

## Job satisfaction and burnout in professors

### Methodology

It is a **quantitative, correlational, cross-sectional study.**

The Maslach Burnout Inventory test, the Job Satisfaction factors test and a questionnaire were used to identify relevant sociodemographic variables in 61 higher education teachers in Mexico.

### Objective

**Analyze the levels of stress and job satisfaction among professors**

as well as to identify the possible relationship between both variables, which, as reported in the literature, tend to appear simultaneously.

### Introduction

**The working conditions of professors generate high administrative and academic demands,** which together with the need to use ICT-mediated modalities due to the Covid-19 pandemic generated situations of stress and job dissatisfaction.

### Result or conclusion 1

**Job satisfaction levels are at medium levels**

and are negatively affected by factors such as being a woman, having a low hierarchical position and a second teaching job.

### Results or conclusion 2

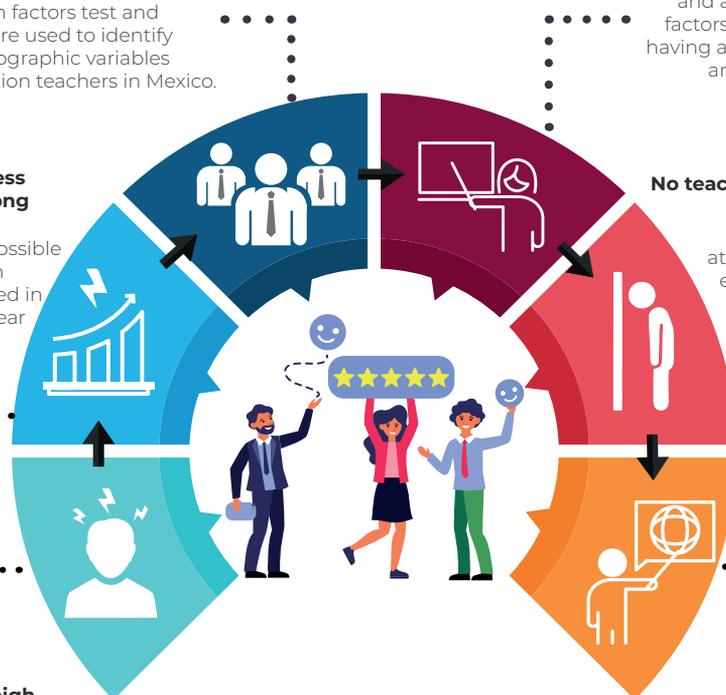
**No teachers were found to present Burnout Syndrome,**

however 37% presented at least high levels of emotional exhaustion, depersonalization, or low personal fulfillment.

### Result or conclusion 3

**No evidence of correlation between Burnout Syndrome and Job Satisfaction was found; however,**

the data allow to conclude that it is necessary to work on improving working conditions to achieve adequate levels of well-being and productivity.



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## *Satisfacción laboral y burnout en personal docente*

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**Abstract:** job Satisfaction (JS) is an emotional state that affects the competitiveness and productivity of organizations, which can be affected by multiple factors, including the response to stress called Burnout Syndrome (BS). The aim of this paper is to measure and describe the level of JS, the prevalence of BS and their relationship. It is a quantitative, correlational, transversal, and non-experimental research. Questionnaires and tests with quantitative scales were used, as well as descriptive and inferential statistical analysis for their interpretation. The sample consisted of 61 higher education teachers from a public university in San Luis Potosí (Mexico). The JS factor test, the Maslach Burnout Inventory and a sociodemographic questionnaire were applied. It was found that the JS of teachers is at a medium level, that the levels of propensity to BS are between mild and moderate. Gender, job title and a second job affect the level of JS. No statistically significant relationship was found between propensity for BS and JS. It is inferred that the organizational context, gender and a second job affect stress and, in turn, promote BS. It is essential to value and improve the conditions of education workers to promote healthy work environments, which not only affects them but also students.

**Keywords:** work, satisfaction, burnout, teachers, administration, belonging, wellness, organization.

**Resumen:** la Satisfacción Laboral (SL) es un estado emocional que incide en la competitividad y productividad de las organizaciones, que puede verse afectada por múltiples factores, entre ellos por la respuesta al estrés denominada Síndrome de Burnout (SB). El objetivo de este trabajo es medir y describir el nivel de SL, la prevalencia del SB y su relación. Es una investigación cuantitativa, correlacional, transversal y no experimental. Se utilizaron cuestionarios y pruebas con escalas cuantitativas, así como análisis estadístico descriptivo e inferencial. La muestra es de 61 docentes de educación superior en una universidad pública de San Luis Potosí (México). Se aplica la prueba de factores de SL, la Maslach Burnout-Inventory y un cuestionario sociodemográfico. Se encontró que la SL de docentes se encuentra en un nivel medio, que los niveles de propensión al SB están entre leves y moderados. Además, el género, el puesto y el hecho de tener un segundo empleo como profesor condicionaron la SL. No se encontró una relación estadísticamente significativa entre la propensión al SB y la SL. Se infiere que el contexto organizacional, el género y un segundo empleo inciden en el estrés y, a su vez, propician el SB. Es indispensable valorar y trabajar en las condiciones de los trabajadores de la educación con la finalidad de propiciar ambientes de trabajo saludables, que no solo los afecten a ellos sino también a estudiantes.

