

ANALYSIS OF BURNOUT SYNDROME AMONG UNIVERSITY STUDENTS WHO WORK AND WHO DO NOT WORK**ANÁLISIS DEL SÍNDROME DE BURNOUT ENTRE ESTUDIANTES UNIVERSITARIOS QUE TRABAJAN Y QUE NO TRABAJAN****ANÁLISE DA SÍNDROME DE BURNOUT ENTRE ESTUDANTES UNIVERSITÁRIOS QUE TRABALHAM E QUE NÃO TRABALHAM**¹Allan Almeida Araújo²Lindemberg Arruda Barbosa³Igor de Sousa Nóbrega⁴Ana Claudia Florentino Fernandes⁵Ana Carolina Dantas Rocha

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Submission: 30-05-2025**Approval:** 29-07-2025**ABSTRACT**

The objective of the research was to associate burnout syndrome and the risk for burnout syndrome with the characterization profile of students who work and those who do not. Method: a quantitative, descriptive, and exploratory cross-sectional study developed via Google Forms with students residing in Campina Grande, with or without employment, aged over 18 years. Two instruments were used: a sociodemographic questionnaire and the Maslach Burnout Inventory - Student Survey. Data analysis employed descriptive and inferential statistics. Data collection took place after approval from the Research Ethics Committee. Results: the sample included 415 students, with an overall Cronbach's alpha of 0.816. A higher prevalence was observed among those who study and work (65.0%) and a high risk of burnout among those who only study (95.9%). There was a predominance of emotional exhaustion (55.8%) and depersonalization (56.9%) among non-working students, as well as low professional accomplishment (51.1%) among working students. Conclusions: the relevance of the study lies in the need to analyze burnout syndrome in the academic context, especially among students who also work, as this double workload compromises students quality of life and increases the risk of burnout.

Keywords: Psychological Distress; Stress Psychological; Students; Mental Health; Public Health.

RESUMEN

El objetivo de esta investigación fue asociar el síndrome de burnout y el riesgo de síndrome de burnout con el perfil de caracterización de estudiantes trabajadores y no trabajadores.

Método: Se realizó un estudio transversal cuantitativo, descriptivo y exploratorio a través de Google Form con estudiantes residentes en Campina Grande, con o sin empleo, y mayores de 18 años. Se utilizaron dos instrumentos: un cuestionario sociodemográfico y el Maslach Burnout Inventory - Student Survey. El análisis de datos empleó estadística descriptiva e inferencial. La recolección de datos se produjo después de la aprobación del Comité de Ética en Investigación. **Resultados:** La muestra incluyó 415 estudiantes, con un coeficiente de Cronbach general de 0,816. Se observó una mayor prevalencia entre los que estudiaron y trabajaron (65,0%), y un mayor riesgo de burnout entre los que solo estudiaron (95,9%). El agotamiento emocional (55,8%) y la despersonalización (56,9%) prevalecieron entre los que no trabajaron, así como la baja realización profesional (51,1%) entre los que sí lo hicieron. **Conclusiones:** La relevancia de este estudio radica en la necesidad de analizar el síndrome de burnout en el contexto académico, especialmente entre estudiantes que también trabajan, ya que esta doble jornada compromete su calidad de vida y aumenta el riesgo de burnout.

Palabras clave: Agotamiento Psicológico; Estrés Psicológico; Estudiantes; Salud Mental; Salud Pública

