

Original Article

LABOR FATIGUE IN RURAL WORKERS

FADIGA LABORAL EM TRABALHADORES RURAIS

ESTRÉS LABORAL EN TRABAJADORES RURALES

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This is a research to identify the existence of labor fatigue in rural workers in Bom Jesus-PI, Brazil. This is a descriptive-exploratory study carried out from April to June, 2011, with 47 workers. Data collection took place by applying an instrument for evaluation of fatigue called "Bipolar Questionnaire" and semi-structured interview script and form to characterization of the socio-demographic profile and working conditions. The questionnaire was tabulated, being compared by Chi-Square test with 95% of reliability. It was performed for differentiation and classification of answers analyzed and observation of behavior within groups, the analysis of the main components and groups. It was observed that fatigue is common in a rural environment, mainly in the form of intense fatigue, due to the exposure to unhealthy conditions for the worker. Although they do not directly identify its trigger factors and therefore, their preventive measures.

Descriptors: Occupational Health Nursing; Stress; Rural Health.

Objetivou-se identificar a existência de fadiga laboral em trabalhadores rurais do município de Bom Jesus-PI. Trata-se de um estudo exploratório - descritivo realizado de janeiro a junho de 2011, com 47 trabalhadores. A coleta de dados se deu pela aplicação de instrumento para avaliação da fadiga denominado Questionário Bipolar e roteiro de entrevista semiestruturado com formulário para caracterização do perfil sociodemográfico e das condições de trabalho. Os dados foram tabulados e comparados pelo teste de Qui-Quadrado com 95% de confiabilidade. Foi realizado para diferenciação e classificação das respostas analisadas e observação do comportamento nos grupos, a análise de componentes principais e de agrupamentos. Constatou-se que a fadiga é frequente no ambiente rural, principalmente na forma de fadiga intensa, devido a exposição às condições insalubres para o trabalhador. Embora eles não identifiquem, diretamente, seus fatores desencadeantes, por conseguinte, suas medidas preventivas.

Descritores: Enfermagem do Trabalho; Estresse; Saúde da População Rural.

El objetivo fue identificar la existencia de estrés laboral de trabajadores rurales del Bom Jesus-PI, Brasil. Estudio descriptivo exploratorio llevado acabo entre abril y junio de 2011, con 47 trabajadores. Recopilación de datos se realizó por instrumento para evaluación del estrés llamado Cuestionario Bipolar y guión de entrevista semiestructurada con la caracterización del perfil sociodemográfico y de las condiciones de trabajo. Se tabularon los cuestionarios, que se compararon por Chi-Cuadrado con 95% de confiabilidad. Se realizó para diferenciación o clasificación de las respuestas analizadas y observación del comportamiento dentro de grupos el análisis de componentes principales y agrupaciones. El estrés es común en el medio rural, principalmente en forma de estrés intenso, debido a la exposición a condiciones insalubres para el trabajador. Aunque no se identifican, directamente, sus factores desencadenantes, por lo tanto, sus medidas de prevención.

Descriptores: Enfermería del Trabajo; Estrés; Salud Rural.

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INTRODUCTION

The inclusion of the worker's health in the processes of production goes through the widening of the look on the relation work and health which enables the comprehension of the articulation between the world of labor in a general aspect, the local productive processes and the processes of labor which happen in the areas of the scope, in order to perceive the workers who are inserted and the ones who are excluded of such processes and the implications for their conditions of life and health⁽¹⁾. In this context, ergonomics is inserted, which is at the same time science and technology which tries to comfortably and productively adapt the human being and his work, dealing with the comprehension of the interaction among these subjects whose practical objectives are the security, satisfaction and welfare of the workers in their relation with the productive systems⁽²⁾.

Fatigue is, in turn, resulting from the exposition to the agents of ergonomic risk, and it is an important manifestation of the inadequacy of the corporal structures to the requirements of work, showing a clear epidemiological and statistical association with the ergonomic requirements of the work performed⁽³⁾. So, fatigue is mainly resulting from the continuous work which, in turn, provides the reversible decrease of the organic capacity and the qualitative degradation of the work. It has its origin in a series of complex factors: physiological, psychological, environmental and social, whose effects are cumulative⁽⁴⁾.