**Palabras clave:** trabajo, satisfacción, burnout, profesores, administración, pertenencia, bienestar, organización.

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## Introduction

Knowing and measuring the levels of Job Satisfaction (JS) is essential in modern organizations. The market conditions imposed by the global economy demand high levels of competitiveness and productivity to achieve economic and social goals. To achieve this goal, a fundamental component that must be addressed is human talent, as a means to consolidate comparative advantages, increase productivity and economic benefits (Hoboubi *et al.*, 2017). In the current contexts, organizations must emphasize the development of flexible structures that allow innovation and creativity and establish conditions to create and manage knowledge, to apply it in the development of new processes, services and products; as well as to promote its exchange and transfer to generate synergies and development in the social and productive sectors.

The negative physical and mental reactions derived from a work environment and situations that are difficult to cope with are known as occupational stress (Osorio and Cárdenas Nino, 2017). It is necessary that organizations identify and measure their levels and impact. Likewise, it is essential to evaluate the perception of job satisfaction of collaborators since its effects are directly reflected in the quality of services and products, productivity, work climate, commitment, among other aspects, necessary for the development and consolidation of organizations. To address stress in academic environments, interventions that include actions aimed at identifying and resolving environmental situations with an ethical approach and oriented to continuous improvement from socio-training are considered appropriate (Fierro-Santillán *et al.*, 2019). Evidence suggests that maintaining low levels of burnout and high job satisfaction have an impact on low resignation intention in teachers (Madigan and Kim, 2021).

Higher education professors currently conduct various activities such as: teaching, research, obtaining of certifications, administrative activities, resource management, tutoring, among others, which implies complex challenges. On the other hand, available resources, support for professors, compensation schemes, among others, are increasingly limited in public and private institutions

(Ruiz de Chávez *et al.*, 2014). Álvarez Silva *et al.* (2022) show that the Covid-19 pandemic and the lack of strategic planning conditions in educational organizations generated adverse situations for teachers, causing high levels of work stress. This study was conducted in a Mexican public education institution located in the city of San Luis Potosí.

Given the conditions faced by professors, the purpose is to identify whether there are low levels of job stress, prevalence of Burnout Syndrome (BS) and a relationship between these variables.

## Job Satisfaction (JS)

Job satisfaction is defined as a positive feeling that tends to be stable towards the work activity (Davis and Palladino, 2007). Salessi and Omar (2016) consider it as the attitude that is developed and observed as a result of the experiences in working life. For Guerra *et al.* (2017), it is the willingness of workers towards their working activity. In general terms, satisfaction is affirmed as a perception towards the work experience. On the other hand, Morris and Maisto (2009) relate it to productivity, absenteeism and staff turnover. Low levels of job satisfaction have negative effects on interpersonal relationships, and it is also a factor that can increase stress levels.

Job security conditions, recognition, job enrichment and challenge, possibilities for growth, good interpersonal relationships and the availability of infrastructure, equipment and materials, are factors that make it possible to achieve appropriate levels of job satisfaction (Davis and Palladino, 2007). Judge *et al.* define “[...] job satisfactions as multidimensional psychological responses to work, including cognitive (evaluative) and affective (emotional) components” (2012, p. 2). Also, social skills have an impact on the perception of job satisfaction and contribute to maintaining healthy organizations (Naranjo Pinela *et al.*, 2019).

## Burnout Syndrome (BS)

Stress is assumed as a physical and mental response to a challenging context and the difficulty to cope with it, causing depression and anxiety. It affects the well-being and capacity to enjoy life,

which is observed in family and work dynamics. The relationship with the family is affected in terms of alteration in the roles played, as well as in the quality of interaction. In addition, the care of these health disorders implies an expense for the people who are affected, which has indirect effects on the family economy.

The term burnout was first used in the field of psychology by Freudenberg (1974) as a state of fatigue or frustration produced by committing to a cause, way of life or relationship that does not produce an emotional return comparable to the effort. Burnout manifests itself as a feeling of failure and permanent exhaustion, resulting from an overload of demands on the worker's energy, personal resources or spiritual strength. Freudenberg (1974) also attributes it to a confusion between a healthy level of involvement in work, with a level of commitment that manifests a need to be accepted and loved.

Gil-Monte *et al.* (2005) assume it as the effect of permanent exposure to occupational stress of workers in customer service organizations. This research applies the definition proposed by Maslach and Leiter (2016) as the response to chronic emotional and interpersonal stressors in the work environment. The most common causes of SB in education professionals are the relationship between teachers and students, the excess of bureaucratic activities unrelated to their main function, as well as the devaluation of salary and profession (Gluschkoff *et al.*, 2016).

### *BS dimensions*

According to Colino and Pérez de León (2015), SB manifests through three dimensions: emotional exhaustion, depersonalization and low personal fulfillment. These conditions affect the person's general state of well-being and fulfillment, gradually decreasing the perception of self-efficacy and joy for work. Each of them is described below.

