Burnout syndrome among dental students

Síndrome de Burnout em graduandos de Odontologia

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Abstract

The burnout syndrome is characterized by professional exhaustion and has been reported in college students. The aim of this study was to estimate the prevalence of Burnout Syndrome among dentistry students from a public university, and its relationship to socio-demographic characteristics. All students (n = 300) were invited to participate. We used the Maslach Burnout Inventory - Student Version (MBI-SS). We carried out an analysis of the MBI-SS' psychometric properties. Multivariate Analysis of Variance (MANOVA) was performed, followed by Analysis of Variance (ANOVA) and Tukey's post-hoc tests to compare the mean scores of burnout dimensions. Of the 235 participants, 72.8% were women and the mean age was 21.0 ± 1.8 years. The MBI-SS was reliable and valid. Of the students, 17.0% had Burnout Syndrome. There was a significant relation between Burnout Syndrome and a student's performance during the course ($F = 4.433$, $p < 0.001$), medication intake because of studies ($F = 7.721$, $p < 0.001$), and the thought of dropping the course ($F = 16.168$, $p < 0.001$). The students most affected were those with poor performance, those who took medication because of studies, and those with thoughts of dropping the course. We concluded that the prevalence of the syndrome among dentistry students was high, with a significant relation between the syndrome and a student's academic performance, use of medication because of studies, and thoughts of dropping the course.

Keywords: Students. Professional fatigue. Odontology. Public Health.

Resumo

A Síndrome de *Burnout* caracteriza-se por esgotamento profissional e tem sido relatada em estudantes universitários. O objetivo desse estudo foi estimar a prevalência da Síndrome de *Burnout* em estudantes de Odontologia de uma universidade pública e sua relação com características sociodemográficas. Todos os estudantes (n = 300) foram convidados a participar. Utilizou-se o Inventário de *Burnout* de Maslach – versão estudantes (MBI-SS). Realizou-se análise das propriedades psicométricas do MBI-SS. Para comparação entre os escores médios das dimensões do *Burnout* realizou-se Análise de Variância Multivariada (MANOVA) seguida de Análise de Variância (ANOVA) e testes post-hoc de Tukey. Dos 235 participantes, 72,8% eram mulheres e a média de idade era de 21,0 ± 1,8 anos. O MBI-SS mostrou-se confiável e válido. Dos estudantes, 17,0% apresentaram a Síndrome de *Burnout*. Verificou-se relação significativa entre a Síndrome de *Burnout* e o desempenho do estudante no curso ($F = 4,433$, $p < 0,001$), o consumo de medicação devido aos estudos ($F = 7,721$, $p < 0,001$) e o pensamento de desistir do curso ($F = 16,168$, $p < 0,001$). Foram mais acometidos aqueles com desempenho ruim no curso, que consomem medicações devido aos estudos e que já pensaram em desistir do curso. Conclui-se que a prevalência da Síndrome entre os estudantes de Odontologia foi alta, sendo significativa a relação entre a Síndrome e o desempenho do estudante no curso, o consumo de medicação devido aos estudos e o pensamento de desistir do curso.

Palavras-chave: Estudantes. Esgotamento profissional. Odontologia. Saúde Pública.

Introduction

Burnout is defined by Maslach and Jackson[1] as a working environment syndrome, characterized by a process of chronic response to occupational stress, when coping methods fail or are insufficient, thus having negative consequences both at the individual and the professional level, and further affecting the family and social interactions. It is referred to as a multidimensional syndrome consisting of emotional exhaustion, dehumanization and reduced accomplishment at work.

According to Batista et al.[6], the Burnout syndrome is a public health issue due to its physical and mental health, and social implications for individuals. Salanova and Llorens[7] point out that, Burnout is an occupational health issue, of a psychosocial nature, which is one of the most important work related problems in today's society.

Initially, this syndrome was described in professionals with an intense and emotional interpersonal contact[1-4], however, more recently the concept of Burnout has been extended to all occupational groups, including students[5]. In the latter, one can cite the works of Schaufel et al.[5], McManus et al. [8], Willcock et al.[9], Carlotto et al.[10], Ried et al.[11] Garrosa et al.[4], Barboza et al.[12], Maroc et al.[13] Dyrbye et al.[14] and Zhang et al.[15]. In general, these studies state that the research and monitoring of this syndrome, from the beginning of the course, is of great importance, as it is at this point that the first Burnout symptoms appear. The early detection of this syndrome allows the planning and implementation of preventive measures, as well as the use of adequate coping strategies.

