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RESEARCH

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Risk of burnout among public servants at a Brazilian university

Risco de esgotamento profissional entre servidores públicos de uma universidade brasileira

Riesgo de agotamiento profesional entre funcionarios públicos de una universidad brasileña

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Abstract

Objective: to investigate factors related to the risk of burnout among public servants at a public university. **Method:** a quantitative study carried out between April and August 2021 with professors and administrative technicians at a university. A characterization instrument, the Maslach Burnout Inventory – Human Services Survey, was used to assess the propensity for burnout, and the Stanford Presenteeism Scale was used to measure presenteeism. Descriptive statistics were applied for exploratory analysis, and nonparametric tests (chi-square of goodness of fit and independence) were used for inferential analysis, considering findings with p<0.05 as significant. **Results:** a total of 253 public servants participated, with an average age of 40.7 years. Although 122 presented a reduced risk of burnout (p<0.000), relationships of dependency with increased risk were identified, such as continuous use of medication, illnesses, absenteeism-illness, presenteeism, type of employment relationship, job dissatisfaction, intention to leave the institution and overcommitment. **Conclusion and implications for practice:** most presented a low or moderate risk of burnout, but are exposed to multiple risk factors. The findings highlight the need for institutional actions to monitor and prevent professional burnout in the university context.

Keywords: Depersonalization; Faculty; Burnout, Professional; Government Employees; Universities.

Resumo

Objetivo: investigar fatores relacionados ao risco de esgotamento profissional entre servidores de uma universidade pública. **Método:** estudo quantitativo realizado entre abril e agosto de 2021 com docentes e técnicos administrativos de uma universidade. Foram utilizados um instrumento de caracterização, o *Maslach Burnout Inventory – Human Services Survey,* para avaliar a propensão ao esgotamento profissional, e a *Stanford Presenteeism Scale*, para mensurar o presenteísmo. Aplicaram-se estatística descritiva, para análise exploratória, e testes não paramétricos (qui-quadrado de aderência e de independência), para análise inferencial, considerando-se significativos os achados com p<0,05. **Resultados:** participaram 253 servidores, com média de idade de 40,7 anos. Embora 122 apresentassem risco reduzido para o esgotamento (p<0,000), identificaram-se relações de dependência com o risco aumentado, como uso contínuo de medicamentos, adoecimentos, absenteísmo-doença, presenteísmo, tipo de vínculo empregatício, insatisfação no trabalho, intenção de deixar a instituição e comprometimento excessivo. **Conclusão e implicações para a prática:** a maioria apresentou risco reduzido ou moderado para *burnout*, mas está exposta a múltiplos fatores de risco. Os achados evidenciam a necessidade de ações institucionais de monitoramento e prevenção do esgotamento profissional no contexto universitário.

Palavras-chave: Despersonalização; Docentes; Esgotamento Profissional; Servidores Públicos; Universidades.

Resumen

Objetivo: investigar los factores relacionados al riesgo de agotamiento profesional entre trabajadores de una universidad pública. **Método:** estudio cuantitativo realizado entre abril y agosto de 2021 con docentes y técnicos administrativos de una universidad. Se utilizaron un instrumento de caracterización, el *Maslach Burnout Inventory – Human Services Survey,* para evaluar la propensión al agotamiento profesional, y la *Stanford Presenteeism Scale,* para medir el presentismo. Se aplicó estadística descriptiva para el análisis exploratorio y pruebas no paramétricas (ji-cuadrado de bondad de ajuste e independencia) para el análisis inferencial, considerándose significativos los hallazgos con p<0,05. **Resultados:** participaron 253 trabajadores, con una edad media de 40,7 años. Aunque 122 presentaron riesgo reducido de agotamiento (p<0,000), se identificaron relaciones de dependencia con mayor riesgo, como uso continuo de medicamentos, enfermedades, ausentismo por enfermedad, presentismo, tipo de vínculo laboral, insatisfacción laboral, intención de dejar la institución y compromiso excesivo. **Conclusión e implicaciones para la práctica:** la mayoría presentó riesgo reducido o moderado de agotamiento, aunque expuesta a múltiples factores de riesgo. Los resultados evidencian la necesidad de acciones institucionales para el monitoreo y la prevención del agotamiento profesional en el ámbito universitario.

