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## PREVALENCE OF BURNOUT SYNDROME IN UNIVERSITIES AND THEIR ASSOCIATED FACTORS

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#### ABSTRACT

Objetivo: This study aims to identify the prevalence of Burnout Syndrome and associated factors in college students. Methods: This is a cross-sectional and analytical research conducted with 1553 university students. The sample was of the probabilistic type per cluster. Data were collected by a multiprofessional team through a self-administered questionnaire. In the hierarchical multiple analysis, the Poisson regression model was used. Results: It was found that 11.8% of students had Burnout Syndrome, and the associated factors were: impaired sleep (p <0.001), insufficient leisure (p = 0.005); study in private institutions (p = 0.001); depressive symptoms (p <0.001), problematic internet use (p = 0.004), internet addiction (p = 0.001) and inability to cope with stress (p = 0.039). Conclusion: This study found that part of the undergraduates presented Burnout Syndrome, which was associated with impaired sleep, inability to cope with stress, insufficient leisure, depressive symptoms, intermediate addiction, deficiency of socio-affective interactions and private institutions.

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## **INTRODUCTION**

The Burnout Syndrome (BS) has been considered an occupational health issue that affects a substantial portion of workers on international and national scenes (Wei et al. 2015, Costa et al. 2012). The BS manifests itself as a state of exhaustion, due to a condition that is a result of chronic stress, which occurs on people that somehow deal on a daily basis with other people. The subject, due to an impaired coping process, shows energy reduction signs, result of the continuous stress, lack of support or damaged relationship and the conflict

between expectations and reality (Garcia et al. 2016, Wanget al. 2015). Thus, BS has shown to be important for society, expanding its studies to the student field. In this context, there is graduation, which can be highly stressful, requiring students to face daily pressure and demands, in addition to going through moments of transition, uncertainties and great responsibilities, when they start to have direct contact with customers during the internships (Schaufeli et al. 2002, Pinto et al. 2018). The structure of BS in students has three welldefined dimensions: emotional exhaustion that is manifested by physical and mental exhaustion and tiredness; disbelief, in

which defensive behaviors stand out, as well as the desire to leave the course and professional effectiveness, which is characterized by feelings of ineffectiveness in carrying out their actions. Authors point out that a large percentage of students are in the risk zone, characterized by high levels of emotional exhaustion, considered the first dimension to emerge, indicating the development of BS (Vilela et al. 2013, Tomaschewski-Barlem et al. 2014, Magri et al. 2016). Previous studies have pointed out the dimensions of BS in different countries and regions. As an example, in a survey conducted in China, with 276 students from three major universities in the country, revealed a prevalence of 29.34% for emotional exhaustion, 16.89% for disbelief and 33.56% for low professional effectiveness (Wei et al. 2015). In Brazil, a study conducted with medical students, had 62.6% high scores for emotional exhaustion, (47.4%) high scores for disbelief and 60.2% low scores for professional effectiveness (Costa et al. 2012). The occurrence of BS in university students can be associated with factors such as: not living with parents or family members, not having an affective relationship, not being in the first choice course in the entrance exam, having an extracurricular job and not practicing physical activities (Goñi et al. 2015, Christofoletti et al. 2007). It is known that Brazilian miscegenation promotes a very diverse cultural identity to the country, with different habits, including educational realities. Therefore, it is important to analyze BS in students in these different contexts, aiming at early detection, which allows preventive interventions, avoiding, in addition to the aggravation, the symptomatological and behavioral repercussions from BS (Ricardo et al. 2013, Araújo et al. 2012). In view of the importance of early BS investigation in university students, and the scarcity of studies on the subject in the northern region of Minas Gerais, it is necessary to identify the prevalence of Burnout Syndrome and the associated factors in university students.

