



## Common mental disorders of health care workers in Bahia state

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**ABSTRACT.** To estimate the prevalence of common mental disorders (CMDs) and check the characteristic symptoms of CMDs in workers in the health sector. Cross-sectional study conducted in four municipalities in the state of Bahia. The study included 2,684 workers (21.6% men and 78.4% women), with ages ranging from 19 to 82 years ( $38.38 \pm 10.1$ ). CMDs were identified through the Self-Reporting Questionnaire-SRQ-20. Sociodemographic and occupational data were investigated and described using simple frequency and the calculation of ratios, and their respective 95% confidence intervals. The association between CMD and the explanatory variables (according to sex) were assessed using regression gross and adjusted Poisson regression analysis. The prevalence of CMD was more pronounced among women (22.7; 95% CI: 20.8 to 24.5%). The most reported symptom among men (38%) and women (50%) was feeling nervous, tense or worried. The prevalence of TMC was more prevalent among women and workers gazetted. The prevalence of CMD among health workers is high and differed between the sexes and dependence employment bond.

**Keywords:** mental health; mental disorders; work.

## Transtornos mentais comuns entre trabalhadores da saúde do estado da Bahia

**RESUMO.** estimar a prevalência de transtornos mentais comuns (TMC) e verificar as características de TMC entre trabalhadores do setor da saúde. estudo transversal realizado em quatro municípios do Estado da Bahia. O estudo incluiu 2.684 trabalhadores (21,6% homens e 78,4% mulheres), com idades de 19 a 82 anos ( $38,38 \pm 10,1$ ). Os TMC foram avaliados por meio do Self - Reporting Questionnaire - SRQ-20. Os dados sociodemográficos e ocupacionais foram investigados e descritos utilizando frequência e proporções, e os seus respectivos intervalos de confiança de 95%. A associação entre TMC e as variáveis explanatórias (de acordo com o sexo) foi avaliada por meio de regressão de Poisson (bruta e ajustada). a prevalência de TMC foi mais pronunciada entre as mulheres (22,7; 95% CI: 20,8-24,5%). O sintoma mais relatado entre os homens (38%) e mulheres (50%) foi se sentir nervoso, tenso ou preocupado. A prevalência de TMC foi mais prevalente entre as mulheres concursadas. a prevalência de TMC entre os trabalhadores de saúde é elevada e diferiu entre os sexos e é dependente do vínculo de trabalho.

**Palavras-chave:** saúde mental; transtornos mentais; trabalho.

## Introduction

Psychiatric disorders are presented as one of the morbidities most related to sick leave because of illness, having a substantial impact in the demand for health services and, consequently, in the economy of many countries (Henderson, Harvey, Øverland, Mykletun, & Hotopf, 2011).

Among the psychic morbidities, Common Mental Disorders (CMD) appear as the most prevalent (Santos & Siqueira, 2010) (Rocha, Almeida, Araújo, & Virtuoso Júnior, 2010) affecting people of different age groups (Costa, Rocha, Santos, Melo, Martins, & Andrade, 2014; Dachew, Bisetegn, & Gebremariam, 2015). CMD are characterized as a set of symptoms such as insomnia,

fatigue, irritability, forgetfulness, difficulty in concentrating, and somatic complaints (Goldberg & Huxley, 1992). These disorders cause suffering to both the individual, the family and the community, and represent a major cause of lost days at work (Rocha et al., 2010), low productivity, and premature mortality and burden to the health services (Patel et al., 2007).

CMD are often found in the community (Santos & Siqueira, 2010) and may cause severe and permanent disabilities, being more pronounced among the female population (Jamali, Roustaei, Ayatollahi, & Sadeghi, 2015), elder (Rocha et al., 2010) with a lower income (Gonçalves et al., 2014) and education (Braga, Carvalho, & Binder, 2010; Gonçalves et al., 2014) and living without a partner

(single, widowed and divorced / separated) (Araújo, Pinho, & Almeida, 2005; Marcelino Filho & Araújo, 2015).