Among the categories of workers with a high risk for the development of labor fatigue are the ones who work in rural activities, due to the exposition to mechanic aggressors; agents of physical nature such as solar radiation and extreme temperatures, noise; and factors which are intrinsic to the organization of the work⁽⁵⁾. The concern with the aggressions to health resulting from work, independently of the category of workers, has been researched aiming at improving the

attention to the health of the workers and the prevention of the aggressions to health⁽⁶⁻⁷⁾.

From the understanding that fatigue can be unleashed by a varied range of factors within the labor environment of the rural worker, it becomes fundamental to know its existence, the level of the fatigue and its related variables in order to have the knowledge of the outbreak and of the unleashing conditions, so that, from this information on, measures facing the improvement of health of those workers can be taken, preventing or relieving the symptoms. According to what was shown, a study was elaborated, whose objective was to identify the existence of labor fatigue in rural workers in the county of Bom Jesus, Piauí, Brazil. The objective is to understand how it appears in the development of the activities of those professionals considering the several determinant factors in the process health-disease.

METHOD

It is a descriptive research with quantitative approach. Developed in the rural area of the county of Bom Jesus, with a population estimated in 20,511 inhabitants, 635 km from Teresina, located in the southwestern region of the state of Piauí, Brazil⁽⁸⁾. The county's main economical activity is cattle and the agriculture.

The research was made between June and December, 2011 and the population was the rural workers registered in the Programa de Agricultura Familiar da Secretaria Municipal de Agricultura (Program of Family Agriculture of the County's Agriculture Department). The criteria of inclusion of the informers were: to have been working with agriculture for at least two months; to accept to participate in the research free and willingly; to be registered at Secretaria de Agricultura Municipal and to be working in this professional during the period of data collection. Therefore, the workers with confirmed diagnosis of

Repetitive Strain Injury (RSI) and Work-related Osteomuscular Disturbances (WRMD), the ones who came back from vacation in the last three weeks or less, and the ones working in the night shift.

It is a study made in two stages: in the first one a tool for the evaluation of labor fatigue was used, called 'Bipolar Questionnaire of Fatigue'⁽⁹⁾, a simple method of subjective evaluation of the fatigue in the work environment, which analyses the concentration, quietness, productivity, visual tiredness and body pain. These aspects are associated to the idea of positivity where when closer to 1, it represents less fatigue, closer to 7, more fatigue. The questionnaire was answered by each subject of the study in the beginning, in the middle and at the end of the working journey. During this stage, 81 workers were evaluated, from which 47 referred to fatigue, and these made up the sample of the second stage of the study.

The second stage was the use of a form to characterize the interviewed subject, the working conditions and the factors unleashing of fatigue present in the working environment, involving questions which allow the identification of the factors responsible by the unleashing or worsening of the fatigue; the measures of relief and/or prevention of the fatigue, adopted by the worker; and possible interferences of the fatigue in other aspects of his life.

The calculation of the frequencies of the answers obtained was made through descriptive statistics. The test of the chi-square test (χ^2) was applied to show occasional differences among the frequencies found and the associations, using the *Statistic Analysis System* (SAS)⁽¹⁰⁾, with and Interval of Confidence of 95% (p<0.05). And analysis of relations among the following variables was made: fatigue and sex, fatigue and age, fatigue and weight, fatigue and height, fatigue and means of transportation, and fatigue and working time, through Pearson's correlation test.

This work respected the ethical aspects of

agreement with the guidelines established in Resolution no. 196/96 and complementary resolutions of the Conselho Nacional de Saúde, approved by the Comitê de Ética em Pesquisa of the Universidade Federal do Piauí (UFPI), under no. 0087.0.045.000-11.

RESULTS

The subjects of the research were mainly men (80.85%, p<0.0001), age range from 41 to 60 years (61.7%, p<0.0001). The height and body weight were also investigated where the majority of them is between 140 and 170 cm tall (89.37%, p<0.0022) and weighs between 40 and 60 kg (51.06%, p<0.0001) (Table 1).

