

Burnout in the teaching profession: a study at the Universidad Politécnica Salesiana Sede Guayaquil, Ecuador

El burnout en el ejercicio docente: un estudio en la Universidad Politécnica Salesiana Sede Guayaquil, Ecuador

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ABSTRACT

The most productive organizations invest in their human capital and implement strategies to reduce levels of stress and fatigue at work. Burnout affects many countries in Europe and Latin America, especially those in the medical and teaching professions. Ecuador is no exception. The objective of this research is to know how Burnout Syndrome affects the teaching staff of an Ecuadorian university, using a descriptive methodology with a quantitative approach. The method used was the survey, using an instrument based on the "Maslach" burnout inventory, a tool that consists of 22 questions divided into three dimensions: emotional exhaustion, depersonalization and personal fulfillment. For the analysis, the following groups were defined: no burnout, mild/moderate burnout and severe burnout. A higher percentage of severe burnout is evidenced in men. The same occurs in the group of people between 35 and 44 years of age. It is concluded that there is an affectation in the quality of life of the teachers of the Salesian Polytechnic University caused by the Burnout Syndrome, it is recommended to improve the working condition of the employees to raise the levels of motivation and productivity of the organization.

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Keywords: industrial safety, occupational health, management system, strategies, risks, accidents, prevention.

RESUMEN

Las organizaciones más productivas invierten en su capital humano e implementan estrategias para reducir niveles de estrés y cansancio laboral. El Burnout afecta a muchos países de Europa y Latinoamérica, sobre todo a aquellos que ejercen profesiones médicas y de docencia. El Ecuador no es la excepción. El objetivo de esta investigación es conocer de qué manera el Síndrome de Burnout afecta al personal docente de una universidad ecuatoriana, utilizando una metodología de carácter descriptivo con un enfoque cuantitativo. El método utilizado fue la encuesta, empleando un instrumento basado en el inventario de burnout de "Maslach". herramienta que consta de 22 preguntas divididas en tres dimensiones que son: cansancio emocional, despersonalización y realización personal. Para el análisis se definieron los grupos: sin burnout, burnout leve/moderado y burnout grave. Se evidencia un porcentaje mayor de burnout grave en los hombres. De igual forma sucede en el grupo de personas entre 35 y 44 años. Se concluye que existe una afectación en la calidad de vida de los docentes de la Universidad Politécnica Salesiana provocado por el Síndrome de Burnout, se recomienda mejorar la condición laboral de los empleados para elevar los niveles de motivación y productividad de la organización.

Palabras claves: seguridad industrial, salud ocupacional, sistema de gestión, estrategias, riesgos, accidentes, prevención.

INTRODUCTION

It is necessary to clearly understand the meaning of Burnout, prior to making a descriptive analysis of this problem, and especially if we try to evaluate how this "Burnout Syndrome" affects university teachers, directly and proportionally affecting the quality of higher education.

The American psychologist Christina Maslach and her colleague Susan Jackson, who have been studying this problem since the mid-1970s, state that "burnout is a response to chronic work stress, shaped by negative attitudes and feelings towards the people with whom one works, and towards one's own professional role" (Olivares, 2017). (Olivares, 2017)

Any working person can be affected by Burnout, however, through various investigations worldwide, it is possible to identify which professions are more compromised by this syndrome, either by the intensity of the tasks to be performed, by the organizational culture where these people generally develop, or even by factors specific to the city or country where they work.

Among the professions most affected by "Burnout Syndrome" are Medicine, Nursing, Social Work and Teaching. "Most studies cite teachers as one of the professions most affected by burnout syndrome, especially secondary school teachers, along with other professions such as nursing, medicine and social work" (Ranchal & Vaquero, 2008).

