo, se observó que el 18,7% no practican actividad física, 63,4% cambian la cena por merienda y el 15,7% se sienten ansiosos. **Conclusión:** que los funcionarios presentan condiciones y comportamientos de riesgo para las enfermedades crónicas señalizando que acciones de fomento a la salud y prevención de enfermedades necesitan implantarse de forma permanente en la institución de enseñanza estudiada. **Descriptor:** Trabajadores; Enfermedad Crónica; Assunção de Riegos; Salud Laboral; Factores de Riesgo; Prevención de Enfermedades.

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INTRODUCTION

In the last decades, Brazil has undergone significant changes in the health conditions of its population, since important demographic and epidemiological changes emerge. The latter is driven by the persistent incidence of infectious diseases, by the rise of external causes and by the unquestionable supremacy of chronic diseases.¹

It should be noted that chronic diseases are defined as diseases that arise gradually, persist for a long time or for an indefinite period, are usually triggered by multiple causes and, in general, do not reach cure.² Therefore, they have generated a high impact on quality of population life due to limitations in work and leisure activities, as well as economic impacts and increased occurrence of premature deaths.³⁻⁴ The worldwide projection of chronic diseases for the coming decades is increasing, especially for cardiovascular diseases, which are currently the most common causes of morbidity and, taken together, the leading cause of mortality worldwide.⁵

Numerous factors may be related to the occurrence or not of these diseases, among them: income distribution among the population, cultural and environmental conditions; living conditions such as food, education, housing and sanitation; conditions related to work, their environment and employment/unemployment situations, as well as individual characteristics such as age, gender and heredity.²

Among the aforementioned factors, diseases associated with working conditions such as cardiovascular diseases, neoplasias (may be cancer), chronic respiratory diseases and musculoskeletal diseases, which correspond to an important portion of the deaths in the country and expenses with hospital care in the Unified Health System (SUS), accounting for about 75% of health care expenditures.⁶ The World Health Organization (WHO) estimated that by 2015 Brazil would spend 60 billion dollars due to the impact of these diseases.⁷

In this context, considering that living and working conditions may influence the appearance of chronic diseases, work in universities has become a focus of studies in order to evaluate the health conditions and life habits of workers. The literature evidences a significant number of ideal overweight servants, who do not practice physical activities, with inadequate eating habits, excessive alcohol intake, and high levels of stress.⁸ In addition to these factors,

they have high global adiposity, dyslipidemia and hypertension.⁸ Moreover, those who exercise their work activities at night, present a higher risk for the development of these diseases.⁹

In view of the above, it is evident the importance of paying attention to the health of university workers, since they are exposed to numerous risk factors for chronic diseases, resulting in the immediate need for a reorganization of assistance for the continuous monitoring of this public, than in the work environment. Thus, this research aims to describe the conditions and risk behaviors for chronic diseases in servers of a higher education institution.

MÉTHOD

A quantitative cross-sectional study at a State University in the interior of the State of Paraná, which has 204 employees in the institution, with 24 university agents and 180 teachers. Those workers who met the following inclusion criteria were invited to participate in the study: they belong to the institution's staff for at least six months, regardless of job links and positions. For the sample calculation, we adopted an estimate with a 95% confidence interval, a maximum error of 5% and a 10% increase in the result for eventual losses, resulting in a sample of 134 individuals.

Data collection was performed at the teaching institution in August and September 2016, after the acceptance of the participants through the signing of the Informed Consent Term. A self-administered form was used, prepared by the respondents and based on the instrument of the Surveillance research, risk factors and protection for Chronic Diseases by Telephone Inquiry (VIGITEL)¹⁰. The referred instrument had questions of socio-demographic and economic classification, with a view to collecting information of the type of age, sex, level of schooling, family income and living conditions; and identification of risk factors/behaviors for Chronic Noncommunicable Diseases (CNCD), such as lifestyle and physical activity patterns. It is reported that, since the working and class schedules are different for each teacher and administrative agent, the researchers approached them in classrooms of the course or administrative sectors during the collection period, where the questionnaire was collected and collected after the filling, until the sample reaches.

To evaluate nutritional status, anthropometric measures were taken at the time of the participants' approach. Thus, the

participant's weight and height were measured with body mass index (BMI) and cut-off points were used as recommended by the WHO: it is classified as eutrophic (18.5 - 24.9 kg / m²), overweight (25.0 - 29.9 kg / m²) and obesity (> 30 kg / m²).¹¹ The body mass (in kilograms) was determined on a transportable digital anthropometric scale (Marca Plenna® Sport model, maximum capacity of 150 kilograms and accuracy of 100 grams) and the subject was asked to remain in light, barefoot clothing with his back to the center of the platform. For stature determination (in meters), a portable stadiometer (Altura exata® mark, maximum capacity of 200 centimeters and accuracy of 05 mm) was used and the subject was asked to remain with the eyes fixed to the horizon and with the heel against the stem of the metallic anthropometer ruler.¹¹

The data were tabulated in a Microsoft Excel® 2010 worksheet for further processing and analysis in the Statistical Package for Social Science (SPSS) program using descriptive statistics. The results were presented in the form of tables.