Palabras clave: Despersonalización; Docentes; Agotamiento Profesional; Empleados de Gobierno; Universidades.

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INTRODUCTION

Burnout syndrome (BS), also known as professional exhaustion, has become a significant psychosocial problem in the last decade, considerably affecting workers in general and their professional performance.[1] It is characterized by three dimensions - emotional exhaustion (EE), increased mental distance from work (also called depersonalization (DP)) and low professional accomplishment (PA) - and its manifestation is the result of poorly managed chronic stress generated in work settings.[2]

Despite being recognized as one of the factors with the greatest negative impact on the occupational sphere among different professions and occupations, research on how BS has affected professionals has mainly focused on healthcare workers, with knowledge gaps still remaining in other sectors.. When assessing a sample of 260 Canadian oral health technicians, for instance, it was identified that at least 36.2% presented indications of burnout.[3] In Argentina, the prevalence among physicians reached 73.5%, when considering the responses of 302 professionals.[4]

This disorder has also been consolidated early, even during the academic training period. Among Spanish university students enrolled in the medical course, the general prevalence of burnout found was 37%, being higher among those in the final years of graduation.[5] When nursing undergraduate students were assessed, among the 284 investigated, 6% presented a high risk of burnout, 36.3%, high emotional exhaustion, and 37.7%, high DP.[6]

However, even though research has proven to be valid in various contexts and its results have been converted into warnings, segments of the working population exposed to varying levels of stress receive little attention, especially public servants. Among Chinese professors, emotional exhaustion was identified as a psychological mechanism in response to the negative impact that work-related stress has on life satisfaction.[7] In line with this, in Brazil, at another educational institution, it was found that professionals with a highly demanding profile regarding the work performed had a lower resilience index.[8]

Despite the growing concern about burnout, it is observed that the propensity for the development of BS and its dimensions have not yet been widely explored in public servants of Higher Education Institutions (HEIs). Studies such as the one carried out in Kazakhstan have assessed burnout among state public servants broadly, without delving into specific categories within the public sector.[9] In Brazil, measurement was carried out with state public servants of a given administrative area.[10] In both cases, assessment was carried out generally among public sector professionals, without specifically addressing those who occupy different positions within institutions such as HEIs.

Thus, this study is justified by addressing a population that has not been fully investigated in relation to BS, expanding the understanding of factors related to its occurrence and its implications. Furthermore, the assessment of the three dimensions of BS with an instrument widely validated in the literature allows a more precise analysis of the propensity for burnout among these professionals, contributing to the formulation of preventive and intervention strategies in public universities.

Given the above, the study aimed to investigate factors related to the risk of professional burnout among public servants at a public university.

METHOD

This is a quantitative, exploratory, analytical and cross-sectional study, developed in accordance with the STrengthening the Reporting of OBservational studies in Epidemiology guidelines.

The study was conducted at a single federal HEI, which has campuses in the cities of Acarape and Redenção, in the state of Ceará, and in São Francisco do Conde, in the state of Bahia. Data collection was conducted remotely at all of these campuses between April and August 2021.

The population of interest, until June 2020, was made up of 701 linked public servants, including 329 administrative technicians in education (ATE) and 372 professors.

Participants that were public servants of the institution under study, part of the teaching and administrative staff categories, and with an active link with the institution, including being a requisitioned or seconded employee, appointed to a commissioned position, with a substitute or visiting professor contract, and using their institutional email address, were included. Professionals with a period of service at the institution of one year or less were excluded from the study. This information was immediately verified on the list provided by the institution itself so that invitations to participate were directed only to professionals with more than one year of institutional connection.

To calculate the minimum sample size required, the calculation strategy for finite populations was used, with the following parameters: a population of 701 public servants; an expected proportion of 50% (due to the absence of previous data on the topic); a 95% confidence level ($Z\alpha/2 = 1.96$); and a 5% margin of error. Based on these values, the minimum sample size was estimated at 248.4 participants. The final sample was stratified by professional category, workplace and gender, totaling 253 public servants. Of these, 121 were administrative technicians, 14 of whom were located in the state of Bahia (seven males and seven females) and 107 in the state of Ceará (51 males, 55 females and one who identified with another gender). The remaining 132 participants were professors, 25 of whom were located in Bahia (12 males and 13 females) and 107 in Ceará (55 males and 52 females).

