

# Psychosocial risk and stress in a health service provider in Cartagena

## Summary

This article evaluates psychosocial risk factors and stress in a healthcare institution using the Colombian Ministry of Social Protection's Battery of Instruments. The research design is descriptive, transprofessional, and quantitative. Twelve employees participated, and the Battery of Instruments for the evaluation of psychosocial risk factors, established by the Ministry of Social Protection in 2010, was used. The information obtained from the study variables was stored in an electronic database. Data analysis and results were performed using IBM SPSS Statistics 25 software. Overall, the level of psychosocial risk factors (intralaboral and extralaboral) among "managers" and "operators" was low. Regarding stress among "managers," the level of risk was also low. Furthermore, the level of intralaboral psychosocial risk factors among "managers" and "operators" was also low. Regarding general non-work-related psychosocial risk factors, the risk level is low for managers and medium for operators. Psychosocial risk factors (both work-related and non-work-related) will be addressed through intervention programs to maintain them at the lowest possible risk levels. Regarding stress among employees, it is advisable to develop intervention programs to maintain the low frequency of symptoms.

**Keywords:** psychosocial risk factors, stress

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Camilo Adolfo Sierra Ferreira,<sup>1</sup> Darío David Sierra Calderón,<sup>1</sup> Elías Alberto Bedoya Marrugo<sup>2</sup>

<sup>1</sup>University of Cartagena, Research Professor, Occupational Health and Safety Program, Colombia

<sup>2</sup>Comfenalco Technological University Foundation, Research Professor specializing in integrated HSEQ management, CIPTEC Group, Colombia

**Correspondence:** Elías Alberto Bedoya Marrugo, Agribusiness and Mining Center, GIBIOMAS Group, Comfenalco Technological University Foundation, CIPTEC Group, National Learning Service (SENA), Bolívar Department, Bogotá, Colombia, Tel +57 3126798506

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## Introduction

Psychosocial risk factors are all the conditions found within the workplace that can affect work performance and the health of workers, and are directly related to work organization, job content, task execution, and the environment.<sup>1</sup> In other words, psychosocial risks are all working conditions that can lead to stress in workers.<sup>2</sup> Psychosocial risk factors in the work environment include physical aspects, work organization and systems, and human relations within the company. All these factors interact and impact the company's psychosocial climate and the physical and mental health of employees.<sup>3</sup> Similarly, the National Institute for Occupational Safety and Health defines psychosocial factors as those conditions present in the work environment that are directly related to the organization, job content, and task execution, and that can affect workers' health.<sup>4</sup>

Psychosocial risks are events, situations, or states of the body with a high probability of harming workers' health, although the effects may vary from worker to worker. Examples include stress, workplace harassment, sexual harassment, and burnout. The consequences of psychosocial risks are more likely to occur and are more likely to be severe.<sup>4</sup>

For these reasons, a health service institution (HSI) has established a managerial commitment to conduct an assessment of psychosocial risk factors, in which work, its environment, job satisfaction, and the conditions of its organization interact and can influence health, performance, and job satisfaction.<sup>5</sup>

Assessing psychosocial risk factors in the workplace is important because it provides context, facilitates decision-making, allows for evaluating the probability and impact of risks, and helps determine the necessary measures to minimize them. This assessment identifies risk factors that may affect workers' health and ensures compliance with current legal regulations.<sup>6</sup>

## Materials and methods

The research design was descriptive, transprofessional and quantitative. The study population consisted of 12 workers.<sup>7</sup> Data analysis and results from questionnaires on intralaboral psychosocial risk factors, extralaboral psychosocial risk factors, stress assessment, and general sociodemographic and occupational data were performed using IBM SPSS Statistics 25 statistical software.<sup>8</sup> The questionnaire was administered after obtaining informed consent, following the guidelines established by Law 1090 of 2006 of the Congress of the Republic.<sup>9</sup> For the description of the categorical variables (Sex, Level of education, marital status, stress, intralaboral and extralaboral risk factors), absolute and relative frequencies, proportions, and percentages with their respective confidence intervals were used.<sup>10</sup>

In relation to the statistical analysis of the numerical variables of each domain and dimension of intralaboral, extralaboral and stress conditions, the measures of central tendency and dispersion consistent with the verification of normality of the data distribution were used.

