

# Psychosocial working conditions of employees of a university institution in Cartagena de Indias, Colombia

## Summary

The study identified the psychosocial working conditions among staff at a university in Cartagena, Colombia. The study was descriptive and cross-sectional. The population consisted of 43 employees from the engineering faculty; the survey was administered to 10 employees, representing 23% of the study population. The instruments used were the “CTCPS-MAC” psychosocial working conditions battery, validated for Ibero-American populations, which assesses four dimensions: work context, job content, individual factors, and psychological exhaustion, and includes 14 psychosocial factors; and the IVAPT-ER, which consists of 22 items with two response criteria for each, designed to understand aspects of psychological relationships in the workplace that can trigger situations of conflict, violence, and psychological harassment. Regarding the general dimension, 57.1% of respondents perceived the work context as positive. In dimension 2, job content, 55.5% of respondents perceived it as positive. In dimension 3, 66.6% perceived it as positive; and in dimension 4, psychological exhaustion, 57.1% perceived it as positive. Therefore, another study is needed to establish a diagnosis of the psychosocial working conditions in order to develop an intervention program tailored to the needs of the institution’s employees.

Volume 17 Issue 2 - 2026

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**Received:** March 20, 2026 | **Published:** April 10, 2026

## Introduction

The analysis of psychosocial factors in the workplace is one of the topics that has garnered the most attention and interest among those involved in occupational safety and health since the end of the last century. Research conducted in numerous countries has provided a wealth of data on psychosocial working conditions that can affect workers’ health.<sup>1</sup>

Likewise, the “International Labour Organization (ILO) defines psychosocial risk factors as interactions between work, its environment, job satisfaction and the conditions of its organization,<sup>2</sup> on the one hand, and on the other hand, the capabilities, needs, culture and personal situation of the worker outside of work”.<sup>3</sup>

On the other hand, “psychosocial risk factors can be understood as the conditions of the individual, the extra-work environment or the work environment, which under certain conditions of intensity and exposure time generate negative effects on workers, which have effects at the emotional, cognitive, social, work behavior and physiological level”.<sup>4</sup>

Likewise, “psychosocial factors are interactions between the conception, organization, management, content of work, task performance, as well as environmental and social conditions and personal capabilities, needs, expectations, customs, culture and circumstances. These interactions can potentially affect both the well-being, quality of life or health of the worker and the development of work”.<sup>5</sup>

It should also be said that “the psychosocial conditions of work, such as corporate culture, work climate, leadership style or job design, are factors that can be positive or negative; psychosocial risk factors are predictive, they refer to organizational conditions when they have a probability of having harmful effects on the health of workers, they are elements with a probability of negatively affecting the health and well-being of the worker, when they act as triggering factors of tension and work stress”.<sup>6</sup>

From this perspective, “psychosocial risk factors are detrimental to health; they are negative and can affect both physical and psychological health. They are factors that can alter and unbalance a person’s resources and capacity to manage and respond to the flow of work activity. They are countless and can stem from the multiple components of work; for example, lack of control at work, long working hours, intense work pace, changing and unpredictable schedules, poor upward, horizontal or downward organizational communication, role ambiguity or overload, among others”.<sup>6</sup>

“The psychosocial factors applied to the workplace and, where appropriate, the psychosocial risks are of a very diverse nature; there is some consensus on these occupational risks that are experienced as stressful and/or involve potential physical, psychological and social damage and, consequently, psychological burnout defined by the related symptomatology of a physical, cognitive, emotional and behavioral nature within the conceptualization of psychosocial risks among categories related to the context and content of the work”.<sup>7</sup>

“The concept of psychological exhaustion should generally be considered from two perspectives: the clinical and the psychosocial. The clinical perspective treats it as a state that a person reaches as a consequence of work-related stress. The psychosocial perspective will depend on the origin of a particular state or process that develops through the interaction between the characteristics of the work environment and personal factors. Likewise, the DSM-V refers to adjustment disorders, specifying a mixed disturbance of emotions or behavior, where emotional symptoms predominate (anxiety: nervousness, worry, agitation, or separation anxiety; depression: low mood, crying, or feelings of hopelessness), along with behavioral disturbances. This diagnostic criterion is the one that best fits the term psychological exhaustion”.<sup>7</sup>

The present study aims to identify the influence that the perception of factors related to the work context has on psychological exhaustion in 10 workers of a university institution in Cartagena de Indias, Colombia.