Studies in the dental area are scarce. Pohlmann et al.[16] researched the Burnout syndrome in graduate students, attending their fourth and fifth year of the dentistry course, in German and Swiss universities, and found that approximately one third of the students suffered from depersonalization. Furthermore, Humphris et al.[17] conducted a study with first-year

undergraduate students in seven dentistry colleges in Europe, and found high levels of emotional exhaustion. Also, Sofol and Jeboda[18] studied the origin of stress in dentistry undergraduates at the University of Lagos, Nigeria, and found that the improvised system of dental education was their biggest stress factor.

Regarding Brazilian research on the Burnout Syndrome in Dentistry students, we only found one study conducted by Carlotto et al.[10]; however, the sample consisted of students from eight different health--related areas, and the results' presentation was not conducted separately for each area, making it impossible to separately analyze the data concerning dentistry students.

We developed this study taking into account the need for more information on this condition, specifically in students, in order to enable the development of adequate actions to improve both their quality of life and academic performance. Thus, our objectives were to verify and characterize the presence of Burnout syndrome in a sample of undergraduate dentistry students.

Methods

Study's Population

All the graduate students of the Faculty of Dentistry of Araraquara - UNESP (n=300), that enrolled in 2009, were invited to participate.

Study's Variables

To characterize this study's population, a socio-demographic questionnaire was administered, collecting information on: gender; age; year of the course; need for private tutors; college course's order of preference; performance and expectations for the course; opinion about the physical conditions of the university; who the student lives with; use of medication due to studies; and thought of quitting the course.

The Portuguese version[1] of the Maslach Burnout Inventory - Student Survey (MBI-SS), was used to assess the Burnout syndrome. The MBI-SS is a self-assessment, seven-point Likert-type scale, with categories ranging from "never" to "every day". The instrument consists of 15 questions, which are divided into three dimensions, emotional exhaustion with 5 items, Cynicism with 4 items and Professional Efficacy with 6 items.

Procedures

The questionnaires were administered to all students, in classrooms, and during weeks with no assessments/tests, at an hour previously agreed with the professors, who allowed the use of 15 minutes of their lectures for the students to complete the instrument.

Ethical Aspects

The study included only those students who agreed to the terms of the Free and Informed Consent. The present study was approved by the Research Ethics Committee of the Faculty of Dentistry (n.06/09 protocol), and there is no conflict of interest.

Pilot Study

A pilot study was conducted for intra--examiner calibration. At this stage 100 volunteers participated. All the volunteers received the MBI-SS and instructions to complete it in two separate moments, with a 1-week interval between them, in order to enable the study's replication. To analyze the data we used point *and* interval estimates of the *Intraclass Correlation Coefficient* (ρ), with 95% confidence intervals. We also estimated the internal consistency of the inventory using the standardized Cronbach's alpha coefficient (α) for each dimension.

Analysis of the Psychometric Properties

The analysis of the psychometric qualities of the MBI-SS was carried out following Maroco's[21] guidelines. Thus, the analysis

of the construct's validity and reliability was done through a confirmatory factor analysis. The goodness of fit measures used were χ^2/df, CFI, GFI and RMSEA indices. We considered, according to Maroco's[21] criteria, that the model is valid when the factorial validity χ^2/df is between 1 and 2, CFI and GFI≥0.9 and RMSEA<0.08. The convergent validity of the factors was assessed through the Average Variance Extracted (AVE) for each factor. We considered that the factors presented convergent validity when the AVE is greater than 0.5. Finally, the construct's reliability was assessed through the Composite Reliability (CR) and the Internal Consistency (α)). CR values and Cronbach's α coefficient greater than 0.7 indicate a good reliability.

Statistical Analysis

The data were organized and calculated for all study's variables using the program STATA 9.0. As the cutoff point for Exhaustion and Cynicism, we used the percentile 66 (P66), and for Professional Efficacy we used the percentile 33 (P33), as proposed by Maslach and Jackson[22]. Individuals that presented Exhaustion and Cynicism mean values above P66 and Professional Efficacy results below P33 were considered to have Burnout Syndrome.

The Burnout prevalence was estimated by point and by a 95% confidence interval. To compare the mean scores of the Burnout dimensions a Multivariate Analysis of Variance (MANOVA) was performed, with the three Burnout dimensions as dependent variables, and the socio-demographic variables as independent variables. Statistically significant MANOVA's were followed by one way ANOVA's, which were followed by post-hoc Tukey's tests. The MANOVA's assumptions were evaluated with Shapiro-Wilk univariate test and Box's M statistics; severe violations of these assumptions that could compromise the validity of the statistical conclusions were not observed. The level of significance for decision making was 5%.

