

RESEARCH

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PSYCHOSOCIAL RISKS AND INDUSTRIAL SAFETY IN THE TEXTILE LAUNDRIES OF PELILEO CANTON

RIESGOS PSICOSOCIALES Y LAS SEGURIDAD INDUSTRIAL EN LAS LAVANDERÍAS TEXTILES DEL CANTÓN PELILEO

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SUMMARY

This piece of research was focused on identifying, evaluating and controlling the psychosocial risks in the Industrial Safety of textile laundries, the level of impact was identified, which contributed to the physical, psychological and emotional well-being of workers, improving their quality of life, increasing productivity and complying with the organizational goals; the population was made up of men and women amounting to sixty-one workers, the age ranged from fifteen to sixty-five years, from different ethnic groups, the standardized Istas 21 Questionnaire of the Union Institute of Labor, Environment and Health Of Spain was used as a methodology. It consists of six sections related to psychosocial risks, at the research levels the descriptive and explanatory levels stand out, we got levels and reference values that allow us to compare with other studies about psychosocial factors. Later, a Guide to Prevent Psychosocial Factors to improve Industrial Safety in textile laundries was designed, which served as a tool for the training of workers regarding this area, next, the retest with the Standardized Istas 21 Questionnaire was applied, which gave us different results from those obtained initially; however, it is possible to identify that the sections with the greatest impact on the staff are insecurity about the future and double presence, which maintain considerable values; on the other hand, the sections that responded best to training were Social support and quality of leadership.

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KEYWORDS: Hazard identification - risk assessment - Psychosocial risks - Occupational hazards - Industrial safety - Textile laundries - Quality of life

RESUMEN

La investigación se enfocó en identificar, evaluar y controlar los riesgos psicosociales en la Seguridad Industrial de las lavanderías textiles, evidenciando el nivel de impacto, lo cual sirvió de aporte al bienestar físico, psicológico y emocional de los trabajadores, mejorando su calidad de vida, incrementando la productividad y el cumplimiento de los objetivos organizacionales; la población estuvo conformada por hombres y mujeres correspondiente a sesenta y un trabajadores, con un rango de edad entre quince y sesenta y cinco años, de diferentes etnias, se utilizó como metodología el Cuestionario Estandarizado Ista 21 del Instituto Sindical de Trabajo, Ambiente y Salud de España, consta de seis apartados relacionados a los riesgos psicosociales, en los niveles investigativos se destaca el descriptivo y el explicativo, obteniendo niveles y valores de referencia que permiten comparar con otros estudios sobre factores psicosociales. Posteriormente, se diseñó una Guía de Prevención de Factores Psicosociales para el mejoramiento de la Seguridad Industrial en las lavanderías textiles la cual sirvió como herramienta para la capacitación de los trabajadores en relación a esta temática, a continuación se realizó el retest con el Cuestionario Estandarizado Ista 21 el cual arrojó resultados diferentes a los obtenidos inicialmente, sin embargo es posible apreciar que los apartados con mayor impacto sobre el personal son Inseguridad sobre el futuro y Doble presencia los cuales mantienen valores considerables, por otra parte, el apartado que respondió de mejor manera a la capacitación fue Apoyo social y calidad de liderazgo.

PALABRAS CLAVE: Identificación de peligros – evaluación de riesgos -Riesgos psicosociales - Riesgos laborales - Seguridad industrial - Lavanderías textiles – Calidad de vida

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1. INTRODUCTION

In a framework agreement with the Technical University of Ambato and the H. Provincial Government of Tungurahua, the project for linking with society: "Baseline, intervention in Psychosocial Risks Management to improve Industrial Safety in the Textile Laundries in the sector Tambo-Pelileo Canton" was developed, it was implemented by the students of ninth semester of the degree course in Industrial Psychology, of the Faculty of Human Sciences and Education.

The textile laundries of the Tambo district of Pelileo Canton within the labor context consider the satisfaction of employees for the economic retribution to be an important point contributing to employees feeling satisfied and competent in their work, allowing constant establishment of challenges that encourage them to research for new ways of being more competitive in the area. The present research aims to identify the Psychosocial Risk Factors, improving industrial safety in the textile laundries of the El Tambo sector of the Pelileo canton.