In health care workers the studies have shown that the overall prevalence of CMD ranged between 16.0% (Dilélío, Facchini, Tomasi, & Borges, 2012) and 42.6% (Braga et al., 2010). Economic, political, social and technical changes that have occurred in the world of work strongly influenced the health of health care workers, with an increase of suffering at work and exposure to psychic morbidities (Knuth, Silva, Osés, Radtke, Cocco, & Jansen, 2015). These professionals are immersed in work processes in which they have to deal, on a daily basis, with situations of pain and suffering of the users who seek their services. Besides, aspects such as lack of professional recognition, no plan for jobs and wages of the Brazilian health public workers and wage reduction are factors that can intensify the beginning of psychic morbidities (Braga et al., 2010).

We can observe an increase in the number of studies about the relationship between work and health of the workers in the health care sector (Knuth et al., 2015) due to the need for more detailed information about the process of health / disease in this population. However, there is still scarce information about the mental health situation and evaluation of CMD among the different categories of health care workers. Most studies only evaluate specific professional categories such as doctors (Sobrinho, Carvalho, Bonfim, Cirino, & Ferreira, 2006) and nurses (Jamali et al., 2015; Roustaei, Jafari, Sadeghi, & Jamali, 2015) or professionals in a specialised network (Marcelino Filho & Araújo, 2015) and in hospitals (Jamali et al., 2015; Alves, Pedrosa, Coimbra, Miranzi, & Hass, 2015).

One of the most used ways to measure CMD is the Self-Reporting Questionnaire-SRQ-20 (Rocha et al., 2010; Carvalho, Melo-Filho, Carvalho, & Amorim, 2013). SRQ-20 is an instrument constituted by twenty dicotomic questions that include the evaluation of depressive/ anxious mood, somatic symptoms, decrease in vital energy and depressive thoughts (Mari & Williams, 1986). The populational studies about the prevalence of CMD among health care workers (Braga et al., 2010; Dilélío et al., 2012; Knuth et al., 2015) gave no details about the characteristics of the symptoms and the distribution of CMD among the dimensions evaluated by the SRQ-20. No studies about the distribution of the dimensions evaluated by the SRQ-20 were found and only one study showed these characteristics in relation to sex (Carvalho et al., 2013). The characterization of the symptoms of the

CMD, their different dimensions and their distribution accordingly can contribute to a better understanding of psychic illness in this population.

Therefore, the present study has as objectives to estimate the prevalence of CMD and verify the characteristics of the symptoms of CMD in men and women that work in the health care sector. It is expected that the results of the present study favour a better understanding of the mental health of these individuals, favouring decision taking to reduce or prevent damage to the health of these workers.

## Method

### Characterization and place of the study

It is a cross-sectional study with a descriptive and exploratory purpose, based on the survey 'Working conditions, employment and health conditions of health care workers in Bahia' conducted in the years 2011 and 2012 in four municipalities (Feira de Santana, Itabuna, Jequié and Santo Antonio de Jesus), from different regions of the State of Bahia. The study was carried out with a partnership between the State University of Feira de Santana, State University of Southwest Bahia, State University of Santa Cruz and the Federal University of Reconcavo Baiano.

The municipality of Feira de Santana is located in the plain zone region between the Reconcavo and the semiarid plains of northeast Bahia, about 108 km from its capital, Salvador. It is the second largest municipality in the state with an estimated population of 617.528 inhabitants. The municipality's health system had, in the period of the data collection, a Primary Health Network constituted by 76 family health units (FHU), comprising 83 family health teams (FHT) (covering 59.6% of the population).

Itabuna is located in the south region of the state of Bahia, 426 km away from Salvador. It is the fifth most populated municipality in Bahia with 219.680 inhabitants. In 2012, the primary health network of the municipality was constituted by 23 FHT allocated in 16 FHU (covering 45.0% of the population) and 10 primary health units (PHU).

The municipality of Jequié is located in the southeast region of Bahia, 365 km away from Salvador. It is the ninth most populated city in Bahia with a population of approximately 161.528 inhabitants. At the time of data collection the primary health network was constituted by 24 FHT allocated in 15 FHU and 4 PHU.