## **MATERIALS AND METHODS**

It is an epidemiological, transversal and analytical study, which was part of the research entitled "Estudantes online: uso e dependência da internet" (in English: "Online students: use and dependence on the internet"). It was carried out in the urban area of the city of Montes Claros, in public and private schools, whose target population consisted in students from high school (N = 16,216) and higher education (N = 25,883) regularly enrolled in public and private institutions in the urban area of this city, in northern Minas Gerais, Brazil. The information was based on the 2012 and 2014 school census of the municipality. The sample size was determined for the cross-sectional study, adopting the following parameters: event prevalence of 13%, confidence level of 95% and margin of error of 2%, with correction for finite population. An increase of 15% was also established to compensate for possible losses and a correction was made for the design effect (deff = 2.0). The estimated sample size was 2500 students, 963 from high school and 1537 from higher education. The sample selection was of the probabilistic type by conglomerate and in three stages in higher education. In the first stage, by probability proportional to size (PPS), the educational institutions were drawn. In the second stage, courses stratified by the area of knowledge (health/biological, exact, human and social applied sciences) were drawn by PPS, and, in the third stage, by simple random sampling (SRS), two classes per course were drawn. All students in the selected classes were invited to participate in the study. For the present study, only students from higher

education who participated in the original study present on the day of data collection were included. The data were collected in person at each institution, between the second semester of 2016 and the entire year of 2017, by a multiprofessional team, through a questionnaire, which included the sociodemographic, occupational, lifestyle habits, socio-affective relationships, living conditions. study and emotional aspects (Chart 1). For the BS evaluation, the Maslach Burnout Inventory - Student Survey (MBI-SS) was used, which is an improved adaptation of the Maslach Burnout Inventory -General Survey (MBI-GS), developed by Schaufeli, Leiter, Maslach and Jackson in 1996. This instrument is a selfadministered questionnaire, validated and considered a gold standard instrument, which assesses the signs and symptoms and dimensions of BS (Schaufeli et al. 2002, Magri et al. 2016).

The data obtained were digitized in duplicate, organized and analyzed using the software Statistical Package for the Social Sciences (SPSS) for Windows, version 20.0. The studied variables were described by means of their distribution of absolute and percentage frequency with correction by the effect of the drawing (deff). Then, bivariate analyzes were performed between the outcome variable (Burnout Syndrome) independent and each variable (sociodemographic, occupational, lifestyle, socio-affective relationships, study conditions and emotional aspects). Gross Prevalence Ratios (PR) were estimated, with their respective 95% confidence intervals. The variables that presented a descriptive level (pvalue) below 0.20 were selected for multiple analysis. In the multiple analysis, the Poisson Regression model with robust variance was adopted, with hierarchical entry of the blocks of variables at distal, intermediate and proximal levels, according to the interaction of these levels in the BS development process (Figure 1). The block of variables of the sociodemographic and occupational profile (distal level) was the first to be introduced in the model, afterwards the lifestyle variables and socio-affective relationships (intermediate level) and, finally, the variables related to conditions of employment were allocated. study and emotional aspects (proximal level), remaining in the model of each block only those that presented a descriptive level p 0.05, after adjusting for the three levels of independent variables. Prevalence Ratios (PR) were estimated, adjusted with their respective 95% confidence intervals. The study complied with the ethical principles of the Resolution of the National Health Council (CNS, in portuguese) N°. 466/2012 and the project for this research was approved by the Research Ethics Committee (CEP/Unimontes, in portuguese, n° 1.520.173). Students under the age of 18 and their guardian signed the Free and Informed Assent Form (FIAF) and the Free and Informed Consent Form (FICF), respectively. Participants aged 18 and over signed the FICF.

#### RESULTS

In this study, 1553 higher education students participated, the majority being female (63.5%), under the age of 30 (85.9%), without companions (83.9%) and belonging to economic class B or C (88.1%). As for school and occupational characteristics, 75% studied in private institutions, 65.5% were studying on the night shift and 47.6% had a job. Regarding behavioral aspects, 44.9% consumed alcoholic beverages, 14.1% were smokers and 6.3% had ever used drugs such as cocaine or marijuana.

# Chart 1. Sociodemographic, occupational, lifestyle variables, socio-affective relationships, study conditions and emotional aspects, measures, categories and instruments adopted in a sample of high school students from Montes Claros - Minas Gerais, Brazil, 2016/2017.

