Evaluation of the quality of life of the workers of a ceramics factory in Brejo Santo – CE

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Cicera Tavares de Lucena
Master's Student in Health Management
State University of Ceará

Josefa Taynara Gomes dos Santos
Undergraduate Student in Nursing
Santa Maria College

Jennyfer Morato Alves
Undergraduate Student in Nursing
Santa Maria College

Ana Maria Braga de Oliveira
Msc in Production Engineering
Federal University of Paraíba (UFPB)

Maria Salete Bessa Jorge
Phd in Nursing
Phd in Nursing from the University of São Paulo
State University of Ceará

Andrea Cavalcante Macedo
Master's Student in Health Management
State University of Ceará

Isadora Macedo Lima da Asunción
Master's Student in Health Management
State University of Ceará

Gandavya Aguiar Machado Diniz
Master's Student in Health Management
State University of Ceará

Edypo de Sousa Carlos
Master's Student in Health Management
State University of Ceará

Daniele da Silva Araújo
Master's Student in Health Management
State University of Ceará

Caroline Monique Rego das Chagas Dantas
Master's Student in Health Management
State University of Ceará

ABSTRACT

Quality of Life is defined as the individual's perception of his position in life, his goals, expectations and concerns contextualized in the culture in which he lives. In this way, the present study aimed to evaluate the quality of life of ceramists. This was a descriptive and quantitative approach, being made of a sample of 20 ceramists. The data were collected using a semi-structured questionnaire containing socio-demographic interrogations and specific research questions. The data obtained were presented and discussed according to literature relevant to the topic. The results showed that the majority was male, married and with a mean age of 35.55 years. Evaluating the states of health, 75% showed a good physical condition and 70% good emotional and mental states. In organizational terms, 70% reported a very hot environment, 80% reported no discomfort with noise and 90% considered the place with good lighting conditions, although 10% reported burning eyes. All participants had body discomfort, predominating in the lower column. Regarding quality of life, we found a higher percentage of workers that sets to have a good quality of life and that this is related to perception of each one. According to the results, quality of life has important connotations to be expanded, particularly with regard to the working class, both in the organizational aspects of the company as the quality of life of workers participating in the research.

Keywords: Welfare, Company, Occupational Health.

1 INTRODUCTION

Ribeiro (2009) states that there are numerous concepts of quality of life (QoL). Interest in the study of quality of life has been growing in various areas of human activity. It is subjective, multidimensional and influenced by several factors related to education, economics and conceptual aspects, and there is no consensus as to its definition (PINTO NETO; CONDE, 2008).

According to Seidl and Zannon (2004, p. 583), QoL was defined as: "the individual's perception of his position in life, in the context of the culture and value systems in which he lives, and in relation to his goals, expectations, standards and concerns".

In the health area, the interest in studies on QoL is relatively recent and stems, in part, from the new paradigms that have influenced the sector's policies and practices in recent decades. According to this paradigm shift, the improvement of QoL has become one of the expected results, both of care practices and of public policies for the sector in the fields of health promotion and disease prevention (SEIDL; ZANNON, 2004).

Quality of Life at Work (QWL) has been an alternative for managers aiming at the well-being of their employees, involving the concern with the satisfaction of people's needs and the humanization of work relations (BOSSARDI, 2003).

The search for productivity and quality has been the main factor for companies to provide QoL within organizations, since by promoting the health and well-being of their employees, they obtain an increase in the motivation, satisfaction and performance of workers (JULIÃO, 2001).

Occupational Health is a specific field of public health, which operates through its own procedures with the purpose of promoting and protecting the health of people involved in the exercise of work. Within this context, attention is drawn to Physical Therapy as a branch of health that studies, evaluates, prevents and treats human movement disorders resulting from alterations in organs and systems (BRASIL, 2001).

The preventive interventions currently carried out work with a group of activities centered on individuals. However, there are those who advocate prevention strategies such as changes in the organization of work, the improvement of workplaces, rest interspersed with the working day and the awareness of workers through educational activities (DELIBERATO, 2002).

According to Nascimento and Moraes (2000), physiotherapy has been shown to be useful within companies, as it is qualified to analyze the employee as a whole, acting in a preventive way, generating physical and emotional well-being in the work environment and in a curative way within the workplace itself, where it provides greater interaction between treatment and work without difficulty or interruption of treatment.

The theme was chosen due to the magnitude of the problem, the lack of knowledge of the working class in relation to a good QoL and the importance of addressing the theme through society. In view of the above, the following question arose: "How is the QoL of ceramic workers?"

In this sense, the curiosity was aroused to investigate the quality of life of the workers of a ceramics factory in the city of Brejo Santo-CE, in order to know the QoL and from there to be able to develop health promotion actions aimed at these workers, which will contribute to the improvement of the quality of life, and consequently to an improvement in the well-being. greater motivation and satisfaction of the professionals, because for a good professional performance it is necessary to have a good quality of life, since it was perceived in the literature consulted that there was a deficiency in the health care of the workers.

Therefore, this study is considered to be of great relevance to expand personal and professional knowledge so that it can serve as a subsidy for a better quality of life for this class of workers. It aims to evaluate the quality of life of potters, and more specifically to investigate the aspects that interfere in the improvement of quality of life; outline the environmental and organizational conditions existing at the site; and identify the operators' areas of bodily discomfort.

2 THEORETICAL FRAMEWORK

2.1 QUALITY OF LIFE

The expression quality of life (QoL) has several aspects, ranging from the popular concept, widely used today, to the scientific perspective, with various meanings in the medical literature (PEREIRA et al.,2006).

According to Leal (2008), defining quality of life is not a simple task. The concept is complex, ambiguous, broad, fickle and differs from culture to culture, from time to time, from individual to individual and even in the same individual it changes over time: what is good quality of life today may not have been yesterday and may not be in some time.

According to Seidl and Zannon (2004, p.583), QoL was defined as:

> [...]the individual's perception of his or her position in life, in the context of the culture and value systems in which he or she lives, and in relation to his or her goals, expectations, standards, and concerns. It is a wide-ranging concept that affects in a complex way the physical health, psychological state, level of independence, social relationships and relationships with the characteristics of the individual's environment.

According to Vecchia et al. (2005), quality of life is related to self-esteem and personal well-being (subjective) and encompasses a series of aspects such as functional capacity, socioeconomic status, emotional state, social interaction, self-care, cultural and ethical values and religiosity, satisfaction with daily activities and/or with work and the environment in which they live.

It can be seen that QoL involves multiple meanings, knowledge, experiences, individual and collective values, in addition to being a social construction. Due to this multidimensional character, there are several definitions obtained in the specialized literature, which defines the individual's perception of his position in life and in relation to his goals, standards and concerns (PAULO et al., 2008).