Emotional exhaustion manifests itself with a feeling of having no energy and not having emotional resources to face the day to day (De la Fuente *et al.*, 2015). It is a feeling of being emotionally exhausted by the demands of work. Depersonalization is presented through insensitivity

and cold attitudes towards the person receiving the service, in addition to not showing interest towards the needs and particular qualities, taking distance from them (Maslach *et al.*, 2010). Depersonalization is the presence of negative responses, attitudes and feelings on the part of the worker towards the beneficiaries of the service (Arquero and Donoso, 2013). It is a recognition of presenting indifferent and cold attitudes.

*Low self-fulfillment* refers to a low perception of achievement at work, leading to a negative self-concept (Garcés de los Fayos Ruiz *et al.*, 2001). It is presented through the idea that nothing additional or special can be offered in the service, which derives in a feeling of disappointment (Maslach *et al.*, 2010). Low self-fulfillment is presented as a negative perception of achievement at work by the worker, also called self-efficacy.

### *Relationship between JS and BS in teachers*

There are experiences in Latin America measuring the variables that are the object of this study in teachers. Those considered relevant for this study are mentioned below.

Cerrón Valdéz (2019) at the Universidad Nacional del Centro del Perú, aimed to establish the relationship between BS and JS. The Maslach Burnout Inventory test is used to measure BS and the Job Satisfaction Scale SL-SPC for JS. A statistically significant and inverse relationship was found between JS and BS. A relationship was also found between BS and sociodemographic variables (age, gender and category).

Arias *et al.* (2017), analyzed the relationships between BS, JS and interpersonal relationships in a group of teachers in an educational institution in Arequipa (Peru). To determine the propensity to burnout, the MBI test is used as well as the Warr *et al.* (1979) scale of intrinsic and extrinsic factors for JS levels. An inverse and moderate relationship was found between JS and BS. Also, there is no statistically significant relationship as a function of teachers' gender or position. The JS has a predictive and significant effect on BS.

Condo (2018) studied the influence of JS and job stress using the MBI test for BS levels and the SL-SPC job satisfaction scale in professors of the

Faculty of Education of the UNSA (Mexico). A statistically significant inverse mean-strength inverse relationship was found between JS and BS.

On the other hand, Albarracin Chipana *et al.* (2019) determined the correlation between BS and JS in undergraduate teachers at a Peruvian university using the MBI test for burnout and the Montoya Cáceres *et al.* (2017) test for job satisfaction. A low inverse correlation was found between JS and BS, which was not statistically significant.

Agurto Guevara (2019), conducted research on teachers at Universidad San Pedro in Lima (Peru) with the aim of determining the correlation between BS and JS in undergraduate teachers of English; the MBI test is also used to measure the degree of burnout and the JS questionnaire of Montoya Cáceres *et al.* (2017). No statistically significant relationship was found between JS and BS.

Jiménez Carazas (2019) conducted research to determine the relationship between BS with JS in teachers at the Universidad Andina del Cusco (Peru). The Maslach Burnout Inventory test was used to measure BS as well as the ESL-09 Job Satisfaction Scale Questionnaire. A statistically significant inverse relationship was found between JS and BS. Smetackova *et al.* (2019) assert that job well-being does not prevent BS, but it is an opposite state to BS.

To analyze the possible correlation of BS and JS in teachers of the Jorge Hunneus Zegers Educational Center (Chile), Aguiléf Cháves *et al.* (2016) elaborated four questions of JS components, while using the MBI test for BS. A statistically significant and inverse relationship was found between JS and BS.

Finally, Núñez Cordero (2019) conducts a study on the teaching staff of the Military School of Chorrillos (Peru). Instruments were designed by the authors to measure BS and JS. A statistically significant and inverse relationship was found between JS and BS, as well as an average negative correlation between JS and BS.

The literature review shows that in most studies (Aguiléf Cháves *et al.*, 2016; Arias *et al.*, 2017; Condo, 2018; Jiménez Carazas, 2019; Núñez Cordero, 2019; Cerrón Valdéz, 2019) statistically significant and inverse relationships were found at high, medium and low levels between JS and BS. JS is also assumed to be an effect of

BS; therefore, the higher the BS levels, the lower the JS levels and vice versa. It should be noted Agurto Guevara (2019) and Albarracin Chipana *et al.* (2019), found no statistically significant relationship between the variables.

It is also seen that Maslach and Jackson's (1986) MBI test is used in most research to measure BS (Aguiléf Cháves *et al.*, 2016; Arias *et al.*, 2017; Condo, 2018; Albarracin Chipana *et al.*, 2019; Agurto Guevara, 2019; Jiménez Carazas, 2019; Cerrón Valdéz, 2019), since it is considered a referent for these purposes. On the other hand, JS is measured through different instruments already validated, while there are investigations in which instruments were proposed.

## Materiales y método

El objetivo de esta investigación es describir el nivel de Satisfacción Laboral (SL), la prevalencia del Síndrome de Burnout (SB) y, determinar la posible relación entre dichas variables. Esta investigación es de tipo cuantitativa, no experimental, correlacional y transversal. Se utilizaron encuestas y pruebas con escalas cuantitativas para mediar las variables y luego estadística descriptiva e inferencial para el análisis de resultados.

