ORIGINAL ARTICLE

IMPLICATIONS OF THE EQUIPMENT OF INDIVIDUAL PROTECTION ON PSYCHODYNAMIC OF WORK

IMPLICACIONES DE EQUIPAMIENTOS DE Protección INDIVIDUAL EN LA PSICODINÁMICA DEL TRABAJO

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ABSTRACT

Objective: to analyze the relationship Equipment of Individual Protection used in the Food and Nutrition Unit and the likely labor troubles mentioned by workers and their defense strategies. Method: qualitative study, which followed from methodological assumptions of a case study conducted with 40 employees of a university restaurant of Niterói/RJ, who met the following inclusion criteria: workers active directly in food production of the Food and Nutrition Unit for over 14 months. The data production occurred by direct observation and semi-structured individual interviews, after approval of the research project by the Research Ethics Committee, CAAE No. 11437312.5000.5243. Results: equipment of individual protection that caused the workers more troublesome were: glove, cap and apron, resulting in defensive tactics. Data were compared with the Dejours referential. Conclusion: the discomforts of workers are proceeding, related to the equipment of individual protection, considering their defensive strategies. Descriptors: Personal Protection; Working Conditions; Physical Suffering; Collective Food.

RESUMO

Objetivo: analisar a relação Equipamentos de Proteção Individual utilizados na Unidade de Alimentação e Nutrição e os prováveis incômodos laborais mencionados pelos trabalhadores e suas estratégias de defesa. Método: estudo de abordagem qualitativa, que seguiu a partir de pressupostos metodológicos de um estudo de caso, realizado com 40 trabalhadores de um restaurante universitário de Niterói/RJ, que atenderam aos seguintes critérios de inclusão: trabalhadores atuantes diretamente na produção de alimentos da Unidade de Alimentação e Nutrição há mais de 14 meses. A produção de dados ocorreu por observação direta e entrevista semiestruturada individual, após a aprovação do projeto de pesquisa pelo Comitê de Ética em Pesquisa, CAAE nº 11437312.5000.5243. Resultados: equipamentos de proteção individual que causaram mais incômodos nos trabalhadores foram: luva, touca e avental, implicando em táticas defensivas. Os dados foram confrontados com o referencial de Dejours. Conclusão: são procedentes os desconfortos dos trabalhadores relacionados aos equipamentos de proteção individual, considerando suas estratégias defensivas. Descriptores: Proteção Pessoal; Condições de Trabalho; Sofrimento Físico; Alimentação Coletiva.

RESUMEN

Objetivo: analizar la relación Equipamientos de Protección Individual utilizados en la Unidad de Alimentación y Nutrición y las probables molestias laborales mencionadas por los trabajadores y sus estrategias de defensa. Método: estudio cualitativo, que siguió a partir de los supuestos metodológicos de un estudio de caso, realizado con 40 empleados de un restaurante universitario de Niterói/RJ, que atendieron los siguientes criterios de inclusión: trabajadores activos directamente en la producción de alimentos de la Unidad de Alimentación y Nutrición hace más de 14 meses. La producción de los datos se produjo mediante la observación directa y entrevistas individuales semiestructuradas, después de la aprobación del proyecto de investigación por el Comité de Ética en Investigación, CAAE No. 11437312.5000.5243. Resultados: los equipamientos de protección individual que causaron más molestias en los trabajadores, fueron: guante, gorro y delantal, lo que resulta en tácticas defensivas. Los datos se compararon con la referencia de Dejours. Conclusión: son procedentes las molestias de los trabajadores relacionadas con los equipamientos de protección individual, considerando sus estrategias defensivas. Descriptores: Protección Personal; Condiciones de Trabajo; Sufrimiento Físico; Alimentación Colectiva.