Data collection was carried out by applying an online self-completion questionnaire, built using Google Forms®, due to public servants' emergency remote work condition, using digital communication and information technologies to contact public servants.

Initially, a spreadsheet containing the identification data and contact e-mail addresses of all public servants in the institution was used, through a random selection of participants. Regarding recruitment, an invitation was sent to each public servant's institutional e-mail, containing the link to the online questionnaire and the Informed Consent Form (ICF). However, due to the difficulty in adherence and the delay in obtaining responses, the strategy of sending the online questionnaires in bulk by stratum

(gender, professional category and state) was adopted, covering the invitation to all public servants.

The questionnaire used was adapted based on the Paschoalin et al.[11] instrument, including questions about sociodemographic data, lifestyle, health and work activity. Moreover, the Maslach Burnout Inventory – Human Services Survey (MBI-HSS), developed by Christina Maslach and Susan Jackson, translated and validated in Brazil by Trigo,[12] was used to measure the propensity to develop BS, also called risk in this study, considered a continuous variable based on the instrument dimensions. The tool has a score from 0 to 6, representing the following frequency scale: 0) never; 1) a few times a year; 2) once a month; 3) a few times a month; 4) every week; 5) a few times a week; and 6) every day.

The scale used consists of 22 items, distributed in three dimensions: nine related to EE, which assesses feelings of overload and extreme fatigue caused by work; five items focused on DP, which measure impersonal attitudes and lack of empathy in professional practice; and eight items related to PA, which examine perceptions of competency and success in the performance of work activities. Professional burnout assessment was carried out based on these three dimensions (EE, DP and PA), classified as low, moderate and high levels. In this study, as proposed by Sousa et al.,[13] the term "ineffectiveness" was adopted as indicative of low PA.

Each subscale is assessed separately, and each has cut-off points: EE – high (≥ 27), moderate (17 to 26), low (≤ 16); DP - high (≥ 13), moderate (7 to 12), low (≤ 6); and ineffectiveness – high (0 to 31), moderate (32 to 38), low (≥ 39).[14] However, the values of this last subscale were inverted for analysis purposes, considering the interpretation proposal adopted in this study: high (≥ 39), moderate (32 to 38) and low (0 to 31) PA. This inversion is justified by the lack of consensus in the literature on the classification of the syndrome based on the results of MBI-HSS, and an approach that considers the relationship between the subscales is adopted here, as suggested by several authors.[15]

A high score in EE or DP, or a low score in PA, is considered an indication of risk for BS, with one risk point being assigned to each of these criteria. Thus, workers who score three points are classified as having burnout; those with two points are considered high risk; those with one point are considered moderate risk; and those who present EE and DP, at medium or low levels, related to PA at medium or high levels, are classified as having low risk for the syndrome.[13]

Furthermore, to assess the presenteeism variable, which refers to the situation in which the individual is physically present in work settings, but, due to various factors, including health issues, is unable to concentrate or fully dedicate themselves to their activities,[14] the translated, adapted and validated version by Paschoalin et al.[11] of the Stanford Presenteeism Scale (SPS-6) was used.

The SPS-6 assesses the work performance of individuals affected by presenteeism. The instrument consists of six items, divided into two dimensions, with three items in each: completing work (items 2, 5 and 6), which refers to the amount of work completed by professionals during the period of presenteeism; avoided distraction (items 1, 3 and 4), which assesses the effort required to maintain concentration at work, even in the face of difficulties related to presenteeism.

The data obtained through Google Forms® online were extracted from the G Suite for Education – Google Sheets® setting, kept linked in a Google Drive® file, and were designated as Microsoft Excel Worksheet® for conversion and import into a Microsoft Excel® spreadsheet; this file underwent exploratory analysis and adjustment of the registration base to adapt to statistical packages. The data were then processed in the publicly available statistical program Epi Info® version 7.2.5.0 (CDC, Atlanta-USA), and in the IBM® SPSS® Statistics version 23.

Descriptive variables included biosocial and economic aspects, such as workplace, sex, age, marital status, household cohabitation, family income (in minimum wages), length of service at the institution (in years), professional category, additional professional ties, weekly workload, Body Mass Index (BMI) classification, physical activity, use of medications, use of continuous medications, smoking time, alcohol consumption, health status, possession of private health insurance, pre-existing diseases, development of health problems, absences from work due to illness, presenteeism, management position, overcommitment, intention to leave the institution, and job satisfaction.