During the 90's, Leal (2008) researched the definition and evaluation of quality of life in the area of health, concluding about the lack of clarity and consistency both with regard to the meaning of the concept and its evaluation, and even today this deficiency is still noticed, despite the existence of numerous definitions and more and more instruments for assessing quality of life.

In fact, QoL seeks to improve life for men. In making this statement, it is based on the thesis that one of the main characteristics of the human species, probably what differentiates it from the others, in addition to the logic in relation to work, is the eternal need to want to live well, to try to overcome the most adverse conditions, even if this attempt may be seen by others as inexpressive (FRAGOSO, 2008).

Ribeiro (2009) explains that the term quality of life had been used around 1920 in the context of working conditions and their consequences on the well-being of workers, but disappeared until the 2nd half of the twentieth century. political, ideological and other factors, instigated mainly by the interest of the United Nations in the 1950s in measuring the living standards of various world communities.

Kluthcovsk and Takayanagui (2007) point out that the term was first mentioned in 1964 by Lyndon Johnson, then president of the United States, who stated: "... Targets cannot be measured through banks' balance sheets. They can only be measured through the quality of life they provide to people." And, after World War II, the term came to be widely used, with the notion of success associated with the improvement of the standard of living, mainly related to obtaining material goods, such as one's own home, car, salary and acquired goods.

2.2 QUALITY OF LIFE AT WORK

Historically, quality of life at work (QWL) emerged in the mid-1950s, in England, with studies by Eric Trist, based on the individual-work-organization relationship. In view of this, the socio-technical approach of the organization emerged, based on the satisfaction of the worker in and with the field of work (MONTEIRO et al., 2007; JULIÃO, 2001).

According to Freitas (2005), it was during the 1960s that the movement to improve the quality of life of workers gained momentum, due to aspects of workers' individual reaction to work experiences. In the 1980s, QWL gained importance as a global concept and as a way to address quality and productivity problems.

According to Souza Junior (2003), the quality of life at work has always been a constant concern of man since the beginning of his existence, but the global social and economic evolution has, at various times, left this subject aside in favor of the constant search for greater wealth and constant accumulation of capital. But the incessant struggle of the worker to find the means to facilitate his daily tasks and transform them into something pleasurable became a target of study, starting with the liberal economists and later passing through the Scientific Administration and the School of Human Relations.

Currently, QWL has been gaining a growing and well-founded concern, since organizations have been increasingly seeking the well-being of their employees so that they can become competitive and reach the globalized market (MONTEIRO et al., 2007).

Lacaz (2000) points out that the World Health Organization (WHO), in 1979, advocated the strategy of developing special programs for workers' health care in order to promote improvements in the conditions of quality of life at work in developing countries. Therefore, there is a debate that emphasizes the possibility of organization from the workplace, in order to enable a discussion of demands in a democratic and egalitarian manner, with the objective of submitting issues related to competitiveness/productivity and product quality to the quality of work and the defense of life and health at work.

The interest and concern with QWL increased during the industrial revolution, in which workers fought for better working conditions and working hours, and fairer remuneration, where, from then on, it became evident that the labor necessary for production would be moved by man with feelings, interests, perspectives and personal achievements. where these aspects could interfere with production (PEDROSO et al., 2008).

Despite numerous studies on this topic, the concept of QWL is far from unanimous. Ayres (2000) clarifies, however, that the various concepts of QWL are generally focused on three main aspects: the restructuring of the design of positions and new ways of organizing work; the formation of semi-autonomous or self-managed work teams; and the improvement of the organizational environment.

Therefore, quality of life at work nowadays can be conceptualized as a program that aims to facilitate and satisfy the needs of workers when developing their activities in the organization (CONTE, 2003).

With a more comprehensive and complete approach, Salles and Federighi (2006) define QWL as the dynamic and contingent management of physical, technological and socio-psychological factors that affect culture and renew the organizational climate, reflecting on the well-being of workers and the productivity of companies.

Another definition proposes that this can be understood as a set of actions of a company that involves diagnosis and implementation of improvements and innovations inside and outside the work environment (MONTEIRO et al., 2007).

The term quality of life has been used by several areas. In the business area, it sometimes presents a "functionalist" view and can be a new form of exploitation of the worker. Measures that should be related to the areas of education, health and leisure can be replaced by measures that aim, in reality, at higher product quality and higher productivity (PASCOAL et al., 2006). Silva and Faria (2008) state that an employee always wants to be part of the gear: to work, to make suggestions, to debate ideas, to help the company grow. No one wants to be compared to a robot that just takes orders and simply executes them.

In this context, Rodrigues (2009) reports that currently, this view of mechanistic man has undergone major transformations on the part of companies, because human beings have started to assume a strategic role in the face of the new approaches of continuous improvement proposed by programs aimed at the search for total quality. For this reason, man came to be considered no longer as a simple cog in the productive system, but rather as the fundamental element for the whole system to function.

Thus, it is clear that QWL can only be achieved with the integration of the employee and the boss. The employee noticing and discussing their interests and aspirations. The employer providing conditions and promoting employee satisfaction, thus improving the company's productivity (SILVA; FARIA, 2008).

According to Bossardi (2003), nowadays the use of this term has been used differently every day, becoming more and more a concern for companies, due to the connection between the appropriate conditions for carrying out productive work, that is, if the company does not offer good conditions, it will certainly have unmotivated employees, and as a consequence, it will not be able to achieve the objectives set by it, lowering productivity.

Therefore, it can be seen that an organization must meet the physical, psychological and financial needs of the employees who are part of it, and must be concerned with several points such as: work environment, interpersonal relationships, available resources and equipment, food, health, safety, remuneration, recognition and stress level. Finally, the company must be aware of the needs described above, and must also always be seeking to receive feedback from employees, to identify failures and develop solutions and improvements. (BOSSARDI, 2003). Therefore, the quality of the product depends on the quality of life of the people who are involved in the activities related to the products (JULIÃO, 2001).

2.3 PHYSIOTHERAPY IN OCCUPATIONAL HEALTH

In Brazil, the relations between work and workers' health form a mosaic, with multiple work situations coexisting characterized by different stages of technological incorporation, different forms of organization and management, relationships and forms of labor contracts, which are reflected on the living, falling ill and dying of workers (BRASIL, 2001).

In this scenario, physical therapy is at an important moment in the confirmation of its actions in studies aimed at workers' health. The existence of the physiotherapist within the companies clarifies a situation of job satisfaction, a healthy and involuntary acceleration in business productivity, greater legal protection, a better image of the work environment, leading to an increase in the company's profits (COELHO, 2010).

