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**Original Article** 

# Common Mental Disorders and Burnout Syndrome among University Professionals

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¹ Universidade Federal Fluminense, Escola de Enfermagem Aurora de Afonso Costa, Niterói, RJ, Brazil. **Objective:** to describe the suspicion of Burnout Syndrome and Common Mental Disorders among university professionals. Method: an epidemiological study with a sectional, descriptive design. Groups were compared in search of statistical association and logistic regression models were applied. A total of 106 education workers participated. The instrument produced contained the adapted and validated scales, such as the Maslach Burnout Inventory (MBI), to measure the dimensions of the Burnout Syndrome and the reduced version of the Self Reporting Questionnaire (SRQ-20) to measure the level of suspicion of common mental disorder. Results: the suspicion of Common Mental Disorders among the workers in the sample studied was 22.6%. An association was observed between being young, female, thinking about work during time off or quitting, sedentary lifestyle and two dimensions of Burnout, namely depersonalization and emotional exhaustion. Conclusion: it was possible to elucidate the prevalence of

CMD and BS in the sample studied, taking into consideration the life habits and the quality of mental health of teachers and other employees, thus contributing to the reflection on the worker's quality of life.

**Descriptors:** Worker's Health; Burnout Syndrome; Nursing

Work; Mental Disorders.

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## Transtornos mentais comuns e Síndrome de *Burnout* entre profissionais de colégio universitário

**Objetivo:** descrever a suspeição da Síndrome de *Burnout* e os Transtornos Mentais Comuns entre profissionais de colégio universitário. **Método:** estudo epidemiológico de desenho seccional, descritivo. Compararam-se grupos em busca da associação estatística e modelos de regressão logística foram aplicados. Participaram 106 trabalhadores da educação. O instrumento produzido continha as escalas adaptadas e validadas, como a *Maslach Burnout Inventory* (MBI), para a aferição das dimensões da Síndrome de *Burnout* e a versão reduzida do *Self Reporting Questionnaire* (SRQ-20) para mensurar o nível de suspeição de transtorno mental comum. **Resultados:** a suspeição de Transtornos Mentais Comuns entre os trabalhadores da amostra estudada foi de 22,6%. Observou-se a associação entre ser jovem, sexo feminino, pensar no trabalho durante as folgas ou em abandonar o trabalho, sedentarismo e duas dimensões de *Burnout*, sendo elas a despersonalização e a exaustão emocional. **Conclusão:** pôde-se elucidar a prevalência de TMC e SB na amostra estudada, levando-se em consideração os hábitos de vida e a qualidade da saúde mental de professores e demais funcionários, contribuindo-se, assim, para a reflexão sobre a qualidade de vida do trabalhador.

**Descritores:** Saúde do Trabalhador; Síndrome de *Burnout*; Enfermagem do Trabalho; Transtornos Mentais.

## Trastornos mentales comunes y síndrome de agotamiento entre los profesionales universitários

**Objetivo:** describir la sospecha de síndrome de *Burnout* y trastornos mentales comunes entre estudiantes universitarios. **Métodos:** estudio epidemiológico con diseño descriptivo seccional. Se compararon grupos en busca de asociación estadística y se aplicaron modelos de regresión logística. Participaron 106 trabajadores de la educación. El instrumento tenía escalas adaptadas y validadas, como el *Maslach Burnout Inventory* (MBI) para medir las dimensiones del síndrome de *Burnout* y la versión reducida del Self Reporting Questionnaire (SRQ-20) para medir el nivel de sospecha de trastornos mentales comunes. **Resultados:** la sospecha de trastornos mentales comunes entre los trabajadores de la muestra estudiada fue de 22,6%, se observó asociación entre jóvenes, sexo femenino, pensar en el trabajo durante los descansos, pensar en dejar el trabajo, sedentarismo y dos dimensiones de *Burnout*, despersonificación. y agotamiento emocional. **Conclusión:** se logró dilucidar la prevalencia de CMD y BS en la muestra estudiada, tomando en cuenta los hábitos de vida y la calidad de salud mental de los docentes y otros empleados, contribuyendo así a la reflexión sobre la calidad de vida del trabajador.

**Descriptores:** Salud del Trabajador; Síndrome de *Burnout*; Trabajo de Enfermería; Trastornos Mentales.

### Introduction

During the last decades, there has been a tendency to devalue professionals in the field of education. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), Brazil is the third country that pays the worst salaries to education workers<sup>(1)</sup>. The individuals who work in this segment encounter difficulties in the exercise of their profession that may be associated with various organic disorders, such as exposure to long working hours, scarce resources, and the high psychological and bureaucratic demands that involve the teaching work<sup>(2-3)</sup>. It is also observed that the professionals have difficulties to go to the doctor's appointment, maintain healthy living habits and mental health promotion<sup>(3)</sup>.

