

# Mental illness and its relationship with work: a study of workers with mental disorders

Adoecimento mental e as relações com o trabalho:  
estudo com trabalhadores portadores de transtorno mental

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**ABSTRACT | Background:** Mental disorders are the third most frequent cause of long sick leaves in Brazil. A discussion on the relationship between work and mental health is relevant for the attempts to change its current situation. **Objectives:** To investigate the perception of patients cared at a psychiatric hospital in Northeastern Brazil relative to the relationship between their illness and job. **Methods:** Descriptive-exploratory study with qualitative approach in which 10 patients under treatment at a psychiatric hospital in Northeastern Brazil were subjected to semi-structured interviews to investigate their perception of the relationship between their illness and job. The data were obtained in interviews, processed using software IRaMuTeQ and analyzed based on the descending hierarchical classification technique. **Results:** The textual corpus was categorized into six classes taking four aspects into account: characterization of participants, occupational data, health data relative to onset of illness and quest for treatment and lexical analysis. **Conclusion:** The participants perceived work as a factor of influence on their mental illness inasmuch as it might influence their personal relationships and be a source of stress and sleep disorders. Thus the results corroborate the current Brazilian and international literature on mental illness and its relationship with work.

**Keywords |** mental health services; occupational health; psychiatric hospitals.

**RESUMO | Introdução:** No Brasil, os transtornos mentais são a terceira causa de longos afastamentos do trabalho por doença. O debate sobre a relação entre trabalho e saúde mental se faz importante para a busca de mudanças nessa relação. **Objetivos:** Analisar a percepção de pacientes atendidos em um hospital psiquiátrico do nordeste brasileiro sobre a relação entre seu adoecimento e a atividade laboral exercida. **Método:** Estudo descritivo-exploratório, com abordagem qualitativa, desenvolvido por meio de entrevistas semiestruturadas com dez pacientes em tratamento em um hospital psiquiátrico do nordeste brasileiro, buscando a percepção desses sobre a relação entre o seu adoecimento e a atividade laboral exercida. Os dados foram obtidos por meio de entrevista, processados no software IRaMuTeQ e analisados pela classificação hierárquica descendente. **Resultados:** O corpus textual apresentado em seis classes, levando em consideração quatros aspectos: caracterização dos trabalhadores, dados ocupacionais, dados de saúde relacionados ao início do adoecimento e busca de tratamento e análise lexical. **Conclusão:** Os trabalhadores percebem o trabalho como um fator influenciador para o seu adoecimento mental, na medida em que pode afetar suas relações interpessoais, ser fonte geradora de estresse e distúrbios no sono, corroborando a literatura vigente, nacional e internacional, acerca do adoecimento mental e a relação com o trabalho.

**Palavras-chave |** serviços de saúde mental; saúde do trabalhador; hospitais psiquiátricos.

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## INTRODUCTION

The world of work underwent major changes as a function of the transition from an economy based on the trade of manufactured products to industrialization. In the age of globalization, fragmentation of work activities — allied to a competitive labor market — and fear of unemployment lead workers to subject themselves to extremely poor working conditions, low salaries, moral and sexual harassment, excessive working hours and accumulation of functions to meet the goals set by employers. These factors contribute to the occurrence of anxiety and depression symptoms among workers<sup>1,2</sup>.

As a function of the current situation, work-related stress and its consequences on the health of workers are a cause of much concern. Several lines of thought within the field of mental health and work addressed this issue. Two theories stand out in this regard: work stress theory, which focuses on stress and work, and another emerged within social science, which emphasizes power relationships. The causes of occupational stress are several, including mobbing (a form of psychological or moral pressure), psychological harassment, intimidation and other types of violence increasingly present at the workplace. This phenomenon causes psychophysical and social harm, with consequent negative effects on workers and companies. In their attempts to deal with stress, workers might have resource to unhealthy behaviors, such as alcohol and substance abuse. In addition, economic crises and recession increase the levels of work-related stress, anxiety, depression and other mental disorders, eventually leading some individuals to the extreme of committing suicide<sup>3,4</sup>.