According to Caetano et al. (2002), supported by COFITTO Resolution No. 259, of December 18, 2003, it is the responsibility of the Occupational Physical Therapist to identify, evaluate and observe the environmental factors that may constitute a risk to the functional health of the worker, at any stage of the production process, alerting the company about their existence and possible consequences; perform the biomechanical analysis of the worker's productive activity, considering the different demands of the tasks in their static and dynamic efforts; among other duties.

Deliberato (2002) states that occupational or professional health implies the sum of all efforts to improve the health of workers, both in their work environment and in the community. The basic objective is prevention at all levels, employing all kinds of efforts and strategies aimed at achieving full job satisfaction of the worker.

For Wiczick et al. (2005) Occupational Physical Therapy is a specialty that arose from the need to monitor workers' health based on some sciences, including ergonomics, biomechanics and physical activity at work, acting in the prevention, rescue and maintenance of workers' health. Its objective is the rehabilitation of complaints or physical disorders, under a multidisciplinary and interdisciplinary approach. It also has the purpose of improving the quality of life of the worker, avoiding the manifestation of musculoskeletal pathologies of occupational or non-occupational origin, with consequent increase in well-being, performance and productivity.

The adoption of new technologies and management methods facilitates the intensification of work, modifying the profile of illness and suffering of workers, expressed, among others, by the increase in the prevalence of work-related diseases, such as Work-Related Musculoskeletal Disorders (WMSD) and Repetitive Strain Injuries (RSI) (BRASIL, 2001).

Since the 1980s in Brazil, after the appearance of the RSI/WMSD phenomenon, prevention and treatment programs, in practice, have proven to be a difficult problem to solve without a planning of actions and a schedule of priorities. The globalization of the economy and technological development have demanded from professionals in the area of occupational health and safety a continuous

performance, adapting the new working conditions to the worker (WICZICK et al., 2005). Due to this fact, the performance of Physical Therapy in companies grows every day, mainly due to the discovery of the importance of investing in preventive actions in the fight against work-related musculoskeletal disorders (SANTOS et al., 2010).

The occupational physiotherapist evaluates, prevents and treats disorders or injuries resulting from work activities, carrying out the ergonomic study of the work with the occupational health and safety team, gives lectures on awareness, qualification and preventive training of occupational diseases, performs postural assessment of workers and biomechanical analysis of tasks at the workplace, develops workplace gymnastics programs and is responsible for the outpatient treatment program for musculoskeletal complaints with the use of all physical therapy resources available through an outpatient clinic that may or may not be located within the company itself (WICZICK et al., 2005).

In this way, occupational physiotherapy brings quality of life programs closer to the company's profit, working on awareness, information and partnership with workers regarding the importance of health, generating a mutual commitment to the longevity of men at work with health maintenance.

3 METHODOLOGY

3.1 TYPE OF STUDY

The present study was conducted in a descriptive design with a quantitative approach.

For Silva and Menezes (2000), descriptive research aims to describe the characteristics of a given population, phenomenon or the establishment of relationships between variables involving the use of standardized techniques for data collection such as: questionnaire and systematic observation.

According to Fioreze (2002), quantitative research consists of quantifying opinions, data, information with the use of resources and statistical techniques, from the simplest, with percentages, to the most complex, such as correlation coefficients.

3.2 STUDY LOCATION

The study was carried out in a Ceramics Factory in the city of Brejo Santo – CE. This city is located in the mesoregion of Southern Ceará and the capital Fortaleza/CE, with an estimated 45,190 inhabitants, according to a census carried out by IBGE in 2022.510 Km

3.3 POPULATION AND SAMPLE

The study population consisted of all employees of the Ceramics Factory, totaling 28, and the sample consisted of 20 employees. The inclusion criteria used were: to hold the position of ceramist,

agree to take part in the research and sign the Free and Informed Consent Form; The exclusion criterion was to have been in the company for less than 3 months.

3.4 INSTRUMENT

For data collection, a semi-structured questionnaire was used, presented in two parts, in the first part it contained the personal identification and socio-demographic characteristics of the participants. The second part addressed data related to the theme that contributed to the objectives of the research. This type of data collection instrument presented previously elaborated questions based on the research objectives (FIGUEIREDO, 2007).

3.5 DATA COLLECTION

According to Chizzoti (1991), data collection is a step that requires a large amount of time and work to gather the information. It presupposes the careful organization of the technique and information of appropriate instruments for recording and reading the data provided in the field.

After approval by the Research Ethics Committee, the data were collected through the application of the questionnaire divided into two parts, the first with socio-demographic data and the second with specific questions from the research, where the purpose of the research was explained and the Free and Informed Consent Form was presented. Then, the questionnaire was applied and, finally, the professionals were thanked for their participation.

3.6 DATA ANALYSIS

Data analysis is characterized by the interpretation, articulation and systematized description of the content explored during data collection (MARCONI; LAKATOS, 2003).

The data were analyzed using simple descriptive statistics, presented in graphs and tables prepared from the Microsoft Excel program and discussed according to the relevant literature.

3.7 ETHICAL ASPECTS

To carry out this study, the assumptions of Resolution 196/96 of the National Health Council – Ministry of Health, which provides for research with human beings, were taken into account (BRASIL, 1996).

The research participants signed the Free and Informed Consent Form, were informed that they are free to refuse to participate in the study, withdraw their consent or interrupt their participation at any stage of its development, without this causing any harm or embarrassment. And that their participation will not entail costs and no financial compensation will be available, it was also informed

that the participation would be voluntary and the refusal would not entail any type of penalty and the identity of the participants will be kept anonymous.

4 RESULTS AND DISCUSSION

In this phase of the study, the results of the research were addressed and discussed, in which they were organized in graphs and tables and analyzed according to the relevant literature. For a better interpretation of the results, the data were divided into two phases, the first focused on socio-demographic characteristics and the second related to specific research questions.

4.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS

All study participants were male. The dominance of males is justified by the characteristics of work in the ceramics sector being extremely heavy and carried out in conditions that are often unhealthy and unsafe.

The classification of the participants, according to age, revealed a mean age of 35.55 years (SD=10.02). The minimum age among the respondents was 19 years old and the oldest employee who responded to the survey was 54 years old. It should be noted that the vast majority, 80.0% of the workers, are younger than 50 years of age, with an age range between 19 and 35 years of age, comprising 60.0%, which characterizes the participants of this study as a group of young adult workers presented in Table 1.