For bivariate analysis, some variables were dichotomized, such as age group (less than or more than 40 years), sex (excluding the "other" option), marital status (with or without a partner), family income (in ranges), BMI classification (normal or altered), smoking history (yes or no), health status ("very good/good" or "regular/poor/very poor") and length of service at the institution (less than or more than three years).

Variables related to the propensity for professional burnout were represented by the EE, DP and PA subscales, as well as by the burnout classification levels: high/high, moderate/medium and low/low. It is worth noting that, for the analysis of the relationship between the subscales and the classification levels, the "high/high" and "indicative of burnout" categories were grouped, due to the number of responses obtained in each of them.

Descriptive analyses were performed for numerical variables using arithmetic mean, standard deviation, median, minimum and maximum values, and for categorical variables, using absolute and relative frequencies. In univariate analysis, the chi-square goodness-of-fit test was applied to assess the significance of the distribution of observed data in relation to expected proportions. In the inferential stage, nonparametric statistical tests were used, with emphasis on Pearson's chi-square test of independence in the analysis of bivariate relationships between categorical variables, and Fisher's exact test as an alternative in cases where chi-square assumptions were not met.

To compare the numerical results of the scales, based on specific characteristics of public servants, such as sociodemographic and work variables, the Mann-Whitney U test (comparisons of up to two conditions) and Kruskal-Wallis test (comparisons with more than two dimensions) were used. Findings with a descriptive level (p-value) lower than 0.05 were considered significant.

The assumptions of Resolution 466 of December 12, 2012, issued by the Brazilian National Health Council, which establishes the ethical precepts involved in research involving human beings, were respected. The study was only implemented after approval by the Research Ethics Committee, under Certificate of Submission for Ethical Consideration 39390220800005576 and Opinion 4,429,653, and was subject to completion of ICF by each employee and made available in digital format, through a specific section in the questionnaire. Participants were then directed to complete the online questionnaire adapted in Google Forms®.

RESULTS

A total of 253 public servants from the HEI participated in the study, with 39 belonging to the Bahia campus and 215 to the Ceará campuses (p<0.000). Concerning sociodemographic characteristics, the same number of females and males participated (50.0%; p>0.05). The mean age was 40.7 years. At the same time, the majority were married/in a stable union (62.1%; p<0.000); 62.8% lived with their spouse (p<0.000); and 41.1% had a family income of six to ten minimum wages (p<0.000).

The mean length of service at the institution was 6.11 years (SD: 2.27 years), with a higher proportion of public servants having worked at the university for more than three years (p<0.000), with individuals linked since its foundation, among which 52.2% were professors and 47.8% were ATE (p=0.489). Most participants had no other employment relationships, but 4.0% stated that they worked in other places (p<0.000). Finally, the largest portion worked 40 hours per week (96.4%; p<0.000).

Table 1 presents the frequencies obtained for each of MBI-HSS items. Initially, in the EE subscale, the items "I feel frustrated by my job" and "I feel used up at the end of the workday" stand out, when, when adding the last three assessment items, 42.5% (p<0.000) and 49.1% (p<0.000) of participants, respectively, felt this way at least once a week.

Table 1. Percentage of relative frequency of each item of the Maslach Burnout Inventory within the corresponding dimension.