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INTRODUCTION

In the Food and Nutrition Unit (FNU), is often verified, that workers in feeding activity are exposed to situations that can change their health, inadequate working conditions caused by environmental problems, equipment and work processes to that can generate dissatisfaction of workers.¹

It is known that the Equipment of Individual Protection (EIP) are designed to fulfill an important role in health and worker safety, but the fact is that when unadjusted to the users, can generate discomfort and in some cases, derail the accession of its use. From this perspective, the Regulatory Norm, NR-6 in 6.1 item, considers EIP “every device or product for individual use by the employee, destined for the protection of susceptible risks to threaten the safety and health at work”². This NR in items 6.3 and 6.4 standardizes that the company is required to provide to employees, free of charge, appropriate EIP to the risk and the peculiarities of each professional activity, leaving the employee use.² Therefore, with respect to EIP, it should take a closer view and consider what workers relate to the suitability of these equipments for themselves, aim to minimize their possible suffering.

Based on concerns about the health of the worker, who may be expressing some complaints attributed to troublesome caused by EIP, causing likely suffering is why this research was contemplated. It is noticed that workers exposed to situations that can cause suffering, seek to perform actions to reduce such troublesome circumstances, as verified in psychodynamic work. These actions allow the worker to change something in an attempt to adaptations, being mobilized to make adjustments to better develop their tasks.³

Regarding the prospect of suffering at work, it is evident the creative and pathogenic suffering.⁴ For purposes of this research, the creative suffering was used, in which subjects create defensive strategies to protect themselves. Thus, it is considered essential a study that may bring out issues related to EIP use by workers of FNU, which carry possible suffering work related to their inadequacy. Thus, this research aims to:

● To analyze the relationship Equipment of Individual Protection used in the Food and Nutrition Unit and the likely labor troublesome mentioned by workers and their defense strategies.

METHOD

Qualitative study, which followed from methodological assumptions of the case study, with the technique of data collection the direct non-participative observation and semi-structured individual interviews. As an instrument of data collection, a questionnaire containing questions of identification of subjects was used, and those coming to unveil the troublesome of EIP and tactics prepared by them, in order to minimize the possible suffering.

For this study, the EIP were analyzed: uniform (kit of pants/skirt and smock); footwear; glove; mask; thermal cloak; apron and ear protector. These EIP were listed for being the items used in the unit. The research scenario was FNU of the Division of Food and Nutrition (DFN) of FFU, located in the Gragoatá campus, Niterói-Rio de Janeiro, Brazil.

At the time of the investigation, the FNU had 90 employees with direct action in the production of meals, whether they belong to the permanent staff of the university and hired employees of two private companies. Thus, 90 possible participants were asked to search for meeting the inclusion criteria, namely: workers acting directly on the food production, admitted for more than fourteen months, considering they had experienced the changes before the reopening of the restaurant, providing comparison with current conditions, being that 40 workers were part of the accessible sample, and the remaining 50 workers declined to participate in the study, by choice.

For the observation technique, followed up the work in different sectors and shifts verifying the use of EIP provided by the Public Institution and the contractors, in addition to workers’ behavior in situations of probable troublesome, related to EIP. The research took place in the period April-May 2013, being recorded and immediately full transcribed. The interview was conducted from May to June, 2013, being recorded and immediately transcribed in full.

To ensure the anonymity of participants, they were identified by the letter P of Professional, then the number according to the result of interviews, for example, P1 for the first interview, P2 to the second interview, and successively.

Data analysis was performed based on the content analysis of the interviews and field diary relating to troublesome and inadequacies of the use of EIP, especially improvisation, strategies and actions.
performed by workers to minimize possible troublesome/sufferings in sectors of employment, generated by such equipment.

Initially, after floating reading of the interviews, the pre-analysis of data was performed, in order to identify the possible troublesome/suffering relying on concepts described in the literature about the psychodynamics of work.

The data of observations contributed to corroborate the data that emerged from the interviews. From the analysis, it was stressed the category of EIP that cause troublesome/suffering to workers and the tactics used by them to reduce such troubles. The results were compared with the reference of the Dejours psychodynamics of work.

