

## **Project of the educational activity in nutrition and food: Labor gymnastics in a hospital food and nutrition unit**

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### **ABSTRACT**

A greater demand for productivity in a limited time is observed in UANs, however, working conditions are often inadequate, with environmental problems, the ergonomics of operational areas or even the performance of tasks. These conditions end up leading to dissatisfaction, excessive tiredness, decreased productivity, health problems and work accidents. According to ergonomics, a workplace must be healthy and pleasant, preventing accidents and occupational illnesses, however, some factors interfere negatively in this sense, affecting the quality of the environment. In UANs, among the factors related to the work environment, temperature, humidity, ventilation, lighting, amount of noise, posture and movement can be highlighted. Labor Gymnastics (Break Gymnastics) fits very well as a beneficial strategy in these cases, as it is nothing more than the practice of guided and directed physical activity during office hours and at the workplace, three times a week, or daily, for periods varying from 8 to 12 minutes. Its main objective is the prevention of occupational diseases, while offering several benefits to both companies and employees. In view of the above, the study aims to encourage and stimulate the development of a new habit in the work routine of employees in the central pantry of a hospital unit, in the city of Pelotas - RS, Brazil. The aim is that this change in behavior during work hours can contribute to the physical and psychological health, as well as the general well-being of the waitresses, preventing accidents and occupational illnesses and ensuring the effectiveness of the services carried out at the UAN.

**Keywords:** Ergonomics, Occupational gymnastics, Hospital UAN.

### **INTRODUCTION**

The main objective of a Food and Nutrition Unit is to provide safe food, which can guarantee the main nutrients necessary to maintain or recover the health of all those who use its service (FONSECA, 2012).

In the UANs, there is a greater demand for productivity in a limited time, however, many times, the working conditions are inadequate, with environmental problems, in the ergonomics of the operational areas or even in the performance of tasks. These conditions end up leading to dissatisfaction, excessive tiredness, decreased productivity, health problems and occupational accidents (ABREU et al., 2003).

Occupational diseases, or occupational/occupational diseases, are those resulting from the exposure of workers to environmental, ergonomic or accident risks. They are characterized when the

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causal link is established between the damage observed in the worker's health and the exposure to certain occupational risks (CONCEIÇÃO & CAVALCANTI, 2001).

Units that have inadequate facilities, with environmental and equipment problems, offer unfavorable working conditions. Because the activities carried out at UAN are characterized by repetitive work and the demand for excessive effort from employees. And these conditions can weaken the health of workers and interfere with the productivity and proper functioning of the UAN. The search for safe and healthy conditions within the work environment is a way to improve the quality of life of workers, and ergonomics is fundamental for the work performed at UANs (ZANETIN PM and FATEL ECS, 2017).

According to ergonomics, a workplace should be healthy and pleasant, preventing accidents and occupational diseases, however, some factors interfere negatively in this sense, affecting the quality of the environment. In UANs, among the factors related to the work environment, temperature, humidity, ventilation, lighting, amount of noise, posture and movement can be highlighted (COLARES; FREITAS, 2007; MONTEIRO, 2009).

In addition, other factors related to work organization, such as intense work rhythm and effort, long hours, overload due to insufficient number of employees, inadequate posture and repetitive movements during the execution of tasks, influence both productivity and health of employees (COLARES; FREITAS, 2007; MONTEIRO, 2009).

In this context, the importance of ergonomics within a food production unit is emphasized, as this science refers to the study of people's interactions with technology, organization and the environment, aiming at interventions and projects that aim to improve, in an integrated and non-dissociated way, the safety, comfort, well-being and effectiveness of human activities. Thus, ergonomics should be part of the entire organizational environment in order to contribute positively to the adaptation of the worker to the position he or she will occupy (MUNIZ ML, 2015; PAIM C, et al., 2017).

Workplace Gymnastics (Break Gymnastics) fits very well as a beneficial strategy in these cases, as it is nothing more than the practice of guided and directed physical activity during office hours and in the workplace, three times a week, or daily, for periods ranging from 8 to 12 minutes. Its main objective is the prevention of occupational diseases, while offering several benefits to both companies and employees (MACIEL et al., 2005).

Workplace Gymnastics guarantees benefits to health as a whole, promoting the improvement of strength, flexibility, joint mobility, body posture, motor coordination, disposition and enthusiasm for work, and also influences socialization among employees of work teams. In addition, it leads to a reduction in physical inactivity, tension, muscle fatigue and work accidents (MENDES, 2004).