According to Gil-Monte, Pedro R. (2012), psychosocial factors refer to various conditions that are present in work situations, which relate to several aspects, including work organization, type of job, the accomplishment of the task, and even with the environment, the degree of responsibility, among others; which affect the performance and health of the worker.

In the development of this piece of research, it is evident that there is no previous process of identification and evaluation of the occupational risks corresponding to the Psychosocial Factor, which affect the health of workers and their industrial safety in the Textile Laundries, affecting the future quality of life of the personnel, causing temporary or permanent deterioration in the employees, preventing the achievement of organizational goals and objectives, so valuation, prevention and control are considered necessary to maintain harmony in these areas of work.

The internal conditions present in the workplace play an important role in the human being; they being reflected in the physical, psychological and emotional well-being contributing in the fulfillment of the entrusted functions; the interaction of employees, in decision-making, environmental conditions, influencing health, restricting individual performance and business productivity, undermining the institutional image.

"Psychosocial risk factors at work encompass interactions among the working environment, the characteristics of working conditions, the relationships among workers, the organization, the characteristics of workers, their culture, their needs and their personal situation outside work." (ILO-WHO, 1984).

Psychosocial risks are mainly related to working conditions that may be harmful to health; the necessary and timely care of these risks is because they have the potential to cause various conditions to the health and welfare of workers, their major manifestations translate into stress, anxiety, depression, various psychosomatic disorders, cardiovascular disorders, stomach ulcers, immune or allergic disorders or contractures and back pain which deteriorate the quality of life of the workforce.

In accordance with what was published by the "National Institute for Occupational Safety and Health" journal (Oct, 2015), companies generally place greater emphasis on the evaluation of worker safety, considering the importance of others risk factors dealt with by industrial safety, so that the preventive measures that are implemented usually leave aside the psychosocial aspect, especially as regards the new forms of work organization which result from globalization, use of ICTs, learning needs and autonomy.

As expressed by Arenas, F .; Andrade, V. (2013), the manifestations that are evidenced on the workers are generally of a physical and psychological nature which are associated to stress in workers, the reason why it is necessary that the occupational health of workers is taken into account in order to ensure the quality of life of workers and their level of work performance.

In the organization, bosses supervise the individual performance of workers; unfortunately, the ignorance of psychosocial risks generates disinterestedness to improve working conditions, harming the employee's welfare, undermining communication, creating inadequate interpersonal relationships, generating stress, anxiety, depression, leading to non-compliance with stated objectives.

According to Gutierrez A, Vilorio J (2014), this author argues that the different forms of work, roles, leadership, positions, recruitment types have led to research the relationship between the individual, the work environment and that psychosocial risks are incorporated into demands And standards that protect workers from occupational hazards and occupational diseases.

Ortiz A., Andrade V. (2013), argue that the demands of the labor market demand specific characteristics for certain positions, leading to the development of occupational, psychic or psychosomatic diseases that have influenced for the legislations of several countries to elaborate tables in which occupational diseases are determined, as well as compulsory assessment of social risk factors.

Zamora Y., Negrin E., Montesdeoca M, & Párraga J. (2016), indicate that the main causes that affect the health of workers depend on the activities they perform in their jobs.

Gil-Monte, López J, Sánchez J (2016) argue that psychosocial risks are a current issue in occupational health, the various changes in productivity have given rise to new qualitative and quantitative demands, as well as the functional polyvalence that have been causal factors for the increase of said risks.

Vélez P, Bastías A, Méndez M, Jiménez A (2015), indicate that companies with the aim of reducing costs have chosen flexible contracting that consists in hiring personnel according to their needs, denominated seasonal, which is related to conditions of labor instability, low payment and limited social support, factors that can affect the health of the worker.

2. OBJECTIVES

To identify the factors of psychosocial risks that influence the health of workers in textile laundries.

To evaluate the factors of psychosocial risks through a standardized instrument that allows us to anticipate the level of impact of each of them in their working conditions.

To improve the health of workers in textile laundries through a Manual of Prevention of psychosocial risk factors.

3. METHODOLOGY

In the first stage of the project, it is considered opportune to carry out the identification and subsequent evaluation of psychosocial factors, using the Copenhagen Psychosocial Questionnaire (CoPsoQ) known as ISTAS21 of the Labor Union Institute of Labor, Environment and Health. This way we could clearly identify the six sections of the standardized instrument, which are: Psychological requirements, Control of work, Insecurity about the future, Social support and leadership quality, Double presence and, finally, Esteem, which yielded qualitative and quantitative results that allow us to carry out the real diagnosis to prevent the process of wear and tear on the worker, taking care of their physical and mental health and improving Industrial Safety and Occupational Health; in addition, it allows us to comply with the legal regulations that are in force in Ecuador.