Subscales and items	Intensity scores - % (n = 253)							p-value*
	0	1	2	3	4	5	6	
Emotional exhaustion								
I feel emotionally drained from my work	33 (13.0)	57 (22.4)	17 (6.7)	39 (15.4)	21 (8.3)	72 (28.3)	15 (5.9)	0.000
I feel used up at the end of the workday	21 (8.3)	46 (18.2)	22 (8.7)	40 (15.8)	25 (9.9)	70 (27.7)	29 (11.5)	0.000
I feel fatigues when I get up in the morning and have to face another day on the job	60 (23.7)	52 (20.6)	22 (8.7)	39 (15.4)	21 (8.3)	42 (16.6)	17 (6.7)	0.000
Working with people all day is really a strain for me	116 (45.8)	63 (24.9)	22 (8.7)	22 (8.7)	13 (5.1)	10 (4.0)	07 (2.8)	0.000
I feel burned out from my work	45 (17.8)	60 (23.7)	23 (9.1)	42 (16.6)	30 (11.9)	39 (15.4)	14 (5.5)	0.000
I feel frustrated by my job	103 (40.7)	64 (25.3)	29 (11.5)	30 (11.9)	08 (3.2)	11 (4.3)	08 (3.2)	0.000
I feel I'm working too hard on my job	41 (16.2)	58 (22.9)	33 (13.0)	33 (13.0)	27 (10.7)	41 (16.2)	20 (7.9)	0.000
Working with people directly puts too much stress on me	77 (30.4)	76 (30.0)	39 (15.4)	19 (7.5)	22 (8.7)	12 (4.7)	8 (3.2)	0.000
I feel like I'm at the end of my rope	166 (65.6)	35 (13.8)	15 (5.9)	15 (5.9)	06 (2.4)	9 (3.6)	7 (2.8)	0.000
Mean sum of emotional exhaustion scores	Arithmetic mean (18.8) - standard deviation (11.9) Minimum (0.0) - median (19.0) - maximum (54.0)							
Depersonalization								
I feel I treat some recipients as if they were impersonal 'objects'	207 (81.8)	22 (8.7)	6 (2.4)	6 (2.4)	05 (2.0)	04 (1.6)	03 (1.2)	0.000

Legend: 0. Never; 1. A few times a year; 2. Once a month; 3. A few times a month; 4. Every week; 5. A few times a week; 6. Every day.
*Chi-square goodness-of-fit test.

Table 1. Continued...

Subscales and items	Intensity scores - % (n = 253)							p-value*
	0	1	2	3	4	5	6	
I've become more callous toward people since I took this job	162 (64.0)	37 (14.6)	14 (5.5)	17 (6.7)	08 (3.2)	06 (2.4)	09 (3.6)	0.000
I worry that this job is hardening me emotionally	137 (54.2)	43 (17.0)	13 (5.1)	29 (11.5)	06 (2.4)	10 (4.0)	15 (5.9)	0.000
I don't really care what happens to some recipients	167 (66.0)	42 (16.6)	14 (5.5)	07 (2.8)	04 (1.6)	09 (3.6)	10 (4.0)	0.000
I feel recipients blame me for some of their problems	117 (46.2)	64 (25.3)	20 (7.9)	21 (8.3)	11 (4.3)	13 (5.1)	07 (2.8)	0.000
Mean sum of depersonalization scores	Arithmetic mean (4.7) - standard deviation (5.0) Minimum (0.0) – median (4.0) – maximum (30.0)							
Professional accomplishment								
I can easily understand how my recipients feel about things	07 (2.8)	12 (4.7)	10 (4.0)	37 (14.6)	23 (9.1)	82 (32.4)	82 (32.4)	0.000
I deal very effectively with the problems of my recipients	17 (6.7)	16 (6.3)	16 (6.3)	26 (10.3)	16 (6.3)	71 (28.1)	91 (36.0)	0.000
I feel I'm positively influencing other people's lives through my work	06 (2.4)	15 (5.9)	15 (5.9)	27 (10.7)	31 (12.3)	81 (32.0)	78 (30.8)	0.000
I feel energetic	12 (4.7)	17 (6.7)	24 (9.5)	36 (14.2)	39 (15.4)	85 (33.6)	40 (15.8)	0.000
I can easily create a relaxed atmosphere with my recipients	12 (4.7)	16 (6.3)	19 (7.5)	34 (13.4)	29 (11.5)	80 (31.6)	63 (24.9)	0.000
I feel exhilarated after working closely with my recipients	15 (5.9)	08 (3.2)	20 (7.9)	32 (12.6)	35 (13.8)	73 (28.9)	70 (27.7)	0.000
I have accomplished many worthwhile things in this job	03 (1.2)	21 (8.3)	19 (7.5)	28 (11.1)	34 (13.4)	74 (29.2)	74 (29.2)	0.000
In my work, I deal with emotional problems very calmly	19 (7.5)	35 (13.8)	41 (16.2)	38 (15.0)	30 (11.9)	50 (19.8)	40 (15.8)	0.012
Mean sum of professional accomplishment scores	Arithmetic mean (33.2) - standard deviation (9.6) Minimum (0.0) – median (34.0) – maximum (48.0)							

Legend: 0. Never; 1. A few times a year; 2. Once a month; 3. A few times a month; 4. Every week; 5. A few times a week; 6. Every day.
*Chi-square goodness-of-fit test.