RESUMO

O objetivo da pesquisa foi associar a síndrome de burnout e o risco para síndrome de burnout e o perfil de caracterização dos estudantes que trabalham e que não trabalham. Método: estudo quantitativo, descritivo e exploratório, de corte transversal, desenvolvido via formulário do Google com estudantes residentes em Campina Grande, com ou sem vínculo empregatício, maiores de 18 anos. Foram utilizados dois instrumentos: um questionário sociodemográfico e o Maslach Burnout Inventory - Student Survey. A análise de dados empregou estatística descritiva e inferencial. A coleta ocorreu após aprovação do Comitê de Ética em Pesquisa. Resultados: a amostra incluiu 415 estudantes, com coeficiente de Cronbach global de 0,816. Observou-se maior prevalência entre aqueles que estudam e trabalham (65,0%) e risco elevado de burnout entre os que apenas estudam (95,9%). Houve predomínio de exaustão emocional (55,8%) e despersonalização (56,9%) entre os que não trabalham, além de baixa realização profissional (51,1%) entre os que trabalham. Conclusões: a relevância do estudo decorre da necessidade de analisar a síndrome de burnout no contexto acadêmico, sobretudo entre estudantes que também trabalham, pois, essa dupla jornada compromete a qualidade de vida dos discentes e potencializa o risco de burnout.

Palavras-chave: Esgotamento Psicológico; Estresse Psicológico; Estudantes; Saúde Mental; Saúde Pública.

INTRODUCTION

Burnout Syndrome (BS) is a result of a negative response generated after chronic episodes of work-related stress. It can be characterized by various signs and symptoms, such as emotional exhaustion or increasing loss of energy, depersonalization or negative behaviors, and low professional achievement⁽¹⁾

Among undergraduate students experiencing work overload and intense and constant stressful events, this problem manifests itself through fatigue related to university activities, disbelief and detachment from studies, and feelings of incompetence. Furthermore, attention deficits, inability to focus, difficulty retaining information, recurrent headaches, sleep deprivation, feelings of fatigue, and helplessness can be observed. ^(2,3)

Globally, this condition is estimated to have a high prevalence among university students, ranging from 55.4% for emotional exhaustion, 31.6% for detachment from studies, and 30.9% for academic ineffectiveness. ⁽⁴⁾ It is noteworthy that this situation may be even more concerning for students who perform extra-academic work duties. However, there is a lack of studies addressing this issue.

Initially, it is believed that BS among undergraduate students may be linked to the transition to higher education, which is often marked by anxiety, excessive demands, and pressures⁽⁵⁾. Furthermore, it is observed that the risk of this disorder tends to increase throughout the undergraduate course, and may be associated with situations within the academic context

itself, as well as external demands and individual predispositions⁽⁶⁾.

In this context, there is a vulnerability to the development of other mental disorders concomitantly, excessive use of alcohol and other drugs, as well as an increased risk of suicide⁽⁷⁾.

Therefore, paying attention to the factors that contribute to the emergence of BS is a fundamental strategy in preventing and managing this condition. From this, it becomes possible to explore the nuances surrounding this phenomenon, with a view to understanding, elucidating, and adopting protective factors that currently remain unclear.

Thus, the present study adopted the following guiding question: what is the association between burnout syndrome and the risk for burnout syndrome and the characterization profile of students who work and those who do not work? Therefore, the objective was to associate burnout syndrome and the risk for burnout syndrome with the characterization profile of students who work and those who do not work.

METHODS

Type of study

This is a quantitative, descriptive, exploratory, cross-sectional study. Quantitative research aims to numerically demonstrate, using data collection instruments and statistical resources, the information from an investigation to validate the veracity of a hypothesis.

Descriptive research aims to characterize the study population and establish correlations between variables through questionnaires and tests. It is characterized as cross-sectional because it collects and evaluates information related to a population over a specific period of time.

Research Setting

The survey was conducted online using the Google Forms platform, as it allows for remote collection of user information and then uses statistical tools to tabulate the data.

Population and Sample

The inclusion criteria for participation in this study were university students of any course or semester at higher education institutions located in Campina Grande, Paraíba. Students under 18 years of age were excluded.

Data Collection Instruments

The following instruments were used to develop the research: a sociodemographic questionnaire and the Maslach Burnout Inventory - Student Survey (MBI-SS). The sociodemographic questionnaire collected variables related to: gender, age, marital status, children, current occupation, whether they contribute to the family's livelihood, whether they engage in physical activity, whether they engage in any leisure activities, whether they have another higher education degree, whether they have ever failed an undergraduate course,

satisfaction with the program, whether their current program is their first choice, and whether they have ever intended to drop out.