Santo Antônio de Jesus is located in the region of Bahia Reconcavo, 193 km away from the state capital. It is the tenth most populated municipality of the state with an estimated population of 101.548

inhabitants in 2015. The municipality's Primary Health Network was constituted by 25 FHT.

### Sample

The study was firstly designed to identify the characteristics of employment and the process of work in the health care sector, and mainly the general conditions of life, health and work of the professionals that take care of the health of the populations.

The selection of the geographical units (municipalities) included was done intentionally. The population of interest to the study were health care workers, crowded in primary care and medium complexity of municipal health systems in the included municipalities.

The selection of the study areas was performed by stratified sampling by geographical units, level of complexity and occupation, considering the percentual participation by the stratification variables.

The workers were selected by adopting random procedures in each stratum, from information on the number of workers provided by municipal health secretaries and updated by the research team. The sample was obtained assuming the estimated prevalence of the event of interest with the highest prevalence in the case of work accidents (42.9%) sampling error of 3 and 95% confidence.

The selection of workers included in the sample was carried out with the aid of the EPI Info program. The selected workers were contacted in their workplaces and after the presentation of the research conducted for the staff of the health facilities, the forms were delivered to workers. There were up to three attempts to locate the employee raffled. If the worker wasn't found, he was replaced in the sample respecting the geographical area, level of complexity, occupation and sex. The replacement was made by drawing lots.

The final sample of the study consisted of 2,684 workers, being 38.8% (n = 1.041) from the municipality of Feira de Santana, 23.4% (n = 627) from Itabuna, 19% (n = 510) from Jequié and 18.9% (n = 506) from Santo Antônio de Jesus.

### Ethical issues

The research protocol complied with the ethical requirements, according to Resolution 196/96 of the National Health Council and was approved by the Ethics Committee in Research with human beings of the State University of Feira de Santana, Protocol No 267/2009 (CAAE: 0086.0.0059.000-09).

### Data collection

The data collection took place according to the logistics of each municipality and the partner universities. To standardize the adopted methodological procedure, a Manual of Procedures and Conduct was prepared and workshops were held to train the collection team.

Prior to data collection, the professionals drawn were contacted to be clarified about the objectives of the study, be asked to participate in the research and collect the signature of the term of consent.

The data collection team consisted of students from graduate and postgraduate courses from the universities involved in the study who have undergone previous training with the local coordination of each center.

In this study, we used information on sociodemographic (age, sex, marital status and education), occupational (working time, employment, job satisfaction and professional category) and mental health (SRQ-20) characteristics.

### Outcome variable

#### Common mental disorders

The common mental disorders-CMD were evaluated using the 'self reporting questionnaire' (SRQ-20). This instrument is designed to assess the degree of mental disorder suspicion, not offering specific diagnosis of the existing disorder. The SRQ-20 evaluates the CMD through dichotomous questions about the presence of symptoms related to CMD and these are grouped into the following dimensions: depressive-anxious humor; somatic symptoms; decrease in vital energy and depressive thoughts. To determine the CMD, the cutoff of seven or more positive responses was adopted.

#### Exploratory variables

Socio-demographic characteristics: age (continuous variable); sex (male and female); marital status (unmarried with partner); education (primary / secondary, higher).

Occupational characteristics: working time (continuous variable in years); employment (gazetted, non gazetted); professional category (medical, health community agent-hca, nurse / technical nursing, other health professionals and administrative); job satisfaction (yes / no).

#### Statistical procedures

The data were described by simple frequencies and calculation of ratios and their respective confidence

intervals of 95% to evaluate, as explanation, the CMD characteristics according to sex.

The association between CMD and the explanatory variables (according to sex) were assessed using regression gross and adjusted Poisson regression analysis [prevalence ratio (PR) and confidence interval (CI) 95%]. Analyses were performed using the statistical program SPSS®, version 22.0.

## Results

The study included 2,684 workers, being 21.6% (n = 578) men and 78.4% (n = 2,099) women. Ages ranged from 19 to 82 ( $38.38 \pm 10.1$ ) years old. For women, the average age was  $38.96 \pm 11.88$  years and for men was  $38.23 \pm 8.26$  years. The average working time between women and men was  $9.27 \pm 9.19$  and  $8.26 \pm 6.96$  years respectively. So, while the average age is similar among men and women, the women were working for a longer time in the health care sector than men. Other characteristics of the sample according to sex are shown in Table 1.