La población de estudio está formada por docentes que imparten clases frente a grupo en una universidad de educación superior en San Luis Potosí, México, en el semestre enero a junio de 2022. La muestra estuvo formada por 61 docentes.

## Materials and Method

The aim of this research is to describe the level of Job Satisfaction (JS), the prevalence of Burnout Syndrome (BS) and to determine the possible relationship between these variables. This research is quantitative, non-experimental, correlational and cross-sectional. Surveys and tests with quantitative scales were used to measure the variables, and then descriptive and inferential statistics were used for analyzing the results.

The study population consisted of teachers who teach in front of a group at a university in San Luis Potosí, Mexico, in the semester January to June 2022. The sample consisted of 61 professors.

The following independent variable is defined: levels of BS and its dimensions: emotional fatigue, depersonalization and personal fulfillment. The dependent variable is the level of JS, which includes the following dimensions: satisfaction with the job in general, with the physical environment, with the way in which the job is performed, opportunity for improving, relationship with the boss, payment, autonomy and recognition.

The hypotheses proposed are the following:

- H1. Teachers' JS levels are low (inadequate).
- H2. Teachers are affected by the BS.
- H3. Teachers' JS levels are affected by BS levels.

Para determinar los niveles de SL se utilizó el cuestionario de Chiang Vega *et al.* (2008). El instrumento contiene un total de 36 ítems en forma de afirmaciones divididos en ocho subescalas: satisfacción hacia el trabajo en general, hacia el ambiente físico, formas en las que realiza el trabajo, oportunidades de desarrollo, relación con el jefe, remuneración, autonomía y reconocimiento. La escala de medición va del 1 al 5 donde 1 es bajo, 3 medio y 5 alto.

Para medir el SB se utilizó la segunda versión traducida al castellano (Alvarado Calderón, 2009) de la prueba Maslach Burnout Inventory (MBI) (Maslach y Jackson, 1986). La prueba contiene

tres subescalas: Cansancio Emocional (CE), Despersonalización (D) y Realización Personal en el trabajo (RPT). El MBI contiene 22 ítems en forma de afirmaciones.

The Chiang Vega *et al.* (2008) questionnaire was used to determine the JS levels. The instrument contains a total of 36 items in the form of statements divided into eight subscales: satisfaction with the job in general, with the physical environment, ways in which the work is performed, improvement opportunities, relationship with the boss, payment, autonomy and recognition. The measurement scale ranges from 1 to 5, where 1 is low, 3 is medium and 5 is high.

The second version translated into Spanish (Alvarado Calderón, 2009) of the Maslach Burnout Inventory (MBI) test (Maslach and Jackson, 1986) was used to measure BS. The test contains three subscales: Emotional Fatigue (EF), Depersonalization (D) and Personal Fulfillment at Work (PFW). The MBI contains 22 items in the form of statements.

To determine the internal consistency of Chiang Vega *et al.* (2008) JS questionnaire, the Cronbach's Alpha statistic was used, once the instrument was piloted and the data were analyzed in the SPSS version 25 statistical software. The details by dimension are presented in Table 1.

**Table 1**

*Reliability of the subscales of the Job Satisfaction Questionnaire according to the piloting study.*

Factor of Job Satisfaction	No. of initial items	Initial Cronbach's Alpha	No. of final items	Cronbach's Alpha final
At work in general	5 (1,3,16,22 and 31)	0.779	3 (22 and 31 are deleted)	0.832
With improvement opportunities	6 (2,14,18,20, 23 and 24)	0.900	6 (2,14,18,20, 23 and 24)	0.900
With payment	3 (8,13 and 25)	0.810	3 (8,13 and 25)	0.810
With recognition	3 (6,17 and 32)	0.602	3 (6,17 and 32)	0.602
With the physical work environment	6 (5,9,15,19,26 and 28)	0.891	6 (5,9,15,19, 26 and 28)	0.891
With the way the job is performed	6 (7,12,21,27,34 and 35)	0.897	6 (7,12,21,27, 34 and 35)	0.897
With the subordinate-supervisor relationship	4 (10, 29, 33 and 36)	0.921	4 (10, 29, 33 and 36)	0.921
With autonomy	3 (4,11 and 30)	0.814	3 (4, 11 and 30)	0.814

To measure the internal consistency of the Maslach Burnout Inventory by Maslach and Jackson (1986), a pilot test and data analysis were

performed in the SPSS version 25 statistical software, and an overall reliability level of 0.71 was obtained (Table 2).

**Table 2**

*Reliability of the subscales of the MBI test according to the piloting study*

Dimension of Burnout Syndrome	No. de items	Cronbach's Alpha	No. of items	Cronbach's Alpha
Emotional Fatigue (EF)	9 (12,3,6,8,13,14,16 and 20)	0.876	9	0.876
Personal fulfillment	8 (4,7,9,12,17,18,19 and 21)	0.600	6 (4 and 12 are eliminated)	0.745
Depersonalization (D)	5 (5,10,11,15 and 22)	0.565	3 (5 and 10 are eliminated)	0.741

## Results

This section presents the main results of this research work.