Table 1 - Individual characteristics of the rural workers of the study. Bom Jesus, PI, Brasil, 2011.

| Variables | n=47 | % | χ² | p-value |
|-------------|------|------|------|------------|
| Age | | | 51.0 | < 0.0001* |
| 21-40 years | 12 | 25.5 | | |
| 41-60 years | 29 | 61.7 | | |
| >60 years | 6 | 12.8 | | |
| Gender | | | 25.6 | < 0.0001* |
| Male | 38 | 80.9 | | |
| Female | 9 | 19.2 | | |
| Weight | | | 18.2 | < 0.0001* |
| 40-60 kg | 24 | 51.1 | | |
| 60-80 kg | 20 | 42.6 | | |
| >80 kg | 3 | 6.4 | | |
| Height | | | 73.4 | < 0.0022 * |
| 140-170 cm | 42 | 89.4 | | |
| 170-200 cm | 5 | 10.6 | | |

*Valid for p<0.05.

After the use of the questionnaire it was noticed that, through the variables analyzed, 57.9% of the workers presented some kind of fatigue at the end of the working journey. Regarding the levels of fatigue, it was observed that, approximately 53.1%, (p<0.0001) of the subjects, had no fatigue at the end of the data collection, and it was highlighted that 80.20% of the workers started the journey without any clue or fatigue, a fact that was decreasing at the end of working journey where only 42.10% of them remained without fatigue (p<0.0001) (Figure 1).

The minority (14.03%, p<0.0001) of the workers presented moderate fatigue. It was also noticed that the level of discomfort was gradually increasing along the

working journey, once in the beginning it was only

6.08% and at the end it was 19.91% (p<0.0001).

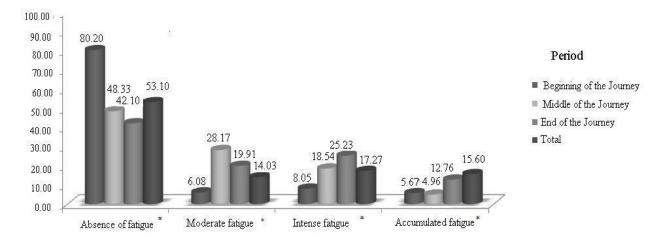


Figure 1 - Frequency of the levels of fatigue during the working journey of the rural workers of Bom Jesus-PI, Brazil, 2011. (No. = 81); (*valid for p<0.05).

In the middle of the working journey, 48.33% (p<0.0001) of the subjects stated to have no fatigue, reducing to almost half the number of subjects who reported not presenting fatigue. This number was reduced (42.1%, p<0.0001) at the end of the working journey.

The intense fatigue was more prevalent among the rural workers, attacking approximately 14 of them (17.27%, p<0.0001). There was an increase in this level of fatigue (10.5%) in the workers until the middle of the working journey, continuing in significative increase (25.23%, p<0.0001) until the end of working journey.

The accumulated fatigue was present in 15.6% (p<0.0001) of the rural workers. The interesting point is that, in this level of fatigue there was a decrease in the number of complaints along the working journey, before that it was present in 5.67% of the workers, in the middle of the working journey it was 4.96% (p<0.0001), keeping that figure until the end of the period.

Data concerning the activity of work were collected, such as the daily working journey, where it was noticed that the majority of the interviewed subjects work from 6 to 10 hours (91.5%, p<0.0001) (Table 2). Regarding the working load, it was observed that only 3 subjects (6.4%, p<0.0001) had excessive working hours, once they worked more than 10 hours a day. Associated to this fact, it was noticed that 42% (p<0.0001) of the agriculturists had another occupation besides farming. The most frequently stated occupation (60%, p<0.0001) was cattle breeding.

The rural worker usually wakes up and goes to sleep early. Still related to work, most of the workers (76.6%)(p<0.0001) reported breaks to rest during the working period and 55.5% stated (p<0.0001) that the time of the break was only from 1 to 10 minutes (Table 2), that is, most of them had breaks below what was established.