This research complied with the ethical requirements governing investigations with human beings, and was approved by the

Standing Committee on Ethics in Research Involving Human Beings (COPEP) of the State University of Maringá (PR), with Parecer No. 1625229.

RESULTS

From the total of 134 servers participating in the research, 112 (83.5%) were teachers and 22 (16.4%) were administrative agents (16.4%). The mean age was 45 years (minimum age 20 years and maximum age, 67 years). The majority (62.7%) were white females (74.6%), belonging to the Catholic religion (63.4%). With regard to schooling, 34.3% had a master's degree and 32.1% a doctorate. The majority did not own their own home (81.3%) and 44% reported individual income higher than 10 minimum wages.

Table 1 presents the sociodemographic and economic characterization data of the participants. It must be clarified that the differences in the total number of respondents appearing in the results are justified because some of the participants did not answer all the questions.

Table 1. Sociodemographic and economic profile of the servers of a higher education institution in the interior of Paraná (PR). Maringá (PR), Brazil, 2016.

Variable	n	%
Gender		
Feminine	84	62,7
Masculine	50	37,3
Race	NR= 2	
Yellow	01	07
White	100	74,6
Indian	19	1,5
Brown	02	14,2
Black	07	5,2
Unknown	03	2,2
Escolarity		
Elementary school	04	03
High school	05	3,7
Graduation	06	4,5
Especialization	22	16,4
Masters	46	34,3
Doctorate	43	32,1
Post Doctorate	05	3,7

NR: Not answered

It was noted that more than half of the participants considered themselves to be in good health, and stated that they take care of their health every day. Although some of the interviewees mentioned the presence of morbidities, 43.3% inferred to attend medical appointments in a period of less than a year to

control their health status. It is noteworthy that 77.6% of those surveyed have a private health plan and 22.4% said they did not have a health plan.

Table 2 presents data on health care and conditions of the research participants.

Table 2. Characterization of care and health conditions of the employees of a higher education institution in the interior of Paraná (PR). Maringá (PR), Brazil, 2016.

Variable	n	%
Self perception of health		
Good	76	56,7
Very good	27	20,1
Regular	27	20,1
Bad	04	3,0
Health care		
Never	21	15,7
Almost never	12	09
Every day	99	73,9
Morbidity		
Anxiousness	21	15,7
High Cholesterol	09	6,77
Depression	01	0,7
Diabetes	01	0,74
High blood pressure	07	5,2
Obesity	03	2,2
Osteoporosis	02	1,5
Others	06	4,5
Attends medical appointments		
Once a year	58	43,3
Once a semester	40	29,9
Only when necessary	29	21,6

NR: Not answered.

On the anthropometric data it was identified that the average weight was 73.17 kg, (minimum 45 kg and maximum 107 kg). The average height was 166.47 cm (minimum 71 cm and maximum 188 cm). The BMI calculation presented an average result of 25.99. It is important to emphasize that not

practicing physical activity and eating inappropriately were the most present risk behaviors in the group of servers researched.

Table 3 presents the risk behaviors for chronic diseases present in the servers of the institution of higher education.

Table 3. Characterization of risk behaviors for chronic diseases present in servers of a higher education institution in the interior of Paraná (PR). Maringá (PR), Brazil, 2016.

Variável	N	%
Smoking		
Yes	29	21,6
No	95	70,9
Abusive use of alcohol		
Yes	30	22,4
No	104	77,6
Exchange a real lunch for snacks		
1-3 days	20	14,9
4-6 days	05	3,7
Never	48	35,8
Almost never	61	45,5
Exchange a real dinner for snacks		
1-3 days	50	37,3
4-6 days	35	26,1
Never	19	14,2
Almost never	40	29,9
Salt consumption		
Adequate	54	40,3
High	30	22,3
Low	50	37,3
Practice physical activities		
1-2 days	37	27,6
3-4 days	35	26,1
5-7 days	20	14,9
Never	42	31,3

NR: Not answered.

DISCUSSION

Regarding the age group of the servers, an average of 45.43 years was obtained, this factor should not be considered as merely biological or non-influential, as the advancing age may contribute to the appearance of non-modifiable risk factors and complications to Cardiovascular Diseases (CVD), which corroborates with the study,¹² that states about the severity of CVD and the increase in its incidence with advancing age.

A large number of professionals who do not have their own home were identified, although they infer a family income of more than ten minimum wages, which may indicate, since the majority is a teacher, a priority in professional qualification in the search for master's degrees (34.3%) and PhD (32.1%). This fact may have influenced the priorities and expectations of future life, and the salary may have been, as a priority, used for the investment in their qualification.

The present study also shows that most of the participants demonstrate good initiative for health care practices, claiming to take care of health every day, and have the habit of conducting periodic consultations for medical control.