It makes sense to think that there are countries where occupational burnout is predominant, either by economic development, social culture, sociodemographic characteristics, among others. In 2019 several Research groups from Peru, Honduras, Argentina and Colombia conducted a study on factors associated with occupational stress in workers in six Latin American countries, resulting in "The country with the highest level of stress was Venezuela (63%), followed by Ecuador (54%) and Panama (49%); The countries with the lowest percentages of stress were Peru (29%) and Colombia (26%)." (Mejía, et al., 2020)

It is important to highlight that Burnout has a negative impact on the quality of life of employees. Salvadoran researcher Javier Lovo assures that "There is no real awareness of the costs that the presence of the syndrome represents in the quality of life of people and even more in the production of organizations." (Lovo, 2021)

The medical sector in Ecuador has been greatly impacted by this condition. It is said that "There is a significant frequency of 27.1% of emotional exhaustion in endocrinology physicians" 4 Furthermore "More than 90% of medical and nursing staff presented moderate to severe SB, which was statistically significantly associated with function (physician vs. nurse, age and gender)." (Vinueza, Aldaz, Mera, Tapia, & Vinueza, 2021)

In the case of university teaching in Ecuador, the results are also interesting. In a study conducted at the Technical University of Manabi, it was concluded that "full-time teachers, in general, perceive themselves with a high level of lack of personal fulfillment and the only cases of high levels for the triad of Burnout syndrome, corresponded to tenured teachers". (Anzules, Rojas, Párraga, Veliz, & Villacís, 2021)

The problem of having a teaching staff that presents clinical manifestations caused by this syndrome goes beyond the individual affectation of each employee, it implies a decrease in the quality of teaching in higher education, since "productivity and the general economy is based on the productivity of the working population, which is seriously affected and reduced when burnout is not recognized" (Lovo, 2021). (Lovo, 2021)

Dr. Christine Maslach and Susan Jackson created an instrument called "Maslach Burnout Inventory" which measures, on a seven-level frequency scale, the three symptoms that define burnout: Emotional Exhaustion, Depersonalization and Low Personal Fulfillment at work.

To ensure high levels of performance in the teaching-learning processes, it is necessary to take care of the quality of the teacher-student relationship, the teacher is expected to maintain a positive and empathetic attitude with his direct client, however, Burnout depersonalizes the teacher being this a "form of coping that protects the worker from disillusionment and exhaustion. It involves cynical, negative attitudes and feelings about one's clients, manifested by irritability and impersonal responses". (Martinez, 2010)

Burnout affects the relationships of the teacher with his or her environment, "Work stress not only affects the person who suffers from it, but all those around him or her: family, friends, co-workers, students..." (Rodríguez, Guevara, & Viramontes, 2017)

Vocational burnout is also a consequence of burnout. "In engineering teachers we can find occupational burnout centered strictly to work pressure, relationships with co-workers, with students who present different technological demands such as design and creation of new proposals..." (Fuster, et al., 2019)

A teacher with emotional exhaustion, with negative attitudes against his students, co-workers, and with low personal fulfillment, does not represent an element that contributes to the competitiveness of private universities, much less to the development of the country.

It is imperative to find ways to avoid burnout in university teachers. (Mesurado & Laudadio, 2019). There are countries that have tried to establish strategies to counteract occupational Burnout and have conducted research in search of mitigating the impact of this social evil. "It is considered that the study of burnout has advanced to the extent that it is considered as a health problem that occurs in the work context and is not only a matter of the caring professions, which have been the most studied." (Diaz & Gómez, 2016)

The quality of life of university teachers should be a priority for the State, given the impact on the country's development. In Mexico some researchers conclude that "Due to the attacks from the media, as well as the different reforms that affect their profession, teachers are demotivated and in a state of stress..." (Martínez, Guevara, & Ornelas, 2016)

Some authors have conducted research on the relationship between Burnout and the quality of life of university teachers, from 1979 until then they have tried to find ways to understand the behavior of the different internal and external variables that lead organizations to physically, emotionally and psychologically exhaust their employees, and most authors conclude that it is necessary to focus on specific clusters, within each sector and country, since the results differ greatly at the Latin American or European level.

MATERIALS AND METHODS

The research developed in this article has a quantitative approach with a descriptive methodology. The method used was the survey, using a structured instrument consisting of two parts, the first is a battery of 22 closed questions with a time frequency scale and the second a battery of identification questions. The battery of questions on burnout is based on the Maslach burnout inventory, developed by Cristina Maslach and consists of 22 questions, divided into three categories: personal exhaustion, depersonalization and personal fulfillment.