The second instrument used was the MBI-SS, a questionnaire that assesses BS in students. This instrument is the most widely used to assess Burnout Syndrome and consists of three subscales: emotional exhaustion, disbelief, and personal satisfaction. Responses are answered using a seven-point Likert scale, with 0 for "never" and 6 for "always." The assessment is based on the scores for each dimension; High scores on emotional exhaustion and disbelief, and low scores on professional efficacy (indicate the presence of BS). To determine risk, changes in at least two dimensions within the expected score were considered, as previously indicated.

Data Collection Procedures

The research began dissemination after approval by the Research Ethics Committee, under opinion number: 5.606.239 and CAAE: 60791722.1.0000.5175, from August to September 2022, electronically, through social media and instant messaging applications. A brief invitation message was sent to students, containing a summary of the objectives, methodology, and main topics covered by the research. Upon accessing the link to respond to the questionnaire, participants found the ICF and signed electronically by checking the box "yes, I voluntarily accept to participate in the research." A question was then asked regarding the eligibility criteria: students under 18 years of

age, only in If a negative response was received, the participant was directed to the data collection instruments, which were necessary to minimize bias in the study.

Data Processing and Analysis

The data obtained were tabulated in Microsoft Office Excel® and analyzed in SPSS, version 26.0. The analysis was performed using descriptive statistics using absolute and relative frequency, measures of central tendency and dispersion (mean, median, standard deviation, minimum, and maximum). Inferential analysis was also performed to assess the association between the studied variables, using Pearson's chi-square test or Fisher's exact test and correlation coefficients. Fisher's exact test was used in cases where the number of cells with a frequency lower than 5 was greater than 20%. For all analyses, a significance level of 5% (p-value <0.05) was established.

For the logistic regression model, the backward method was used for the variables that showed a 20% association with the outcome studied in the bivariate analysis to define significance. statistics adopted p-value <0.05 among all variables studied.

RESULTS

The study sample consisted of 415 students from the municipality of Campina Grande, Paraíba. Table 1 presents the sample characteristics according to demographic, socioeconomic, psychosocial, and academic variables. The sample was predominantly female (74.2%), young people up to 25 years old (83.4%), and single (88.4%). Only 9.2% of the sample reported having children.

Regarding current occupation, the results were even: 52.3% responded that they only study, and 47.7% said they study and work; 37.8% of the sample contribute to supporting their family; 52.3% reported not engaging in any physical activity, but 67% responded that they engage in some leisure activity. According to the academic variables, only 5.8% have another higher education degree, 27.5% have failed a course in their undergraduate program, 91.6% say they are satisfied with their course choice, however, 32.5% say they are not in their first course of choice, and a significant 51.3% have or have already intended to drop out of their course (Table 1).

Table 1 – Characterization of the sample of university students (N= 415). Campina Grande, Paraíba, Brazil, 2025.

Variables	(n)	(%)
Gender		
Male	107	25,8
Female	308	74,2

Marital Status

Single	367	88,4
Married	42	10,1
Divorced	6	1,4

Have children

No	337	90,8
Yes	38	9,2

Do you contribute to the family's livelihood?

No	258	62,2
Yes	157	37,8

Current occupation

Only student	217	52,3
Estudant and Worker	198	47,7

Have you ever failed a subject in your undergraduate degree?

No	301	72,5
Yes	114	27,5

Are you satisfied with your choice of course?

No	35	8,4
Yes	380	91,6

Are you in your first choice course?

No	135	32,5
Yes	280	67,5

Do you have another higher education degree?

No	391	94,2
Yes	24	5,8

Do you engage in leisure activities?

No	137	33,0
Yes	278	67,0

Do you practice physical activity?

No	217	52,3
Yes	198	47,7

Do you have or have you ever had any intention of dropping out of the course?

No	202	48,7
Yes	213	51,3

Source: survey data, 2025.