Table 2 - Characteristics of working activity in the population of rural workers of the study. Bom Jesus, PI, Brasil, 2011

| Variables | n=47 | % | χ² | p-value |
|---|--------------|------|-------|-----------|
| Daily working journey | | | 85.1 | < 0.0001* |
| 11-15 hours | 3 | 6.4 | | |
| 6-10 hours | 43 | 91.5 | | |
| 1-5 hours | 1 | 2.1 | | |
| Type of extra activity performed | | | 77.4 | < 0.0001* |
| Cattle breeding | 28 | 60.0 | | |
| Commerce | 14 | 30.0 | | |
| Rural construction | 5 | 10.0 | | |
| There is a break to rest from work | | | 81.5 | < 0.0001* |
| Yes | 36 | 76.6 | | |
| No | 11 | 23.4 | | |
| Time of rest in the working journey | | | 51.7 | < 0.0001* |
| 1-20 minutes | 38 | 80.5 | | |
| 21-40 minutes | 6 | 14.0 | | |
| >40 minutes | 3 | 5.5 | | |
| Adopts inadequate posture at work | | | 69.7 | < 0.0012* |
| Yes | 34 | 72.3 | | |
| No | 13 | 27.7 | | |
| Carry weight during the working journey | | | 93.1 | < 0.0001* |
| Yes | 43 | 91.5 | | |
| No | 4 | 8.5 | | |
| Time spent to arrive at work | | | 62.8 | < 0.0033* |
| 1-30 minutes | 33 | 70.2 | | |
| 31-60 minutes | 12 | 26.4 | | |
| > 1 hour | 2 | 3.4 | | |
| Means of transportation to the working area | | | 60.4 | < 0.0078* |
| On foot | 30 | 64.0 | | |
| Bicycle | 9 | 19.0 | | |
| Motorcycle | 7 | 15.0 | | |
| Animals | 1 | 2.0 | | |
| Time of experience in the activity | - | | 58.8 | < 0.0001* |
| 1-25 years | 7 | 14.8 | | |
| 26-50 years | 34 | 72.2 | | |
| > 50 years | 6 | 13.0 | | |
| Workers who suffered accident | • | | 10.9 | < 0.0067* |
| Yes | 28 | 60.0 | | |
| No | 19 | 40.0 | | |
| Type of accident suffered | | .0.0 | 76.3 | < 0.0001* |
| Tools and Work | 37 | 78.6 | . 5.5 | 3.0001 |
| Poisonous animals | 8 | 17.4 | | |
| Falls | 2 | 4.0 | | |
| *Valid for p<0.05. | <u> </u> | | | |

Valid for p < 0.05.

Regarding the transportation to work, the average

Regarding the adoption of inadequate and uncomfortable posture during work, most of the workers (72.3%, p<0.0012) stated yes categorically. The inadequate posture can be intensely observed in the use of hoe, especially where the worker spends long periods hoeing. And 91.5% (p<0.0001) informed that they had to carry some kind of weight.

time spent and the means of transportation used by the workers to arrive at the exact location of work are important, once they can cause additional tiredness to the worker. So, it was observed that most of the workers go to the working area on foot (64%, p<0.0078) and spend between and 1 and 30 minutes

(70.2%, p<0.0033) to arrive at work (Table 2). Associated to this fact, the workers reported that during their work it was necessary to walk long distances. When investigating the experience in the area of agriculture it was noticed that most of them work in the area between 26 and 50 years (72.2%, p<0.0001). A fact that can be highlighted, once many times the children follow their parent's steps, maybe because of the lack of conditions to study, or because they want to continue working in the rural area.

Facing the characteristics, the rural work is shown as wearing and full of risks to the worker, exposing him to occurrences such as work accidents (WA) in which a great part of the workers (60%, p<0.0067) reported to have suffered some kind of accident. The most

frequently reported accidents were cuts caused by working tools (78.6%, p<0.0001), such as machetes, hoes, chainsaws, forage machine. It is outstanding that some workers have already had more than one accident.

The fatigue presented statistically significant positive correlation with the variables age, weight and working load, having had a highly significative correlation, especially with the working load (0.535) and with age (0.445) (Table 3). These data showed that the older people with the higher working load present more fatigue, which is expected. The fatigue also presented a weak negative correlation regarding gender (men reported to feel more fatigue than women). There was no significative correlation between fatigue, height and means of transportation.

Table 3 - Correlation between the individual characteristics and the working activity of the population of rural workers. Bom Jesus, PI, Brasil, 2011

| | Gender | Age | Heigth | Weight | Time of work | Means of transportation |
|-----------------|--------|--------|--------|--------|--------------|-------------------------|
| Correlation (r) | -0.133 | 0.445 | 0.009 | 0.165 | 0.535 | 0.002 |
| Value of p | 0.003* | 0.000* | 0.653 | 0.004* | 0.000* | 0.122 |

^{*}Significative correlations for p<0.05.