The types of Workplace Gymnastics are: Warm-Up or Preparatory Gymnastics, which is performed at the beginning of the workday or in the early hours, preparing employees, warming up muscle



groups and ensuring greater disposition. Compensatory or Pause Gymnastics, performed during the workday, interrupting the operational monotony with the performance of compensatory exercises for repetitive effort and postures or services that overload employees. Finally, Relaxation or End-of-Day Gymnastics, based on stretching and muscle relaxation exercises, performed at the end of the workday, oxygenating the muscle structures involved in work tasks (MENDES, 2004).

In view of the above, the study aimed to encourage and stimulate the development of a new habit in the work routine of the employees of the hospital's central pantry. In order that this change in behavior during the working hours can contribute to physical and psychological health, as well as to the general well-being of the maids, preventing accidents and occupational diseases and ensuring the effectiveness of the services performed at the UAN.

## **METHODOLOGY**

The place where the study was carried out was the Food and Nutrition Unit (UAN) of the UFPel/EBSERH Teaching Hospital, in the city of Pelotas - RS, Brazil. The study population consisted of all employees of the central pantry team, and the pantry has 18 employees in total.

Since the services of the UAN can end up causing accidents and occupational diseases because they are activities with a high work rhythm, with physical effort and repetitive movements during execution, performed for a long time in postures that are not always adequate, with high temperatures, and that can generate irritability and continuous stress. Therefore, we thought about the importance that ergonomics has within a food and nutrition unit, as well as how much it can bring benefits to the health of employees and also to the overall performance of UAN.

So, in the first moment, a questionnaire was applied to the employees in order to do a survey on the knowledge of safety at work and ergonomics in general, this questionnaire was prepared through Google Forms with essay questions, and the link to it was forwarded to the employees via whatsapp.

Following the context of ergonomics, the study itself was carried out through a dynamic approach, Labor Gymnastics sessions were held with UAN employees. These sessions were prepared with the help of an academic from the Bachelor's Degree Physical Education course, also at UFPel, with the basis and support of literature studies related to this theme, these materials used as reference were made available by the course professors themselves. Thus, in the second moment of the study, after the questionnaire was answered by the employees, these answers served as a basis for the second part, since it was possible to know more details in relation to the ergonomic part, about the interaction between the service provided and the health of the employees, so from this the Labor Gymnastics activities were planned to be developed.



Thus, in the third moment of the study, Labor Gymnastics was put into practice with the teams for 5 weeks, with sessions of 10 to 15 minutes, starting on March 25, 2024 and ending on April 30, 2024. As there were two teams at UAN, who worked 12 hours and had 36 hours off, each team had 2 to 3 sessions per week.

Therefore, on Mondays and Wednesdays, Relaxation or End-of-Day Gymnastics sessions were held, which are usually held at the end of the shift (they were developed at 6:45 pm), while on Tuesdays, Thursdays and Fridays there were Warm-Up or Preparatory Gymnastics sessions, usually held at the beginning or in the first hours of the workday (they were developed at 10:15 am).

In the last part of the study, after the end of the Labor Gymnastics sessions, a second questionnaire was made available to the employees, which aimed to receive feedback from the participants, to be aware of the result of the study, if it was really beneficial for physical/psychological health, for improving morale and performance in the provision of service, And it also made a difference in the routine of the maids. This final questionnaire was also carried out through Google Forms and with optional questions, and the link to it was also forwarded to the employees via whatsapp.

## **BUDGET**

There were no costs, the material used in the study was for personal use (cell phone) and made available by the Teaching Hospital (internet).