Variables	Measures	Category	Instrument	
Sociodemographic char	acteristics Classification according to sex.	Male Feminine	Structured quastionnair	
Sex Age	Age group.	Male reminine 15 to 17 years Greater than or equal to 18 years	Structured questionnaire Structured questionnaire	
Parents' education	Higher level of education.	Illiterate / incomplete elementary school / Complete elementary school and incomplete high school Complete high school / incomplete and complete higher education.	Structured questionnaire	
Economic class	Economic class evaluated by the Classification Criterion Brazilian Economic Commission (CCEB).	A B C D/E	CCEB of the year 2015.	
Marital status	Classification according to marital status	With companion No companion	Structured questionnaire	
School and occupationa		1		
Variables	Measures	Category	Instrument	
Field	Knowledge area	Biological area Humanities Exact area	Structured questionnaire	
Shifts	Study shift.	Daytime Night	Structured questionnaire	
Type of institution	Teaching network.	Public Private	Structured questionnaire	
Extracurricular work	work of remunerated activity.	Yes Not	Structured questionnaire	
Search / Extension	Conducting research and extension activities at the institution.	Yes Not	Structured questionnaire	
Life habits Variables Physical activity	Measures Weekly frequency of performing vigorous	Category Adequate (Three times or more times a week)	Instrument Fantastic Lifestyle	
i nysicai activity	activities, for at least 30 minutes a day (running, cycling, etc.).	Insufficient (Less than three times a week)	i antastic Litestyle	
Tobacco use	Tobacco use today.	No (Does not consume / did not consume in the last 12 months) Yes (Consume)	Fantastic Lifestyle	
Alcohol consumption	Ingestion average drinks per week.	No (No dose) Yes (One or more doses)	Fantastic Lifestyle	
Leisure	Frequency in which the person relaxes and enjoys leisure time.	Insufficient (Almost never / rarely / sometimes) Adequate (relatively often)	Fantastic Lifestyle	
Sleep	Frequency that the individual sleeps well and feels rested.	Impaired (Almost never / rarely / sometimes) Preserved (relatively often / almost always)	Fantastic Lifestyle	
Use of drugs	I use drugs like marijuana and cocaine.	Sometimes Never	Fantastic Lifestyle	
Use of medicines	Use of any medication for continuous use	Almost never / rarely abuses drugs Almost always / relatively often abuses drugs	Fantastic Lifestyle	
Socio-affective relations				
Variables	Measures	Category	Instrument	
Social networks	Use of social networks.	No (Never / rarely / occasionally) Yes (Often / almost always)	Structured questionnaire	
Affective interaction	Frequency in which the interviewee donates and receives affection from family and friends.	Impaired (Almost never / rarely / sometimes) Preserved (relatively often / almost always)	Fantastic Lifestyle	
Dialogue interaction	Frequency of talking important things to him with family and friends.	Impaired (Almost never / rarely / sometimes) Preserved (relatively often / almost always)	Fantastic Lifestyle	
Emotional aspects Variables	Measures	Category	Instrument	
Internet addiction	Internet Addiction Assessment. The influence of	Average user (20-39 points)	Internet Addctior	
	the internet of the individual's life is analyzed from 20 items on a five-point likert scale.	Problem user (40-69 points) User with addiction (70-100 points).	Test (IAT)	
Burnout syndrome in students	Classification of Burnout Syndrome in a student. -15 items on a Likert scale from 0 to 6 points. -The presence of Burnout syndrome was considered from the three-dimensional criterion: high scores on emotional exhaustion (score greater than 14) and disbelief (score greater than 6), associated with low scores on professional effectiveness (score less than 23)	Present Absent	Maslach Burnout Inventory – Student Survey (MBI-SS)	
Depressive symptoms	-Assessment of depressive symptoms. -21 items on a five-point likert scale. -Cutting point for identification of clinically significant depressive symptoms: from mild frame level	-Minimum (0-11 points) Light (12-19 points) Moderate (20 - 35 points) Severe (36 - 63 points) Absence of depressive symptoms (0 - 11 points) Presence of depressive symptoms (12-63 points)	Beck Depression Inventory (BDI)	
Ability to deal with stress	Ability to deal with day-to-day stress.	Almost always / relatively often I am able to deal with stress Almost never / rarely am I able to deal with stress	Fantastic Lifestyle	
Body check pattern	Body verification behavior	Low check pattern when scores are below average	Body Checking	
, r		High standard of checking when scores above or equal to average	Questionnaire (BCQ)	