Table 1 - Distribution of workers according to age

Age (years)	*f*	%
19 to 35 months	**12**	**60**
36 to 45 months	3	15
46 to 50	3	15
> 50	2	10
Total	**20**	**100**

SOURCE: Authored by the authors.

These data reveal a sample of potentially productive individuals, according to the data available by the Ministry of Health, which considers productive individuals in the age group of 15 to 64 years (DATASUS, 2009).

The Synthesis of Social Indicators, which gathers a set of indicators on the Brazilian social reality, reports that the age group of 25 to 49 years, in 2003, corresponded to 81.1% who were active in the country (IBGE, 2004), the highest index by data groups that follow those found in this study.

The classification of the population in relation to marital status shows a predominance of married individuals (65.0%), since the search for matrimonial union is made in the young adult class and the sample belongs to the adult class. Data collected by the IBGE (2000) show that 37.07% of the Brazilian population remains married, which is consistent with the results of this study in Table 2.

Regarding the level of education, 65.0% of the potters had incomplete elementary schooling, which ratifies the characteristic of the potters sector, which is to have workers with a low level of formal education, and this activity does not require a high level of education, as it is a manual activity. It is also noteworthy that only 10.0% of the population has completed high school.

Table 2 - Distribution of the study population according to marital status and schooling

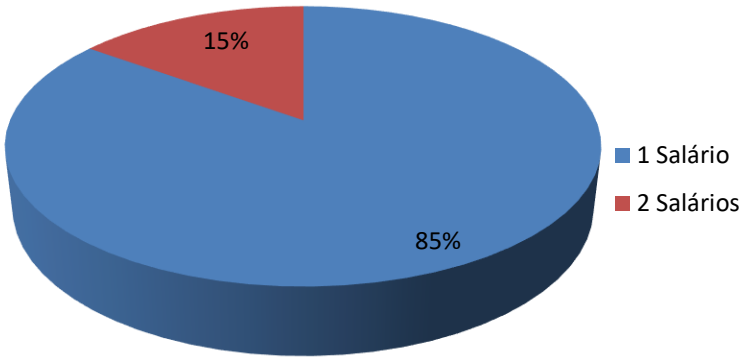
Variable	*f*	%
Marital status		
Single	7	35,0
Married	**13**	**65,0**
Schooling		
Illiterate	1	5,0
Teaching Fund. Incomplete	**13**	**65,0**
Teaching Fund. Complete	4	20,0
Complete High School	2	10,0
Total	**20**	**100**

SOURCE: Authored by the authors.

According to the Brazilian Institute of Geography and Statistics - IBGE (2004), the average number of years of schooling of Brazilians, in general, has shown a slight increase in recent years, from 5 years on average in 1993 to 6.4 years in 2003. The subjects of this research were within this average, considering that the position developed does not require a high level of education.

In relation to income, it can be observed that 85.0% of the workers had a salary of 1 (one) minimum wage. A very low amount, as they do not receive additional food and health, which can negatively influence their health, providing limited access to health services and poor eating habits.

Graph 1 - Representation of data regarding the participants' salary income



SOURCE: Authored by the authors.

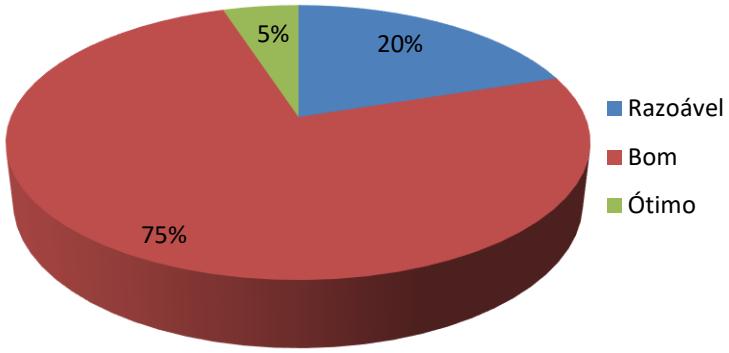
In view of the results, data from the IBGE (2004) state that in order to increase family income, almost half of the economically active Brazilian population works a lot of overtime, or already has more than one job.

4.2 RESEARCH-SPECIFIC DATA

4.2.1 Health status

With regard to physical status, it was noticed that most of them, 75.0% of the study population, were at a good level, as shown in Graph 2.

Graph 2 - Representation of the data regarding the physical state of the participants



SOURCE: Authored by the authors.

These results may be due to the freedom to move, i.e., they are workers who do not remain in one position for an extended period. Thus, the fact that they perform a work predominantly where dynamic muscle activity occurs, with alternating contractions and relaxations, activates the circulation in the capillaries, increasing the amount of oxygen and resistance to fatigue and consequently maintaining a good physical condition (MCARDLE et al., 2003).

Age is probably another aspect that also contributes to the physical condition being considered good, since there is an average age of young adults. Although the participants considered their physical condition to be good, they did not perform physical activity, which could contribute to better physical endurance and consequently health in general.

Regarding the practice of physical activity, Kretty (2006) states that many people are sedentary because of the professional activity they perform or even because of the lack of company and encouragement to exercise, a sedentary person can lose about 10% of muscle mass between 20 and 30 years, since the practice of regular physical activity increases self-esteem, Energy, mobility, consequently decreases disability and improves reality and production at work.

Regarding abdominal circumference, the workers surveyed had an average of 86.50 cm. Regarding waist circumference, the ideal measurement would be up to 95 cm for males, higher measurements are twice as risky when compared to individuals of the same age and sex (MCARDLE et al., 2003; POTTER; PERRY, 2005).

Abdominal obesity is associated with environmental and lifestyle factors, which are the most significant factors for the occurrence of overweight worldwide. However, measures to control and

prevent modifiable risks are linked to the adoption of a lifestyle, which is shown to be strategies capable of reducing the negative impact on the quality of life of individuals (OLIVEIRA et al., 2009).

Regarding the body mass index (BMI) of the population studied, 75.0% had BMI between 18.5 and 24.9 kg/m², which were classified within the normal standards with regard to body mass index, according to data from the study in Table 3.