Table 1. Dimensions assessed in the Maslach Burnout Inventory.

Dimension	Questions involved
Emotional fatigue	1-2-3-6-8-13-14-16-20
Depersonalization	5-10-11-15-22
Personal relationship	4-7-9-12-17-18-19-21

Source: (Maslach, Jackson, & Leiter, 1996)

Each question of the Maslach Burnout Inventory is evaluated according to a frequency scale:

0 = Never.

1 = Few times a year.

2 = Once a month or less.

3 = A few times a month.

4 = Once a week.

5 = A few times a week.

6 = Every day.

In addition to the questions in the Maslach inventory, demographic variables were included: sex, age group, marital status, number of children, religion and educational level.

The data collection method was the electronic survey, with the help of the QuestionPro platform. The instrument was a structured questionnaire.

The population considered for this study is made up of teachers at the Salesian Polytechnic University, Guayaquil campus. This population consists of 262 teachers distributed in 23 careers and two campuses, Centenario and María Auxiliadora.

To obtain the sample size, a pilot sample of 20 teachers was used to obtain an estimate of the adjusted population proportion of 0.9. The sample was calculated considering a confidence level of 95% and a maximum admissible error of 5%.

$$n = \frac{Z_{\alpha/2}^2 P Q N}{e^2 (N - 1) + Z_{\alpha/2}^2 P Q}$$

$$n = \frac{(1.96)^2 (0.9)(0.1)(262)}{(0.05)^2 (262 - 1) + (1.96)^2 (0.9)(0.1)}$$

$$n \cong 91$$

RESULTS

The constitution of the sample is shown in Table 2: 53.97% of the respondents were men and 46.03% were women. Regarding the age group, 11.11% were between 25 and 34 years old, 36.51% between 35 and 44 years old, 34.92% between 45 and 54 years old and 17.46% between 55 years old and older. Regarding marital status, 61.90% indicated that they were married, 20.63% were single and the rest were divorced or widowed. Regarding the number of children, 20.60% said they had no children, 20.60% said they had one child, 38.10% had two children and the other 20.60% said they had three or more children. The predominant religion was Catholic with 73.02%, followed by Evangelical with 15.87%. There were 3.17% atheists and 3.17% with no religion. Finally, with respect to educational level, 4.76% have a bachelor's or engineering degree, 82.54% have a master's degree and 12.70% have a doctorate.

Table 1. Demographic variables

Variable	Categoría	Porcentaje
Sexo	Masculino	53,97%
	Femenino	46,03%
Grupo etario	< 25	0,00%
	25 - 34	11,11%
	35 - 44	36,51%
	45 - 54	34,92%
	55 +	17,46%
Estado civil	Solter@	20,63%
	Casad@	61,90%
	Divorciad@	14,29%
	Viud@	1,59%
	Unid@	1,59%
Número de hijos	Ninguno	20,60%
	1	20,60%
	2	38,10%
	3	19,00%
	Más de 3	1,60%
Religión	Católica	73,02%
	Evangélica	15,87%
	Sin religión	4,76%
	Ateo	3,17%
	Otra religión	3,17%
Nivel educativo	Licenciatura/Ingeniería	4,76%
	Maestría	82,54%
	Doctorado	12,70%

Table 3 shows the percentages of a set of psychographic variables that were also included in the present investigation.

Table 2. Psychographic variables

Variable	Categoría	Porcentaje
Fuma	Si	53,97%
	No	46,03%
Horas de sueño por día (horas)	4 o menos	1,60%
	Entre 5 y 6	74,60%
	Entre 7 y 9	23,80%
	Más de 9	0,00%
Actividad deportiva (minutos por semana)	Ninguna	41,30%
	Entre 30 y 69	42,90%
	Entre 70 y 149	11,10%
	Entre 150 y 300	1,60%
	Más de 300	3,20%

The battery of questions of the Maslach burnout inventory was applied and the results shown in Table 4 were obtained.