As shown in Table 4, the rural workers were questioned regarding unleashing factors present in the working environment and the inference in their lives. When asked about the measures adopted by them in order to relieve fatigue they mentioned rest (17) (36.2%, p<0.0145) and the self-medication (16) (34.1%, p<0.0145), that is, they take some kind of medicine. A great part of the interviewed subjects (20) (27.6%, p<0.0145) associated bath to a way of relaxing.

When questioned if tiredness prevented them from performing any daily household task, most of them said no (66%, p<0.0001), once even tired, they felt it was a necessary obligation. Regarding the rest at home after work, the majority of them (35) (74.5%, p<0.0001) reported that they could relax, despite the fact that when arriving at home, they still had some

household tasks, such as cooking and taking care of the children. Most of the workers(42.5%, p<0.0042) reported that the working journey does not interfere in their sleep, that they can sleep even feeling pain. Other 16 (34%, p<0.0042) present difficulty or pain, such as headache, backache or pain in the legs, and this interferes in the quality of the sleep.

Despite the fatigue, most of the workers (63.8%, p<0.0001) reported to have leisure activities, mentioning some: visiting relatives, friends or neighbors; playing cards, snooker and soccer; fishing or hunting with friends; going to parties; they reported that the best form of leisure is staying at home with the family; going out to drink some alcoholic beverage; going to church; playing the guitar.

Table 4 - Variables of the unleashing factors present at work and their interference in the life of the workers. Bom Jesus, PI, Brazil, 2011

| Variables | n=47 | % | χ² | p-value |
|---|------|------------------|------|-----------|
| Measures adopted for the relief of fatigue | | | 43.4 | < 0.0145* |
| Chemical medicine (drugs) | 16 | 34.1 | | |
| Rest | 17 | 36.2 | | |
| Bath | 11 | 23.4 | | |
| Natural measures (tea) | 1 | 2.1 | | |
| Massage with gel | 1 | 2.1 | | |
| Alcoholic beverages | 1 | 2.1 | | |
| Tiredness interferes in the household tasks | | | | |
| Yes | 16 | 34.0 | 74.9 | < 0.0001* |
| No | 31 | 66.0 | | |
| There is rest when arriving at home | | | | |
| Yes | 35 | 74.5 | 82.6 | < 0.0001* |
| No | 12 | 25.5 | | |
| The working journey interferes in the sleep | | | 58.3 | < 0.0042* |
| It does not interfere in their sleep | 20 | 4 2.5 | | |
| They presented headache and backache | 16 | 34.0 | | |
| They needed to take medicine | 3 | 6.5 | | |
| Worries outside work | 8 | 17.0 | | |
| They manage to have leisure time | | | 69.9 | < 0.0001* |
| Yes | 30 | 63.8 | | |
| No | 17 | 36.2 | | |
| The most tiring activities at work | | | 55.5 | < 0.0224* |
| The use of tools and agrotoxics | 11 | 23.4 | | |
| Standing up | 10 | 21.6 | | |
| Exposition to sunlight | 9 | 19.0 | | |
| Posture for harvest | 9 | 19.0 | | |
| Carry weight | 3 | 6.4 | | |
| Others | 5 | 10.6 | | |
| What they would like to change at work | | | 41.1 | < 0.0318* |
| Investment in machinery and personnel | 14 | 29.8 | | |
| Reduce the working load | 7 | 14.9 | | |
| Not having to stand so long | 2 | 4.2 | | |
| To perform lighter tasks | 2 | 4.2 | | |
| Increase salary | 2 | 4.2 | | |
| There is nothing to be done | 3 | 6.4 | | |
| Improve everything | 3 | 6.4 | | |
| They had no opinion | 14 | 29.9 | | |

^{*}Valid for p<0.05.

When asked what the most tiring activity at work was, the majority (23.4%, p< 0.0224), answered that it is the use of tools, such as the ax, the hoe and pumps to apply poison, once they are very heavy and the agro toxic agent itself is harmful for the health of the worker, according to their reports.