The world of work is increasingly demanding and offers increasingly precarious conditions. Working conditions can modulate the demands of professionals in such a way that the more precarious they are, the greater the demands will be due to the growing need for productivity and profit<sup>(4)</sup>. The exercise of work is present in at least one third of the worker's day, which has an enormous influence on the worker's life, because work interconnects the worker with the environment where he/she lives, interfering in his/her health and in the dimensions of politics, society, culture and family<sup>(4-5)</sup>.

Education professionals have a greater potential to be exposed to stressful conditions due to lack of recognition, rooms without air conditioning, with inadequate lighting, uncomfortable, high numbers of students per class, parental demands, lack of teaching materials, as well as cases of violence by students and guardians<sup>(2)</sup>.

The Workers' Health Reference Centers (Cerest) have received demands to investigate professional categories and sectors where mental health problems have appeared with greater intensity. In these investigations, the categories of health and education professionals stand out, revealing the frequent problems related to the mental health of these individuals<sup>(6)</sup>.

Common Mental Disorders (CMD) are characterized as a set of symptoms that can pervade depressive disorders, anxiety states, irritability, fatigue, insomnia, difficulty in memory and concentration, and somatic complaints. In addition to the problems caused to the health and life of workers, CMDs can also determine economic burdens on society due to the indirect costs generated by the number of absenteeism due to illness and early death<sup>(7)</sup>.

Burnout is understood as the professional burnout syndrome, which represents a negative reaction associated with chronic stress experienced at work, leading to emotional exhaustion of the worker<sup>(8)</sup>. The individual starts to treat people with coldness, cynicism, and contempt, a fact that decreases the personal accomplishment at work,

characterized by a feeling of low productivity, making him/ her unhappy and dissatisfied with his/her professional development. This depersonalization process reaches the school environment and interferes with the achievement of pedagogical objectives, leading to important consequences for the educational system and the quality of learning<sup>(8-10)</sup>.

Psychic illness is a problem of notable relevance among teachers with regard to references of symptoms of mental fatigue, nervousness, and in the identification of CMD. Quality of life aspects are significant for maintaining the health of workers who are subjected to constant stress. It is important to note that when teachers' quality of life is negatively affected, the educational process also becomes impaired<sup>(11)</sup>.

Mental disorders are among four of the ten leading causes of functional disability and about 25% of the population is affected at some point in their lives. In Brazil, CMD present a great economic impact and absenteeism from work<sup>(12)</sup>.

The research in the area of worker's health has relevance, because this has been an issue of great concern for professionals, managers, unions and governmental entities due to the negative impact that the work environment can produce on the lives of professionals, influencing their health and well-being<sup>(13)</sup>.

In view of the above, the guiding question of this study is: "Is there an association between CMD and the Burnout Syndrome among college teaching professionals? Therefore, this study aims to describe the suspicion of the Burnout Syndrome and the CMDs among college teaching professionals.

#### Method

The research was developed using a quantitative approach through an epidemiological study of sectional design, whose descriptive characteristic, although comparisons between groups were made due to the search for statistical association, involved the application of logistic regression models.

The study followed Resolution No. 466/2012 and was approved by the ethics committee of the Faculdade de Medicina da Universidade Federal Fluminense, with Opinion No. 2.224.524. Data collection occurred during the second semester of 2018. The total number of participants was 106 education workers, with the population consisting of 108 employees: teachers and pedagogues and support staff (administrative, security, kitchen, and other employees) of the University College. The inclusion criteria were: adult individuals between the ages of 18 and 65, of both sexes, professionals from all shifts. Newly arrived employees with less than three months of work were excluded.

In the first contact, to approach the participants, the purposes of the research were explained and the

Free and Informed Consent Term (FICT) was presented. Each participant filled out this document, since this was a research involving human beings<sup>(14)</sup>.

The data collection instrument contained sections organized by subject, separated by sociodemographic, labor and health characteristics, in addition to the adapted and validated scales, such as the Maslach Burnout Inventory (MBI), to measure the dimensions of BS, and the reduced version of the Self Reporting Questionnaire (SRQ-20), to measure the level of suspicion of CMD. In the validation of the instrument, the cut-off point was recommended as five positive responses for men and seven for women, which was recommended in this study<sup>(15)</sup>.