Table 3. Responses to the Maslach burnout inventory questions.

Cat. Id.	Statement	Nunca	Pocas veces al año	Una vez al mes o menos	Unas pocas veces al mes	Una vez a la semana	Unas pocas veces a la semana	Todos los días
Cansancio emocional	1 Me siento emocionalmente agotado/a por mi trabajo.	12,12%	22,73%	12,12%	10,61%	7,58%	21,21%	13,64%
	2 Me siento cansado al final de la jornada de trabajo.	3,03%	16,67%	6,06%	13,64%	7,58%	21,21%	31,82%
	3 Cuando me levanto por la mañana y me enfrento a otra jornada de trabajo me siento fatigado.	21,21%	22,73%	3,03%	18,18%	6,06%	19,70%	9,09%
	6 Siento que trabajar todo el día con personas supone un gran esfuerzo y me cansa.	36,36%	21,21%	13,64%	7,58%	3,03%	9,09%	9,09%
	8 Siento que mi trabajo me está desgastando/Me siento quemado por mi trabajo.	24,24%	16,67%	7,58%	12,12%	12,12%	16,67%	10,61%
	13 Me siento frustrado/a en mi trabajo.	37,88%	30,30%	10,61%	6,06%	3,03%	9,09%	3,03%
	14 Siento que estoy demasiado tiempo en mi trabajo.	22,73%	19,70%	7,58%	10,61%	7,58%	4,55%	27,27%
	16 Trabajar directamente con la gente me produce estrés.	42,42%	22,73%	10,61%	15,15%	0,00%	3,03%	6,06%
	20 Me siento acabado en mi trabajo, al límite de mis posibilidades.	48,48%	13,64%	6,06%	10,61%	7,58%	7,58%	6,06%
	Despersonalización	5 Creo que estoy tratando a algunas personas como si fueran objetos impersonales.	75,76%	4,55%	1,52%	6,06%	4,55%	6,06%
10 Me he vuelto más insensible con la gente.		61,54%	18,46%	4,62%	4,62%	3,08%	7,69%	0,00%
11 Pienso que este trabajo me está endureciendo emocionalmente.		56,06%	15,15%	6,06%	9,09%	4,55%	6,06%	3,03%
15 No me preocupa realmente lo que les ocurra a algunas de las personas a las que debo atender profesionalmente.		66,67%	9,09%	6,06%	3,03%	4,55%	3,03%	7,58%
22 Creo que las personas a las que atiendo me culpan de algunos de sus problemas.		57,58%	25,76%	6,06%	4,55%	4,55%	1,52%	0,00%
Realización personal	4 Tengo facilidad para comprender como se sienten las personas a las que tengo que atender	1,54%	3,08%	1,54%	6,15%	4,62%	15,38%	67,69%
	7 Creo que trato con mucha eficacia los problemas de las personas que atiendo	3,03%	3,03%	3,03%	0,00%	1,52%	16,67%	72,73%
	9 Creo que con mi trabajo estoy influyendo positivamente en la vida de otras personas.	3,03%	3,03%	1,52%	1,52%	3,03%	16,67%	71,21%
	12 Me siento con mucha energía en mi trabajo.	4,55%	1,52%	3,03%	3,03%	7,58%	33,33%	46,97%
	17 Siento que puedo crear con facilidad un clima agradable en mi trabajo	1,52%	1,52%	3,03%	6,06%	9,09%	15,15%	63,64%
	18 Me siento motivado después de trabajar en contacto con las personas que atiendo.	3,03%	3,03%	1,52%	6,06%	3,03%	33,33%	50,00%
	19 Creo que consigo muchas cosas valiosas en este trabajo.	0,00%	7,58%	1,52%	7,58%	7,58%	24,24%	51,52%
	21 En mi trabajo trato los problemas emocionales con mucha calma.	1,52%	1,52%	3,03%	1,52%	4,55%	15,15%	72,73%

Considering what is indicated in Table 1, we proceeded to generate the three main categories into which the MBI is divided and to make the corresponding descriptive statistics. Each dimension is evaluated according to the ranges shown in Table 5.