## **RESULTS**

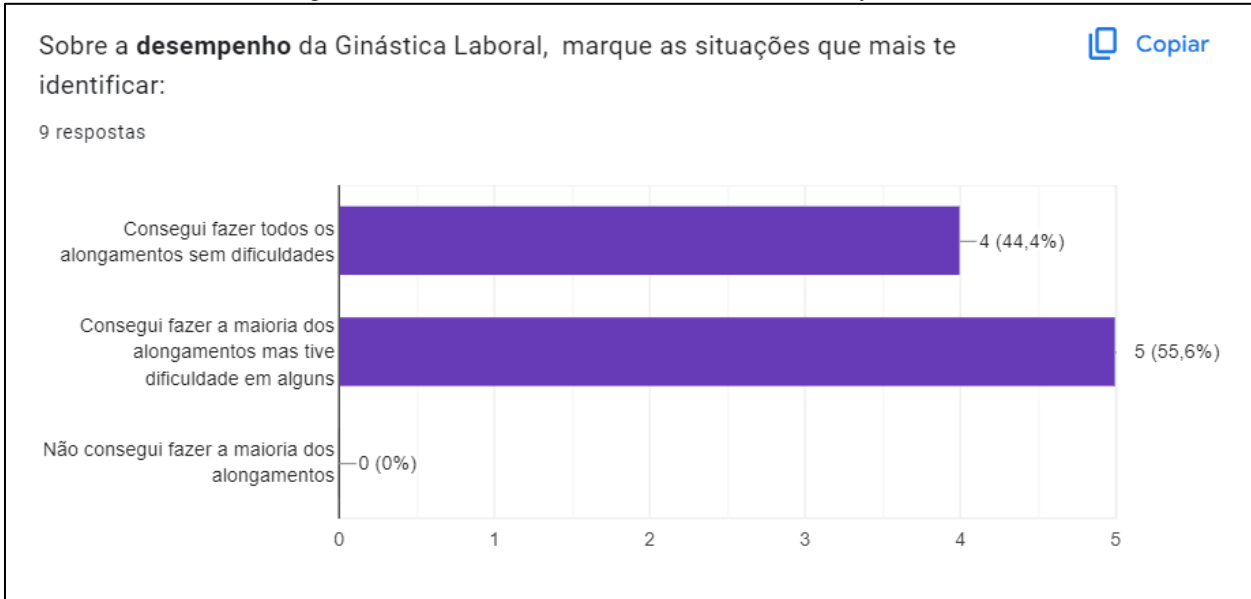
A total of 12 (66.6%) of the 18 UAN employees of the Teaching Hospital participated in the study, including eight 12-hour maids, two 6-hour maids and two supervisors.

Labor Gymnastics was put into practice with the teams for 4 weeks, and not in 5 weeks as planned. The study began on April 8, 2024 and ended on May 3, 2024. However, the sessions remained with the same duration of 10 to 15 minutes.

After the end of the Labor Gymnastics sessions, the second questionnaire was made available to the participants. The purpose of this questionnaire was to receive feedback from the participants regarding the results of the study. The questionnaire had 3 objective questions and optional answers, which were linked to performance, results and the possibility of performing Labor Gymnastics again. Of the 12 employees who participated in the study, only 9 were willing to respond.

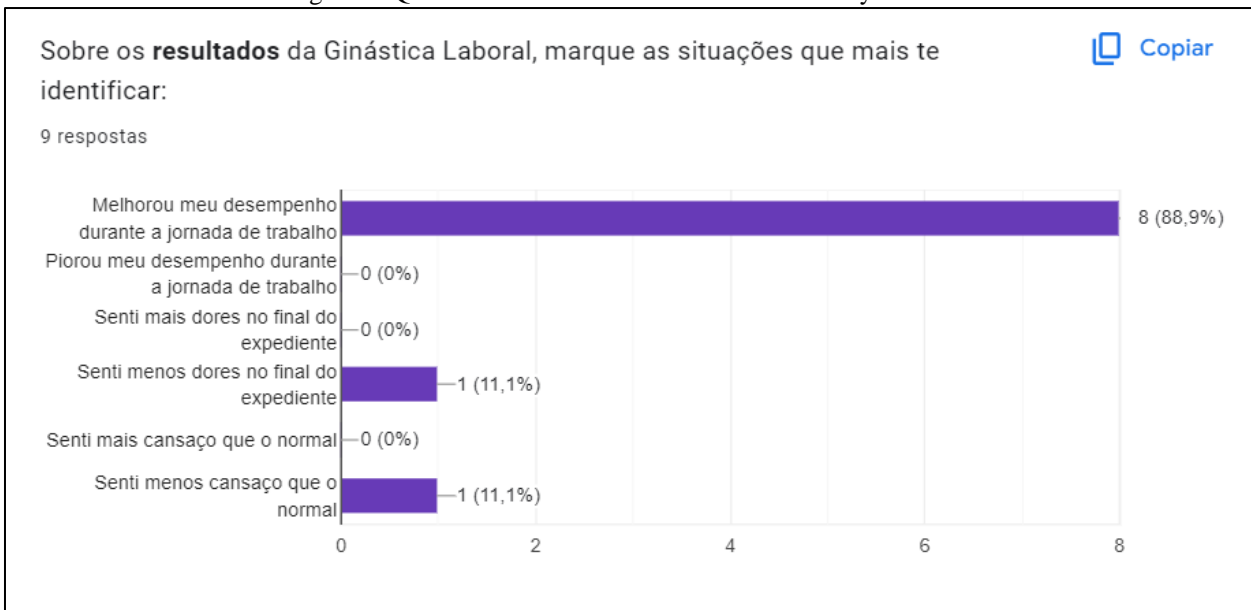
Below is the questionnaire and the answers received by the participants:

Figure 1: Questionnaire on the final result of Labor Gymnastics.