Based on the results obtained, the "Guide for prevention of psychosocial factors to improve industrial safety in textile laundries" was elaborated, in which prevention and control activities are determined to improve the results achieved in each of the sections, apart from being able to protect health and increase the quality of life of workers, this guide was socialized to the collaborators of the five companies under study through several training sessions.

In order to verify the level of impact reached after the implementation stage, a retest (second application of the instrument used) was performed to quantitatively and qualitatively compare the achieved results with the initial results. Subsequent to this, a technical report was elaborated that broadened the goals achieved, thus meeting the stated objectives.

3.1. Population

The participants in this study belong to five textile laundries of the El Tambo Sector of Pelileo Canton in Tungurahua Province, which are: Saritex, RamJeans, Lasantex, TintexRiver and Dayantex. The total number of workers who collaborated was 61, it is noteworthy that they all were present in the days of evaluation in their respective jobs. Full cooperation was provided by the managers of the microenterprises and all the workers agreed to be part of the study. The characteristics of the present sample are as follows: the number of men is 49 (80.33%) and of women is 12 (19.67%); concerning age, it is in a range of 15 to 65 years with a mean of $X = 33.54$ years and standard deviation $\sigma = 12.73$; In relation to some type of disability, it is that 4 (6.56%) are visually impaired; regarding their ethnic group or race, (90.16%) are of mixed race, 3 (4.92%) are African American, 2 (3.28%) are Indigenes and 1 (1.64%) are white. The sample faithfully shows the population occupied in this sector dedicated to the textile washing of garments.

3.2. Project baseline

In this piece of research, the percentages reached by the sections that are in the ALTO (red) range denote that the level of exposure to psychosocial risk is in the most unfavorable situation for workers' health; moreover, at this very moment they

may already have physical or mental discomfort that can be avoided, for which reason it is necessary to act immediately on its causes.

At the stage of the baseline survey in the research project, the results obtained in the application of the pretest in each of the sections of the standardized instrument are as follows:

Table No. 1: Sections Ista 21 - Period October 2015 - March 2016

No.	Psychosocial Dimensions or Sections	Tall		Medium		Low		Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	Σf	$\Sigma \%$
1	Psychological requirements	27	44,26	12	19,67	22	36,07	61	100%
2	Control over work	19	31,15	17	27,87	25	40,98	61	100%
3	Insecurity about the future	48	78,69	10	16,39	3	4,92	61	100%
4	Social support and leadership quality	25	40,98	13	21,31	23	37,70	61	100%
5	Double presence	36	59,02	14	22,95	11	18,03	61	100%
6	Esteem	39	63,93	14	22,95	8	13,11	61	100%

Source: self made

In the section on psychological requirements, the results show that the content of the work to be performed should be considered to have quantitative and qualitative elements that affect the decisions within their work and produce high emotional exhaustion.

In the Control of work through the statistically presented values, it can be deduced that the autonomy of the worker in relation to the performance of his work activities is acceptable, but it is still possible to improve it.

In the section on Insecurity about the future, about three quarters are at a high risk level, so it can be deduced that workers do not have job stability in the company, which is a reason for concern for the economic sustenance of workers and their families, thus showing the imbalance between the effort - commitment of the worker and job stability - rewards the worker perceives.

Within the section on Social support and leadership quality, a considerable percentage is observed to be at a high risk level, so that it can be highlighted that there are problems related to the clarity of the role that must be fulfilled, that is to say that the functions of workers have not been clearly defined, leadership quality that affects the relationship with superiors and co-workers, which prevents them from fostering a suitable work environment.

Regarding the section on Double presence, despite the fact that the population is mainly composed of men, the results achieved indicate uneasiness caused by the demands of domestic tasks or family tasks to be fulfilled by workers, in addition to the tasks implicit in their job that may come to affect their performance in their job.

Finally, through the survey, it was possible to analyze that, in the section Esteem, more than half of the population is at a high level of risk, which is worrisome, due to the fact that it shows the limited degree of recognition and support shown by coworkers and superiors for the effort made by the worker to carry out his activities, as this affects the relations with his coworkers and causes antipathy toward them and decreases their work performance.