Results

Of the 100 participants in the pilot study, one was eliminated due to inappropriate completion of the questionnaires. The reproducibility of the dimensions Exhaustion (ρ=0.84, $IC_{95\%}$=0.77-0.89) and Cynicism (ρ=0.71, $IC_{95\%}$=0.59- 0.79) was good, as for Professional Efficacy (ρ=0.65, $IC_{95\%}$=0.52-0.75) the level of agreement was moderate. Similarly, in the pilot study, the internal consistency of the first two dimensions was excellent ($\alpha_{Exhaustion}$=0.87; $\alpha_{Cynicism}$=0.81), while for Professional Efficacy (α=0.65) it was below the desired value (0.70).

The study's response rate was of 78.3%, 235 students participated, of which 171 (72.0%) were women, the participant's mean age was 21.0 years (SD=1.8).

The distribution of graduates according to their socio-demographic characteristics is presented in Table 1.

Not all students completed all questions, despite this we observed that for most students dentistry was the first course option; they never resorted to private tutors; the course is better than what they initially expected; they claim to have a good performance; classified the professors as competent; and live with friends. Although most students claim to never have taken medication due to studies and to never have thought about quitting the course, these behaviors can be observed in approximately 40.0% of participants.

Figure 1 presents MBI-SS' Confirmatory factor analysis for the sample under study.

The adjustment of the three-factor model in this sample, the convergent validity ($VEM_{Exhaustion}$=0.62; $VEM_{Cynicism}$=0.72; $VEM_{Professional\ Efficacy}$=0.50), and MBI-SS' reliability (Exhaustion: CC=0.89, α=0.89; Disbelief: CC=0.91, α=0.90; Professional Efficiency: CC=0.85, α=0.85), were adequate.

The MBI-SS' responses distribution is presented in Table 2.

We observed that 47.2% of individuals feel emotionally drained by the studies, while 43.8% when they wake up, 57.9% believe it is a great effort to study and attend classes,

Table 1 - Distribution (n(%)) of undergraduate dental students as to socio-demographic characteristics. Araraquara, 2009.

Tabela 1 - *Distribuição (n(%)) dos graduandos de Odontologia participantes quanto às características sociodemográficas. Araraquara, 2009.*

Variable	n(%)
Course year	
First	43(18.62)
Second	56(24.25)
Third	56(24.24)
Fourth	75(32.89)
Private tutors	
Yes	36(15.38)
No	198(84.62)
Course option	
First option	168(71.79)
Second option	57(24.36)
Third option	9(3.85)
Initially expected about the course	
Much worse	3(1.28)
Worse	14(5.96)
Same	50(21.28)
Better	116(49.36)
Much better	52(22.13)
Performance in the course	
Poor	4(1.70)
Regular	48(20.43)
Good	169(71.91)
Excellent	14(5.96)
Performance of teachers	
Very incompetent	3(1.28)
Incompetent	1(0.43)
Reasonable	21(8.97)
Competent	154(65.81)
Very competent	55(23.50)
Material conditions of the school	
Very bad	1(0.43)
Bad	-
Reasonable	34(14.53)
Good	124(52.99)
Very good	75(32.05)
Accommodation	
Alone	61(26.29)
Family	55(23.71)
Friends	116(50.00)
Studies' financing	
Family	219(96.48)
Scholarship/grant	8(3.52)
Medication intake due to studies	
Never/rarely	142(60.94)
Sometimes	77(33.05)
Frequently	14(6.01)
Thought about giving up the course	
Never	139(59.66)
Sometimes	80(34.33)
Frequently	14(6.01)