However, morbidity has been identified among the servers that accompany societal changes, especially sociodemographic and epidemiological characteristics, which has its greatest public health problem in chronic diseases and one of its biggest villains.¹³

Of the participants of the research, a proportional number of servants who reported having high blood pressure (5.2%) and high cholesterol (6.77%) were perceived. Hypertension, dyslipidemia and diabetes mellitus are a set of conditions that are increasingly present in the population, and most of the time they are silent due to their being asymptomatic or presenting symptoms that are already at an advanced level, being noticed with the appearance of the first complications arising conditions.²

Anxiety (15.7%) and depression (0.7%) were two other health conditions reported by the institution's employees. It can be seen that although the current manuals of classification of mental illnesses treat anxiety cases separately from the affective ones, researches and authors have been concerned in establishing relations between these two psychic states. Studies over five years of observation have found that the diagnosis of Depression turns to Anxiety in 2% of cases and, in the opposite direction, of Anxiety for Depression in 24% of the cases.¹⁴⁻¹⁵ The Mixed

Anxiety and Depression Syndrome it is a condition characterized by the association of depressive and anxious symptoms.

There is an increase in the number of people diagnosed with some mental disorder, which is caused by a plurality of well-characterized factors that determine and perpetuate depression as one of the great forms of "malaise" in contemporary times, which can be related with other conditions detrimental to health, such as the lack of daily health promotion practices such as physical activities and adequate food.¹⁶

Still on depression, the World Health Organization places it in fourth place (it should be the first in 2020) among the main causes of human disability in terms of frequency, and first when considering the length of time of incapacity lived throughout life (11.9%). There are many discussions about chronic diseases and their relation to the sphere of emotions, but few studies explore the relationship between other morbidities.¹⁷⁻¹⁸

Corroborating this scenario, some servers reported having more than one condition, and hypertension, high cholesterol and anxiety were the most associated. This reality corroborates with a study¹³, which indicates an increase in grouped conditions, which led the Ministry of Health to create a plan in 2011 that defines and prioritizes the necessary actions and investments, establishes goals and commitments to be assumed by Brazil, preparing the country for the challenges of NCDs and their risk factors, over the next ten years.¹⁸

Increased NCD load contributes to a negative outcome of the globalization process, sedentary life and inadequate diet, as well as tobacco and alcohol consumption.¹⁸ These behavioral risk factors impact on the major metabolic risk factors, such as excessive weight/obesity, high blood pressure, increased blood glucose, lipids and cholesterol, which may result in diabetes, cardiovascular disease, stroke and cancer, among other diseases.¹⁻²

In the present study, a high percentage of overweight individuals was found. Body mass index is one of the indicators recommended by international bodies for assessing nutritional status¹⁶, since it is one of the risk factors for the onset of chronic diseases such as hypertension, diabetes and associated cardiovascular complications⁴. Recent studies indicate that overweight has one of the causes of inadequate eating habits, since food is recognized as a protective factor for health, bringing benefits that reduce the onset of

diseases in individuals, reducing deaths potentially caused by cardiovascular diseases.¹⁹⁻²⁰ In this study, it was found that many servers exchange lunch or dinner for snack, which may reflect weight gain (Table 3).

It is added to overweight and inadequate feeding that the participants in the study largely reported never practicing physical activity (31.3%), or practicing one to two days a week. This finding is reinforced by a study carried out in another public university in the State of Paraná, which shows that the employees have some resistance in modifying their habits in favor of a healthier lifestyle,⁸ which can significantly compromise their well-being and health workers.

The adoption of healthy habits is considered the most important factor for protection against chronic conditions such as obesity, complications in the circulatory system, respiratory, cancer and others associated. Therefore, the importance of regular physical activity and the balance of nutrition in order to reduce the growth of these chronic diseases are emphasized.²¹ Knowledge of risk behaviors makes it possible to plan the forms of prevention and protection that are indispensable for the monitoring process and the control of the health-disease process.

CONCLUSION

The conditions and risk behaviors for chronic diseases identified in the higher education institution's servers are related to lifestyle, among them the sedentary lifestyle and inadequate diet, which is confirmed in the presence of hypertension and diabetes in some of the individuals. The identified risk behaviors are considered modifiable. In this regard, health promotion and chronic disease prevention programs should be implemented in the institution for this purpose.

The presence of anxiety and depression were also evidenced by the study, which points to an emerging need for attention to mental health in this group. It is important to consider that the etiology of these diseases is multifactorial, so that early identification of risk factors for mental illness is essential for the development of intervention strategies that minimize the impact on the quality of life of these workers.

It should be noted that the loss of productivity at work and the decrease in family income resulting from the presence of chronic diseases can lead to disabilities, causing suffering and direct material costs to individuals and their families, as well as an

important financial impact on the State, since the servants have their rights guaranteed during the treatment of an illness. In this regard, it is recommended that educational institutions implement strategies to encourage the practice of healthy habits such as the creation of workgroups and management together with snack bars and restaurants installed in universities to offer healthier menu options.

The limitation of the present study lies in the fact that it was performed with servers from a single higher education institution, which did not allow for generalizations. However, it made it possible to bring an alarming scenario that requires a close look at the health demands of this public. Therefore, according to the severity of the DCNT theme and its impact on society, it is suggested to carry out new studies in this field that incorporate qualitative and quantitative research in order to understand the individual difficulties in maintaining a healthy lifestyle.

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