With those presented problems, the workers reported what they would like to change at work: part of the workers (29.8%, p<0.0318) reported that the main change would be the investment in the machinery and hiring more personnel. Others mentioned the reduction of the working hours (14.9%), not having to stand so

long, or walking, performing lighter tasks, less intense or increase the salary (4.2%). 6.4% categorically stated that there is nothing to be done to improve, once all the farming tasks are heavy, the same number of answers which stated that everything has to be improved. 29.9% (14) of the workers, did not know what to say. It was noticed that 14 workers did not know what to say regarding improvement at work, a fact that can be associated to low schooling and information. In addition 3 of them reported that there was nothing to be done to improve, thus showing conformism.

DISCUSSION

The rural work is ruled by Law no. 5,889/73, regulated by Decree no. 73,626/74 and article 7 of the Federal Constitution/88. It is considered a rural worker everyone who, in a rural property or building, renders no occasional services to a rural employer, is under his dependence and earning a salary. One is not considered a rural worker but a domestic employee if the renders services continuously in a ranch or a site for leisure and recreation without purposes⁽¹¹⁾.

With the data registered in this research, it was noticed that the informal rural worker is rather old (41-60 years old), has been performing rural activities for more than 20 years, in long work journeys and short breaks during the journey, and when he is involved in the hoeing task – he has to throw and pull the hoe and remove the weeds, for that he has the exacerbated posture of arm and neck flexion and flexion-extension of the fists⁽⁷⁾. Besides that, the maximum working journey is not always obeyed; it was established in 8 daily hours or 44 weekly hours or 220 monthly hours in a collective agreement or collective working convention, according to Article 7 of chapter II of the Brazilian Federal Constitution⁽¹¹⁾.

Regarding the working journey, it was observed that most of the workers and country employers comply with Law no. 5,889/73, regulated by Decree no. 73,626/74 which establishes that the working journey is 44 weekly hours and 220 monthly hours and the length of the daily work cannot be above 8 hours. The periods of rest in or between the daily or weekly journeys or still in the contractual year is a right also assured by Decree no. 73,626/74 and in article 7 of the Federal Constitution/88 and it is fundamented in the biological order so that with the worker's inactivity preserves his physical and mental health so that after a certain period he restores part of his physical and psychic strengths. The weekly remunerated rest is assured to the rural worker, of 24 consecutive hours, preferably on Sundays,

on religious and civil holidays, according to the local tradition (established by the County)⁽¹¹⁾. Besides that, it was observed that an increase in the production can be achieved with the introduction of prerogatives such as the possibility of the worker to decide when to have his break to rest. So, the new requirements of production mean an increase of initiative, responsibility and motivation⁽¹²⁾.

Besides that, still according to Decree no. 73,626/74, in any continuous activity above six hours, the concession of a break of at least one hour is mandatory, and it cannot exceed two hours. However, in case the journey is at least four and at the most six hours long, a break of at least fifteen minutes will be granted. The legislation also establishes that, in case the concession of break to rest or to eat, the employer must pay the corresponding period with an increase of 50% on the regular value of the remuneration. This break will not be included in the duration of the work. Between two working journeys a minimum period of 11 consecutive hours to rest must be established. In this research, some workers (23.4%) reported not to have any breaks during the working journey, which is against to what is established by law⁽¹¹⁾.

In general, it is evident that the rest promotes the prevention of occupational diseases, such as: RSI, WRMD, stress, among others, improving the quality of life of the workers and their output becomes better. Besides the physical benefits, the practice of rest provides psychological gains, decrease of the stress and an increase in the power of concentration, motivation and morale of the workers⁽¹³⁾.

So, the presence of fatigue in the rural workers was expected, once the farmers reported a series of factors which are potentially unleashing of fatigue, such as: weight carrying, inadequate postures, multiple occupations, the need to stand on foot and under the sun for too long and excessive working hours, among others. Besides that, the incorrect and forced working

posture may injure the worker and provoke fatigue, thus decreasing his functional capacity. This condition does not prevent him from performing his daily activities, on the contrary, in some cases, the subject continues performing his work with the same or even higher intensity and frequency than before. This condition of decrease of the functional capacity is reversible in most of the times and indicates that the condition of fatigue is a state of alert for the body, informing the subject that he must not go on with the activity his is performing⁽⁷⁾.