Table 3 – Presentation of BMI results of the research participants

Variable	*f*	%
BMI		
Baixo peso (< 18,5Kg/m²)	4	20,0
Normal (18,5 – 24,9Kg/m²)	**15**	**75,0**
Overweight (25.0 – 29.9Kg/m²)	1	5,0
Total	**20**	**100**

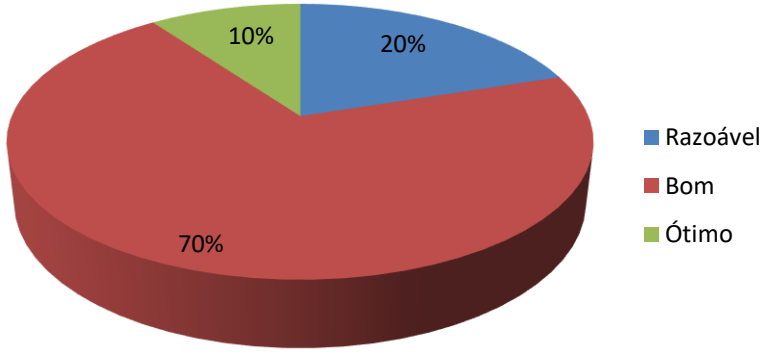
SOURCE: Authored by the authors.

According to the Social Service of Industry - SESI (2009), the body mass index together with personal habits, such as smoking, alcohol and drug consumption, characterize this population's high risk for the development of cardiovascular diseases, obesity, dyslipidemias, diabetes mellitus, among others.

Failure to perform physical exercise may also imply other problems, such as, for example, musculoskeletal disorders, since the work of the subjects is essentially physical, which requires good conditioning, a situation that is probably not present and corroborated by the high number of workers.

The emotional and mental states presented similar results, 70.0% of the subjects stated that it was good, followed by 20.0% reasonable and 10.0% excellent. What can be interpreted is that all conscious or unconscious reactions are translated by the body and manifested in various ways, altering health and attempts to balance or disguise feelings and emotions in Graph 3.

Graph 3 - Characterization of the data according to emotional and mental states



SOURCE: Authored by the authors.

For Potter and Perry (2005), emotional health is associated with the individual's ability to solve personal and professional tasks. The pursuit of these goals can cause several changes that will reflect on well-being and quality of life in objective and subjective conditions.

According to Kluthcovsky et al. (2007) Both emotional and mental aspects influence the quality of life of workers, both in terms of burnout and professional stress. These factors have become a major threat to all workers, and can affect the quality of life, causing dissatisfaction with repercussions on the quality of work.

4.2.2 Organizational conditions of the company

The company where the research was carried out has been operating for 20 years in the ceramic production market, with a staff of approximately 30 employees, distributed among the following sectors: production, maintenance, administrative and general services assistant. The productive sector has 20 potters, who work 45 hours a week from Monday to Friday, with one hour for lunch breaks.

Regarding environmental conditions, Table 4 shows the thermal perception of the work environment, in which 70.0% of the participants reported that the environment is very hot. However, a part of the sample, 35.0%, preferred a cooler environment and 30.0% a slightly cooler environment, data that indicate that workers do not find the temperature of their work environment adequate.

Table 4 - Perception and thermal preference of the environment

Variable	*f*	%
Thermal perception		
With a lot of heat	**14**	**70,0**
With heat	4	20,0
Slightly warm	2	10,0
Thermal preference		
Just like that	2	10,0
A little more refreshed	6	30,0
More refreshed	**7**	**35,0**
Much more refreshed	5	25,0
Total	**20**	**100**

SOURCE: Authored by the authors.

Neckel and Ferreto (2006) point out that working in hot environments, in turn, causes changes in the body, such as peripheral vasodilation and sweating, as a result, the worker decreases his performance, the degree of concentration drops, breaks are more frequent and errors and accidents tend to increase. These difficulties, related to the infrastructure, are reflected in the mental environment, in the working relationships and with the potters.

Therefore, maintaining a comfortable climate is essential for well-being and performance at peak efficiency.

Regarding the acoustic environment, 80.0% of the participants considered that the place does not present bothersome noise. As a result of these data, 75.0% did not present significant complaints regarding noise in the work environment, as shown in Table 5.

Table 5 - Acoustic perception of the environment and manifestations caused

Variable	*f*	%
Acoustic perception		
Harmful to health	1	5,0
Nuisance	3	15,0
Not bothersome	**16**	**80,0**
Manifestations		
Lack of concentration	1	5,0
Sleep disturbance	1	5,0
Difficulty understanding conversations	3	15,0
I don't feel a thing	**15**	**75,0**
Total	**20**	**100**

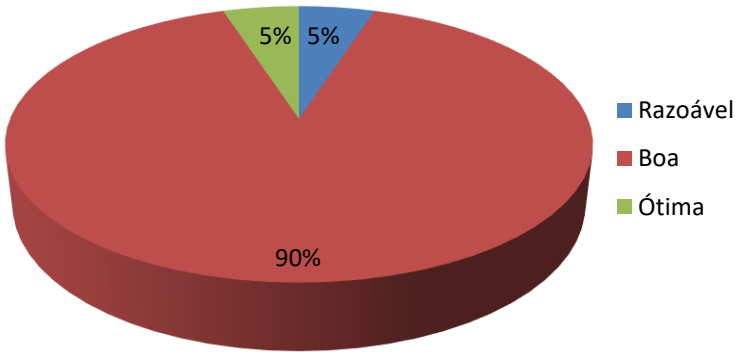
SOURCE: Authored by the authors.

According to Oliveira (2001), the noise tolerance defined by Brazilian legislation is 65 dB for eight hours of exposure, and the most evident consequence of noise is hearing loss, which can be temporary or permanent. Noise above 90 dB interferes with verbal communication and people tend to speak louder and have difficulty paying attention to be understood.

The presence of noise in the work environment increases psychological tension and the level of attention, interfering with the quality of work, mental concentration and attention or speed and precision of movements, especially in the case of an activity where concentration is essential.

Regarding the workers' perception of general lighting, knowing that the values can vary from excellent to very bad, with excellent being considered strong lighting or excessive lighting and very bad being considered insufficient lighting, the results presented in Graph 4 were obtained.

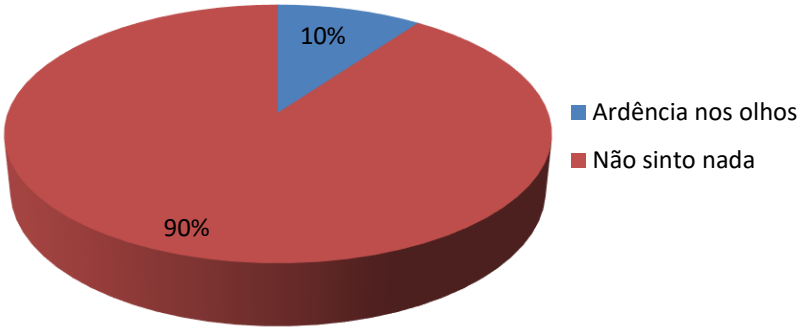
Graph 4 - Perception of lighting in the work environment



SOURCE: Authored by the authors.