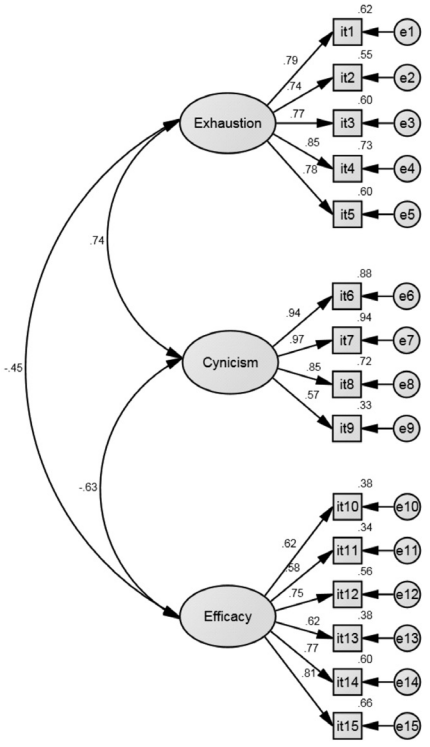

Figure 1 - Confirmatory Factor Analysis of the Portuguese version of the MBI-SS (SS (χ^2/df = 2.30; CFI = 0.95; GFI = 0.90; RMSEA = 0.07).
Figura 1 - *Análise Fatorial Confirmatória da versão em português do MBI-SS (χ^2/DF = 2,30; CFI = 0,95; GFI = 0,90; RMSEA = 0,07).*

and 45.5% felt consumed by studies. Of the students, 75.3% said they had lost interest in studies and 68.9% are skeptical about their potential and studies' usefulness.

Burnout syndrome was identified in 17.0% ($IC_{95\%}$=13.0-21.0%) of the students.

The comparison between the average scores, obtained in the different dimensions of MBI-SS, according to the variables of interest, is shown in Table 3.

We found a significant relation between the onset of Burnout and the performance in the course, medication intake due to studies, and the possibility of quitting the course; being most affected those students with a poor performance, that take medication due to their studies, and those who have already thought about quitting the course. The male students presented a significantly lower mean score concerning professional efficiency, than female students. Students of the first and third years of undergraduate course presented significantly higher Exhaustion scores, than the students from the other course years.

Discussion

The recognition of Burnout as a public health problem led to its inclusion in the list of occupational diseases related to work[23]. This fact expresses intense concern with the physical, emotional and social needs arising from the onset of Burnout, and suggests the need for scientific studies to research the prevalence of the syndrome and its associated factors in different populations.

Dentists, due to professional specificities, as are the contact with patients, financial factors, specific working posture, and working within the limited space of the oral cavity, are part of a category of health professionals who may have high levels of stress[17,18]. The literature has shown that the chronicity of this stress, combined with factors such as lack of energy and enthusiasm, feelings of exhaustion, job dissatisfaction and emotional instability, may lead to the onset of Burnout syndrome. It is possible for the syndrome to have an early onset, during the graduate course, and this may enhance the future onset of the syndrome in these professionals.

To address this situation, there is a need for an early identification of symptoms related to Burnout, which should preferably take place when workers are still in training, i.e. during their graduate course[5,10,14,15,18]. According to Martinez et al.[24], an early detection of symptomatic levels of Burnout can be a good indicator of potential difficulties, both in the academic and professional achievement, thus enabling the development of preventive and coping measures. Therefore, there is the need for screening studies to identify the prevalence of Burnout syndrome and its associated factors.

In this sense, it is essential to use reliable and valid instruments. To consider that the characteristics of a given instrument are related to a sample [19, 25, 26], the assessment

Table 2 - Distribution of the participants' answers (%) on the MBI-SS. Araraquara, 2009.
Tabela 2 - *Distribuição das respostas dos participantes (n(%)) ao MBI-SS. Araraquara, 2009.*