When analyzing the DP subscale, most of interviewees had never experienced the situations suggested in the survey questions. However, it is worth highlighting the 11.5% of individuals who felt that "Work was hardening them emotionally" (p<0.000). Furthermore, in the PA subscale, the results were positive. However, it is noteworthy that 37.5%, when adding the first three assessment items, were able to "Deal emotional problems calmly" at most once a month (p<0.05).

MBI-HSS subscales were also analyzed according to the burnout risk classification. When EE and DP were assessed, the majority of participants were classified as having low risk – 43.5% (p<0.001) and 72.0% (p<0.000), respectively. At the same time, although 35.8% of interviewees had a high level of PA, it is noteworthy that 39.4% were classified as having a low level (p<0.05). Overall, 48.2% of workers had a low risk of burnout (p<0.000), but it is worth noting that 2.8% already had indications of the presence of exhaustion (Table 2).

When analyzing the relationships with variables related to work, health and quality of life, significant results were found, according to the results presented in Table 3 below. It is worth noting that most of interviewees who use medication continuously presented a high risk or were already experiencing burnout

Table 2. Distribution of frequencies and measures of the level of burnout according to the Maslach Burnout Inventory - Human Services Survey dimensions of public servants of the Higher Education Institution.

Subscale		CLASSIFICATION LEVELS			p-value*
		High	Medium	Low	
Emotional exhaustion	n (%)	64 (25.2)	79 (31,1)	110 (43,5)	0.001
	95%CI	[20.0 - 31.0]	[25.5 - 37.2]	[37.5-50.0]	
Depersonalization	n (%)	19 (7.5)	52 (20.5)	184 (72.0)	0.000
	95%CI	[4.6 - 11.4]	[15.7 – 26.0]	[66.1-77.5]	
Professional accomplishment	n (%)	91 (35.8)	63 (24.8)	100 (39.4)	0.012
	95%CI	[29.9 - 42.0]	[19.6 - 30.6]	[33.3-45.7]	
Low risk of burnout		122 (48.2) - 95%CI [42.1 – 54.8]			0.000
Moderate risk of burnout		86 (33.9) - 95%CI [28.1 – 40.00]			
High risk of burnout		38 (15.0) - 95%CI [10.81 – 19.9]			
Indicative of burnout		07 (2.8) - 95%CI [1.1 – 5.6]			

Legend: n – absolute value; (%) relative value; 95%CI - 95% Confidence Interval;
*Chi-square test of adherence.

(37.84%; p<0.003). Other health variables contain a significant portion of interviewees in the same situation, namely "Developed a health problem" (28.05%; p<0.003) and "Absent from work due to illness" (34.38%; p<0.000).

At the same time, the high risk/burnout classification maintains a dependent relationship for public servants with presenteeism (23.13%; p<0.05), job dissatisfaction (33.72%; p<0.000), thinking about leaving the institution (24.29%; p<0.001), overcommitment (33.33%; p<0.000), as well as the type of employment relationship in 12.88% of professors and 23.14% of ATE (p<0.05).

DISCUSSION

There are few reports in literature that have investigated professors and administrative technicians together in the context of educational institutions. In a Brazilian study with 1,363 professionals from both professions, the BS index was considered moderate, and it is noteworthy that the variable "I feel used up at the end of the workday" also stood out among the aspects assessed.[16] When only professors were assessed (the most common approach in previous studies), the results found, after assessing professors at a Brazilian public university, indicate that more than a third of them suffered from burnout (36.6%),[17] which goes in the opposite direction to that identified in the present study.

More specifically, when the EE and DP subscales were assessed, most participants were classified as having a low level, while at the same time they presented a high level of PA. When compared with medical professors from Pakistan, the results are also opposite, since 38.9% and 31.5% obtained high scores regarding EE and DP, respectively.[18] It is interesting, however, to highlight that, when comparing North American physicians who choose an academic career with those not affiliated with educational institutions, the former are less likely to feel EE and feel more satisfied with their careers.[19]

Among participants, the same number of females and males were identified. Of these, women were more frequently classified as having a high risk of burnout, which is in line with previous studies, which demonstrated that women are more vulnerable to the problem compared to other population groups. Among occupational therapists and psychologists, women were indicated as a vulnerable group for BS,[20] a scenario also identified among medical students, of whom women presented more burnout traits than men.[21]

Regarding employment relationships, the largest proportion is made up of professors, and among them, the majority were considered to be at low risk. On the other hand, even given the multiple activities carried out by professors in the academic setting, in addition to the high workload, when assessing the prevalence of BS among professionals working in schools in the basic education network, values between 25.12% and 74% were found.[22] Among those linked to Chinese universities, burnout was positively related to turnover, i.e., to changes in the workplace,[23] which was also found in the present study, since about a quarter of the interviewees who "Have already thought about leaving the institution" presented a high risk of burnout.