Frame 2 below shows the association between the occurrence of BS and the risk of BS among students who work and those who do not work. Statistical analysis revealed a statistically significant association between those students who also work and BS (53.8%; $p=0.04$), as well as the risk of BS (63.3%; $p=0.04$). Dissatisfaction with the course choice was associated with BS and those who also work (93.5%; $p=0.01$).

The intention to drop out of the course showed a statistically predominant association

with BS and the risk for BS among all groups, namely: students who do not work and BS (100%; $p=0.01$) and those who also work (100%; $p<0.00$), as well as the risk for BS and those who do not work (68.9%; $p<0.00$) and those who also work (70.9%; $p<0.00$). Students who work and who indicated not engaging in any leisure activity had a higher risk for BS (50.6%; $p<0.00$) and BS (65.9%; $p=0.01$). Not engaging in physical activity showed a significant difference between those students who work and BS (50.3%; $p=0.01$) (Frame 2).

Frame 2 - Association between the occurrence of BS and the risk for BS among students who work and those who do not work (N = 415). Campina Grande, Paraíba, Brazil, 2025.

	Estudent			Estudent and Worker			Estudent			Estudent and Worker		
Variables	Without SB	With SB	p-value	Without SB	With SB	p-value	No Risc for SB	With Risc for SB	p-value	No Risc for SB	With Risc for SB	p-value
Gender												
Male	42 (20,0)	1 (14,3)	0,58 **	59 (31,9)	126 (68,1)	0,41 **	27 (23,7)	16 (15,5)	0,09 *	38 (31,9)	26 (32,9)	0,50 *
Female	168 (80,0)	6 (85,7)		5 (38,5)	8 (61,5)		87 (76,3)	87 (84,5)		81 (68,1)	53 (67,1)	
Marital Status												
Single	190 (90,5)	7 (100,0)	1,00	160 (86,5)	10 (76,9)	0,29 **	103 (90,4)	94 (91,3)	0,90 **	105 (88,2)	65 (82,3)	0,31 **
Married	18 (8,6)	0 (0,0)		22 (11,9)	2 (15,4)		10 (8,8)	8 (7,8)		11 (9,2)	13 (16,5)	
Divorced	2 (1,0)	0 (0,0)		3 (1,6)	1 (7,7)		XX	XX		3 (2,5)	1 (1,3)	
Have children?												
No	196 (93,3)	7 (100,0)	0,62 **	162 (87,6)	23 (12,4)	0,51 **	105 (92,1)	98 (95,1)	0,26 *	104 (87,4)	70 (88,6)	0,49 *
Yes	14 (6,7)	0 (0,0)		12 (92,3)	1 (7,7)		9 (7,9)	5 (4,9)		15 (12,6)	9 (11,4)	
Participates in the family's livelihood												
No	184 (87,6)	7 (100,0)	0,40 **	65 (35,1)	120 (64,9)	0,12 **	101 (88,6)	90 (87,4)	0,83 *	45 (37,8)	22 (27,8)	0,09 *
Yes	26 (12,4)	0 (0,0)		2 (15,4)	11 (84,6)		13 (11,4)	13 (12,6)		74 (62,2)	57 (72,2)	
Have you ever failed a subject in your undergraduate degree?												
No	155 (73,8)	55 (26,2)	0,42 **	134 (72,4)	51 (27,6)	0,04 **	88 (77,2)	73 (70,9)	0,18 *	90 (75,6)	50 (63,3)	0,04 *
Yes	6 (85,7)	1 (14,3)		6 (46,2)	7 (53,8)		26 (22,8)	30 (29,1)		29 (24,4)	29 (36,7)	
Are you satisfied with your choice of course?												
No	19 (9,0)	191 (91,0)	0,52 **	12 (6,5)	173 (93,5)	0,01 **	9 (7,9)	10 (9,7)	0,81 *	6 (5,0)	10 (12,7)	0,05 *
Yes	0 (0,0)	7 (100,0)		4 (30,8)	9 (69,2)		105 (92,1)	93 (90,3)		113 (95,0)	69 (87,3)	