As is known, anxiety, depression, substance abuse and daily stress are among the most common causes of work-related mental illness among workers. However, the individual characteristics of people are decisive in the establishment of a good relationship between work and mental health. Therefore, from the psychological point of view, one and the same activity might be motivating to one person and depressing to another. Physical and mental well-being demands consideration of the social, economic and environmental aspects of the actual conditions of workers<sup>5</sup>.

The health-work-disease relationship has long been a subject of study as a function of its relevance for people

and society. The assumptions underlying the theories on the relationship between mental illness and work are provided by cognitive-behavioral theory, in addition to methods involving exercise and relaxation for prevention and treatment. Psychodynamics of work focuses on the organization of work as cause of anguish and mental illness. In turn, approaches based on the epidemiological and/or diagnostic model contribute to workers' health upon addressing the effects of work on mental illness, taking the multicausal nature of this phenomenon into account<sup>6</sup>.

Studies on subjectivity and work began in the 1980s, being grounded on the workers' conceptions which emerge from their experiences at work and function as guiding principles. From this perspective, beyond its technical and economic nature, the meaning of work extends to social and cultural aspects, values and subjectivity. As a result, the focus falls on the understanding of workers' experiences and the meaning work has within the health-disease process. This relationship also grounds studies conducted from other theoretical perspectives. Some examples are Positivism, according to which worker illness might result in occupational hazards, and historical materialism, which focusing on social determinants, asserts that the workload is a part of the determinants of work-related diseases. In addition, one should consider the Marxist assumption of the historical determination of the health-disease process and its connections, which involves consideration of the historicity and context within which production relations evolve, to become embodied in the working conditions to which workers are exposed, which might thus be causative or not of mental suffering<sup>6</sup>.

To summarize, theories of stress, psychodynamics of work, approaches based on the epidemiological and/or diagnostic model and studies on subjectivity and work represent theoretical models to analyze the relationship between mental suffering and work.

Within this context, one of the relevant theoretical perspectives which ground studies on the disease-health-work relationship is provided by psychopathology of work. This approach focuses on the analysis of the dynamics of the mental processes mobilized in the confrontation of people with work, which involves mental suffering and pleasure<sup>7</sup>.

The notion of mental suffering implies a state of struggle of the individual against the forces that push them toward mental disease. Pathogenic suffering emerges when conflict between the organization of work and the mental functioning of people settles in. Work-related suffering results from the distress that emerges from the organization of symptoms of dissatisfaction and anxiety. In turn, pleasure at work is related to the satisfaction of needs at a high level of individual representation. In consequence, pleasure at work results from the discharge of the mental energy required by the tasks performed<sup>8</sup>.

In this regard, psychodynamics of work comprises two major categories. One corresponds to organization within the context of work, working conditions and labor relations, and the other to subjective mobilization, defense strategies and space for collective discussion. The elements that compose the latter are related to the experiences of pleasure and suffering at work. The links between the pressures exerted by work and the defense against its psychological effects represent the core of the psychodynamics of work approach, being considered as potential destabilizing agents vis-à-vis the mental health of workers<sup>7</sup>.

Subjected to work environments pervaded by factors that might trigger or contribute to illness, workers are able to develop defense strategies. The latter might be understood as a mechanism to transform or minimize the impact of work activities that cause suffering. Such strategies might be individual or collective<sup>7</sup>.

In addition, these strategies might be positive and negative. They range from dismissal of occupational hazards to attribution of symbolic value to suffering, minimization of the relevance of suffering, alcohol abuse, rationalization, individualism, passivity, physical exercise, spirituality and social encounters<sup>9</sup>. Given the complexity of mental illness, which includes several dimensions of the individuals and their singularities, establishing a relationship between it and work is no easy task.

On the statistical side, data indicate that more than 400 million people across the world are affected by mental or behavioral disorders. In Brazil, mental disorders are the third most frequent cause of long sick leaves. Mental health problems represent five out of the ten main causes of incapacity for work, this being a global phenomenon<sup>2,10</sup>.

As a function of the relevance of this subject, we sought to investigate the perception of patients cared at a psychiatric hospital in the Brazilian Northeastern region relative to the relationship between their health condition and work.