## Materials and methods

A cross-sectional descriptive study was conducted. Therefore, data were collected at a single point in time. Consequently, it is not possible to establish a definitive cause-and-effect relationship between the perception of workplace factors and psychological exhaustion. The results only allow for the identification of associations or correlations between variables. The population consisted of 43 employees from the industrial engineering, electronics, and occupational safety and health technology programs. The research selected 10 participants from this total population of 43 employees using non-probability convenience sampling, representing 23% of the faculty members in the engineering departments analyzed. The instrument was administered to available professors in the engineering department, implying voluntary or accessibility-based recruitment. The selection of university professors as study subjects reflects global trends in occupational health, given that their work takes place in complex environments where organizational factors, job demands, and personal capabilities interact, influencing their well-being. Furthermore, they are exposed to specific risks such as work overload, the intensity of the work pace, and job design, which can generate stress and tension. This approach is based on previous research, such as the studies by Pando,<sup>1</sup> which identify burnout syndrome and critical psychosocial factors in teachers. For measurement, the IVAPT-ER (Inventory of Violence and Psychological Harassment at Work - Response Strategies) was used, an instrument designed to assess conflicts and psychological harassment in the workplace. Its application followed the guidelines of a psychosocial intervention methodology validated by experts.<sup>8</sup>

The study of psychosocial factors was conducted using the CTCPS-MAC battery, composed of 75 items grouped into four dimensions (work context, job content, individual factors, and psychological exhaustion) and 14 grouped factors. The instrument was administered to the faculty members comprising the engineering department sample. The data obtained were entered into Microsoft Excel, where the prevalence of the data was analyzed according to the dimensions established in the survey. Tables were created for the corresponding discussion, in accordance with the objectives, and to present the conclusions.<sup>9</sup>

## Results

In the sample studied, the most significant sociodemographic data show that 60% of the teachers are between 31 and 40 years old. Regarding gender, 70% (7) are men and 30% (3) are women. 40% (4) of the teachers have one child. As for marital status, 70% (7) are married. Furthermore, the teaching position is held by a group of these teachers (10). 55.5% (5) of the teachers have between 2 and 5 years of seniority, and 30% (3) have between 6 and 10 years of seniority. Regarding the type of contract, 90% (9) of the teachers have permanent contracts (Table 1).

**Table 1** Sociodemographic and labor characterization of the sample (n=10)

Category	Variable	Frequency (n)	Percentage (%)
Age	31 to 40 years old	6	60%
Gender	Male	7	70%
	Female	3	30%
Marital status	Married	7	70%
Children	They have a son	4	40%
Academic Background	Technician or professional	3	30%
	Mastery	2	20%

**Table 1** Continued....

Length of Service	2 to 5 years	5	55.50%
	6 to 10 years	3	30%
Type of Contract	Indefinite	9	90%
Academic Program	Security technology	8	80%
Working Hours	Morning shift	7	70%
	Rotating shift	3	30%
Health and Disabilities	Incapacity (1-30 days)	5	50%
	They required surgery	4	30%*

**Source:** researchers

Of the workers surveyed, 80% (8) belong to the security technology program. Regarding work schedules, 70% (7) work morning shifts and 30% (3) work rotating shifts. In terms of academic qualifications, 30% (3) hold technical or professional degrees, and 20% (2) hold master's degrees. 50% (5) of the workers experienced a disability of 1 to 30 days due to surgery, and 30% (4) of them required surgery.

The perception of the organizational culture is positive, with 75% (6) of employees reporting it; regarding their role in the organization, it is very positive, with 66.7% (8) of employees reporting it; it is important to highlight that the work-family conflict factor is detrimental to 25% (1) of employees, while interpersonal relationships are perceived as very good by 100% (10) of employees. Dimension 2, workload and pace, constitutes a moderate risk factor for 44.4% (3) and a positive one for 29.63% (4) of employees; and a detrimental one for 18.52% (1) of employees (Table 2).