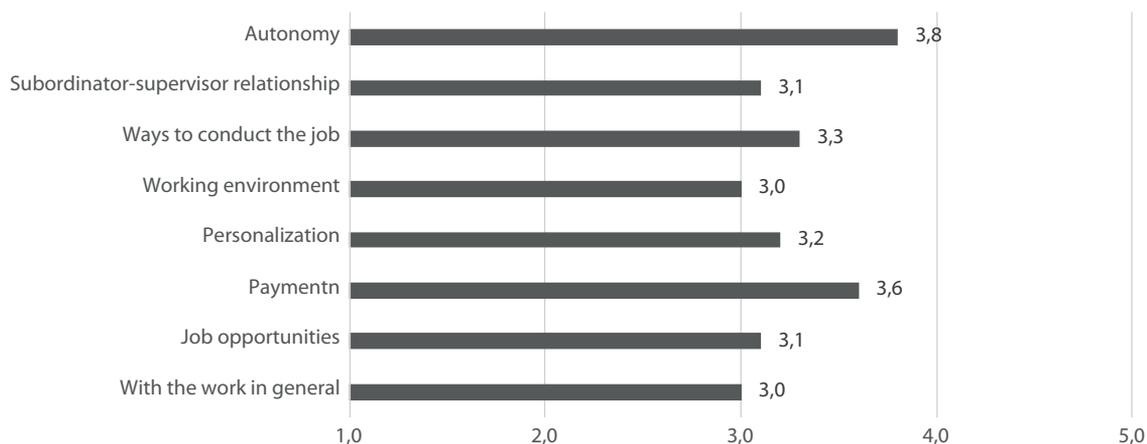
### Quantitative JS results

Teachers' JS is at a medium level in the eight dimensions measured. The lowest mean scores

per dimension (on a scale of 1 to 5) were obtained in satisfaction with the job in general (3.0) and in satisfaction with the physical environment (3.0). The highest scores were for satisfaction with payment (3.6) and autonomy (3.8) (see Figure 1).

**Figure 1**

*Average JS scores*



Statistically significant relationships ( $p < 0.05$ ) were found between global JS and some socio-demographic variables:

- The hours worked in front of a group and the global JS with ( $p = 0.028$ , Mann Whitney U), teachers who have more hours with a group have a lower global JS and those

who have fewer hours with a group have a higher global JS.

- Holding an additional paid job is related to overall JS, ( $p=0.034$ , Mann Whitney U), professors who hold an additional paid job have lower overall JS, and those who do not hold an additional paid job have higher overall JS.
- The place where the additional paid work is performed also affects overall JS ( $p=0.019$ , Kruskal-Wallis H). The highest levels of global JS are found in those who have an educational institution as additional paid work, followed by those who work in a private company; the lowest global JS is found in those who have their own business as additional paid work.

The following statistically significant relationships were found ( $p<0.05$ ) when analyzing the possible relationship of each of the sociodemographic variables, but this time with the JS dimensions.

- Gender is related to overall job satisfaction, with men being more satisfied and women less satisfied ( $p=0.007$ , Mann Whitney U).
- Gender has a relationship with satisfaction with how they perform the job with ( $p=0.045$ , Mann Whitney U), men are more satisfied and women are less satisfied in terms of how they perform the job.
- There is also a statistically significant relationship between the place where the additional paid work is performed and satisfaction with payment ( $p=0.033$ , Kruskal-Wallis H). The highest satisfaction with payment is found in those who have an educational institution as additional paid work, followed by those who work in a private company. The lowest satisfaction with payment is found in those who have their own business as additional paid work (see Table 3).

**Table 3**  
*Sociodemographic variables in relation to mean JS dimensions*

Variable 1 Sociodemographic	Variable 2 JS dimension	Level of significance	Statistical test
Genre	Satisfaction with the work in general.	0.007	Mann Whitney U
	Satisfaction with the way the job is performed.	0.045	
Place where the additional paid work is performed.	Satisfaction with payment	0.033	H de Kruskal-Wallis

The analysis of the sociodemographic variables in relation to each of the JS indicators (items) also showed statistically significant relationships

( $p<0.05$ ). Table 4 shows the job satisfaction indicators that are influenced by the sociodemographic variables analyzed.