## METHODS

The present descriptive-exploratory study with qualitative approach was conducted at a public psychiatric hospital in the state of Piauí, in the Brazilian Northeastern region. The sample comprised 10 patients cared at the institution and who attributed their condition to work.

We should observe that the relationship between mental health and work acquired legal recognition through the Ministry of Social Security and Welfare Decree no. 3,048, from 6 May 1999. This decree categorized Work-Related Mental Disorders and included them in the List of Work-Related Diseases (Lista de Doenças Relacionadas ao Trabalho — LDRT). However, our purpose in the present study was not to analyze the diagnostic categories included in this list. Differently, our goal was to investigate the perception of workers with mental disorders in regard to the relationship between their health condition and work<sup>11</sup>.

For this reason, the inclusion criterion was: employed patients who rated work as one of the factors that contributed to their disease. And reciprocally, the exclusion criteria were: unemployed patients and the ones employed but who did not associate their health condition with work.

Data collection was performed from January through March 2015 through semi-structured interviews conducted at the hospital. The interviews lasted 40 minutes, on average, and included four groups of questions: one on sociodemographic data; the second on occupational data (shift and working hours, environmental conditions, type and number of employment relationships and function, among others); the third on health conditions; and the fourth on the participants' perception of the relationship between mental health and work. The narratives were taped and transcribed; codes were attributed to preserve anonymity.

Data processing was performed with software IRaMuTeQ (Interface de R pour les analyses Multidimensionnelles de Textes et de Questionnaires) developed by Pierre Ratinaud. This software locates the essential information in a text by means of statistical text analysis, including: classic text statistics; group specificity investigation; descending hierarchical classification; word cloud generation; and similitude analysis<sup>5</sup>. Studies which employed this software together with in-depth data analysis were quite successful<sup>12,13</sup>.

Descending hierarchical classification (DHC) was used for class description. DHC is based on an algorithm developed by Reiner for software Alceste, and on lexical analysis, which provides discourse contexts and classes as a function of their vocabulary. The resulting classes represent the meaning environment of words and might denote social representations or elements of such representations relative to the social object under study<sup>11</sup>. Next we analyzed the participants' narratives aiming at understanding their perceptions of the relationship between their health condition and work.

The study complied with all the ethical issues described in the National Health Council Resolution no. 466, from 12 December 2012. The study was approved by the research ethics committee of Federal University of Piauí (Universidade Federal do Piauí — UFPI), ruling no. 935,44, 18 January 2015, CAAE no. 39754714.5.0000.5214.

## RESULTS

The results are described under four headings: participants' characterization; occupational data; health data related to the onset of disease and quest for treatment; and lexical analysis—DHC and class dendrogram analysis.

In regard to the participants' sociodemographic characterization, the monthly income of most was once to twice the equivalent of the minimum wage (as per the 2016 value); their age varied from 26 to 55 years old. There was balance in the number of male and female participants, as well as in the number of participants with or without a partner. The educational level of the participants ranged from elementary school to higher education and was directly related to income. This association

is characteristic of the current economic scenario, which demands ever increasing qualification from workers. Most participants worked in the service sector, which might reflect the economic scenario of the geographical region where the study was conducted.

Most participants perceived night shift work as a relevant risk factor for stress, as it impairs the amount and quality of sleep. All the participants described their work environment as adequate for the execution of their activities.

We identified the following medical categories: 2 participants were diagnosed with bipolar affective disorder (ICD 10 F31.5); 1 with schizoaffective disorder, mixed type (ICD 10 F25.2); 3 with major depressive disorder, with psychotic features (ICD 10 F32.3); 3 with major depressive disorder (ICD 10 F32.2); and 1 with major depressive disorder, recurrent (ICD 10 F33.1). From these categories, only ICD 10 F32.2 and ICD 10 F32.3 are included in LDRT<sup>14</sup>, which suggests that work plays only a secondary role in the other mental disorders.

The duration of disease varied from 3 months to 5 years before the time of data collection. In the latter case, disease had recurred over time, the latest flare having occurred two weeks before the interview. The participants began looking for treatment 3 days to 3 months before the time of data collection.

DHC by means of class dendrogram analysis analyzes words mentioned with a frequency equal to or above the average ( $\geq 3$ ) and with  $\chi^2 \geq 10$ . Each class is described by the most significant (frequent) words and their respective association with the class ( $\chi^2$ ) as Figure 1 shows.