Martínez J., García S., Castellanos V., (2016). From the psychological perspective, the human being is a multidimensional being, who integrates into his personality, conduct and behavior. Concern for any activity or social process must be the person himself.

Once the results were obtained, a "Guide for prevention of psychosocial factors to improve industrial safety" was developed, an instrument that contributes to well-being and prevention of occupational health, providing information on the aforementioned risks present in the five laundries under study that are located in the sector of el Tambo of Pelileo Canton, providing methods and strategies of intervention that allow us to reach personal and labor balance, counteracting the detected problems and their different factors that threaten personal and labor stability.

This guide was socialized through training workshops in each of the laundries, with the presence of owners and collaborators, who actively participated in acquiring the knowledge that contributes to mitigating the risks in order to protect health, the respective evaluation of knowledge being carried out. Concluding with the detailed activities for the October 2015 - March 2016 semester in the planning of the project to link with society "Baseline and intervention in psychosocial risk management to improve industrial safety in the textile laundries in sector of El Tambo of Pelileo Canton."

3.3. Second phase of the project

Continuing with the development of the project, the second and third stages were carried out in the April - September 2016 semester, which was called "Intervention and evaluation in psychosocial risk management to improve industrial safety in the textile laundries of El Tambo of Pelileo Canton", going to each of the companies to verify the application of what was learned in training, reinforcing knowledge and, later, applying a retest to the same population under study in order to compare these results with those initially obtained.

The results obtained in the application of the retest in each of the sections of the standardized instrument used in this piece of research are the following:

Table No. 2 Sections Ista 21- April - September 2016 Period

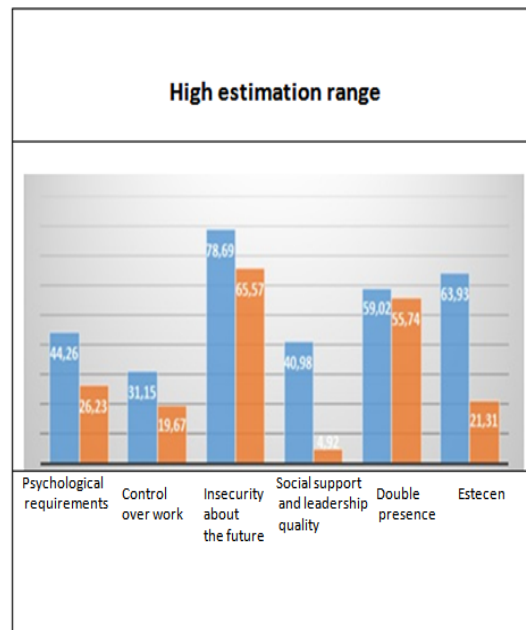
No.	Psychosocial Dimensions or Sections	Tall		Medium		Low		Total	
		fi	%	fi	%	fi	%	Σ fi	Σ %
1	Psychological requirements	16	26,23	21	34,43	24	39,34	61	100%
2	Control over work	12	19,67	15	24,59	34	55,74	61	100%
3	Insecurity about the future	40	65,57	18	29,51	3	4,92	61	100%
4	Social support and leadership quality	3	4,92	24	39,34	34	55,74	61	100%
5	Double presence	34	55,74	18	29,51	9	14,75	61	100%
6	Esteem	13	21,31	24	39,34	24	39,34	61	100%

Source: self made

It is noteworthy that in each of the sections there has been a decrease in the level of risk considered to be High, which allows us to interpret that the training carried out according to the "Prevention Guide of psychosocial factors to improve industrial safety" has improved said factors, the reduction rates are different because the

adopted corrective measures are different, in relation to the sections on Insecurity about the future and Double presence, there is a slight decrease because they depend on factors external to the company that are directly related to the number of units to be produced, labor stability in the organization and family aspects.