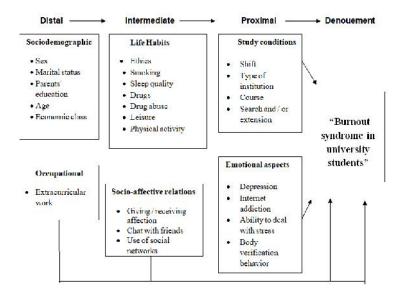


Figure 1. Theoretical hierarchical model of possible factors associated with BS among university students in northern Minas Gerais - MG.

Table 1. Bivariate analysis of the presence of	f Burnout symptoms in university s	students from Montes Claros -	$\cdot$ MG. 2017 (n = 1553)

Variables	n (%)	Presence of SB n (%)†	Gross PR	IC 95%	P value
Sociodemographic					
Sex (*)					
Male	569 (36,5)	55 (9,8)	1,00		
Feminine	983 (63,5)	128(12,9)	1,3	0,97 -1,80	0,079
Marital status (*)	(,-,		,-	- , ,	- ,
With companion	233 (15,4)	25 (10,6)	1,00		
No companion	1318 (84,6)	158(11,9)	1,13	0,75-1,70	0,568
Course			-,	0,10 2,10	0,000
Exact Sciences	580 (38,9)	57(10,4)	1,00		
Human	359 (24,4)	37(10,4)	0,99	0,67-1,49	0,998
Biological	614 (36,8)	89(14,0)	1,34	0,97-1,85	0,074
Parents' Education (*)	011 (00,0)	0)(1,0)	1,0 1	0,97 1,00	0,071
Illiterate / Elementary	587 (37,7)	71 (12,0)	1,00		
First degree	600 (39,6)	64 (10,8)	0,90	0,69 -1,25	0,535
Medium / Superior	362 (22,7)	47 (12,6)	1,05	0,74 -1,50	0,786
Age (*)	202 (22,7)		1,00	0,7 . 1,50	3,700
< 30 anos	1334 (85,9)	160 (11,8)	1,00		
30 anos	212 (14,1)	22 (11,0)	0,93	0,60-1,43	0,724
Economic class (*)	212 (14,1)	22 (11,0)	0,75	0,00-1,45	0,724
A	128 (8,2)	17 (13,2)	1,00		
B	657 (43,3)	79 (12,4)	0,94	0.57 -1.55	0,798
C	658 (43,9)	76 (11,1)	0,94	0,51 -1,40	0,790
D/E	69 (4,6)	6 (8,6)	0,65	0,27 -1,61	0,354
Occupational	07 (4,0)	0 (0,0)	0,05	0,27 -1,01	0,554
Extracurricular work (*)					
Yes	713 (47,6)	85 (12,2)	1,00		
Not	836 (52,4)	97 (11,2)	0,92	0,69 -1,22	0,544
Life Habits	050 (52,4)	<i>)(</i> 11,2 <i>)</i>	0,72	0,07-1,22	0,544
Alcoholism (*)					
Yes	855 (55,1)	89 (10,3)	1,00		
Not	696 (44,9)	91 (13,2)	1,00	0,97 -1,69	0,088
Smoking (*)	000 (44,0)	<i>J</i> 1 (13,2)	1,20	0,77 -1,07	0,000
Yes	1333 (85,9)	154 (11,3)	1,00		
Not	219 (14,1)	29 (14,3)	1,00	0,87 -1,85	0,218
Sleep (*)	219 (14,1)	29 (14,5)	1,27	0,87 -1,85	0,218
Preserved	748 (48,6)	44 (5,4)	1,00		
Impaired	804 (51,4)	139 (17,7)	3,25	2,33-4,54	<0,001
Use of drugs such as marijuana or cocaine (*)	004 (31,4)	139 (17,7)	5,45	2,33-4,34	<0,001
Sometimes	07 (6 3)	11(11.7)	1,00		
Never	97 (6,3) 1454 (03 7)	11(11,7) 172(11,7)	1,00	0.56 1.90	0,996
	1454 (93,7)	172(11,7)	1,01	0,56 –1,80	0,990
Abuse of remedies (*) Almost never / rarely	1471 (94,7)	160(114)	1,00		
2		169 (11,4)	· ·	0.99 2.45	0,140
Almost always / frequent	81 (5,3)	14 (16,8)	1,47	0,88 – 2,45	0,140
Recreation (*)	899 (57,9)	69(76)	1.00		
Adequate		68 (7,6) 115 (17 2)	1,00	1.07.2.04	<0.001
Insufficient Vigorous Physical Activity	653(42,1)	115 (17,3)	2,27	1,97-3,04	<0,001
0 , ,	470 (20)	441(7.8)	1.00		
3 x or more per week	479 (30)	441(7,8)	1,00	1 20 2 42	0.002
Less than 3x per week	1074 (70)	929 (13,4)	1,71	1,20 - 2,43	0,003
Socio-affective relations					
Affective interaction	1107 (71.0)	105 (0.2)	1.00		
Donate and receive affection	1107 (71,2)	105 (9,2)	1,00	1.46 0.56	0.001
Donates and receives almost never / rarely / sometimes	446 (28,8)	78 (17,9)	1,93	1,46 –2,56	<0,001