We first divided the textual corpus into two sub-corpora which we named segments. One originated class 6, while the other was further subdivided, giving rise to classes 2, 3 and 5. At a later time further branching resulted in classes 4 and 1, which were included in class 6.

### CLASS 6: INTERPERSONAL RELATIONSHIPS AT WORK

Including 13 text segments, class 6 is associated with class 1. Words: "bad," "coworker," "janitor," "will," "doctor," "cafeteria server," "depression," "even," and "like" represented the participants' interpersonal relationships at the workplace. This selection shows that the participants' relationships with colleagues became difficult, as not all coworkers understood or gave them support after they became ill.

I feel very bad at the workplace. Whenever I pass in front of the school I feel very ill. You know? I've worked for 14 years. And I even liked it, but as of late I feel very sad, with no will to go there. People there think I'm well, because I wear lipstick, get the bus to go to the doctor, but to me it's difficult to be with people (Narr. #02). I hardly talk to people at work, it's difficult for me to relate to coworkers. I know they laughed of my condition, this made me even more anxious, I started sweating and to feel ill, depressive. Some of them liked me, but very few (Narr. #01).

### CLASS 2: STRESS AND SLEEP DISORDERS

Class 2 includes 8 text segments, which correspond to 13.11% of the 61 segments processed by the software used. It is directly associated with classes 3 and 5. The lexical group that represents this class is composed of: "to watch," "building," "entrance hall," "to pass," "job," "night," "awake" and "worse." These words represent the night shift routine and its impact on the life and health of workers.

Stress was growing due to the job, my wife complaining every day, my kids too. I worked many years as