Question	Answer						
	Always	Almost always	Often	Regularly	Sometimes	Almost Never	Never
1. I feel emotionally drained by my studies.	18(7,7)	35(14,9)	58(24,7)	39(16,6)	34(14,5)	42(17,9)	9(3,8)
2. I feel used up at the end of a day at university.	4(1,7)	16(6,8)	47(20,0)	37(15,7)	47(20,0)	64(27,2)	20(8,5)
3. I feel tired when I get up in the morning and I have to face another day at the university.	13(5,5)	41(17,5)	49(20,8)	46(19,6)	39(16,6)	36(15,3)	11(4,7)
4. Studying or attending a class is really a strain for me.	38(16,27)	51(21,7)	47(20,0)	34(14,5)	31(13,2)	24(10,2)	10(4,3)
5. I feel burned out from my studies.	27(11,5)	34(14,5)	46(19,6)	38(16,2)	34(14,5)	38(16,2)	18(7,7)
6. I have become less interested in my studies since my enrollment at the university.	88(37,5)	52(22,1)	35(14,9)	23(9,8)	14(6,0)	15(6,4)	8(3,4)
7. I have become less enthusiastic about my studies.	79(33,6)	60(25,5)	38(16,2)	21(8,9)	17(7,2)	12(5,1)	8(3,4)
8. I have become more cynical about the potential usefulness of my studies.	74(31,5)	53(22,6)	35(14,9)	33(14,0)	14(6,0)	17(7,2)	9(3,8)
9. I doubt the significance of my studies.	69(29,4)	54(23,0)	30(12,8)	32(13,6)	21(8,9)	15(6,4)	14(6,0)
10. I can effectively solve the problems that arise in my studies.	50(21,3)	86(36,6)	29(12,3)	39(16,6)	20(8,5)	9(3,8)	2(0,8)
11. I believe that I make an effective contribution to the classes that I attend.	27(11,5)	73(31,2)	34(14,5)	36(15,4)	34(14,5)	24(10,3)	6(2,6)
12. In my opinion, I am a good student.	36(15,5)	85(36,5)	39(16,7)	40(17,2)	22(9,4)	8(3,4)	3(1,3)
13. I feel stimulated when I achieve my study goals.	112(47,9)	59(25,2)	22(9,4)	18(7,7)	10(4,3)	8(3,4)	5(2,4)
14. I have learned many interesting things during the course of my studies.	86(36,6)	67(28,5)	41(17,5)	26(11,1)	11(4,7)	3(1,3)	1(0,4)
15. During class I feel confident that I am effective in getting things done.	28(11,9)	64(27,2)	51(21,7)	49(20,8)	22(9,4)	16(6,8)	5(2,1)

of its reliability and validity ought to be performed before presenting the results. Any epidemiological study that involves the use of scales needs to go through this type of evaluation, since this is the only way to assess the quality of the data that will be produced. However, despite the relevance of this analysis, it has not been a common procedure in epidemiological studies.

The assessment of the MBI-SS characteristics showed excellent convergent validity and internal consistency. The dimension Professional Efficacy showed slightly lower consistency levels, which corroborates data from the literature [9, 11, 18]. The adequate fit of the tri-factorial model points to good factorial validity of the MBI-SS (Figure 1). This data together with the convergent validity, internal consistency and divergent validity, support the construct

Table 3 - Comparison of MBI-SS factors and sociodemographic variables of interest. Araraquara, 2009.
Tabela 3 - *Estudo de comparação entre as dimensões componentes do MBI-SS e as variáveis de interesse. Araraquara, 2009.*

Variable	Mean±SD					
	Exhaustion	p	**Cynicism**	p	**Professional Efficacy**	p
Gender						
Male	2.87±1.33		1.76±1.52		4.14±1.21	
Female	2.93±1.41	0.55	1.65±1.51	0.96	4.37±1.05	0.45
Course year						
First	3.39±1.31		1.90±1.32		4.13±0.99	
Second	2.74±1.33		1.49±1.38		4.32±1.24	
Third	2.86±1.37		1.75±1.54		4.36±1.13	
Fourth	2.82±1.44	0.08	1.65±1.69	0.45	4.35±1.05	0.67
Private tutors						
Yes	2.98±1.46		1.64±1.53		4.32±1.22	
No	2.90±1.37	0.83	1.69±1.51	0.66	4.30±1.08	0.73
Course option						
First option	2.82±1.32		1.51±1.37		4.46±1.01	
Other	3.15±1.51	0.04*	2.13±1.76	0.01*	3.89±1.23	0.01*
Initially expected about the course						
Worse	4.44^{a}±1.19		3.18^{a}±1.66		3.61^{a}±1.56	
Same	2.94^{b}±1.39		2.10^{b}±1.77		4.03^{a}±1.02	
Better	2.76^{b}±1.32	0.01*	1.41^{c}±1.30	0.01*	4.45^{b}±1.04	0.01*
Performance in the course						
Poor	5.10^{a}±0.93		4.81^{a}±1.21		1.50^{a}±0.56	
Regular	3.40^{b}±1.29		2.24^{b}±1.61		3.73^{b}±0.97	
Good	2.77^{c}±1.37		1.52^{c}±1.35		4.48^{c}±0.96	
Excellent	2.37^{c}±1.08	0.01*	0.88^{c}±1.62	0.01*	4.87^{c}±1.35	0.01*
Performance of teachers						
Incompetent	4.13^{a}±1.60		2.75^{a}±2.46		2.83^{a}±1.43	
Reasonable	3.58^{a}±1.40		2.57^{a}±1.44		3.78^{a}±1.31	
Competent	2.83^{b}±1.36	0.01*	1.58^{b}±1.48	0.01*	4.38^{b}±1.05	0.01*
Material conditions of the school						
Reasonable	2.92±1.51		2.10±1.70		4.16±1.08	
Good	2.91±1.37	0.73	1.62±1.47	0.22	4.33±1.11	0.58
Accommodation						
Alone	2.91±1.52		1.85±1.73		4.23±1.13	
Family	2.89±1.37		1.69±1.51		4.27±1.14	
Friends	2.93±1.33	0.98	1.59±1.39	0.76	4.36±1.07	0.71
Studies' financing						
Family	2.89±1.37		1.65±1.46		4.33±1.08	
Scholarship/grant	3.74±1.77	0.22	2.61±2.60	0.27	3.57±1.49	0.11
Medication intake due to studies						
No	2.63±1.31		1.53±1.38		4.41±1.01	
Yes	3.36±1.38	0.01*	1.93±1.68	0.02*	4.13±1.23	0.04*
Thought about giving up the course						
No	2.59±1.27		1.09±1.10		4.64±0.95	
Yes	3.43±1.40	0.01*	2.63±1.60	0.01*	3.77±1.21	0.01*