## Results

In the studied population, 75% of the workers are female and 25% are male; the workers are between 21 and 59 years old, with an average age of 43; 33% of the workers are in a common-law union and 16.7% are separated; 33.3% of the workers have completed technical/technological studies, while only 8.3% have incomplete high school education; 25% work in the health sector, while 16.6% are administrative staff and 8.3% are maintenance staff; 41.6% of the workers live in low socioeconomic strata (1 and 2), and 25% live in stratum 5. Furthermore, 83.4% of the workers live in their own and/or family-owned housing, and 16.7% live in rented accommodation. Furthermore, 41.7% work in support services, 33.3% in medical services, and 25% in administration. Additionally, 75% of employees have permanent contracts, while 8.3% have temporary contracts of

less than one year. It is also worth noting that all employees receive a fixed salary.

Regarding intralaboral conditions, the dimension “Leadership Characteristics” in bosses has an average score of 18.1 (95% CI; 2.7 to 33.4) [SD ± 5.5] equivalent to a Medium level of psychosocial risk.

On the other hand, the “Performance Feedback” dimension for managers had an average score of 26.0 (95% CI; 1.8 to 50.2) [SD ± 8.7], equivalent to a medium level of psychosocial risk. The main sources of risk for managers in this dimension are: sometimes they inform subordinates about what they are doing well, almost never they inform subordinates about what they need to improve, and sometimes the feedback that subordinates receive about their work performance is inconsistent. Furthermore, operators obtained an average score of 25.7 (95% CI; 0 to 58.5) [SD ± 13.4], equivalent to a medium level of psychosocial risk. Among the main sources of risk for the Operator employees are: Sometimes I am informed about what I do well in my work, sometimes I am informed about what I should improve in my work, sometimes the information I receive about my performance at work is clear and sometimes I am informed in time about what I should improve in my work.

In general, the “Leadership and Social Relations” domain at work, for both supervisors and operators, shows a low risk level. Therefore, psychosocial factors scoring at this level are not expected to be associated with significant stress symptoms or responses.

Among supervisors, the “Role Clarity” dimension has an average score of 21.4 (95% CI; 3.1 to 49.5) [SD ± 8.8], equivalent to a medium level of psychosocial risk. The main sources of risk are: Supervisors almost never clearly explain the results that subordinates must achieve at work; supervisors almost never clearly explain the impact of my work on the company; supervisors sometimes clearly explain the functions of subordinates.

Regarding the Operators, they had an average score of 14.3 (95% CI; 0 to 33.2) [SD ± 7.7], equivalent to a medium level of psychosocial risk. The main sources of risk are: I can never decide how much work I do in a day, I can almost never take breaks when I need them, I can almost never decide the speed at which I work, and I can almost never change the order of the activities in my work.

Regarding the “Training” dimension, with an average score of 25.0 (95% CI; 0 to 59.3) [SD ± 12.3] equivalent to a medium level of psychosocial risk.

The main sources of risk are: I never receive training that helps me do my job better; sometimes the company allows me to attend training related to my job; sometimes I receive training that is useful for doing my job.

In the dimension of “Control and Autonomy over Work,” managers had an average score of 36.7 (95% CI; 0 to 59.3) [SD ± 17.9], equivalent to a Medium level of psychosocial risk. The main sources of risk were: I can never decide how much work I do in a day, I can almost never take breaks when I need them, I can almost never decide the speed at which I work, and I can almost never change the order of activities in my work. Operators had an average score of 58.3 (95% CI; 42.2 to 74.4) [SD ± 6.5], also equivalent to a Medium level of psychosocial risk. The main sources of risk were: I can never decide how much work I do in a day and I almost never work night shifts.

The “Role Clarity” dimension for subordinates has an average score of 21.4 (95% CI; 3.1 to 49.5) [SD ± 8.8], equivalent to a medium

level of psychosocial risk. The main sources of risk are: Supervisors almost never clearly explain the results that subordinates must achieve at work; supervisors almost never clearly explain the impact of my work on the company; and sometimes supervisors clearly explain the functions of subordinates. As for operators, they have an average score of 14.3 (95% CI; 0 to 33.2) [SD ± 7.7], equivalent to a medium level of psychosocial risk. The main sources of risk are: I am almost never clearly informed of the results I must achieve at work; I am almost never clearly informed of the objectives of my work; and sometimes I am clearly informed with whom I can resolve work-related issues.