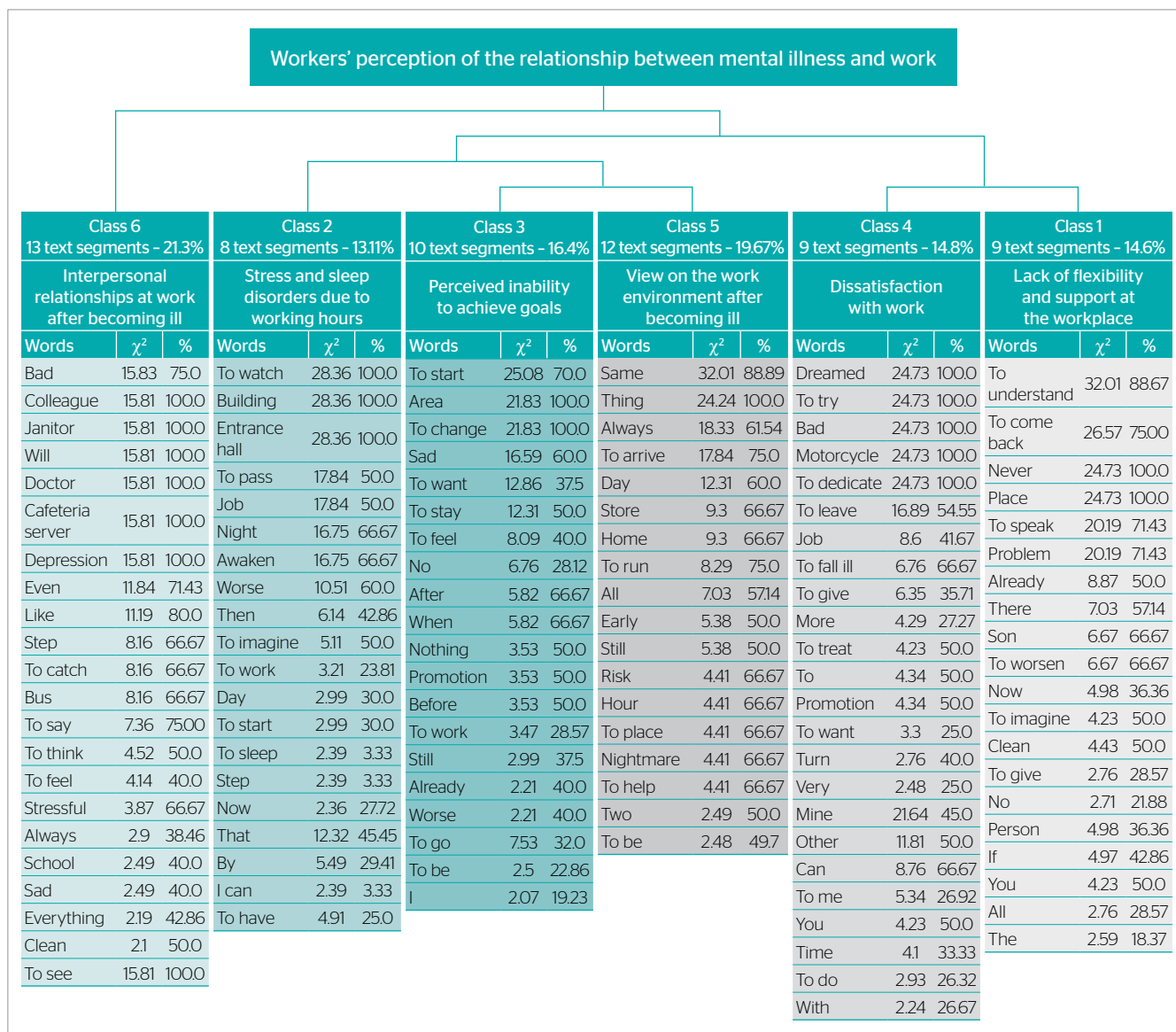


Figure 1. Dendrogram of classes obtained from the textual corpus, Teresina, Piauí, 2015 (n=10).



watchman, I'd spent the full night awake at the building entrance hall, and now I can't sleep, to spend the night awake is awful (Narr. #05).

I was tired all day long, and I couldn't sleep, I stayed awake working, but couldn't sleep well at night, I'd wake up several times (Narr. #03).

### CLASS 3: PERCEIVED INABILITY TO ACHIEVE GOALS

This class is represented by 10 text segments, 16.39% of the total processed. The characteristic vocabulary included the following words: "to begin," "area," "to change," "sad," "want," and "stay." These were the most frequent and significant words of class 3. They represent the frustration and anxiety of workers who must meet very high goals.

I didn't get the promotion I wanted so much, after that, I began to become even sadder, if I was already sad earlier, it got worse after I couldn't change my position, I felt a loser. I had made so many plans for after the promotion, I was giving all of myself, I was much focused, it was a wound not to succeed, my boss demanded too much of me, I couldn't become ill (Narr. #04).

My job helped worsening my condition, because there was too much pressure and responsibility. I was responsible for everything that happened there, I had to anticipate things and meet the expectations, that made me anxious (Narr. #09).

### CLASS 5: VIEW ON THE WORK ENVIRONMENT AFTER BECOMING ILL

Class 5 comprises 12 text segments, corresponding to 19.67% of the total analyzed. The lexical group representative of this class is composed of: "same," "thing," "always," "to arrive," and "day." These words convey the workers' perception of their work environment and routine after having become ill. They represent the feeling of being in a place which work routine was a cause of anxiety, anguish and fear.

I've always worked at this same school. Every day I woke up early and went there, but now I can no longer stand going there, I can no longer even stay there (Narr. #02).

It was a nightmare to arrive there knowing I'd have to go through all that again, every day the same. It was still dark when I'd leave in the morning, had to catch two buses, with the risk of being mugged, I always arrived very early, the store was still closed (Narr. #03).

When the time to go to work was approaching, I'd start feeling more nervous, sweating a lot, the hands frozen, I kept thinking it would be the same thing again, always the same, every day, as soon as I arrived I'd start counting the time to go back home, I got worse because of work (Narr. #01).

### CLASS 4: DISSATISFACTION WITH WORK

Class 4 comprised 9 text segments, corresponding to 14.75% of the total. This class is directly related to class 1, and its most representative words are: "dreamed," "to try," "bad," "motorcycle," "to devote," and "leave." These words express the dissatisfaction with work of some participants, who stated they no longer wanted to work in their older job.

I dreamed with work all the time, that wasn't working anymore. So I quit my job and now I'm seeking treatment. This problem of mine is very bad, I don't want to work in that job anymore (Narr. #08).