The adapted and validated version of the Maslach Burnout Inventory (MBI) was used to evaluate the Burnout Syndrome. The instrument is composed of 22 questions with a five-point frequency scale that goes from one to five and evaluates three dimensions: emotional exhaustion - EE (nine statements); depersonalization - DP (five statements) and professional fulfillment - PF (eight statements). Thus, the cutoff points used were for EE high  $\geq$ 27, medium, from 19 to 26 and low <19; for DP high  $\geq$ 10, medium = six to nine and low <6 and for PF high  $\leq$ 33, medium between 34 and 39 and low  $\geq$ 40(15-16).

The absence of scientific consensus about the diagnosis of BS is noted. Three authors bring differentiated diagnostic forms for the suspicion of the syndrome. Grunfeld et al.<sup>(17)</sup> have considered that only one of the altered dimensions is sufficient for suspicion. For Golembiewski, Munzenrider and Carter<sup>(18)</sup> The high degree of DP is sufficient for suspicion, and for Ramirez et al.<sup>(19)</sup> those scoring high in the EE and DP dimensions and low in PF are considered suspect.

Thus, this study analyzed the classification, according to the three authors, for the diagnosis of suspicion of BS and then the data were analyzed in the light of statistics according to the Golembiewski criteria<sup>(18)</sup>.

The variable CMD was evaluated according to twenty closed questions that correspond to the reduced version of the SRQ, created with the purpose of identifying suspected cases of CMD in populations. The SRQ was validated by Mari and Williams (1986) and Ludermir and Lewis (2003) with sensitivity and specificity around  $80\%^{(20-21)}$ .

After performing the descriptive analysis of the characteristics of the population of professionals, the bivariate and stratified analyses were started with the objective of evaluating the association between the variables and the occurrence of suspicion of CMD.

All steps of statistical analysis were performed with the help of the Statistical Package for the Social Science (SPSS) program and, for the calculation of the association measures, the statistical software R.

#### Results

A total of 106 workers from the university college participated in the research. Among the workers, 64 declared themselves white (60.4%). Regarding sex, 79 were women (74.5%). The average age found was 38 years (SD $\pm$ 12.4), with 47 above (44.3%). Regarding education, 57 had completed college or university (53.8%). As for marital status, 54 lived without a partner (50.9%), 54 had no children (50.9%) and per capita income was between four and five minimum wages.

Regarding the professional category, 54 (50.9%) were professors and 52 (49.1%) were support staff. Most had an employment relationship (80.2%), were part of the permanent staff of the institution (58.5%), worked full time (84.9%) and the average time in the sector was four years (SD $\pm$ 5.7), with 74 (69.8%) professionals below this average. The average time in the institution was five years (SD $\pm$ 7.8), with 80 (75.5%) employees below this range. The average weekly workload found was 33 hours (SD $\pm$ 0.5%), with 63 (59.4%) subjects above this value. Most workers 78 (73.6%) reported thinking about work during their time off.

As for the dimensions of BS, 77 (72.6%) workers presented low depersonalization, 83 (78.3%) presented low emotional exhaustion and 61 (57.5%) presented high professional accomplishment. When considering the cut-off points established as suspicious for each dimension: 23 (21.7%) presented high emotional exhaustion; 29 (27.4%), high depersonalization and 45 (42.5%), low professional accomplishment. In the analysis of suspicion of BS, 31 (29.2%) professionals presented BS according to Ramirez<sup>(19)</sup>, 104 (98.1%) according to Grunfeld<sup>(17)</sup> and 29 (27.4%), according to Golembiewski<sup>(18)</sup>. The overall prevalence of suspected CMD among workers was 22.6%.

Table 1 shows the bivariate analysis performed to calculate the level of statistical significance (p<=0.05) between the CMD variable and the variables of sociodemographic, labor and health aspects. An association was observed between female gender, age up to the average of 38 years, thinking about work during time off, thinking about quitting, sedentary lifestyle, and two dimensions of Burnout: depersonalization and emotional exhaustion  $^{(18)}$ .