*diferença estatística significativa para α = 0,05; ^{a,b,c} letras iguais indicam similaridade estatística/**Statistically significant difference at 5%; ^{a,b,c} equal letters indicate statistical similarity*

validity of the MBI-SS in our sample.

The prevalence of Burnout syndrome among Dentistry graduate students, in Araraquara, can be considered high. Pohlmann et al.[16] also found high scores of Burnout in Dentistry students, stressing the high levels of Cynicism, which, according to the authors, may reflect the insecurity felt by students in dealing with patients. On the other hand, Carlotto et al.[10] found no presence of the syndrome among students, but found high levels of Exhaustion which, according to Maslach's model, is the first indication of the future development of Burnout. This fact, according to Pohlmann et al.[16] can be explained by the anxiety students feel regarding assessments, the little leisure time, and the stress felt in the transition to the clinical phase.

The possibility of quitting the course was significantly associated with the dimensions of the MBI-SS, which is consistent with the results obtained by Carlotto et al.[10]. To explain this fact one can cite the argument made by Batista et al.[6], concerning their study on Burnout in teachers, where the authors state that, the intention to abandon work can be considered as an attempt to deal with the emotional exhaustion, often resulting from the lack of balance between the investment made and the rewards received.

In this study, there were also other significant relations between the occurrence of Burnout and the socio-demographic variables in students that, to our knowledge, have not yet been described in the literature. These include student performance in the course, the thought of quitting the course and medication intake associated with studies. The significant relation between performance and MBI-SS' dimensions points higher prevalence of Burnout in those students whose performance is poor, which can occur due to course related activities becoming too stressful for these students and, thus, encouraging a skeptic attitude.

It is possible that the intake of studies-related medication is a consequence of the onset of Burnout syndrome. However, this suggestion should be interpreted with caution, as this is a correlational and cross-sectional study.

There was also a significant relationship between the course year and the Exhaustion dimension. Martinez et al.[24] and Carlotto et al.[10] also found this relation, stating that the lower the course year, the greater the emotional exhaustion, cynicism in education and lower sense of professional efficacy. They justify this fact with the needs of students, who just came from high school, have to deal with their new reality and to adopt a posture of greater autonomy and responsibility. However, as can be seen in Table 3, the higher scores were found for students from the first and third years, and only in the Exhaustion dimension.

Despite the fact that Burnout syndrome was not significantly related to gender, there was a statistically significant difference in the scores regarding professional Efficacy, being that men presented lower values. Alemany Martinez et al.[24] found a higher prevalence of Burnout syndrome, and associated factors, in men. The authors explain that this might be due to the fact that women seek help and family support more frequently than men do.

The data presented suggests a relation between the components of Burnout syndrome and the socio-demographic variables, highlighting the importance of an intervention which considers the work-related and psychosocial variables that may influence the appearance of an occupational disease in Dentistry students.

However, it is important to mention the possibility of a selection bias in this study, as the students were voluntary and, therefore, there is a chance that the most affected students did not participate. Thus, the average scores of exhaustion and cynicism could be higher and professional efficacy scores lower than those presented. Despite this limitation, we hope this study may assist the school community in the identification of Burnout and its associated factors in the search for a better quality of life and school performance of the students.

Conclusion

The prevalence of Burnout syndrome among dental students was 17%. There was a significant relation between the syndrome and student performance in the course, the intake of medication due to studies, and the existence of the thought of quitting the course.

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