On the other hand, the “Training” dimension showed managers with an average score of 25.0 (95% CI; 0 to 59.3) [SD ± 12.3], equivalent to a medium level of psychosocial risk. The main sources of risk are: I never receive training that helps me do my job better; sometimes the company allows me to attend training related to my work; and sometimes I receive training that is useful for doing my job.

The dimension of “Control and Autonomy over Work” for managers, with an average score of 36.7 (95% CI; 0 to 59.3) [SD ± 17.9], corresponds to a Medium level of psychosocial risk. The main sources of risk are: I am almost never clearly informed of the results I must achieve at work, I am almost never clearly informed of my work objectives, and I am sometimes not clearly informed with whom I can resolve work-related issues. For operators, with an average score of 58.3 (95% CI; 42.2 to 74.4) [SD ± 6.5], also corresponds to a Medium level of psychosocial risk. The main sources are: I can never decide how much work I do in a day, and I almost never work night shifts.

The “Emotional Demands” dimension for supervisors’ assistants has an average score of 26.7 (95% CI; 1.5 to 51.8) [SD ± 9.1], equivalent to a medium level of psychosocial risk. The main sources of risk are: My job always requires me to attend to very sick people, my job always requires me to attend to people in great need of help, and I always attend to very angry customers or users. As for the operators, they have an average score of 36.9 (95% CI; 17.8 to 55.9) [SD ± 7.8], equivalent to a medium level of psychosocial risk. The main sources of risk are: I always attend to very angry customers or users, I always attend to very worried customers or users, I always attend to very sad customers or users, and my job always requires me to attend to very sick people.

The dimension “Requirements of responsibility of the position” in managers, with an average score of 69.2 (95% CI; 43.5 to 94.9) [SD ± 9.3], is equivalent to a high level of psychosocial risk. The main sources of risk are: I am always responsible for things of great value at work, I am always responsible for company money at work, I am always accountable to my manager for the results of my entire work area, and my job always requires me to look after the health of other people.

Regarding the “Demands of the Workday” dimension, managers had an average score of 38.3 (95% CI; 24.4 to 52.2) [SD ± 5.0], equivalent to a high level of psychosocial risk. Therefore, it has a significant likelihood of being associated with high stress responses. The main contributing factors were: I always work night shifts; it’s always possible to take breaks at work; my job always leaves me with very little time to spend with my family and friends; and my job always requires me to work on days off, holidays, or weekends.

Regarding the “Recognition and Compensation” dimension for managers, the transformed score was 17.5 (95% CI; 9.9 to 45.0) [SD ± 9.9], equivalent to a medium level of psychosocial risk. The main sources of risk were: “I never receive the pay I deserve for the work I do; I never have the opportunity to advance in my job; people who

do their job well almost never get to advance in the company." As for operators, the transformed score was 16.1 (95% CI; 3.4 to 28.7) [SD  $\pm$  5.1], also equivalent to a medium level of psychosocial risk. The main sources of risk were: "I never have the opportunity to advance in my job; people who do their job well almost never get to advance in the company."

Overall, workplace risk factors for Managers have a transformed score of 23.3 (95% CI; 12.2 to 34.5) [SD  $\pm$  3.9], corresponding to a Low risk level. Similarly, for Operators, they have a transformed score of 22.5 (95% CI; 14.9 to 30.0) [SD  $\pm$  3.1], equivalent to a Low risk level; therefore, workplace psychosocial factors scoring at this level (low risk) are not expected to be associated with significant stress symptoms or responses.

Regarding extra-occupational psychosocial risk factors for managers, the "Time Off Work" dimension has a transformed score of 27.5 (95% CI; 0 to 55.3) [SD  $\pm$  10], equivalent to a medium risk level. The main sources are: I almost never have time for recreational activities, and I never have enough time to rest outside of work. As for the Operators, it has a transformed score of 28.6 (95% CI; 16.6 to 40.5) [SD  $\pm$  4.9] equivalent to a Medium level of psychosocial risk.