Table 1 - Prevalence of suspicion of CMD according to sociodemographic, labor and health variables among university college workers. Niterói, RJ, Brazil, 2018

Variables	N*	n†	% <sup>‡</sup>	Value of p§
Sociodemographic variables				
Age				0.007
Up to 38 years old	59	19	32.20	
Over 38 years old	47	05	10.64	
Sex				0.004
Female	79	23	29.11	
Male	27	01	03.70	
Work Variables				
Thinking about quitting your job				0.017
No	70	11	15.71	
Yes, but you don't think anymore	36	13	36.11	
Think about work on your days off				0.016
No	28	02	07.14	
Yes	78	22	28.20	
Health variables				
Physical activity				0.023
No	54	17	31.48	
Yes	52	07	13.46	
Depersonalization				0.016
High	11	04	44.44	
Medium	18	08	15.58	
Emotional Exhaustion				0.044
High	12	06	50.00	
Medium	11	03	27.27	
Low	83	15	18.07	
BS Suspicion <sup>  </sup>				0.005
No	77	12	15.58	
Suspect	29	12	41.37	

<sup>\*</sup>N = Total population; †n = Suspects;  $^{\pm}$ % = Prevalence;  $^{5}$ P value = Fisher's test;  $^{11}$ Second Golembiewski classification

After performing regression modeling and adjusting for potential confounding variables, the following variables

described in Table 2 remained associated with the outcome.

Table 2 - Estimates of the selected model in logistic regression analysis on CMD among university college workers. Niterói, RJ, Brazil, 2018

Variables	PR*	Value of p <sup>†</sup>	95%CI‡		
BS Suspicion	3.77	0.046	1.024-13.926		
Thinking of quitting your job	1.49	0.049	1.001-2.238		
Female sex	10.03	0.032	1.217-82.686		
Older than 38 years	0.25	0.019	0.078-0.794		

<sup>\*</sup>PR = Prevalence ratio;  $^{\dagger}P$  value = Pearson's chi-square test;  $^{\dagger}95\%CI=95\%$  Confidence interval

Among participants who had suspicion for BS, there was a risk of about four times to present CMD (PR=3.776, 95%CI=1.024-13.926). Thinking about leaving work had a risk of about one and a half times of having CMT (PR=1.49, 95%CI=1.001-2.238). The female gender was more prominent, with a tenfold risk of presenting the outcome (PR=10.03, 95%CI=1.21-82.686). As for age, the oldest, in turn, showed protection (PR=0.25, 95%CI=0.078-0.794).

#### **Discussion**

The mental health of workers is one of the most urgent demands in occupational health services. The mental health phenomena - diverse sufferings, discouragement, sadness, depression, harassment, stress, disorders, among others - have their specificity, but they can manifest themselves associated to problems derived from exposure to several types of risk in the work environment<sup>(6)</sup>.

One study revealed, with regard to age range, that the youngest population, in the 18 to 39 age group, had the most significant prevalence of CMD, and this result is close to this study<sup>(22)</sup>.

In another epidemiological, cross-sectional study, carried out with workers at a public university, the age bracket of 33 to 40 years was the one with the highest prevalence. It can be suggested, through this study, that the older the age group, the lower the prevalence of CMD, showing the possibility that the older the worker is, the greater the protection for his mental health<sup>(23)</sup>.

The prevalence of CMD among women was within the range described in the Brazilian adult population for mental disorders of 19% to  $34\%^{(24)}$ . Similar studies have obtained similar results, highlighting women as having a higher prevalence of CMD when compared to men<sup>(25-26)</sup>. In a study conducted with workers in Bahia, female gender was associated with CMD, with a prevalence of  $36.6\%^{(27)}$ . The fact that the majority of the research participants were female may have influenced the increased prevalence in this group.

It was observed that in females, the suspicion of CMD is higher and studies associate the higher prevalence of the occurrence of CMD in the female population to hormonal and psychological factors. The comorbidity profile also seems to differ between genders, with women showing higher rates of anxiety associated with depression and men showing higher rates of substance abuse and conduct disorders<sup>(24,28)</sup>.

The predominance of CMD in this population may also be due to the historical process in which most women entered the labor market through the field of education. Initially, teaching was labeled as a continuation of domestic work<sup>(29)</sup>, which generates wear and tear because of the devaluation and overload

of work, since women often have a triple work day. This overload may be contributing to mental health problems in this group, because, nowadays, much of the work invades personal life, either through tasks or electronic media<sup>(27)</sup>.

The symptoms caused by CMD increase the number of tests and consultations, sometimes unnecessarily, due to the lack of priority given to CMD in primary care<sup>(30)</sup>, producing high costs for the health care system and for individuals and their families, and less measurable costs, such as individual and family group suffering. Losses in quality of life occur due to functional impairment with loss of work performance and social isolation<sup>(31)</sup>.

The work environment provides exposure to stress, which can lead to the development of CMDs. High psychological demands end up being a major factor in mental disorders. In a study carried out with workers in the urban area of Bahia, the work with high psychological demands was associated with CMD<sup>(27)</sup>.