**Table 1.** Characteristics of the researched population according to sex. Bahia, 2012.

| Variables                       | Men |      | Women |      | p value |
|---------------------------------|-----|------|-------|------|---------|
|                                 | n   | %    | n     | %    |         |
| Marital Status                  |     |      |       |      | 0.80    |
| Without a partner               | 239 | 41.6 | 859   | 41.0 |         |
| With a partner                  | 336 | 58.4 | 1236  | 59.0 |         |
| Education                       |     |      |       |      | 0.001   |
| Primary/ secondary              | 384 | 67.6 | 1546  | 74.6 |         |
| High                            | 184 | 32.4 | 525   | 25.4 |         |
| Employment Bond                 |     |      |       |      | < 0.001 |
| Gazetted                        | 311 | 54.6 | 1358  | 65.2 |         |
| Non gazetted                    | 259 | 45.4 | 724   | 34.8 |         |
| Professional Category           |     |      |       |      | < 0.001 |
| Doctor                          | 74  | 12.9 | 56    | 2.7  |         |
| HCA                             | 198 | 34.4 | 903   | 43.4 |         |
| Nurse/Technical Nursing         | 42  | 7.3  | 480   | 22.9 |         |
| Other health care professionals | 52  | 9.0  | 131   | 6.3  |         |
| Administrative                  | 209 | 36.3 | 519   | 24.8 |         |
| Job satisfaction                |     |      |       |      | 0.96    |
| Yes                             | 429 | 74.5 | 1559  | 74.4 |         |
| No                              | 147 | 25.5 | 537   | 25.6 |         |
| CMD                             |     |      |       |      | < 0.001 |
| Yes                             | 53  | 9.6  | 463   | 22.7 |         |
| No                              | 507 | 90.5 | 1577  | 77.3 |         |

\*HCA= health community agent; CMD= common mental disorder. \*Lost information: 3 in marital status, 10 in education, 8 in employment bond, 3 in professional category, 2 in job satisfaction and 18 in CMD for men. For women: 4 in marital status, 28 in education, 17 in employment bond, 5 in professional category, 3 in job satisfaction and 59 in CMD.

Among men a higher level of education was identified (32.4% had a higher level of education in relation to 25.4% among women). There were no differences with regard to marital status. With regard to occupational characteristics, the frequency of gazetted was higher among women (65.2%). There was a higher proportion of men in the category of doctors (12.9%), other health professionals (9.0%)

and among administrative workers (36.3%), while women were more significant among HCA (43.4%) and nurses / nursing technicians (22.9%). No differences were observed between men and women with respect to variable job satisfaction.

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Table 2 presents the results of the analysis of the characteristics symptoms of CMD according to sex. Among men and women, the symptoms related to the dimension depressive-anxious mood were the most reported, being the most reported feeling nervous, tense or worried (38.0% among men and 50% among women, respectively). In almost every dimension analyzed women had higher prevalence of CMD symptoms, except for the symptom of feeling useless, related to the dimension depressive thoughts.

The difference between men and women in the reports of symptoms was high. Women reported approximately 2.0 times more symptoms, such as crying more than usual (15.0%), having frequent headaches (40%), poor digestion (25%), getting tired easily (24%), feeling tired all the time (19%), difficulty in thinking clearly (15%) and having had the idea to end life (2.0%) when compared to men (Table 2).

The prevalence of CMD was 19.8% (CI 95%= 18,2% - 21,3%), higher among women (22.7%) than among men (9.6% CI 95%= 7,0% - 11,0%), therefore, the prevalence of CMD was 2.36 times higher in women when compared to men.

Associations were identified at statistically significant levels between CMD and marital status among males (p = 0.06) and CMD and employment bond between women (p < 0.001) in the crude analysis (Table 3).

After the multivariate analysis, only the employment bond remained associated with the overall prevalence of CMD among women. Women non gazetted presented 37% less CMD when compared to the gazette (Table 4).