**Table 4**  
*Sociodemographic variables in relation to JS indicators (items). Fisher's exact test*

Variable 1 Job satisfaction	Variable 2 Sociodemographic	Level of significance
How do you feel with the support provided by the administrative area to carry out your work	Marital status	0.036
How do you feel with the support you have received from the authorities		0.017
How do you feel with your working environment	Gender	0.004
How do you feel about the opportunities the job offers to do the things you love?		0.028

How do you feel with the possibility you have to decide autonomously your own working method	Place where the additional paid work is conducted	0.016
Are you acknowledged when you do a good job		0.031
How do you feel with the possibility of autonomously deciding the planning of your work		0.018
How do you feel with the payment received		0.016
How do you feel with the way your immediate supervisor evaluates your work		0.031
How do you feel when someone monitors your work		0.001
How do you feel with job training and upgrading opportunities		0.026
How do you feel with the physical environment and space of your workplace	Number of hours in front of group	0.024
How do you feel with the way your work is evaluated and judged by your immediate supervisor? Do you feel that you have a positive attitude towards your work.		0.033
How do you feel with the ventilation of your workplace		0.048
How do you feel with the temperature in your workplace		0.024
How do you feel about the objectives and goals you have to achieve in your job?		0.014
How do you feel with equal treatment and fairness in your work	Contract hours in face-to-face mode	0.000

It was found that women are more dissatisfied with the hygienic conditions of the work area (temperature), and perceive fewer opportunities for their academic fulfillment and to perform tasks they like. Single people are more satisfied with the support provided by the administrative area to carry out their work and with the support received from superiors, and married people are less satisfied with these areas.

People who perform additional paid work in a place other than an educational institution perceive more possibilities of autonomously deciding their own work method, the recognition they receive for the work performed, the possibility of autonomously deciding the planning of their work, satisfaction in relation to the salary received, the acknowledgement of their boss, the supervision of the work they perform, and the opportunities for academic fulfillment. In addition, there are higher satisfaction levels among those who have an additional paid job in an educational institution, followed by those who work in a private company; the lowest satisfaction levels in these areas are found among those who have

their own business as an additional paid job. Then, a difference is observed between hourly teachers who also work as professionals in their field and those who teach in different institutions as their main activity, with the first group showing the highest satisfaction levels in these areas.

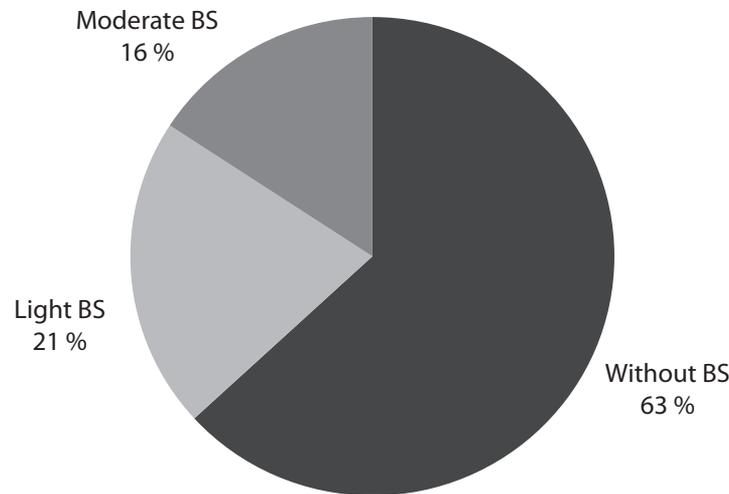
The sociodemographic variable number of hours with a group is related to the following job satisfaction variables: the environment and physical space of their workplace; the way their work is evaluated and judged by their immediate supervisor; the ventilation of their workplace, the temperature in their workplace; and the way they feel in relation to the objectives and goals they must achieve in their work. The higher the number of hours with the group, the lower the satisfaction in these items, the lower the number of hours with a group, the higher the satisfaction. Contract hours are related to equal treatment and fairness at work, the lower the number of contract hours, the lower the satisfaction with equal treatment and fairness at work, the higher the number of contract hours, the higher the satisfaction with equal treatment and fairness at work.

### BS Results

According to the Maslach Burnout Inventory, a subject must have at least two dimensions affected to be considered as suffering from the syndrome (mental fatigue, depersonalization and low personal fulfillment). High levels in the first two and low levels in the third. It was found that no teacher presents BS, although it was found that 37% of teachers have a propensity to the syn-

drome and have at least one dimension affected. Twenty-one percent presented a slight and 16% a moderate risk of BS, which differ according to the test, because the slight risk implies the need for reflection on possible improvements by the administration, while the moderate risk highlights the need to develop a plan to address the problem areas. In summary, 37 % of the sample presents some propensity to Burnout Syndrome (Figure 2).

**Figure 2**  
Indications of BS frequency in the sample



The following results were found with respect to the prevalence of BS by dimension in professors. It should be mentioned that low levels of Emotional Fatigue and Depersonalization are better, while, in the case of Personal

Accomplishment, higher levels are better (Table 5). According to the Maslach Burnout Inventory, the means obtained for the population analyzed in the three dimensions do not show the existence of BS.

**Table 5**  
Results of the BS dimensions in professors

Dimension	Levels		
	Low	Medium	High
Emotional fatigue	52.63 %	21.05 %	26.32 %
Depersonalization	78.95 %	15.79 %	5.26 %
Personal fulfillment	21.05 %	21.05 %	

## Correlation between JS and BS

When applying the nonparametric Mann Whitney U test, Kruskal-Wallis H test, Pearson's Chi-square test and Fisher's exact test, as appropriate, no statistically significant relationship was found between the levels of BS propensity and the global JS, its dimensions and indicators (items). Nor when BS and its dimensions were crossed with

sociodemographic variables. The canonical correlation also does not show an appropriate adjustment that would allow establishing a correlation between the dimensions of the JS and the BS.