Dialogue interaction (*)					
With relative frequency	1073 (69,3)	98 (8,8%)	1,00		
Almost never / rarely	478 (30,7)	84 (18,2%)	2,07	1,57-2,74	< 0,001
Use of social networks (*)					
Never / rarely	105 (6,8)	9 (8,3)	1,00		
Often / almost always	1446 (93,2)	174 (12)	1,44	0,75 -2,77	0,274
Study Conditions					
Shift (*)					
Morning / afternoon	244 (16,9)	26 (11,3)	1,00		
Unabridged	323 (17,6)	65 (19,9)	1,75	1,14 -2,69	0,010
Nightly	985 (65,5)	60(9,5)	0,84	0,55 -1,27	0,403
Type of Institution					
Public	471 (25)	75 (15,9)	1,00		
Private	1082 (75)	108 (10,3)	0,65	0,49 -0,85	0,002
Participates in a research and / or extension project (*)					
Not	1202 (78)	135 (11,2)	1,00		
Yes	348 (22)	47 (13,3)	1,18	0,86-1,63	0,301
Emotional aspects					
Depression (*)					
No depressive symptoms	1112 (72,8)	52 (4,5)	1,00		
With depressive symptoms	414 (27,2)	125 (30,2)	6,65	4,86-9,09	< 0,001
Internet addiction					
Average User	809 (52,1)	49 (6,0)	1,00		
Troubled User	672 (43,3)	112 (16,6)	2,77	1,99- 3,85	< 0,001
User with addiction	72 (4,6)	22 (30,6)	5,11	3,24- 8,05	< 0,001
Able to deal with Stress					
Often	905 (58,3)	57 (6,1)	1,00		
Almost never / rarely	648 (41,7)	126 (19,5)	3,20	2,35-4,34	< 0,001
Body check (*)					
Scores below average	930 (60,9)	89 (9,5)	1,00		
Scores above or equal to the mean	959 (39,1)	88 (14,8)	1,56	1,17 -2,07	0,002

PR - Prevalence Ratio; CI - Confidence Interval; † - percentage corrected by the design effect; a - percentage totaling 100% in the column; b - percentage totaling 100% on the line. - \* presence of missing.