I wanted to work by myself to have more time, make my own schedule. To work as an employee for another is bad, you aren't in control of your own time (Narr. #05).

### CLASS 1: INFLEXIBILITY AND LACK OF SUPPORT AT THE WORKPLACE

This class comprises 9 text segments, corresponding to 14.75% of the total analyzed. It is directly related to class 4, and further associated with class 5. The relevant words in terms of frequency and class definition are: "to understand," "to come back," "never," "place," "to speak," and "problem." These words denote lack of flexibility and understanding at the workplace, with consequent increase of the pressure put on workers.

If I get sick or must solve some family problem I might be fired, even because they don't want to know about the problems I must face every day, they want I meet the demands, period (Narr. #07).

Besides the low salary, people there don't care about me, they don't care about what happens in my life, even when I'm sick, they keep demanding things I can't keep up with (Narr. #10).

## DISCUSSION

The results showed that the participants felt their interpersonal relationships at work were difficult. In their narratives, they mentioned lack of understanding and receptivity from their coworkers, which made the environment negative and emotionally overloaded. This leads one to believe that lack of social support corroborates the workers' perception of the stressors at the workplace.

As is known, psychological stressors at the workplace have a quantitative side, i.e., related to the length of tasks and speed in their execution, and a qualitative side, i.e., related to conflict that might contribute to the occurrence of mental illness. Thus, the social support provided by colleagues, supervisors and relatives is relevant to minimize stressful situations, which conversely are potentiated when social support decreases<sup>14</sup>.

All interpersonal relationships have some properties in common, which compose their structure and the resulting affective qualities. When individuals are not able to establish a satisfactory interaction with their work environment, emotional overload ensues, which makes coping with stress at work difficult<sup>15</sup>.

Some of the demands at the workplace might influence the health of workers, as is the case of the psychosocial factors. These factors encompass the mental loads, which might be divided into mental overload and mental underload. The former concerns long-lasting tense situations, and the latter inability to develop mental ability, lack of control over work, distance between supervisors and subordinates, social isolation at the workplace, role conflict, interpersonal conflict and lack of social support<sup>16-18</sup>.

In regard to stress and sleep disorders, the participants perceived themselves as stressed, and attributed this fact to exhausting work, poor sleep, night shift work and long working hours. In this regard, theories of stress, work stress theory in particular, emphasize the relationship between work and mental illness, the former having influence on the development of the latter. The focus of

this perspective is on stressors affecting workers and on practical means for prevention and treatment<sup>3,4</sup>. In the present study, we found a close relationship between stress and sleep disorders.

It is worth bearing in mind that sleep is significant for the mental well-being of people. Sleep takes one third of the human lifetime, and is important for the strengthening of memory, hormone balance and improvement of the motor performance. Night shift work does not only favor the development of sleep disorders, but also impairs alertness, and thus is a risk factor for stress<sup>19</sup>.

Night shift workers are more exposed to sleep-related disorders, because sleep deprivation affects the circadian rhythm. Thus it interferes with the physical and mental performance of individuals and has emotional, social, physical and work-related repercussions. As a result, sleep deprivation has negative impact on the quality of life of workers, causes stress, impatience, irritability, aggressiveness, discomfort, sadness, isolation and lack of drive and energy<sup>20,21</sup>.

As a rule, workers with insomnia or poor sleep quality complain of greater irritability, anxiety, depression, tiredness and poorer quality of life. They exhibit greater trend to develop depressive and anxiety disorders, cardiovascular diseases and substance dependence more easily<sup>21</sup>.

One of the perceived issues, and that was a cause of restlessness for the participants, concerned their inability to achieve goals. The participants' narratives pointed to an overload of responsibilities and expectations, which cause frustration and sadness when unfulfilled. This situation was further aggravated by the occupational stress derived from the participants' perception of the job demands as stressful and their inability to meet them.