**Table 2.** Characteristics of the cmd dimensions according to sex. Bahia, 2012.

| Variables                                                    | Men |                    | Women |                    |
|--------------------------------------------------------------|-----|--------------------|-------|--------------------|
|                                                              | n   | % (CI95%)          | n     | % (CI95%)          |
| <b>Depressive-Anxious Mood</b>                               |     |                    |       |                    |
| Do you feel nervous, tense or worried?                       | 217 | 38.0 (34.0 - 42.0) | 1039  | 50.0 (48.0 - 52.0) |
| Do you get frightened easily?                                | 85  | 15.0 (12.0 - 18.0) | 798   | 38.0 (36.0 - 40.0) |
| Have you felt sad lately?                                    | 116 | 20.0 (17.0 - 24.0) | 606   | 29.0 (27.0 - 31.0) |
| Have you cried more often?                                   | 33  | 6.0 (4.0 - 8.0)    | 306   | 15.0 (14.0 - 17.0) |
| <b>Somatic symptoms</b>                                      |     |                    |       |                    |
| Do you have frequent headaches?                              | 94  | 17.0 (14.0 - 20.0) | 827   | 40.0 (37.0 - 42.0) |
| Do you sleep poorly?                                         | 125 | 22.0 (18.0 - 25.0) | 621   | 30.0 (28.0 - 31.0) |
| Do you have unpleasant sensations in the stomach?            | 99  | 17.0 (14.0 - 20.0) | 595   | 28.0 (26.0 - 30.0) |
| Do you have a poor digestion?                                | 68  | 12.0 (9.0 - 15.0)  | 518   | 25.0 (23.0 - 26.0) |
| Do you have hand tremors?                                    | 53  | 9.0 (7.0 - 12.0)   | 251   | 12.0 (11.0 - 13.0) |
| <b>Decrease in vital energy</b>                              |     |                    |       |                    |
| Do you get tired easily?                                     | 66  | 12.0 (9.0 - 14.0)  | 513   | 24.0 (22.0 - 26.0) |
| Do you have difficulty in taking decisions?                  | 57  | 10.0 (8.0 - 12.0)  | 400   | 19.0 (17.0 - 21.0) |
| Do you have difficulties in performing tasks satisfactorily? | 77  | 13.0 (11.0 - 16.0) | 363   | 17.0 (16.0 - 19.0) |
| Is your daily work hard/painful?                             | 39  | 7.0 (5.0 - 9.0)    | 195   | 9.0 (8.0 - 11.0)   |
| Do you tired all the time?                                   | 54  | 10.0 (7.0 - 12.0)  | 395   | 19.0 (17.0 - 20.0) |
| Do you have difficulty in thinking clearly?                  | 49  | 9.0 (6.0 - 11.0)   | 312   | 15.0 (13.0 - 16.0) |
| <b>Depressive thoughts</b>                                   |     |                    |       |                    |
| Do you feel unable to have an useful role in life?           | 20  | 3.0 (2.0 - 5.0)    | 117   | 5.0 (4.0 - 6.0)    |
| Have you lost interest for things?                           | 49  | 9.0 (6.0 - 11.0)   | 197   | 10.0 (8.0 - 11.0)  |
| Have you thought about ending your life?                     | 5   | 1.0 (0.0 - 2.0)    | 32    | 2.0 (1.0 - 2.0)    |
| Do you feel an useless person?                               | 28  | 5.0 (3.0 - 7.0)    | 76    | 3.0 (3.0 - 4.0)    |

\*Lost information: 16 for men and 59 for women

**Table 3.** Prevalence of common mental disorders according to sociodemographic and occupational variables of health care worker. Bahia, 2012.