Using Spearman's nonparametric Rho test, the correlations were analyzed in terms of their strength and direction (direct or inverse) (see Table 6).

**Table 6**  
Spearman correlation of JS and BS dimensions

		General work	Academic fulfillment	Payment	Acknowledgment	Physical environment	How the work is performed	Subordinate-supervisor relationship	Autonomy	Emotional fatigue
Emotional fatigue	Correlation coefficient	-0.292	-0.139	-0.131	-0.118	-0.150	-0.430	-0.261	-0.045	1.000
	Sig. (bilateral)	0.226	0.570	0.592	0.630	0.541	0.066	0.281	0.855	
Depersonalization	Correlation coefficient	-0.116	-0.066	-0.141	0.031	-0.059	-0.147	-0.065	-0.034	1.000
	Sig. (bilateral)	0.636	0.787	0.566	0.901	0.809	0.549	0.791	0.892	
Fulfillment	Correlation coefficient	0.215	0.200	0.391	0.251	0.286	0.450	0.373	0.271	1.000
	Sig. (bilateral)	0.376	0.411	0.098	0.300	0.235	0.053	0.116	0.262	

No statistically significant relationship was found between JS and BS variables, a result similar to that obtained by means of nonparametric tests that considered the crossing of quantitative variables (JS levels) and qualitative variables (BS propensity levels: low, moderate and severe). The results presented agree with those of Agurto Guevara (2019) and Albarracín Chipana *et al.* (2019), which does not mean that there is no relationship in the sample; hence, it is deduced that the relationship is not statistically significant to be able to make inferences to the study population, *i.e.*, the totality of higher education professors in the city of San Luis Potosí.

Regarding the relationship between the degree of BS and sociodemographic variables, no statistically significant relationship was found in this study, which coincides with Arias *et al.* (2017) whose research only showed a relationship with the teacher's gender and position. Unlike the present research, Cerrón Valdéz (2019) did find a statistically significant relationship between BS

and the sociodemographic variables: age, gender and category.

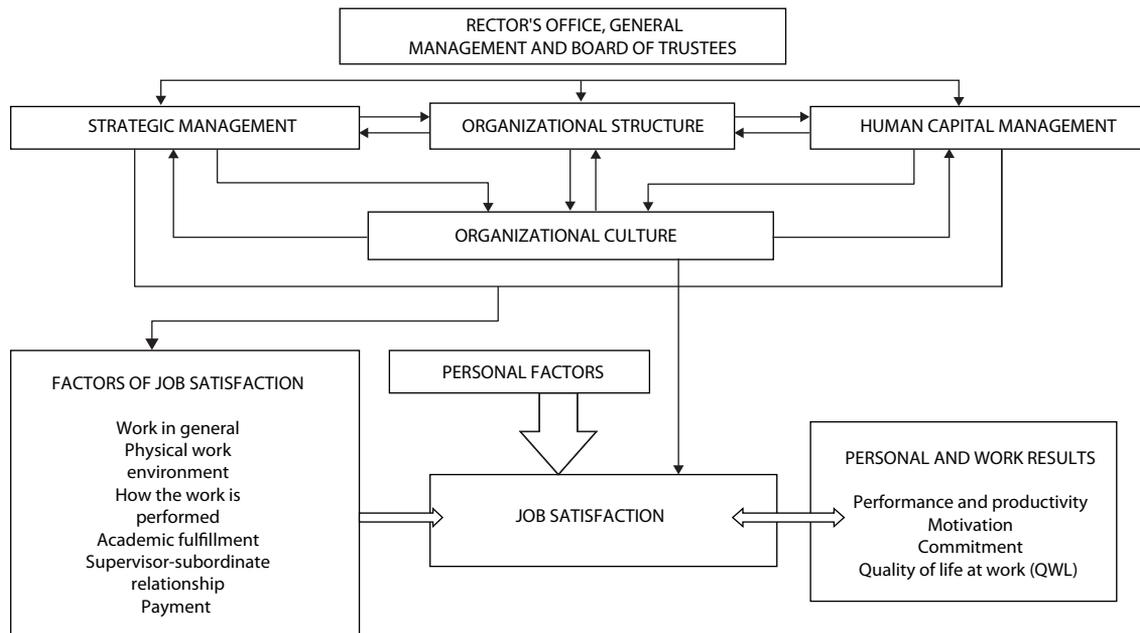
Teaching is a job that involves the engagement of emotions. The way in which daily work situations are faced with students, colleagues, and parents have an impact on the emotional energy of the teacher (Yin *et al.*, 2019). For their part, organizational design, processes, and work schemes have the potential to become stressors that, together with the burnout of intense interpersonal relationships, are potentially negative for teacher well-being. In addition, burnout and personal well-being of teachers should be considered to impact students (Braun *et al.*, 2020) and thus educational outcomes. Robinson *et al.* (2019) also highlight the tendency of teachers to drop out their jobs, so it is considered that addressing the potential effects of BS and its impact on JS will allow to design strategies to retain talent and consolidate the teaching staff of the institution in which this study is conducted.