Occupational stress might be caused by several work-related factors, including the violence of the activities to which employees are exposed and experienced physical exhaustion, for instance. Work enables personal and professional growth, recognition and independence. However, the constant changes imposed by exhausting work might also give rise to problems, such as physical and mental symptoms of stress. Physical symptoms include fatigue, headache and insomnia, among others. In turn, psychological, mental and emotional symptoms comprise poor concentration and memory, indecisiveness, confusion, loss of the sense of humor, anxiety,

nervousness, depression, anger, frustration, worry, fear, irritability and impatience<sup>9,22</sup>.

In regard to the perception of the workplace after becoming ill, the participants came to see it as negative. Previously pleasant and enjoyable activities became a heavy and painful load. As a result, the workplace became a symbol of suffering, to the point that merely thinking about work was able to trigger symptoms of anxiety, causing intense suffering.

Still in regard to the workers' perception of their workplace, it is worthy emphasizing the relevance of the studies on subjectivity and work as a theoretical approach that analyzes workers' conceptions based on their experiences and the work environment. From this perspective, work can be seen as a guiding principle for human beings, pervading the cultural, social, economic and technical spheres of life, among others. As a result, the experience of work might be either balanced or disturbed, in the latter case characterized by conflict and anguish<sup>6</sup>.

In regard to suffering, Brazil is still an underdeveloped country; the problems related with unemployment are recurrent, compelling workers to remain in dissatisfying jobs to make their living. When they develop work-related diseases, workers need to look for activities that give new meanings to their lives in order to find satisfaction and preserve their physical and mental health. From this perspective, the experience of mental illness might make individuals attribute greater value to simple things and beloved people, activate their inner strength, admit their limitations and give new meanings to events in life<sup>23</sup>.

Job dissatisfaction was another aspect emphasized by the participants, being described as one of the factors that contributed to the development of work-related depression. As a function of the newer characteristics work is acquiring, in the present time workers must continuously cope with the conflict derived from the fact that they must perform jobs that do not bring them any pleasure.

The psychodynamics of work perspective emphasizes organization of work as a source of job dissatisfaction, which is a cause of mental illness and suffering. Such approach also considers the defense strategies deployed by workers, in addition to highly qualified listening as intervention method, in the interpretation of this problem<sup>6</sup>. However, while individual strategies play a crucial role in the phenomenon of adaptation to

suffering, they have little influence on the population of workers. Differently, collective strategies contribute to the establishment of a link between collective work and the attempts to cope with adversities at work, thus enabling participation in the organization of work<sup>8</sup>.

Personal satisfaction brings a sense of well-being and of affection for the work performed. However, some factors in the work environment and organization of the work process might contribute for workers to feel satisfied or dissatisfied with the work they perform, and thus might become a cause of occupational illnesses<sup>24,25</sup>. Thus, from a source of personal accomplishment work is becoming a source of frustration, whereby individuals no longer recognize themselves in the tasks they perform, and consequently become sceptic, detached and emotionally unengaged, which contributes to the occurrence of depression<sup>26,27</sup>.

Also inflexibility and lack of support at the workplace were mentioned in the participants' narratives. The participants manifested discontentment with how some employers treat employees. Aspects identified were lack of humanization and of concern with the well-being of workers, in addition to excessive demands related to the execution of tasks and schedules, resulting in fear of being laid off given their inability to meet such demands.

The recommendations formulated by the International Labor Organization and the World Health Organization for occupational health services emphasize the protection of the workers' physical and mental well-being aiming at adjusting work to a healthy environment of coexistence. Workers in good health conditions are more productive, and thus, there is a global trend for employers to become increasingly concerned with this issue and implement corresponding programs<sup>28</sup>.

## CONCLUSION

The aim of the present study was accomplished, as it succeeded in gathering information on the patients' perception of the influence of work on many different aspects of their lives, with effects on their mental health and the possibility it might behave as a protective factor or a cause of disease. According to the results, work might interfere with personal relationships and contribute to the occurrence



of stress and sleep disorders, especially among night shift workers. Then, after they became ill the participants changed their view on the workplace in general, and reported to feel dissatisfied and without any support.

Therefore, the results of the present study corroborate the data reported in the current Brazilian and international

literature on mental illness and its relationship with work. We expect the present study will serve as inspiration for future in-depth research on this subject, given the fact it has been scarcely address relative to workers under treatment at psychiatric hospitals in Northeastern Brazil, the state of Piauí in particular.

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