| Variables                       | CMD Men            |      | CMD Women          |         |
|---------------------------------|--------------------|------|--------------------|---------|
|                                 | PR (CI95%)         | P    | PR (CI95%)         | P       |
| <b>Marital Status</b>           |                    |      |                    |         |
| Without a partner               | 1                  | 0.06 | 1                  | 0.30    |
| With a partner                  | 1.63 (0.97-2.74)   |      | 1.02 (0.97-1.07)   |         |
| <b>Education</b>                |                    |      |                    |         |
| Primary/ secondary              | 1                  | 0.11 | 1                  | 0.020   |
| High                            | 1.66 (0.87 - 3.17) |      | 0.93 (0.89-0.98)   |         |
| <b>Employment Bond</b>          |                    |      |                    |         |
| Gazetted                        | 1                  | 0.28 | 1                  | < 0.001 |
| Non gazetted                    | 0.74 (0.43 - 1.27) |      | 1.13 (1.08-1.18)   |         |
| <b>Professional Category</b>    |                    |      |                    |         |
| Doctor                          | 1                  | -    | 1                  |         |
| HCA                             | 1.11 (1.03 - 1.20) | 0.02 | 1.23 (1.10 - 1.38) | 0.01    |
| Nurse/Technical Nursing         | 1.01 (0.92 - 1.09) | 0.89 | 1.02 (0.91 - 1.14) | 0.66    |
| Other health care professionals | 1.04 (0.94 - 1.14) | 0.38 | 1.10 (0.95 - 1.26) | 0.21    |
| Administrative                  | 1.04 (0.97 - 1.13) | 0.25 | 1.06 (0.95 - 1.19) | 0.34    |

\*HCA= Health Comunitary Agent; CMD= Common Mental Disorder

**Table 4.** Adjusted prevalence ratios with their respective confidence intervals (95%) of features studied and common mental disorders resulting from the poisson regression analysis.

| Variables              | Men              |      | Women            |        |
|------------------------|------------------|------|------------------|--------|
|                        | PR (CI95%)       | p    | PR (CI95%)       | p      |
| <b>Marital Status</b>  |                  |      |                  |        |
| Without a partner      | 1                | 0.14 | -                | -      |
| With a partner         | 1.50 (0.86-2.62) |      | -                |        |
| <b>Education</b>       |                  |      |                  |        |
| Primary/ secondary     | 1                | 0.14 | 1                | 0.20   |
| High                   | 1.64 (0.84-3.22) |      | 1.12 (0.89-1.42) |        |
| <b>Employment Bond</b> |                  |      |                  |        |
| Gazetted               | -                | -    | 1                | <0.001 |
| Non gazetted           | -                | -    | 0.63 (0.51-0.79) |        |

## Discussion

In the present study, the prevalence of CMD was almost two and a half more frequent among women when compared to men. By analyzing the dimensions and symptoms of CMD, women reported more

symptoms of CMD in almost all the dimensions evaluated. Only the symptom 'feeling an useless person in life' was more reported by men. For both sexes, the most reported CMD symptom was feeling nervous, tense or worried related to the dimension depressive-anxious mood.

The difference between sexes in relation to the appearance of CMD, identified in this study, is similar to that found in national (Rocha et al., 2010; Carvalho et al., 2013; Costa et al., 2014) and international (Giang, Dzung, Kullgren, & Allebeck, 2010; Dachew et al., 2015; Jamali et al., 2015; Roustaei et al., 2015) studies. The high risk of CMD in women can be explained by the high level of stress and suffering faced by them due to the high burden of family and social responsibility, the lowest proportion of opportunities for education and employment, hormonal changes and increased risk of domestic violence (Jamali et al., 2015). Besides, women would find it easier to identify the symptoms of CMD, admit them and seek treatment, while men have a tendency to seek, in psychoactive substances, relief for their suffering or distress (Santos & Siqueira, 2010).

Another important aspect to understand the differences in the prevalence of CMD among men and women are the working conditions. Situations such as low salaries (Branco, Bultmann & Steenstra, 2012), low self-esteem, repetitive and boring jobs, sexual harassment at work, in addition to housework (Araújo et al., 2005), are factors that can intensify psychic disease among women.