**Table 2** Perception Results by Factors and Dimensions

Dimension / Factor	Reported perception	Percentage (%)	Quantity (n)
Organizational culture	Good	75%	6
Role in the organization	Very good	66.70%	8
Work-family conflict	Harmful	25%	1
Interpersonal relationships	Very good	100%	10
Workload and pace	Moderate risk	44.40%	3
	Well	29.63%	4
Work environment	Harmful	18.52%	1
	Harmful	27.78% / 44.44%	-
Equipment and physical agents	Good	82.35%	7
Task conception	Good	58.82%	5
Cognitive-emotional response	Good	66.67%	5
Behavioral response	Very good	66.67%	8
Physiological response	Very good	46.67%	7
General work context	Good	57.14%	4
	Regular	22.22%	1
Work content	Good	55.56%	5
Individual factors	Good	66.67%	5
Psychological exhaustion	Good	57.14%	4

**Source:** researchers

Regarding the work environment factor, the perception is detrimental for 27.78% (1) of the workers and 44.44% (4) of the

workers; regarding the equipment and physical agents factor, the perception is good for 82.35% (7) of the workers. As for the task conception factor, the perception is good for 58.82% (5) of the workers. Regarding dimension 4, the cognitive-emotional response factor, the workers' perception is good in 66.67% (5) of the workers; the behavioral response factor, the perception is very good in 66.67% (8) of the workers; and the physiological response factor, the perception is very good in 46.67% (7) of the workers.

Regarding the overall work environment, 57.14% (4) of workers have a positive perception; regarding job content, 22.22% (1) of workers have a fair perception, while 55.56% (5) have a positive perception. Regarding individual factors, 66.67% (5) of workers have a positive perception, and regarding psychological exhaustion, 57.14% (4) of workers have a positive perception.

Regarding workers' perceptions of the presence of violence, the culture of violence, and the culture of non-violence, 44.44% (3) perceived it as uncontrolled, while 22.22% (3) perceived it as unfavorable. The risk is high and affects 6 workers. Intervention is required for the affected workers in order to control the situation.

Regarding manipulative behavior related to punishment (MPB), 36.36% of colleagues perceive that they are subjected to this behavior with the intention of being sanctioned. With respect to damage to public image (DPI), 60% perceive that they are subjected to this behavior, which negatively impacts the image of those affected. Finally, 66.67% perceive that they are subjected to behaviors that hinder job performance, which tend to stifle initiative, success, and the professional future of those affected. Therefore, intervention measures are required to address these behaviors and thus achieve a positive work environment within the institution.

## Discussion

In the overall dimension, the perception of job content is average, with 22.22% (1) of workers reporting it as average. This is likely due to the perception of workload and pace as average and detrimental. Similarly, the perception of the work environment is detrimental. These findings, consistent with the theories of García and Benavides,<sup>2</sup> suggest a wide variety of organizational and environmental conditions capable of producing work-related stress. Furthermore, different individuals respond differently to the same conditions; the intensity and degree of stress are difficult to predict in an individual, and the consequences of prolonged stress lead to behavioral changes such as increased absenteeism or chronic illnesses. The findings reveal a critical dichotomy: while the overall dimensions (context, content, and burnout) show mostly "good" perceptions (between 55% and 66%), alarming warning signs emerge in interpersonal dynamics. The presence of behaviors that damage public image (60%) and hinder performance (66.6%) suggests an environment of workplace violence or covert harassment. This contradiction aligns with the findings of Moreno-Jiménez,<sup>6</sup> who noted that psychosocial risk can be present despite an apparently functional organizational structure. The fact that 44.4% perceive the culture of violence as "out of control" contrasts with the 100% perception of "very good" interpersonal relationships, which could indicate a social desirability bias or fear of retaliation. Further research is needed on the workload and pace, rated as "regular/harmful," as precursors to the identified psychological exhaustion.

## Conclusion

The study conducted at the institution revealed the workers' perceptions: the work context is good for 57.14%; the job content

is fair for 22.22%; individual factors are good for 66.67%; and psychological well-being is good for 57.14%. Consequently, there is a growing interest in protecting the health and well-being of workers through prevention and intervention measures related to occupational safety and health at the institution. The presence of workplace violence and harassment among the surveyed workers necessitates a series of preventive intervention strategies to address harassment, including worker participation, formal and informal training for managers and employees, and organizational development. The study identifies that the faculty of the School of Engineering has a favorable perception of the macro-dimensions of the work environment (context and content). However, the research concludes that there are specific and highly serious risk factors related to harassment and psychological manipulation. The high prevalence of obstacles to job performance and the perception of an out-of-control culture of violence demand the immediate implementation of a Psychosocial Epidemiological Surveillance Program, as suggested by Villalobos.<sup>4</sup> It is imperative that the institution move beyond descriptive measurement and implement organizational intervention strategies focused on ethical leadership and protocols against workplace harassment to protect the mental health and quality of life of its employees, thereby ensuring the sustainability of academic development.

## Acknowledgments

None.

## Funding

None.

## Conflicts of interest

The authors declare that there is no conflict of interest.

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