The research project was approved by the Ethics Committee of the Faculty of Medicine of the University Hospital Antonio Pedro/UHAP, CAAE No 11437312.50000.5243 protocol, as the standards of Resolution 466/2012 of the National Council of Health, Ministry of Health.

RESULTS

Considering the data arising from the interviews, it was found that the EIP that cause most troublesome in workers were: glove; cap; apron; uniform and shoes, in this order, resulting in defensive strategies.

Regarding the EIP: ear protection, mask and thermal cloak, in this study, have restricted use for specific tasks, not being in common use to most of the respondents, therefore, did not influence the found results.

In Table 1, we observed that the 40 participants, 62.5% are dissatisfied with the gloves offered for the performance of tasks. With respect to the cap, it is noteworthy that half (50%) of the participants showed discontent in relation to the cap supplied by the contractor. Fifteen interviewed workers (37.5%) are dissatisfied with the apron offered. As for the uniform, reports of troublesome were detected in 30% of participants who mentioned that the model offered by the FFU as being unsatisfactory to the performance of their tasks. 25% of the interviewed workers reported troublesome produced by footwear, 20% discomfort with the ear protection and 5% with the thermal cloak and mask.

Still in Table 1, it could be verified that workers, when listed the EIP that caused the most troublesome/sufferings, cited the gloves in the first place. These citations were also found in the observation. Thus, the terms of troublesome caused by gloves, reported by the workers, were related to rubberized gloves and plastic gloves, tearing easily, with the risk of losing pieces and drop on food, according to Figure 1, below.
The following statements exemplify troublesome with the use of plastic gloves.

[...] the plastic glove bothers me, it slides. (P27)
[...] I do not use the plastic glove, it seems a ‘hair painting’ glove, it is a necessary to use it, but this type of glove. (P33)

In the presence of labor difficulties, we observed defensive/creative mechanisms of workers related to EIP, employed in the FNU, by the absence of these products or inadequacies. Thus, acquisitions of latex and silicone gloves were found by the workers of the pre-prepared vegetables sector, being the medium found by these food handlers to reduce the discomfort of having to use another type of glove unwanted by them, during their tasks, as was the case with plastic gloves. These acquisitions by the handlers remit the needs of this group of EIP, and should be considered in acquisitions of DFN/FFU.

As for the rubberized glove, little custom of its use was found in the area of sanitation of utensils, and verified the removal of food leftovers without proper protection, with exposure of the handler to biological risks, as shown in Figure 2.

The troublesome related to the performance of the function with the rubberized glove takes the employee neglects its use, as seen in the expressions below and could harm their health:

[...] glove bothers me to perform my task, enters water, that’s why bothers me. (P31)
[...] make difficult to work, to catch plate, I have some difficulty. (P18)
[...] it takes a certain agility to the service, with greasy food you can not work with glove. (P32)

It was observed that the rubberized gloves provided in the service are not appropriate to the task of cleaning areas, the ideally would be fluted gloves with a length of silicone near the elbow adjusted to the handler arm to prevent the entry of water into the glove during the process of cleansing the utensils and equipment.

The troublesome with the use of gloves, in general, were also regarding to the inadequacy of the size of these EIP to the users, according to the examples highlighted in the following narrative:

[...] the size is small does not fit my hand, would have to be in medium or large size.
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(P7)

[...] only had small number, my number is ten, only had the number eight, it was tight. (P13)

Another fact to be considered is that the activities in the area of pre-preparation of meat, it is necessary to use steel mesh glove, by the slaughterers. Thus, in the observation was verified the use of rubberized gloves under the steel mesh glove, however, when asked about the use of over one glove, the workers mentioned that it was to reduce the chill in the hands caused by frozen meat. Thus, this was also considered a defense strategy, on the part of these subjects.