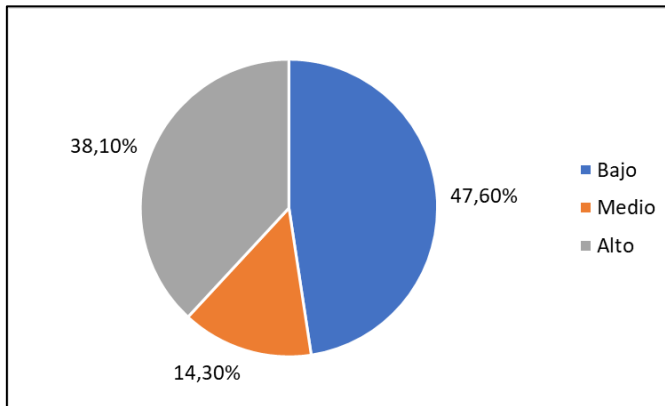
Table 4. Reference for the interpretation of the results obtained in each of the dimensions of the Maslach burnout inventory.

Dimensión	Puntuación		
	baja	media	alta
Cansancio emocional	≤ 18	19 - 26	≥ 27
Despersonalización	≤ 5	6 - 9	≥ 10
Relación personal	≥ 40	34 - 39	≤ 34

Source: (Maslach, Jackson, & Leiter, 1996)

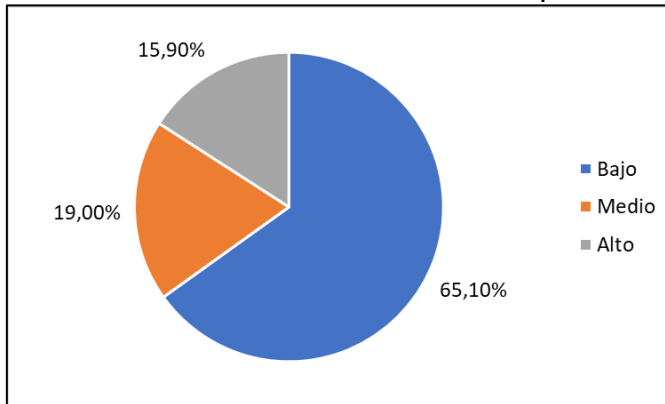
The emotional exhaustion dimension, 47.60% have a low indicator, 14.30% have a medium indicator and 38.10% have a high indicator.

Chart 1. Statistics on the levels of the emotional exhaustion dimension.



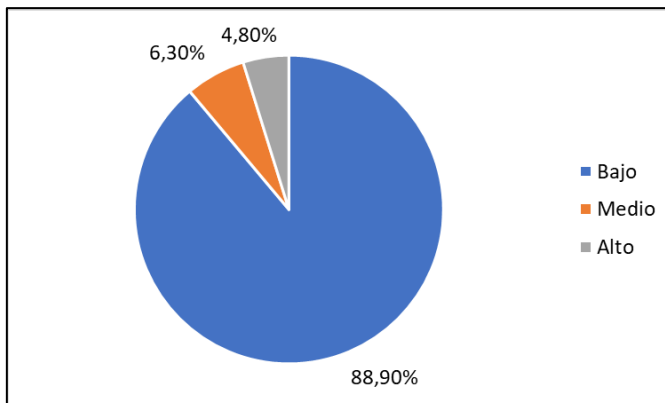
In the depersonalization dimension, 65.10% have a low indicator, 19.00% have a medium indicator and 15.90% have a high indicator.

Chart 2. Statistics on the levels of the depersonalization dimension.



The personal fulfillment dimension, 88.90% have a low indicator, 6.30% have a medium indicator and 4.80% have a high indicator.