## Discussion and conclusions

To conclude, this research provides a scheme of factors of JS and its effect on the personal and work outcomes of teachers (Figure 3), which is based on the results of the present research.

The validation is carried out by means of inferential statistical methods. Capone and Petrillo (2020) consider that in order to improve teachers' well-being at work, it is necessary to work on their self-perception of JS.

**Figure 3**  
Diagram of job satisfaction factors and relationship with personal and work results



Several models and JS factors were found in the literature review, as well as their relationship with labor outcomes. Some consider that external and internal factors determine the levels of JS in workers (Anaya Nieto and Suárez Riveiro, 2010). Another position relates JS factors with the working environment (Manosalvas Vaca *et al.*, 2015). Skaalvik and Skaalvik (2020) state that labor resources such as autonomy and support from the boss decrease BS levels, while Drüge *et al.* (2021) state that in addition to labor resources, the level of demands also plays an important role in BS.

Some people also relate human resource management practices to the organizational climate, which in turn influences cognitive and affective states such as JS and motivation, which in turn affect organizational behaviors such as perfor-

mance, which impact organizational productivity (Kopelman *et al.*, 1990).

According to Pérez Bilbao and Fidalgo Vega (2006), personal and work circumstances are variables that have an impact on the JS. While Patlán-Pérez (2016) states that the components of Quality of Life at Work (QWL) affect the satisfaction of different needs of the worker. According to the review conducted and the results obtained, it is agreed that the QWL are also factors of job satisfaction.

The proposed scheme (Figure 3) represents the relationship between the administration of the institution, the factors of job satisfaction and the personal and work outcomes (sociodemographic) of teachers in a higher education institution under a systemic approach.

It is assumed that there is a main figure constituted by a rector or general director and the

respective board of directors in higher education institutions; in some cases, integrated by directors and deputy directors of administrative and academic areas. Together they form the governing body and are responsible for establishing the vision, mission, business model, value proposition and strategic management, as well as determining the organizational structure that affects the management of human capital. These three elements influence and are influenced by organizational culture (there are four organizational elements by including organizational culture) (Janićjević, 2013; Zhenga *et al.*, 2010).

The four elements of the organization mentioned above have an impact on teachers' job satisfaction and its factors (satisfaction with the job in general, physical work environment, the way in which the work is performed, fulfillment opportunities, supervisor-subordinate relationship, remuneration, autonomy and recognition). These factors (work circumstances), together with the employee's personal factors, have a decisive influence on the teacher's JS. This has as an effect on higher or lower levels of personal and work results (performance and productivity, motivation, commitment and quality of life at work). In turn, these also influence JS (Hoboubi *et al.*, 2017; Vargas Vega *et al.*, 2018). In addition, Wang *et al.* (2020) claim that BS and JS can play a mediating role towards work stress and organizational commitment.

The scheme developed is considered useful because, in addition to modeling the phenomenon of JS and BS in the organizational context, it represents the relationship between organizational management, organizational culture, the impact on job satisfaction factors, on job satisfaction and on personal and work results, their relationships and levels under a systemic approach.

This study determined the levels of JS, the prevalence of BS and explored the existence of a relationship between the variables.

Regarding the hypotheses, the following was found:

**H1.** Teachers' levels of JS are low (inadequate). The hypothesis is rejected, average levels were found.

**H2.** Teachers are affected by BS. The hypothesis is rejected, no teacher suffers from it.

**H3.** Teachers' levels of JS are affected by levels of BS. The hypothesis is rejected; no statistically significant relationship was found between the variables. Teachers' JS is medium.

The levels of JS in professors showed a higher level of satisfaction in payment and autonomy to perform their work, and the lowest were those related to work in general and the physical environment.

It was found that none of the teachers suffer from BS; however, one third have a mild and moderate propensity to suffer from the syndrome. No statistically significant relationship was found between Burnout Syndrome and sociodemographic variables.

Regarding the relationship between the levels of JS and the propensity to BS, the following conclusions were obtained:

- In this study, weak and very weak negative correlations were found between emotional fatigue and job satisfaction factors, as well as between depersonalization and job satisfaction; this implies that as emotional exhaustion increases, job satisfaction decreases, and as depersonalization increases, job satisfaction decreases.
- There was a weak and very weak positive relationships between personal fulfillment and JS factors, i.e., as personal fulfillment increases, JS increases.
- The above two arguments are in line with existing theory, although no inference can be made from the sample to the population, due to the weak correlations and the fact that no statistically significant relationship was found between the variables.
- It is very important to carry out this type of study because the results obtained make it possible to determine the existence or not of the effect of stress on JS and in turn to generate proposals that help to increase satisfaction in higher education professors, which in turn helps to improve levels of performance, productivity, motivation, commitment and quality of life at work.

- The institution should consider, among other actions: (a) review and improve conditions related to the physical work environment; (b) establish clear guidelines for promotions and transparency mechanisms, as well as an oversight committee for this purpose; (c) evaluate psychosocial risk factors of the institute's teaching and administrative staff every year or after a traumatic event that warrants it.

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