Another item mentioned by the workers as a troublesome was the resource for containing hair, which depending on the offered model, workers mentioned the possible troublesome/sufferings, informing the reasons why they do not feel comfortable when using the product, as the statements that follow:

[...] gives itching, tightens the head, heats a lot, disrupts the blood in the head, breaking hair, give headache, bother, break the hair in front. (P3, P22, P14, P16, P23)

[...] the cap with green stripe bothers me, makes hair fall, is what most women complain

The apron was the third EIP most causing troublesome, expressed in the speech of workers UR/FFU. It is noteworthy that in the facility exists apron supplied by the contractor for labor services in vinyl material that is opaque white in color, this apron is considered by some workers as little resistant.

At the time of observation, the apron was the EIP that drew the most attention by improvisations by workers, in an attempt to reduce the troublesome/suffering due to their inadequacies to anthropometric characteristics of these subjects, as shown in Figure 3.

Figure 3. Inappropriate apron to anthropometric characteristic of the slaughterer. Source: personal collection of the authors. Niterói - RJ, 2013.

The defensive tactics performed by workers before discomforts caused by the inadequacies of the apron to its physical structure were: mend the handle of the apron with a piece of plastic to make it longer; adding the sheath apron, other piece of apron or still doing the overlapping of two aprons, one at the waist and the other in the normal position, in order to make it more appropriate for their height, according to Figure 4.
Another curious situation experienced by employees of the sanitizing utensils sector, was the use of PVC film wrapped around the legs. Such strategies performed, according to workers, intended to avoid the discomfort of working with the pant leg of the uniform and the wet boot, as observed in Figure 5, below.

Reinforcing the observation about the apron, some workers in the interview mentioned some troublesome/suffering, as expressed by the following statements:

[...]: is very thin, we get all wet, water enters into the boot, wets all, it is [...]: very weak, anything breaks it. (P18) (referring to the apron in white vinyl).

[...] apron bother me at length which is short for my height. (P32)

[...] I wrap film on the legs to prevent water flowing into the boot. (P27)

It was also identified the need for the use of aprons for both the tasks of cleaning, cooking and as to the expressions. Hereafter, point to the need for this type of EIP by workers of FNU/FFU.

[...] I need thermic apron to work in big pots, because existing boilers are heat, I think is better

[...] to have thermic apron for anyone who works for cooking. (P39)

[...] apron bothers me, it is very thin, it seems a disposable apron, I stay long on the stove

[...] this apron does not fit it is not thermic. (P18)

According to the data collected and analyzed in this study, workers have issued opinions about the clothing items used in food handling in their everyday work, being the uniform offered by the FFU which caused more discomfort among the study participants.

In this context, the following speeches, presented information about the uniform that is offered by the university. Complaints were also due to inconsistency in providing uniform
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by Public Institution, others complained of not having their numbers, in both cases the workers acquired their own uniforms. In these aspects, the following expressions illustrate these facts.

[...] the uniform amount is insufficient, I only got two kits long time. (P11)
[...] the FFU is who gives me uniform, but is a long time does not give. (P20)
[...] they never have my number, I have to do on my own. (P28)

Another item mentioned in the speech of the subject was protective footwear. The shoes of more frequently use followed the models: white closed shoes and boots of PVC pipe long, non-slip, supplied by the contractor labor. The public employees said they do not get shoes for a long time, provided by the university, so they buy their own shoes. This situation emerges a variety of designs and colors of that EIP in the study unit.

Reports of troubles relating to protective footwear were mentioned, including some workers using boot expressed requesting a higher number than usual, to avoid suffering or seek mechanisms to reduce the suffering of creative mode, acquiring their own footwear, modifying the EIP or engendering adaptive/defensive solutions according to the following expressions:

[...] shoes bothers me, the one that FFU gave me has peeled back easily and left smell on foot, I use my own footwear, shoes. (P37)
[...] shoes bother me, I cut the bootleg that was hurting my leg. (P29)
[...] shoe bothers me pinches a little, I always ask a higher number. (P18)

It is stressed that the boot offered by the contractor was said to be uncomfortable for some workers, when purchased in the usual numbering, so workers always try to request one number above, another exposed fact was that the boot cause foot smell, as reported follows:

[...] bother when is the same number of feet, tightens, gives smell. (P18)

As a strategy to get rid of the inconvenience smell caused by boot, the employee inserted a plastic bag inside the EIP, to avoid foot contact with the material of the boot, as shown in Figure 6.