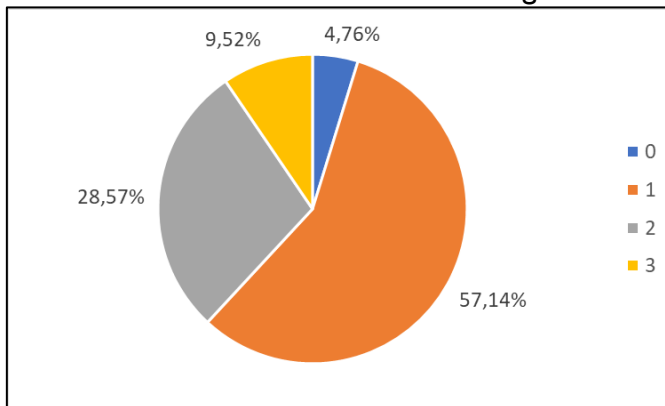
Chart 3. Statistics on the levels of the self-fulfillment dimension.



As has been shown, there are several levels for the different dimensions of burnout and there are no cut-off points for measuring the existence or not of burnout syndrome, but it is considered that levels in the different dimensions can define the existence of the syndrome. Below is a graph showing the frequency with which the different individuals studied obtained high scores in 1 or more of the burnout dimensions.

4.76% of the respondents do not have high scores on any of the dimensions, 57.14% have high scores on one of the dimensions, 28.57% have high scores on two dimensions, and 9.52% have high scores on all three dimensions, which could be considered at-risk individuals.

Chart 4. Number of dimensions with high scores



Depending on the number of dimensions with high scores, the following groups were defined: no burnout (0 dimensions with high scores), mild/moderate burnout (1 or 2 dimensions with high scores) and severe burnout (3 dimensions with high scores).

Table 6 shows the percentages of burnout according to the different demographic variables. A higher percentage of severe burnout is evidenced in men. The same occurs in the group of people between 35 and 44 years of age. Married people have a higher level of severe burnout. With regard to religion, there is a higher level of severe burnout among Catholic and evangelical teachers. Severe burnout is higher in those with one or three children and finally, there is a higher prevalence of severe burnout in teachers with a doctorate.

No statistically significant association was found between burnout and demographic variables.

Table 5. Percentage of burnout according to demographic variables. A level of statistical significance is considered if $p < 0.05$.

Variable	Categoría	Sin Burnout	Burnout leve/moderado	Burnout grave	Valor p
Sexo	Masculino	5,90%	82,40%	11,80%	0,711
	Femenino	3,40%	89,70%	6,90%	
Grupo etario	< 25	-	-	-	0,818
	25 - 34	-	100,00%	-	
	35 - 44	8,70%	78,30%	13,00%	
	45 - 54	4,50%	86,40%	9,10%	
	55 +	-	90,90%	9,10%	
Estado civil	Solter@	7,70%	92,30%	-	0,761
	Casad@	5,10%	79,50%	15,40%	
	Divorciad@	-	100,00%	-	
	Viud@	-	100,00%	-	
	Unid@	-	100,00%	-	
Religión	Católica	6,50%	82,60%	10,90%	0,978
	Evangélica	-	90,00%	10,00%	
	Sin religión	-	100,00%	-	
	Ateo	-	100,00%	-	
	Otra religión	-	100,00%	-	
Número de hijos	Ninguno	-	100,00%	-	0,75
	1	7,70%	76,90%	15,40%	
	2	8,30%	83,30%	8,30%	
	3	-	83,30%	16,70%	
	Más de 3	-	100,00%	-	
Nivel educativo	Licenciatura/Ingeniería	-	100%	-	0,898
	Maestría	5,80%	84,60%	9,60%	
	Doctorado	-	87,50%	12,50%	

Table 7 shows the percentages of burnout according to the different psychographic variables. A higher percentage of severe burnout is evidenced in those teachers with fewer hours of sleep. Likewise, a higher level of burnout was found in smokers. Finally, a higher level of burnout is shown in those with no physical activity and even higher in those with more than 150 minutes of physical activity per week.

A statistically significant association was found between burnout and the number of hours of sleep ($p=0.029$). There was also an association with the time spent in weekly physical activity ($p=0.038$).

Table 6. Percentage of burnout according to psychographic variables. A level of statistical significance is considered if $p < 0.05$.