Analyzing these data, it can be seen that the values reported by the majority 90.0% of the participants are considerably reasonable, which indicates neutral (comfortable) lighting.

Graph 5 - Eye manifestations



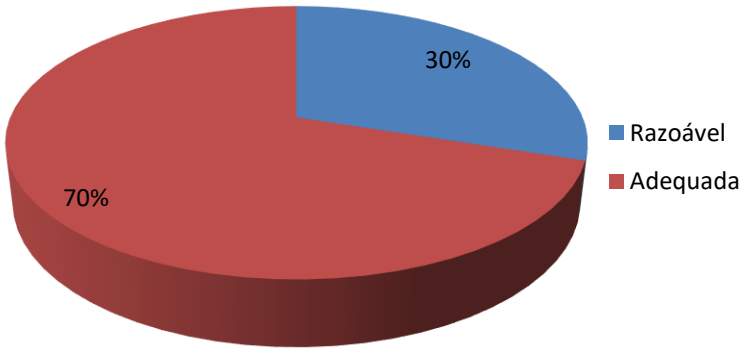
SOURCE: Authored by the authors.

Although most of them reported a well-lit environment, 10.0% of the participants reported burning eyes due to the lighting.

ABNT (1992) states that the NBR 5413 standard determines minimum average illuminance values of 300lux for artificial lighting in interiors. As already verified, the work environment fits into NBR 5413, and did not present relevant visual discomfort according to its occupants.

With regard to the working day of the ceramics factory visited, it lasted 9 hours a day, from Monday to Friday. The workday started at 6:30 a.m. and ended at 5 p.m., and the lunch break lasted 1 hour, between 11:30 a.m. and 12:30 p.m., totaling a 45-hour workweek. The majority, 70.0% of the ceramists interviewed were satisfied with the working day and 80.0% are satisfied with the work shift.

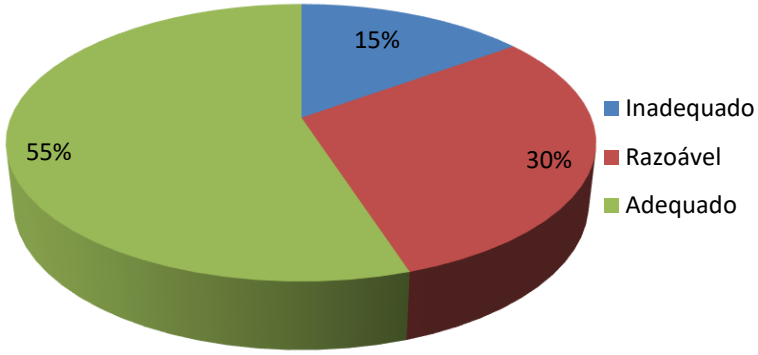
Graph 6 – Distribution of results according to working hours



SOURCE: Authored by the authors.

Regarding the pace of work, 55.0% of the workers were satisfactorily evaluated, a positive aspect that directly influences the quality of life of the individuals.

Graph 7 – Distribution of results according to work pace

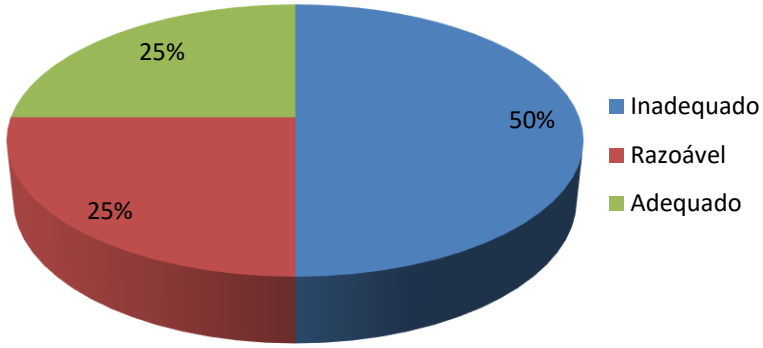


SOURCE: Authored by the authors.

According to Medeiros (2002), when perceived as an unsatisfactory rhythm, it can lead workers to reduced productivity and, in the long run, even to stress and occupational diseases.

Regarding training, 50.0% of the potters stated that it was inadequate and that they did not offer courses on safety at work to their employees, since all of them learned the profession within the ceramics themselves, observing the performance of the most experienced.

Graph 8 – Distribution of results according to training for task execution



SOURCE: Authored by the authors.

According to Iida (2005), the training for the performance of the activities makes the professionals able to perform their tasks and reduces work accidents, these can be done on an individual basis, especially the one that happens in the position itself, in which the apprentice is placed together with a more experienced worker and can also be done in a more systematized way when there is a large number of people to be trained.

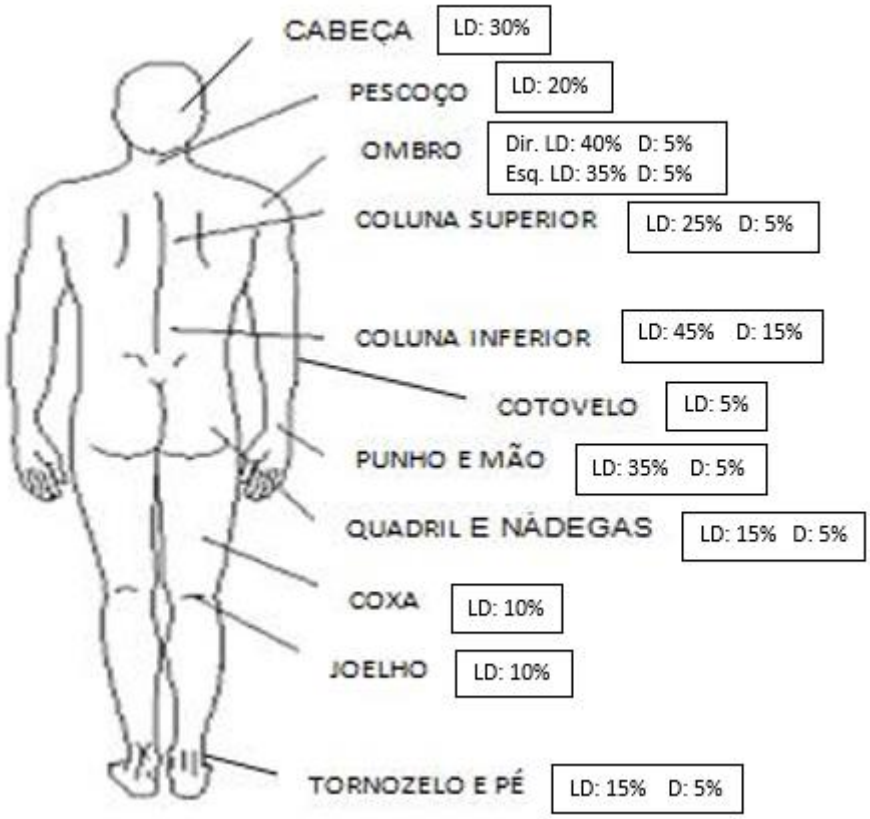
4.2.3 Bodily Discomfort

Regarding body discomfort, 100% of the people reported some discomfort in some part of the body.