Do you have or have you ever had the intention of dropping out of the course?												
No	100 (47,6)	110 (52,4)	0,01 **	102 (55,1)	83 (44,9)	0,00 **	68 (59,6)	32 (31,1)	0,00 *	79 (66,4)	23 (29,1)	0,00 *
Yes	0 (0,0)	7 (100,0)		0 (0,0)	13 (100,0)		46 (40,4)	71 (68,9)		40 (33,6)	56 (70,9)	
Are you in your first choice course?												
No	74 (35,2)	136 (64,8)	0,53 **	55 (29,7)	130 (70,3)	0,57 **	39 (34,2)	37 (35,9)	0,45 *	33 (27,7)	26 (32,9)	0,26 *
Yes	2 (28)	5 (71,4)		4 (30,8)	9 (69,2)		75 (65,8)	66 (64,1)		86 (72,3)	53 (67,1)	
Do you have another higher education degree?												
No	204 (97,1)	6 (2,9)	0,81 **	169 (91,4)	16 (8,6)	0,33 **	111 (97,4)	100 (97,1)	0,60 **	109 (91,6)	71 (89,9)	0,43 *
Yes	7 (100,0)	0 (0,0)		11 (84,6)	2 (15,4)		3 (2,6)	3 (2,9)		10 (8,4)	8 (10,1)	
Exercises leisure activities												
No	63 (30,0)	147 (70,0)	0,64 **	63 (34,1)	122 (65,9)	0,01 **	30 (26,3)	35 (34,0)	0,23 *	33 (27,7)	39 (49,4)	0,00 *
Yes	2 (28,6)	5 (71,4)		9 (69,2)	4 (30,8)		84 (73,7)	68 (66,0)		86 (72,3)	40 (50,6)	
Practice physical activity												
No	108 (51,4)	102 (48,6)	0,07 **	92 (49,70)	93 (50,3)	0,01 **	54 (47,4)	60 (58,3)	0,07 *	61 (51,3)	42 (53,2)	0,45 *
Yes	6 (85,7)	1 (14,3)		11 (84,6)	2 (15,4)		60 (52,6)	43 (41,7)		58 (48,7)	37 (46,8)	

Source: survey data, 2025.

The logistic regression model maintained the variables associated with the risk of BS among students who also work: engaging in some leisure activity (OR = 2.72; CI = 1.42-5.21) and having or having had some intention of dropping out of the course (OR = 0.19; CI = 0.10-0.37). Thus, it is possible to infer that those who do not have leisure time are 2.72 times more likely to be at risk for BS, while those who

already intend to drop out of the course are 0.19 times more likely to be at risk.

In the model between the outcome of BS and students who work, the variables of having failed a subject (OR=3.36; CI = 1.04-10.80) and engaging in some leisure activity (OR=4.57; CI = 1.36-16.08) remained, making it possible to understand that those students who also work and have failed a subject have a 3.36 greater probability of BS and those who do not engage

in any leisure activity have a 4.67 greater chance

of burnout (Table 2).

Table 2 - Logistic regression model of association between risk for BS and BS among working students and the research variables. (n = 415). Campina Grande, Paraíba, Brazil, 2025.

Estudent and worker	Burnout Syndrome	β	OR	CI	p-value*
	Have you ever failed a subject?				
	No	-	1,00	-	-
	Yes	1,21	3,36	1,04-10,80	0,04
	Do you do any leisure activities?				
	Yes	-	1,00	-	-
	No	1,54	4,67	1,36-16,08	0,01
	Burnout Syndrome Risk	B	OR	CI	p-value*
	Do you do any leisure activities?				
	Yes	-	1,00	-	-
	No	1,00	2,72	1,42-5,21	0,00
	Do you have or have you ever had any intention of dropping out of the course?				
	No	-	1,00	-	-
	Yes	1,61	0,19	0,10-0,37	0,00

Note: OR – Odds Ratio; CI – Confidence Interval;
Source: Survey data, 2025.