![Figure 6](image.png)

Figure 6.-Use of plastic bag to prevent foot smell.

Another verified situation of creativity of the worker to reduce the suffering was related to the model-boots, in which the employee reports as modified its EIP, as seen in the speech that follows and in Figure 7.

[...] I did not received boot of the company, then gave me a long barrel one that was hurting my leg I cut boot with the knife and made short barrel, now is good. (P29)
Such situations make workers use mechanisms that Dejours describes as creative suffering. This creative suffering is observed when subjects seek to extricate themselves from troublesome with adaptations and improvisations, as observed in this study in different activities.

DISCUSSION

According to the concept of Fundacentro: “The equipment of individual protection will protect against the risks of the workplace and at the same time, it will give protection against the conditions of uncomfortable and unpleasant work.” In this sense, EIP glove, cap, apron, uniform and footwear offered on investigated FNU, showed some inconvenient failing to fulfill its function in an integral manner, to protect the worker against adverse working conditions.

It is known that the Ministry of Labour and Employment (MLE) is the official organ responsible for regulating the production and use of EIP, as well as evaluate and approve such equipment by issuing an authorization certificate (AC) for each EIP be marketed. Food services can only acquire; distribute and permit the use to their employees, EIP approved by MLE presenting AC. Thus, the responsible of the unit must be attentive to the acquisitions of EIP used by employees of FNU, aiming at security and labor favoring the subjects. In this sense, is a fact that the glove is a protective equipment of upper limb necessary for the proper protection of the subjects to perform numerous activities, such as those carried out by workers of FNU, by manipulating with agents: biological, thermal, chemical, conductors of electric shocks, cutting and perforating. Furthermore, the gloves are also important elements to prevent the contamination of food, so it is essential for these workers.

The type of glove to be used is determined by the task to be performed by the worker, thus, beyond disposable gloves that protect food from contamination, other types of gloves must be used with the main objective of protecting workers accidents. However, in this study, some types of gloves presented troublesome for workers during their tasks, such as: the use of plastic and rubberized gloves. The mentions made by workers about the plastic gloves, provided in FNU/FFU, were of concern due to the fragility of the material that they are made, pointing out the risks of its use for the preparation of food, and express the troublesome and difficulties faced with its use. Troublesome directed the rubberized gloves were related to the inadequacy aspects of the product due to task to be performed leading to poor adhesion of EIP in the area of cleaning utensils.

The apron EIP is a garment that offers security protection to the trunk against risks among others, of thermal origin, mechanical, chemical and humidity from operations with the use of water. Therefore, is the essential EIP for the activities in FNU, however, can cause troublesome/sufferings when inappropriate to the physical structure of the employee, leading to the creation of defensive/creative strategies, as verified in this study.

Scientific studies offer us new interpretations of the world of work from observation and listening performed in field studies. Therefore, this research also sought, in the workers speeches, their perceptions and real labor needs related to the equipment of individual protection used by these subjects in their daily activities. Another study analyzed the aspect of discomfort when using certain EIP and found that a significant number of employees feel discomfort when using the protective equipment. At this point, it is believed that such troublesome is due to
the use of EIP improperly, according observation of these authors in their study.

The discomforts observed in FNU/FFU, in most cases, are related to the incompatibility of the EIP with the tasks to be developed by workers and also by the inadequacy of EIP to the anthropometric characteristics of these subjects, as was the case with the apron, with gloves that allow the entry of water during cleaning activities, gloves that tear easily, glove with unsatisfactory numbering, among others. Thus, certain EIP bring suffering to the worker of FNU.