Variable	Categorías	Sin Burnout	Burnout leve/moderado	Burnout grave	Valor p
Horas de sueño	4 o menos	-	-	100%	0,029
	5 a 6	6,40%	85,10%	8,50%	
	7 a 9	-	93,30%	6,70%	
Fuma	Si	-	80%	20%	0,636
	No	5,20%	86,20%	8,60%	
Actividad física	Ninguna	7,70%	80,80%	11,50%	0,038
	30 - 69 minutos	3,70%	92,60%	3,70%	
	70 - 149 minutos	-	100%	-	
	150 a 300 minutos	-	-	100%	
	Más de 300 minutos	-	50%	50%	

DISCUSSION

Some researchers, whose work revolves around the burnout syndrome, point out that this syndrome occurs mainly in professionals who offer their main attention or work to people, citing cases such as health workers, direct customer service personnel, teachers, workers in public entities, housing, social services, among others. (Méndez, 2004).

Studies on burnout conducted in Ecuador and Mexico show that this phenomenon is closely related to occupational stress and that the most acute and even chronic manifestations occur when teachers are involved in the studies (Rodríguez, Guevara, & Viramontes, 2017)..

The present study conducted among teachers at the Universidad Politécnica Salesiana, Guayaquil, was carried out using a version of the Maslach burnout inventory. The study revealed the absence of burnout in 4.76% of the teaching population, while 85.71% of teachers were identified with burnout levels between mild and moderate (high scores in one or two dimensions evaluated) and finally, 9.52% of teachers were found to have a severe burnout level (high scores in all three dimensions).

These results are not far from those obtained by. (Palmer, et al., 2016) who report a prevalence of burnout syndrome of 2.6% in teachers at a university in Baja California, nor from the results obtained by (Carvajal, et al., 2020) in which it is indicated that in the teachers of the Nursing Career of the Central University of Ecuador it was observed that 4% of the teachers had severe work stress.

Other studies, however, report higher levels of burnout, as do. (Vinueza, Barreno, & Flores, 2020) where it is indicated that 24.14% of teachers in an agronomic technological institute present burnout syndrome, (Paredes, Vilorio, Lozada, Gual, & Guzman, 2021) conclude that in the Faculty of Administrative Sciences of the University of Guayaquil there is a percentage of 21.4% of teachers with high levels of burnout. (Rozas, 2016) concludes that teachers of the Faculties of Health, Education and Sciences of the University of Santo Tomás have a burnout syndrome proclivity of 48%.

In the burnout dimensions, emotional exhaustion shows high scores in 38.10% of the cases, depersonalization shows high scores in 15.90% of the teachers and personal accomplishment shows high scores in 4.80% of the cases, which means that the highest prevalence is exhibited in the dimension of emotional exhaustion. These results show similarity to the findings of (Jarrín, Moya, Patiño, Barandica, & Bravo, 2022) which indicate that the emotional exhaustion dimension is the most affected with 30.08% of the cases; (Ramos, Alfonso, Peñafiel, Macías, & Labrada, 2020) which evidences that the dimension with the highest scores is emotional exhaustion with 25.9% of cases, obtained from two Ecuadorian universities, (Anzules, Rojas, Párraga, Veliz, & Villacís, 2021) find the highest levels in the dimension of emotional exhaustion at 17%.

CONCLUSIONS

The teaching profession is one of the professions with a significant prevalence of burnout syndrome. Teachers at the Salesian Polytechnic University are no exception and although the issue in the institution is not so serious, it is necessary for the authorities to take appropriate actions to influence the current levels of work stress and thus eradicate the burnout syndrome.

As in some of the studies cited above, it is evident that the dimension with the highest scores is emotional exhaustion and depersonalization, while personal fulfillment does not have high scores. The finding of the relationship between burnout and variables related to hours of sleep and physical activity is important, which leads the institution to undertake initiatives that promote integration through on-site physical activities, in such a way that they represent a motivating factor and at the same time mitigate the levels of prevalence of the syndrome.

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