One of the particularities of these diseases, especially in their relation to work, is invisibility. This process occurs because mental problems do not appear in exams and X-rays, such as hypertension, diabetes, gastric ulcers, etc. Most psychic alterations involve chronic, accumulative and multi-causal processes, which can be somatized or not<sup>(32)</sup>.

In Brazil, CMDs are the third leading cause of incapacity for work, accounting for 9% of sick pay and disability retirement<sup>(33)</sup>. According to the monthly social security sickness benefit monitoring for the year 2019, about 14,025 of the benefits were granted to individuals with diagnoses of CMD, data that was worsened due to the pandemic situation<sup>(34)</sup>.

In agreement with the results obtained here, a study observed that workers who constantly think about work during their time off presented a suspicion of relevant CMD whose prevalence was 57.1%. This fact may be related to the fact that workers, especially teachers, have the need to take work home, accumulating responsibilities and not disconnecting from work after the workday<sup>(35)</sup>. The thought of leaving work was also associated with CMD, with a prevalence of 37.57%, as pointed out in a study conducted with maritime workers<sup>(36)</sup>.

The lower prevalence of CMD among education professionals may be due to the investigated environment being a university college where workers are assisted by academics and professors from the university. In addition, the work dynamic is different when compared to that of other public schools in the state and municipal networks. The site has an infirmary and several groups from different areas that carry out projects in the area of health and quality of life with employees and students.

When considering the criteria for the diagnosis of BS, the suspicion was 29.2%. In another study conducted in Diamantina, among state school teachers, 33% of the interviewees with suspicion for BS were found<sup>(37)</sup>. Accordingly, a study conducted with the Nursing team found 12.54% of respondents with suspicion of BS<sup>(19,38)</sup>. The established criterion is very specific, not very sensitive and may miss the diagnosis of suspected cases<sup>(39)</sup>.

As for the dimensions of BS, in this study, it was found that the emotional exhaustion dimension affects 21.7% of the workers, the depersonalization, 27.4%, and the professional accomplishment, 42.5%, being within the expected range for the population, as pointed out in the literature. Consonant to the above, another study showed that BS among Elementary and Secondary Education professionals is high, ranging from 5% to 45.8% in the emotional exhaustion dimension, 3.0% to 32.0% in depersonalization, and 12.4% to 45% for low personal accomplishment<sup>(40)</sup>.

Among the professional categories, those who provide services directly to the public, such as teachers and health professionals are among the most susceptible to the development of Burnout. The presence of stressful components in the exercise of these professions is highlighted, including the conflicting role, the loss of control, the lack of social support, and the overload<sup>(8)</sup>.

Absenteeism from work due to mental disorders has become increasingly visible in recent years, affecting a growing number of workers. Absences for these reasons ranked third in the amount of sick leave granted in 2013, 2014 and 2015, behind only absence due to external causes and musculoskeletal disorders. Such diseases, such as musculoskeletal disorders, can also be associated with mental disorders, which affect health in general<sup>(41)</sup>.

Mental health interventions need to be presented as part of an integrated health and wellness strategy that encompasses prevention, early identification, support and rehabilitation. The WHO also points out that organizations have a responsibility to support workers with mental disorders both to continue in employment and to return to work<sup>(42)</sup>.

Although sectional studies are relevant in many areas, they are restricted to exploring the health status of the study population at a given point in time, calculating exposure and outcome<sup>(43)</sup>. Another limiting factor of this study concerns confounding bias. It is noteworthy that the literature has shown little information about CMD, so it was a challenge to identify the previous confounding variables that could be evaluated, in possible comparisons, in the discussion.

## Conclusion

It was possible to elucidate the prevalence of CMD and BS in the sample studied, taking into consideration

the life habits and the quality of mental health of teachers and other employees. Such results corroborate some studies, so that it is possible to describe the association between being female, young, thinking about work during leisure time, thinking about quitting, sedentary, high depersonalization, and emotional exhaustion.

The relationship between CMD and SB develops from the association between the presence of BS and the higher prevalence of CMD, demonstrating the importance of being studied together through the application of validated scales that are predictive of the risk of involvement.

Mental health affects, in general, the entire social structure of the professional, including the involvement with the family, other co-workers and the physical health in its global aspect, and can be related to the workers' quality of life.

In fact, work can promote quality of life or be a stressful agent for workers. Therefore, it is necessary to disseminate data on research that deals with the topic focusing on the mental health of this public, making them and the employers aware of the importance of promoting a healthy environment that guarantees the subject's integrality in its broader dimensions.

This research contributes to the reflection about quality of life, awakening the critical sense about the signs and symptoms of stress and the awareness about mental health, thus contributing to the field of Epidemiology and the worker's quality of life.

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