DISCUSSION

In this study, 4% of the sample presented with BS, a prevalence of the syndrome that was lower than in other cross-sectional studies conducted with students, which obtained diagnoses among 75%, 26.7%, 19.6%, 18.8%, and 10.5% of participating students⁽⁸⁻¹²⁾. A similar result was found among the studies analyzed, in a study⁽¹³⁾ in which 3.9% of participants presented BS.

As shown in the results, the study identified a higher prevalence of BS (70%) and a higher risk of BS (73.9%) in female students. In a similar analysis⁽⁸⁾, it was observed that being female is correlated with high emotional exhaustion, greater stress, and BS. However, the reasons explaining the higher risk of developing

BS in women are unclear, and the literature presents conflicting data. However, some authors have suggested that women are more likely to perceive challenging or threatening events as stressful compared to men. The higher incidence of BS in men is uncommon in the literature.

Regarding age, the sample in this study is predominantly young, with 83.4% between 18 and 25 years of age. A similar analysis⁽¹⁰⁾ using the MBI-SS in university students found that younger students exhibited higher levels of emotional exhaustion and depersonalization. On the other hand, some authors⁽¹³⁾ have shown that, for both sexes, increasing age increases the risk of developing BS; that is, the older the student, the greater the risk. They also point to the sociodemographic factor of "having children" as contributing to risk reduction.

Regarding having or having ever intended to drop out of their program, 100% of those who experienced BS answered yes. Consistent with this result, a study conducted in Pakistan with 777 medical students found that students who have doubts or dissatisfaction with their chosen profession are more likely to experience psychological distress and burnout, compared to those who do not. ⁽¹⁴⁾ Along the same lines, some researchers ⁽¹⁵⁾ who analyzed BS in nursing students found that the likelihood of a student in the sample population experiencing BS was higher among those who considered dropping out than among those who did not.

Corroborating the results obtained in this study, a study ⁽¹⁶⁾ conducted with 557 medical students at seven universities in Peru found that students who engaged in extracurricular activities, including work, experienced more stress, citing the increased burden of responsibilities as the justification. In turn, a study ⁽¹¹⁾ with a similar analysis presented the higher risk of developing BS in working students as the justification for the fact that these individuals have less time for study and leisure, which in the long term leads to higher levels of stress.

Therefore, to prevent the risk and development of BS, individual and collective actions are recommended that facilitate access to information on this topic so that students are aware of the signs and can seek changes that reduce the risk, such as physical activity, leisure time, communication with their social network

or even professional staff to maintain mental health and manage stress. Institutions should also rethink, from a pedagogical perspective, the rigidity of teaching, the exacerbation of activities, flexibility in deadlines, and the amount of work.

CONCLUSIONS

This study demonstrated a correlation between students studying and working with Burnout Syndrome and a higher risk of developing it. Some related factors can exacerbate this risk, such as dissatisfaction with their chosen course, lack of physical activity, lack of leisure activities, and intention to drop out.

This study confirms the need to be aware of the signs students may exhibit from the beginning of their undergraduate studies and the importance of institutional support in addressing this risk of developing the syndrome or even managing already established cases. Burnout Syndrome can have significant consequences for students' mental health and performance. This research can serve as a catalyst for future work addressing this issue among students, increasing their visibility and enabling the development of prevention strategies, as they will be the future professionals of society.

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Authorship Criteria (Author Contributions)

Allan Almeida Araújo: 1. Contributes substantially to the conception and/or planning of the study; 2. Obtains, analyzes, and/or interprets the data; 3. Contributes substantially to the writing and/or critical review and final approval of the published version.

Lindemberg Arruda Barbosa: Contributes substantially to the writing and/or critical review and final approval of the published version. Igor de Sousa Nóbrega: Contributes substantially to the writing and/or critical review and final approval of the published version.

Ana Claudia Florentino Fernandes: Contributes substantially to the writing and/or critical review and final approval of the published version.

Ana Carolina Dantas Rocha Cerqueira: Contributes substantially to the writing and/or

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Declaration of Conflict of Interest

Nothing to declare

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