It is also worth noting that people in a situation of presenteeism, i.e., when an individual shows up for work but is unable to fully dedicate themselves to their tasks, were concomitantly classified as having a high risk of burnout when compared to their non-presenteeist peers. Although little investigated in the university context, research with basic education teachers shows high rates of presenteeism among those investigated.[24,25]

In this context, job satisfaction was inversely related to moderate or high risk of burnout. A study carried out in Brazil in

Table 3. Factors related to the propensity for burnout among public servants of a public Higher Education Institution (n=253).

VARIABLES	Risk of burnout			Statistics [p-value]
	Low risk [%]	Medium risk [%]	*High risk/*burnout* [%]	
Age range				
Under 40 years	63 [45.99]	45 [32.85]	29 [21.17]	0.310[1]
40 years or older	59 [50.86]	41 [35.34]	16 [13.79]	
Sex (n=252)				
Male	60 [47.62]	48 [38.10]	18 [14.29]	0.266[1]
Female	62 [49.21]	38 [30.16]	26 [20.63]	
Marital status				
Without a partner	45 [46.88]	32 [33.33]	19 [19.79]	0.808[1]
With a partner	77 [49.04]	54 [34.39]	26 [16.56]	
Income range				
Up to ten minimum wages	68 [44.74]	56 [36.84]	28 [18.42]	0.375[1]
Above ten minimum wages	49 [53.85]	29 [31.87]	13 [14.29]	
BMI classification				
Normal	55 [52.38]	33 [31.43]	17 [16.19]	0.536[1]
Changed	67 [45.27]	53 [35.81]	28 [18.92]	
Physical activity				
Yes	88 [51.46]	57 [33.33]	26 [15.20]	0.203[1]
No	34 [41.46]	29 [35.37]	19 [23.17]	
Use of medication				
Yes	84 [46.67]	62 [34.44]	34 [18.89]	0.678[1]
No	38 [52.05]	24 [32.88]	11 [15.07]	
Use of continuous-use medications				
Yes	13 [35.14]	10 [27.03]	14 [37.84]	0.003[1]
No	109 [50.46]	76 [35.19]	31 [14.35]	
Smoking history				
Yes	16 [42.11]	11 [28.95]	11 [28.95]	0.149[1]
No	106 [49.30]	75 [34.88]	34 [15.81]	
Consumption of alcoholic beverages				
Yes	77 [47.24]	61 [37.42]	25 [15.34]	0.200[1]
No	45 [50.00]	25 [27.78]	20 [22.22]	
Health status				
Very good/good	95 [52.78]	56 [31.11]	29 [16.11]	0.075[1]
Regular/poor/very poor	27 [36.99]	30 [41.10]	16 [21.92]	
Private health insurance				
Yes	106 [47.96]	75 [33.94]	40 [18.10]	0.941[1]
No	16 [50.00]	11 [34.38]	5 [15.63]	

Legend: BMI – Body Mass Index; Chi-square test of independence; [2]Fisher's exact test;
*High risk and burnout classification were grouped.

Table 3. Continued...