Compared to other researches with professionals from the health care sector (Dilélío et al., 2012; Marcelino Filho & Araújo, 2015; Knuth et al., 2015; Alves et al., 2015) that used the same CMD evaluation instrument, in the present study, the prevalence of CMD for both sexes was higher (19,8%) than the one observed in the study carried out in the south and northeast regions (16,0%) (Dilélío et al., 2012), in the municipality of Feira de Santana-BA (16%) (Araújo et al., 2005), but lower than the study carried out in Pelotas- RS (37,7%) (Knuth et al., 2015), Botucatu-SP (42,6%) (Braga et al., 2010), Aracajú-SE (50,6%) (Marcelino Filho & Araújo, 2015) and Uberaba-MG (27,9%) (Alves et al., 2015).

Differences in the prevalence of CMD may be attributed to social, cultural and environmental factors (Goldberg & Huxley, 1992). Characteristics of the sample such as the high percentage of young workers living without a partner, with a low level of education, the diversity of the studied professional categories, the high percentage of gazetted, job satisfied individuals, may explain the difference in the prevalence of CMD when compared to other studies (Dilélío et al., 2012; Marcelino Filho & Araújo, 2015; Knuth et al., 2015; Alves et al., 2015).

Aspects such as an older age (Rocha et al., 2010), low level of education (Gonçalves et al., 2014), living without a partner (Araújo et al., 2005; Marcelino Filho & Araújo, 2015), instability

(Sobrinho et al., 2006) and dissatisfaction at work (Dilélío et al., 2012) may accentuate the presence of CMD. Besides, there is a difference in the distribution of CMD in the different categories of health care professionals (Barbosa et al., 2012; Carvalho et al., 2013; Marcelino Filho & Araújo, 2015; Knuth et al., 2015).

In the case of community health agents (CHS), which constitute the largest contingent of workers among the professional categories included in this study, the fact of living in the territory, makes their social living space a place of development in their activities of production of care. This situation may lead that worker to develop feelings of omnipotence and frustration (Silva & Menezes, 2008). This scenario may contribute to the increase of the exposition to CMD (Knuth et al., 2015).

The high frequency of reported symptoms related to the depressive-anxious mood dimension was also identified by Alves et al. (2015) among the health care professionals in the city of Uberaba, Brazil and by Carvalho et al. (2013) among the resident doctors and the multiprofessional in the area of Recife, Brazil (Carvalho et al., 2013). This high percentage is worrying, because the individuals exposed to this condition tend to show a higher presence of symptoms, such as lack of energy, fatigue and forgetfulness (Waal, Arnold, Spinhoven, Eekhof, & Van Hemert, 2005), thus compromising time management and productivity, reducing the capacity to perform daily activities (Burton, Pransky, Conti, Chen, & Edington, 2004) and negatively influencing the production of care and the worker quality of life.

After the multivariate analysis, it was observed that the overall prevalence of CMD was more pronounced among the women gazetted. These findings contrast with results from other studies (Sobrinho et al., 2006) which show that job stability is associated with lower occurrences of psychiatric morbidities.

The higher frequency of symptoms such as feeling nervous (a), tense (a) or worried (a), in both genders, and poor sleeping among men were also observed in the study conducted in the population of resident doctors and multiprofessional in the area of Recife, Brazil (Carvalho et al., 2013), showing that even among the professionals working in different levels of attention, some symptoms of CMD seem to be similar among health care professionals.

Among the limitations of this study, we can highlight the survivorship bias: only the subjects who presented the research effect at the time of data collection were analyzed. Finally, it should be considered that the formal work already denotes a

process of selecting workers with adequate health. Besides, the workers with medical leave were excluded. These procedures may be indicative of a possible study of bias related to the 'healthy worker effect'. These limits should therefore be considered in the analysis of the obtained results.

As strengths, it is emphasized that in this study a population-based survey was carried out in four municipalities of the largest state in the northeastern region of Brazil, investigated a significant number of people, and adopted a CMD screening tool very suitable for identification of non-psychotic psychiatric cases in developing countries, thus providing useful information for actions and public health care policies.

## Conclusion

The prevalence of CMD was almost two and a half more frequent among women and the dimensions and symptoms of CMD, women reported more symptoms of CMD in almost all the dimensions evaluated.

Due to the impact of the mental morbidities in public health it is necessary that governments, employers and health care services seek to establish actions to reduce potential exposures in the workplace, improving the tracing process of mental disorders and establishing treatment for workers with psychiatric disorders.

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