Furthermore, the "Commuting to and from work" dimension for managers had a transformed score of 32.5 (95% CI; 0 to 78.5) [SD  $\pm$  18.6], equivalent to a high risk level. For operators, the transformed score was 35.7 (95% CI; 16.3 to 55.1) [SD  $\pm$  7.9], also equivalent to a high risk level.

Regarding the Operator staff, the "Communication and Interpersonal Relationships" dimension has a transformed score of 21.4 (95% CI; 5.5 to 37.4) [SD  $\pm$  8.5], equivalent to a Medium level of psychosocial risk. Similarly, the "Economic Situation of the Family Group" dimension has a transformed score of 29.8 (95% CI; 2.4 to 57.1) [SD  $\pm$  11.2], equivalent to a Medium level of risk. The "Characteristics of the Housing and its Environment" dimension also has a transformed score of 23.0 (95% CI; 5.8 to 40.2) [SD  $\pm$  7.0], equivalent to a High level of risk. The dimension "Influence of the extra-work environment on work" with a transformed score is 11.9 (95% CI; 0.2 to 23.5) [SD  $\pm$  4.8] equivalent to a High risk level, in which it has a significant possibility of association with high stress responses.

Overall, the non-work-related dimensions for managers yielded a transformed score of 16.1 (95% CI; 0% to 32.5) [SD  $\pm$  5.9], corresponding to a Low risk level; therefore, this level is not expected to be related to significant stress symptoms or responses. For operators, the transformed score was 23.0 (95% CI; 9.5% to 36.5) [SD  $\pm$  5.5], corresponding to a Medium risk level; a moderate stress response would be expected.

With regard to the overall total score of intralaboral and extralaboral psychosocial risk factors in the "bosses" and "Operators" employees, the risk level is Low.

Regarding stress among managers, the risk level is low; therefore, it indicates a low frequency of stress symptoms and minimal impact on overall health. On the other hand, among operational staff, the risk level is medium; therefore, the presence of symptoms indicates a moderate stress response.

## Conclusions

Regarding sociodemographic variables, the institution has 12 employees, 75% of whom are female and 25% male. Their ages range from 21 to 59 years, with an average age of 43. Furthermore, 33%

of the employees are in a common-law relationship, and 16.7% are separated.

Regarding education, 33.3% of the workers have completed technical or technological studies; only 8.3% have not completed high school. 25% of the workers have completed postgraduate studies. As for occupation or profession, 74.9% of the workers are in healthcare, while 16.6 % are administrative staff and 8.3% are maintenance personnel.

Regarding the type of housing, 83.4% of workers live in their own and/or family housing and 16.7% live in rented accommodation.

With respect to the dimension "Environmental and physical effort demands", the level of risk is negligible (no risk) in collaborators, managers and Operators; therefore, they become protective factors, requiring actions or Promotion Programs.

Regarding the dimensions of "Job Responsibilities" and "Work Schedule Demands" among supervisory staff, the risk level is High, requiring intervention within the framework of an Epidemiological Surveillance System. In the medical area, 50% of supervisory staff perceive the risk level as Very High, and the stress risk level is High.

In general, the level of risk among employees, managers, and operators in terms of psychosocial risk factors in the workplace is low; therefore, significant stress symptoms or responses are not expected.

Regarding the non-work dimensions, for the collaborators, managers, and operators, the "Family relationships" dimension, the level of risk is negligible (no risk); therefore, they are protective factors, requiring actions or Promotion Programs.

Regarding senior staff, the "Commuting to work to home" dimension shows a HIGH level of risk; therefore, they require intervention within the framework of an Epidemiological Surveillance System.

On the other hand, in the collaborators Operators, the dimension "Characteristics of the housing and its environment", the level of risk is HIGH; therefore, they require intervention within the framework of an Epidemiological Surveillance System.

In general, the level of extra-occupational psychosocial risk factors for supervisors is LOW; therefore, significant stress symptoms or responses are not expected. For operators, the risk level is MEDIUM; therefore, a moderate stress response would be expected.

In summary, the intralaboral and extralaboral risk factors for supervisors and operators indicate a LOW level of risk; therefore, no significant stress symptoms or responses are expected.

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## Conflict of interest

The authors declare that they have no conflicts of interest relevant to this manuscript.

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