It was observed the absence of some EIP characterized by inadequacies of these operational processes of workers and also by the fact that these subjects did not recognize the need for EIP use for themselves, such as: not wearing gloves during tasks in sanitizing utensils area. Thus, it was found that the use of EIP has been overlooked by some workers, although aware of the importance to their health and safety at work, do not use them.

A similar result to that found in the studied unit was described in the study about “Occupational risk in emergencies: use of EIP by nurses”, this study showed that nurses know the EIP and occupational risks to which they are exposed, however, neglect its use. It is true that non-adherence to the use of EIP when necessary, can result in losses for both the employee and for the employer, affecting labor relations, psychosocial and family to contribute to the continuity of work accidents.

By identifying the troublesome/sufferings presented in this study, related to EIP, was also observed actions of inventiveness compatible to those reported by Dejours in psychodynamic work, where the creative process obeys a defensive and creative logic, resulting from the reaction against suffering mobilized by: invention, creativity and adjustment of workers to extricate from the troublesome at work.

This fact is called by Dejours as “creative intelligence”, “body intelligence” or “astute intelligence”. According to this author, the “astute intelligence” is born of suffering and is rooted in the body, having intense creative power and present in all the activities and tasks performed in the workplace, contributing both to the construction of the identity of the worker, as to the proper execution of their work. In this sense, there is no doubt that the strategies devised by the workers of the FNU research were in possession of considerable “astute intelligence”.

A study discusses the lack of favorable working conditions brings out the characteristic creative capacity of the worker who knows and is committed to the work. Similarly, workers of the investigated FNU, exhibited their creative ability to reduce the effects of adverse conditions provided by EIP inadequate to their physical characteristics and work activities. Thus, these subjects to minimize pathological grief, perform mechanisms in their workplace as improvisations recorded in this survey. In this context, the Fogaca research also identified inventiveness by workers seeking to compensate for the difficulties related to EIP, with some “creativity”, adapting complement to fill spaces in masks using cotton balls, sometimes wipes or ear muffs as needs perceived by them. For the author, the improvisations may reflect the lack of adaptability of the EIP to its user, which indicates less involvement in politics effectively protecting workers from managers. Accordingly, the above study corroborates this research by presenting similarities with improvisations situations that workers are exposed and the actions taken by them to meet their demands.

In FNU/DFN/FFU, improvisations point to difficulties, needs and sufferings of workers in performing their work activities, as managers become aware of such situations, it may be possible to minimize the adjustments and, accordingly, the suffering at work with the development of more effective actions.

**CONCLUSION**

In Food and Nutrition Unit DFN/FFU, EIP are causing troublesome/suffering in workers. The statements revealed and could prove the existence of suffering at work, this might be confirmed by the statements made by these workers during the survey. It was found that, in FNU/FFU workers perform improvisations related to EIP, which requires from these individuals physical and mental burden, because some protective equipment proved to be inadequate to bodily characteristics of workers and their labor activities.

According to the dynamics of the work, the research findings showed evidence that the sufferings experienced by workers are being faced by them with defensive and creative strategies. These strategies do not provide disregard the transformations that must be performed on the unit in the context of the acquisition of appropriate EIP to reduce suffering. In this context, this survey allowed the analysis of the relationship between workers’ needs related to EIP that imply the
psychodynamics of work, in order to reduce the troublesome/suffering of those involved with the process of food production.

The equipment of individual protection must be suited to the real need of those who actually use them, considering the anthropometric characteristics of workers and tasks performed by them. In this sense, the intended actions to the best working condition includes the adequacy of EIP to the employee and also embraced by the proposed reduction in the level of adaptations or defensive/creative tactics devised by those with respect to EIP, which can lead to the probable delight at work, with more satisfied workers.

REFERENCES

Implicações dos equipamentos de proteção individual na...