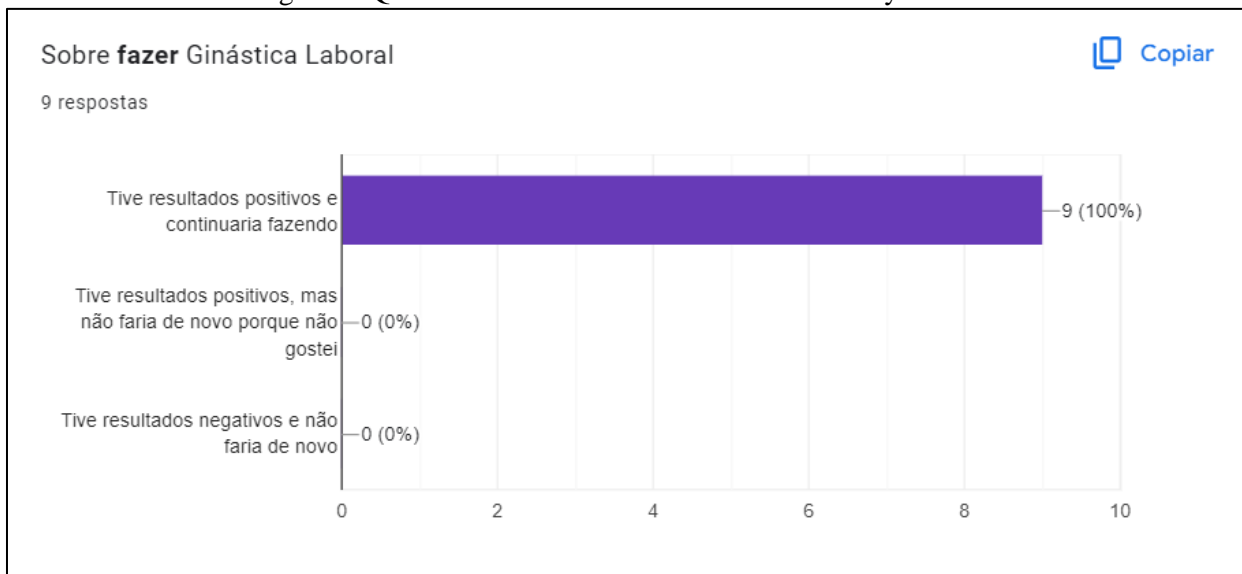
Source: Created by the intern.

Figure 2: Questionnaire on the final result of Labor Gymnastics.



Source: Created by the intern.

Figure 3: Questionnaire on the final result of Labor Gymnastics.



Source: Created by the intern.

## DISCUSSION

The results found in the study showed that due to the performance during the performance of Labor Gymnastics, five of the participants (55.6%) were able to do most of the stretching, but had difficulties in some, while the other four participants (44.4%) were able to do all the stretches without presenting any difficulty.

Regarding the results obtained with the Gymnastics sessions, eight of the participants (88.9%) reported observing improvements in performance during the workday, while a single participant (11.1%) reported that they felt less pain at the end of the workday and also less fatigue than normal.

Regarding the possibility of doing Labor Gymnastics again, there was unanimity, all nine participants (100%) answered that they had positive results with the sessions and that they would continue doing Labor Gymnastics.

Therefore, the present study was able to achieve the objective of encouraging and stimulating the development of this new habit during the employees' workday, and also to promote more health and safety in the workplace, with significant responses in relation to the performance of the sessions, as well as with the positive results after gymnastics.

This fact was also verified in other studies, such as the study by Martins et al. (2000), where the sessions were also performed for an average of fifteen minutes and three times a week, and caused significantly important changes in the flexibility of the participants. As well as in the study by Dunn et al. (1999), which although the participants were submitted to a longer period of intervention, also confirmed a significant link between Workplace Gymnastics and changes in lifestyle, in relation to a better performance in the participants' activities, such as.



## **FINAL THOUGHTS**

In view of the present study, it can be observed that, in fact, the services provided in a Food and Nutrition Unit require a lot of physical effort from the employees, since they remain standing for a long time and have repetitive activities.

Therefore, it is of paramount importance to think about interventions within the UANs, in order to avoid damage to the health of employees and also increase their productivity. With this in mind, Workplace Gymnastics can be an option, both in changing behavior during working hours, as well as in preventing accidents and occupational diseases, and also ensuring the effectiveness of the services performed at UAN.



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