The adoption of working postures with little body mobility can be more tiring than the moderate dynamic efforts, once the postural comfort is more related to the possibilities of altering the posture, than establishing an ideal posture, once any adoption of prolonged posture is transformed in tiring or unbearable condition.

The increasing of fatigue in the middle of the working journey is directly associated to the characteristics of the rural work, which is performed many times in unfavorable environmental conditions, requiring an excessive physical overload of the workers⁽¹⁴⁾. It is observed that the fatigue existing in the rural work is more related to the conditions of work than to the working load, once the worker usually gets to work at 7:00am and goes home at 11:00am, going back to work at 2:00pm, and stays until 4:00pm.

The task of hoeing, subdivided in movement with the hoe (throwing and pulling) and removing the weeds with the hands, present a high risk of lesions or occupational diseases, especially in the cervical region (neck) and lower limbs, once it is done with a hard flexion of the head and shoulders which demand much effort of the muscles involved, to keep the posture forced and make repetitive movements⁽⁷⁾. These facts put together can be related to a high number of complaints of pain in the legs, back and lower backache, especially at the end of the working journey. Besides that, the use of several tools and the handling of machinery, chainsaws, sickle, machetes, among others,

are considered mechanical aggressors once the agents of a physical nature observed were solar radiation, extreme temperatures, cold and heat. The chemical agents observed were agro toxics and the medicine for veterinary use.

Some factors intrinsic to the organization of work were also noticed, such as long working journeys, cycles of intensive work related to the distinct phases of production, subaltern relations which have been perpetuated since the times of slavery, among others. Anyway, all these factors present at work add up or are empowered, in the presence of bad conditions of life, difficulty to access school, housing, basic sewage system and transportation, services of health and means of communication⁽¹⁵⁻¹⁶⁾. It is also highlighted that the work in unfavorable weather conditions produces nervous and physical extenuation, decreasing the output and increasing the error and risks of the accidents at work.

It is challenging to consolidate the model of attention to health of the worker, because its proposal requires the unveiling and confrontation of the unfolding of the capitalism for the social organization. It is therefore in a place of counter hegemony and capitalistic logic, which pursues the reproduction of the capital to the detriment of the conditions of life and health⁽¹⁷⁾. The lack of leisure to seventeen workers can be configurated as an additional risk, therefore the one without amusement time out of work is potentially more predisposed to develop some physical or even mental problem, once leisure is one of the determinant and conditioning factors for the health of any citizen.

The little knowledge of the rights of the rural workers, who, like all citizens, should have access to more dignifying conditions of work, with fixed working load and within the standards established by Law no. 5,889/73, regulated by Decree no. 73,626/74 and in Article 7 of the Federal Constitution/88, non exploitation of labor by the employers, investment in technology which can ease the overload of the personnel, and

better salaries, among others⁽¹⁸⁾. So, the investments and look on the population of rural workers are necessary in order to provide change in the conditions of work and consequently in their health once they are essential to the maintenance of the country and provide most of the food we eat.

CONCLUSIONS

The labor fatigue is something present within the environment of the Rural Worker in the county of Bom Jesus, PI, Brazil. However, despite its importance due to the noxious consequences and high frequency (75.8%) in the interviewed workers, it is not yet treated as a problem by the workers once it is understood as something inherent to the performance of their work.

It was observed that the level of intense fatigue was more prevalent; a fact which is compatible with the conditions of work reported by them, where the majority has extensive working load, more than one occupation and extenuating work under unhealthy conditions. On the other hand, despite that recognition, the worker still shows conformism with this situation, reporting, in some cases, that there is nothing that can be changed to improve their working conditions.

That situation shows lack of knowledge of the labor laws, of their rights and the preventive measures, which ends up exposing these professionals even more to risks present in the working environment. Therefore, it is necessary to have a better organization of the work, whether to cooperatives or associations, and also improvement in the image and credibility of those organizations, in order to have an3 effective decrease of the labor stress.

COLLABORATIONS

Oliveira KNS and Bezerra LR contributed with analysis, interpretation of data, writing of the article and final approval of the version to be published. Bezerra MAR,

Oliveira KNS and Carneiro CT contributed for the conception of the data.

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