VARIABLES	Risk of burnout			Statistics [p-value]
	Low risk [%]	Medium risk [%]	*High risk/*burnout* [%]	
Existing diseases				
Yes	17 [60.71]	6 [21.43]	5 [17.86]	0.297[2]
No	105 [46.67]	80 [35.56]	40 [17.78]	
Developed health problem				
Yes	29 [35.37]	30 [36.59]	23 [28.05]	0.003[1]
No	93 [54.39]	56 [32.75]	22 [12.87]	
Missed work due to illness				
Yes	17 [26.56]	25 [39.06]	22 [34.38]	0.000[1]
No	105 [55.56]	61 [32.28]	23 [12.17]	
Length of service at the institution				
Less than three years	18 [54.55]	8 [24.24]	7 [21.21]	0.443[1]
Three years or more	104 [47.27]	78 [35.45]	38 [17.27]	
Presenteeism				
Yes	71 [44.38]	52 [32.50]	37 [23.13]	0.014[1]
No	51 [54.84]	34 [36.56]	08 [8.60]	
Employment relationship				
Professor	72 [54.55]	43 [32.58]	17 [12.88]	0.045[1]
Administrative technician in education	50 [41.32]	43 [35.54]	28 [23.14]	
Management position				
Yes	39 [49.37]	22 [27.85]	18 [22.78]	0.232[1]
No	83 [47.70]	64 [36.78]	27 [15.52]	
Overcommitment				
Yes	28 [29.17]	36 [37.50]	32 [33.33]	0.000[1]
No	94 [59.87]	50 [31.85]	13 [8.28]	
Thought about leaving the institution				
Yes	55 [39.29]	51 [36.43]	34 [24.29]	0.001[1]
No	67 [59.29]	35 [30.97]	11 [9.73]	
Job satisfaction				
Yes	96 [57.49]	55 [32.93]	16 [9.58]	0.000[1]
No	26 [30.23]	31 [36.05]	29 [33.72]	

Legend: BMI – Body Mass Index; Chi-square test of independence; [2]Fisher's exact test;
*High risk and burnout classification were grouped.

2022 showed that professors included were partially satisfied with their workplaces.[26] It is likely that factors such as intense workload, accumulation of responsibilities, reduced rest periods, working in crowded settings, low wages, among other adverse conditions, contribute to unfavorable levels of satisfaction.[27,28]

Finally, aspects related to public servants' health also stood out. Among those public servants who used medication continuously, most were classified as being at high risk for BS. At the same time, the relationship between "Having developed a health problem" or "Being absent due to illness" and moderate or high risk for the syndrome was also significant. Therefore, it is worth noting that, biologically, exhaustion can trigger immunological consequences, neurological changes, inflammatory events, cardiovascular disorders and, in extreme cases, premature death.[29]

Changes in health conditions may be directly related to EE, as identified among Dutch workers, for whom it was related to mental, physical and emotional damage, in addition to implying job loss and demand for healthcare.[30] It is also worth highlighting that high scores in this dimension may be linked to the "overcommitment" indicator, with a statistically significant relationship in this study. This condition can also be evidenced when examining medical assistants, nurses, bank employees and professors, with emphasis on the latter professional category, which had higher levels of overcommitment and, consequently, a higher level of EE.[31]

CONCLUSION AND IMPLICATIONS FOR PRACTICE

Most of interviewees presented low or moderate risk for burnout. However, aspects such as "I feel used up at the end of the workday" and "I worry that this job is hardening me emotionally" emerged as critical points, indicating the existence of a portion of public servants with a high risk for burnout.

The relationships found between burnout and variables related to work, health and quality of life reinforce the need for strategic interventions to prevent occupational illness. It is noteworthy that public servants who continuously use medication were at greater risk for burnout, as were those who reported developing health problems and absences from work due to illness. Moreover, the high risk for burnout was related to presenteeism, job dissatisfaction, intention to leave the institution and overcommitment, with differences also observed between professors and administrative technicians.

Among the study limitations, we highlighted the partial participation of public servants allocated to units outside the headquarters, which required adaptations in the sample distribution, although the sizing was achieved. In addition to this, the data were based on self-reports, which may generate response bias, and job loss assessment was restricted to the 30 days prior to the interview, which may result in a partial representation of participants' annual experience.

As a contribution to occupational health, the findings highlight the importance of continuous monitoring of mental health and working conditions in HEIs. Institutional strategies for psychosocial support, stress management and occupational health promotion are essential to mitigate the impacts of burnout and ensure better working conditions.

For future research, it is recommended to expand longitudinal analysis to monitor the evolution of symptoms over time, allowing the identification of patterns and predictors of burnout. Moreover, studies that assess the impact of institutional interventions, such as well-being programs and flexible working hours, can contribute to the development of more effective policies to promote worker health.

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DATA AVAILABILITY RESEARCH

The contents underlying the research text are contained in the article.

CONFLICT OF INTEREST

No conflict of interest.

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