Tabela 02. Presence and dimension	ns of Burnout Syndrome	in university students	6. Montes Claros	- MG. 2016-2017 (n = 1553).
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Burnout syndrome	n	%†
Absence SB	1370	88,2
SB Presence	183	11,8
Professional Effectiveness		
High	481	31
Moderate	442	28,6
Low	625	40,4
Disbelief		
High	522	33,7
Moderate	841	54,3
Low	187	12
Emotional Exhaustion		
High	487	31,4
Moderate	356	23
Low	706	45,6

#### Table 3: Multiple model of Burnout Syndrome in university students Montes Claros- MG, Brazil, 2016-2017. (n = 1553)

Variables	RP adjusted	IC95%	P value
Life Habits			
Sleep (*)			
Preserved	1,00		
Impaired	2,69	1,87- 3,86	<0,001
Recreation (*)			
Adequate	1,00		
Insufficient	1,55	1,15 - 2,11	0,005
Socio-affective relations			
Dialogue interaction (*)			
With relative frequency	1,00		
Almost never / rarely	1,57	1,19-2,07	0,001
Study Conditions			
Type of Institution			
Public	1,00		
Toilet	0,66	0,51 - 0,87	0,003
Emotional aspects			
Depression (*)			
No depressive symptoms	1,00		
With depressive symptoms	4,19	2,94-5,97	< 0,001
Internet addiction			
Average User	1,00		
Troubled User	1,66	1,18 - 2,34	0,004
User with addiction	2,17	1,38 - 3,40	0,001
Able to deal with Stress			
Almost always / often	1,00		
Almost never / rarely	1,44	1,02 - 2,02	0,039

RP= Prevalence Ratio

The results of the multiple analysis are shown in Table 3. The following variables associated with BS were identified after adjustment by the variables of the hierarchical previous blocks: in the distal level block: life habits - impaired sleep (PR = 2.69; p < 0.001), insufficient leisure (PR = 1.55; p = 0.019); socio-affective relationships – dialogued interactions (PR = 1.57; p = 0.001) study conditions - private institution (PR = 0.66; p = 0.003); emotional aspects - presence of depressive symptoms (PR = 4.19; p < 0.001), problematic use of the internet (PR = 1.66; p = 0.004), addiction to the internet (PR = 2.17; p = 0.001) and the inability to cope with stress (PR = 1.44; p = 0.039).

#### DISCUSSION

The present study found that part of the university students in the city of Montes Claros-MG showed SB. Similar data were found in surveys carried out with medical and dental students, in which the occurrence of BS was 11.4% and 11.5%, respectively (Chagas et al. 2016, Oliveira et al. 2018). The academic environment is permeated by stressful factors, such as great emotional pressures exerted by the course, constant tests and assignments, stressful workloads and the student's own demands, which can contribute to the development of BS (Oliveira et al. 2018). Lower prevalence rates were observed at a university in São Paulo in which 2.5% of students were affected, which was related to the students' satisfaction with the quality of teaching and with the course (Oliveira et al. 2015). Nevertheless, in a survey conducted with 533 dental students from 15 Spanish universities, a superior result was found, with a prevalence of 50.3%, justified, in part, by the early initiation of clinical experience and great interaction with patients (Subirats-Roig et al. 2016). Regarding the dimensions of BS in university students in this study, similar results were found in a study carried out in Uruguay, in which 28.3% of those surveyed had emotional exhaustion, 30.6% disbelief and 26.1% low professional effectiveness (Goñi et al. 2015).

Another concordant result was observed in a study carried out with 118 nursing students in Brazil, in which 30.43% of students in the 3rd period had high scores for emotional exhaustion and 42.63% in the 7th period had low professional effectiveness, differing only in disbelief, in which the prevalence reached 67.65% with the students of the 1st period (Vilela er al. 2013). The survey of 140 dental students from Peru, on the other hand, showed higher scores for all three dimensions, 45% for emotional exhaustion, 41.3% for disbelief and 45.7% for professional effectiveness (Picasso-Pozo 2015). In the present study, BS was not associated with sex. This fact is at odds with a longitudinal study carried out with dental students, which revealed that women are predominantly in the risk zone, associating it to the fact that university students face the pressures and responsibilities attributed by the course with high emotional distress (Magri et al. 2016). On the other hand, impaired sleep and the inability to deal with stress were significantly related to BS in the investigated students. A research carried out in southern Brazil, with nursing students, reported that they had the perception that the emotional exhaustions they experienced due to the intense demands of the studies led them to present changes in sleep, in addition to nervousness, stress and irritability, which presupposes that they are continuous responses to BS in academics (Baptista et al. 2019).