Regarding the body part, it was observed that the places of greatest pain or discomfort were: shoulder, wrist, upper and lower spine, hip. The intensity of little pain or discomfort was in the following locations: head, cervical spine, shoulder, lumbar spine, elbow, wrist, hand, fingers, hip, knee and foot.

Figure 1 shows the map of the areas that may present bodily discomfort.

Figure 1 – Distribution of areas of bodily discomfort



Note: LD: slight discomfort; D: uncomfortable; Dir.: right; Left.

In view of the data in Figure 1, it was possible to verify that the employees present bodily discomfort, not only in one region, and the greatest involvement was in the lower spine 15.0% presenting uncomfortable pain. These values may be related to the posture adopted during the performance of the activities, in which they spend most of their time standing and squatting to manufacture and organize the material produced.

According to Moraes and Moro (2002), individuals who adopt the same body position during the workday can generate significant changes in the alignment of the body, and may present discomfort in the most requested muscles, the individual ends up acquiring a vicious posture in addition to other work-related problems.

The ideal work posture is one that the worker can freely choose and that can be varied over time, the design of the workstations or the task should favor the variation of posture, especially the alternation in having the sitting and standing posture (MIRANDA, 2005).

The continuous contraction of certain muscles to maintain a certain position eventually leads to the appearance of pain and discomfort. This is because static work is highly fatiguing and, therefore, whenever possible it should be avoided or relieved through changes in posture (IIDA, 2005).

Back pain affects approximately 70% of the Brazilian population, being the second cause of absence from work, second only to cardiovascular problems. Back pain reflects the result of inadequate posture that people end up adopting due to long working hours associated with lack of exercise (MIRANDA, 2005).

Ergonomics is directly linked to the work environment, which is characterized by the physical space that encompasses the worker and the execution of his activities. In this environment, human beings need to adapt to the environmental conditions of work and, consequently, these conditions have not always corroborated the health of these workers. Work has been recognized as an important factor of illness, triggering and increasing psychic disorders, its development occurs in a "silent" or "invisible" way, although it can also emerge acutely due to triggers directly caused by work (RODRIGUES, et al., 2005).

4.2.4 Quality of Life

According to the concepts of quality of life (QoL) formulated by the workers, the veracity of their knowledge was based on the development of the study. The following are some of the concepts they said about what quality of life is.

> "live in peace and have a good job" (subject 3)
>
> "To be healthy and to live well" (subject 12)

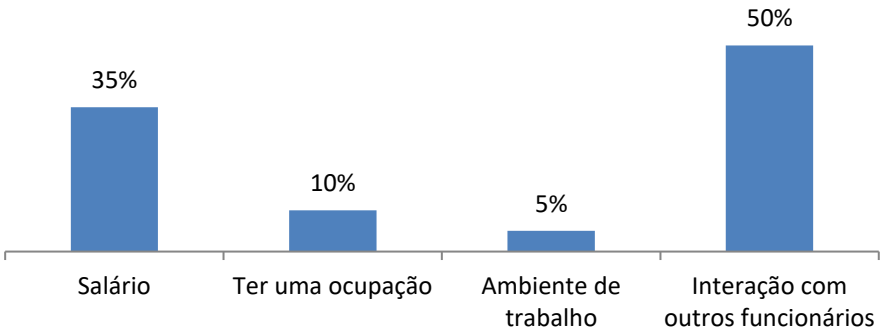
In view of the formulation of the concepts of quality of life by the workers, it was possible to perceive that they described what it means to have a job, to live well, to have a dignified life, to be healthy, to be happy so that it can be considered as healthy lifestyle habits.

Several studies in Brazil and around the world discuss the concept of quality of life – a term often confused with lifestyle, living conditions and living situations – and the most appropriate instruments for its assessment. Despite intense discussions on the subject, the definition of quality of life has not yet reached a consensus (PIMENTA et al., 2008).

These definitions reinforce the idea that the perception of quality of life is seen differently by individuals. It is as if each one put on a scale, on the one hand, their standards and expectations and, on the other, the reality in which they live.

Regarding the positive aspects that contribute to a good quality of life, 50% of the study participants reported that the interaction with other employees was the aspect that most positively affected them.

Graph 9 - Presentation of results in relation to positive aspects

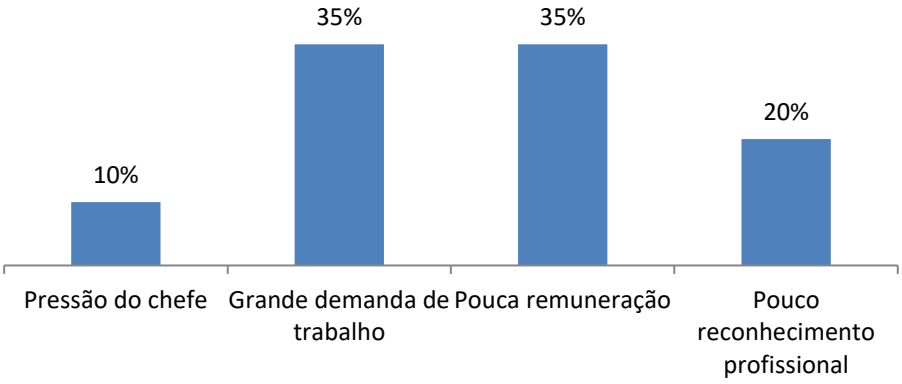


Source: Authored by the authors.

In a similar study, Rodrigues (2009) noticed that the greater the satisfaction and interaction among employees, the better the climate during the performance of work, as well as greater personal appreciation in the company, providing a significant improvement in the quality of life of workers. Thus, quality of life can be considered as satisfaction with physical and mental well-being and relationship with other people.

As for the negative aspects, there was a similarity in the results, which it was possible to perceive that 35% reported being the great demand for work and 35% the low remuneration.

Graph 10 - Presentation of results in relation to negative aspects



Source: Authored by the authors.

Penteado and Pereira (2007) state that these aspects show the devaluation of these professionals who, due to insufficient remuneration for their needs, see their possibilities for personal, social and professional investment reduced. The problem of wage degradation and the great demand for work has been pointed out as relevant in studies focused on the health and life issues of workers.

The study evaluated the QoL of the workers using a scale with established values from 0 to 10. For a better understanding of the values, it was necessary to establish scores to give concrete meanings to the answers. The values were divided into 0 to 2 meaning a very poor value, 3 to 5 regular, 6 to 8 good, and 9 to 10 an excellent QoL.

Of the interviewees, 35.0% stated that they had a quality of life corresponding to grade 8, thus demonstrating that the workers believe they have the means to provide a good quality of life. In view of the values obtained, they assume that there are many factors that influence the QoL of individuals, including objective and subjective aspects. This can be corroborated by Martins (2002), who considers that the understanding of the meaning of QoL that the worker has will interfere in a very positive way in the quality of life at work.

Table 6 – Evaluation of quality of life on a scale of 0 to 10

Variable	*f*	%
5	2	10,0
7	4	20,0
8	**7**	**35,0**
9	1	5,0
10	6	30,0
Total	**20**	**100**

Source: Authored by the authors.

The importance of the perception of what quality of life is for each individual in the research is given from their position in daily life and at work, which varies from one to the other are the desired objectives, the expectations generated and the levels of concern and responsibility. This demonstrates that the satisfaction described by them from this note can be related to personal and professional achievements, including health for themselves and their families, a good job that generates income and provides comfort and well-being, who still yearn for better perspectives in the search for optimizing their quality of life.

Minayo et al,. (2000), considers quality of life, good or excellent, to be that which offers a minimum of conditions so that the individuals inserted in it can develop the maximum of their potentialities, whether they are: living, feeling or loving, working, producing goods and services, doing science or arts.

QoL involves multiple meanings, knowledge, experiences, individual and collective values, in addition to being a social construction (PAULO et al., 2008).

Seidl and Zannon (2004) address quality of life as the individual's perception of his or her position in life, in the context of the culture and value systems in which he or she lives, and in relation to his or her goals, expectations, standards, and concerns. This concept broadly encompasses a person's physical health, psychological state, level of independence, social relationships, personal beliefs, and relationship to salient features of a person's environment.

Klutchovsky, et al., (2007) state that over the years, the concept has expanded, lately, factors such as satisfaction, quality of relationships, personal fulfillment, perception of well-being, leisure opportunities, freedom and happiness have been valued. Thus, there is a growing change in focus when it comes to quality of life, with the intention of considering objective and subjective aspects.

Job satisfaction is one of the fundamental pillars in the construction of quality of life, because work occupies a large part of life, establishes relationships and dimensioning different possibilities that emerge from its greater or lesser social appreciation. The quality of life also reflects the degree of satisfaction found in family, love, social, environmental life and for the existential aesthetics of individuals and collectivities (MARTINS, 2002).

Quality of Life at Work (QWL) is something that occurs within people and between people, in a relationship process based on mutual respect among all members of the group. This is a participatory process in problem solving, for which the company and workers will not only produce discussions and better solutions, but also a climate of greater satisfaction with people at work (ROSA, 2006).

According to Medeiros (2006), QWL Programs seek to identify the factors that interfere with individual satisfaction and, within the limits of resources available by the company, make them more favorable to the perception of employees, so that they feel motivated and engaged in the production process. The individual's way of living is directly related to the quality of life at work, that is, the greater the fulfillment at work, the greater the personal fulfillment.

These programs promote improvements in working conditions and, in most cases, are restricted to issues of hygiene, cleanliness and greater organization in the workplace. However, they fail to cover fundamental points for workers' health, such as shift work and the physical and mental overloads of work, which have negative consequences for quality of life (MARTINS, 2002). Thus, the quality of life at work is directly related to the satisfaction of needs, the achievement of goals, the maintenance of ideals and the health of the worker. Therefore, quality rises and becomes more refined to the extent that man satisfies a greater number of his needs, becoming independent (LENZI; CORRÊA, 2000).

It can be seen that the search for personal and professional fulfillment is part of human nature and is as old as its existence. However, in order for a person to feel fulfilled, it is necessary to satisfy several needs such as being healthy and being well with themselves and with the work environment in which they live, all of which can be considered that the individual has a good quality of life and also a good quality of life at work (SEIDL; ZANNON, 2004).

5 FINAL THOUGHTS

Quality of life has been more studied in recent years, including in Brazil, and, despite being complex, it is a current and relevant topic, especially when related to health promotion.

The theme of quality of life is challenging, because the search for definition is something that requires extensive reflections and studies. This theme has been common discussions in today's society, especially in the search for improving the definition and improving the conditions of the population.

Quality of life is undoubtedly extremely important for the success of the company, because for a good professional performance it is necessary to have a good quality of life. In occupational health, the purpose of this study is to facilitate and satisfy the needs presented by these workers, requiring greater attention, since it is at work that the individual spends most of his time.

The study sought to evaluate the quality of life of the workers, in which the following results were obtained: predominance of males, married with a mean age of 35.55, in which the majority had an incomplete level of elementary school, with an income of 1 (one) minimum wage. Regarding health states, 75% had a good physical state and similar results to 70% in relation to emotional and mental states. Regarding the organizational conditions of the company, 70% reported a very hot environment, with a thermal preference of the cooler environment of 35% of the workers, 80% did not report discomfort with noise and 90% considered that the workplace had good lighting conditions, although 10% reported burning eyes. Regarding bodily discomfort, all participants presented with a greater predominance of shoulder, wrist, upper and lower spine and hips. Regarding quality of life, it was found that a higher percentage define having a good quality of life and that this is related to the perception of each one about their concept. Although the workers have a reasonably low wage income, they reported having a good QoL, because with this income they meet the needs and achieve the aspects that contribute to them considering their quality of life as good.

The results indicated several factors that contribute to the satisfaction of the quality of life of these workers. The concept of quality of life indicates that it has very important connotations to be addressed, especially in relation to workers. Therefore, a company must seek to satisfy the physical, psychological and financial needs of employees, and must be concerned with several points such as: work environment, interpersonal relationships, health, safety, remuneration, recognition and stress level.

According to the results achieved in the course of the research, it was found that the company has employees who consider to have a good quality of life at work, thus assuming that employees are working motivated and within a good working condition.

However, it is not enough to have in mind only a pre-formed concept of what quality of life is, because for this to be validated in a positive way, it is necessary that it be put into practice as a daily routine. The research points out as suggestions for improving the quality of life of its employees the implementation of educational action programs and the elaboration of booklets regarding the risks of diseases and accidents at work and the implementation of a labor gymnastics program, aiming to reduce the stress caused by some activities, improving the quality of life of workers.

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