Another significant factor in this study, which also emphasizes the association of BS with stress and other associated factors is the lack and / or the inconstant dialogued interactions. A study conducted with nursing students reported that difficulties in maintaining interpersonal interactions due to excessive dedication to studies, result in physiological changes such as in sleep pattern and increased irritability (Domingues et al. 2018). Insufficient leisure practice was also a factor associated with BS in this research. A previous study verified the importance of the practice of leisure activities among university students, since students who have this habit had a perception of its effectiveness, favoring greater communication, interpersonal relationships, as well as the relief of tensions inherent in training (Tomaschewski-Barlem et al. 2014).

It was also observed, in this study, that the study period also did not influence BS in academics. This finding differs from another research carried out by university students, which showed that full-time students tend to have more emotional difficulties than those who study in just one period (Ramos 2015). As for depressive symptoms, this study showed a significant relationship with BS. Research carried out with medical students from Ireland showed that the increase in depressive and Burnout symptoms are proportional, confirming that the increase in emotional exhaustion and the decrease in professional effectiveness, increase the chances of students not seeking help for mental health problems due to psychological pressures of education (Peterka-Bonetta et al. 2019). In a study conducted with Chinese and German students, it was also found, the direct association of BS and depression, in addition to corroborating the association of internet addiction and Burnout Syndrome in students, as occurs in this work (Fitzpatrick et al. 2019). Finally, it was found that the type of educational institution is also linked to the development of Burnout Syndrome. This association is very present in teachers with Burnout, a comparative study carried out with teachers from Porto Alegre and the Metropolitan Region of the State of Rio Grande do Sul/Brazil that there is no significant difference regarding BS to public and private institutions, stating that syndrome this is more related to work than to the public or private environment. Notwithstanding, a research carried out in the metropolitan region of the State of São Paulo, showed that psychological distress affects more professionals in public schools, also diverging from the result of this study (Baptista et al. 2019, Borba et al 2017).

This study found that a significant portion of students is in the zone considered at risk for developing BS. Although the student category is not considered as a job, their activities can be defined as pre-professional, causing high scores of emotional exhaustion. The subject who is in this situation, shows to be poorly adapted to the difficulties, being susceptible to develop indifference and detachment, increasing the disbelief in the attempt to combat emotional exhaustion, which can progress to a feeling of incompetence, with loss of interest and dissatisfaction with the course and future career (Magri et al. 2016, Oliveira et al. 2018, Aguiar et al. 2018). This research had as limitation the use of self-report to analyze the behavioral aspects. Such factor was minimized by using validated instruments to assess the topics covered, bringing relevant and reflective results on the importance of identifying Burnout Syndrome in university students and its associated factors. It should be noted that the sample used was a

presentation of the population, being obtained in a probabilistic way, strengthening the results and associations found. Knowing the negative consequences and the significant number of students found in the risk zone, it is hoped that this study can contribute to a better reflection by managers, teachers and university students on this topic, in order to contribute to increase tracking and diagnosis of syndrome, and adoption of emotional support measures, aimed at preventing and improving the quality of life, health and academic performance of students in different cultural contexts in Brazil. It is also exepcted that the findings of this research support the development of other studies on the subject, with a longitudinal design, given the impossibility of establishing cause and effect relationships, due to its outline. This study found that part of the university students had BS, which was associated with impaired sleep, inability to cope with stress, insufficient leisure, depressive symptoms, addiction to the break, the deficiency of socio-affective interactions and private institutions.

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