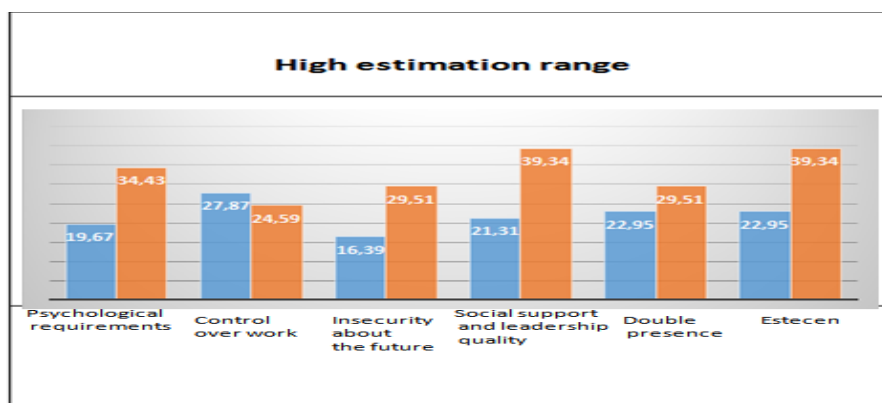
Graph No. 1: Comparative estimation ranges of psychosocial areas
HIGH



Source: self made

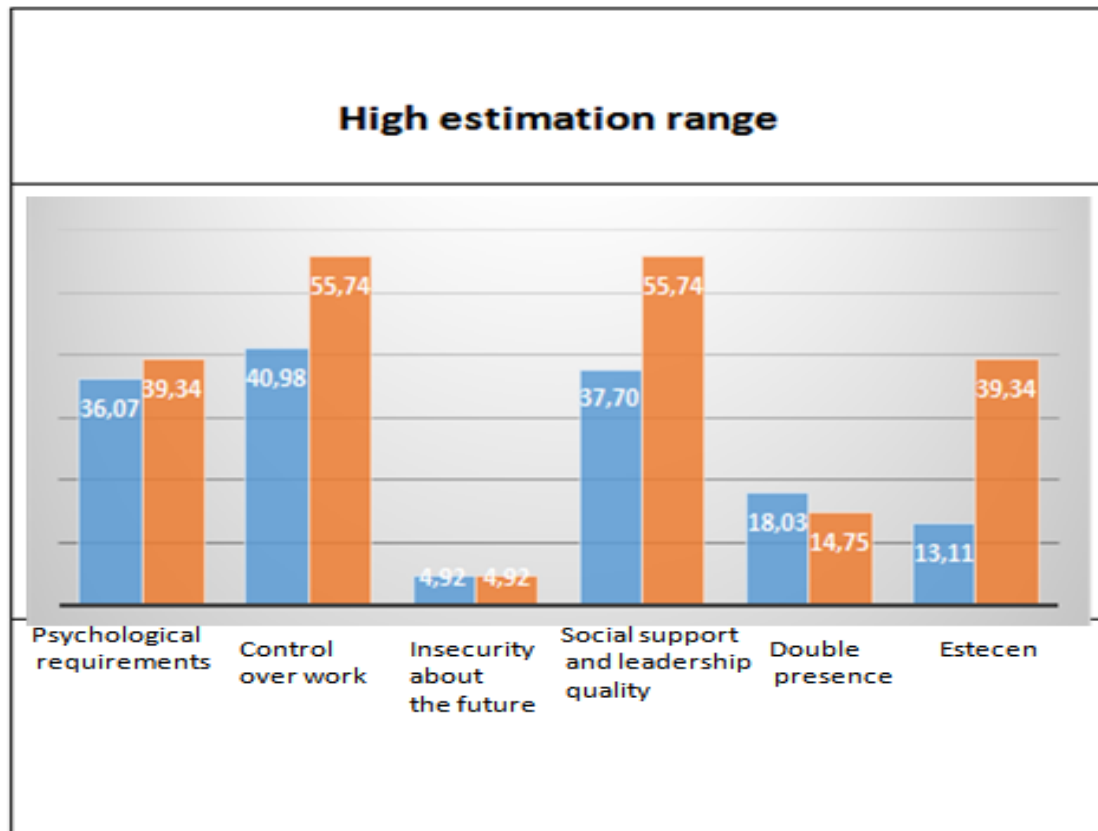
In relation to the risk levels with Medium and Low estimates, it is possible to show that the values generally increase due to the improvement of the working conditions in each of the sections, with which it is possible to corroborate that the proposed actions were appropriate.

Graph No. 2: Comparative estimation ranges of psychosocial environments
MEDIUM



Source: self made

Graph No. 3: Comparative estimation ranges of the psychosocial areas
LOW



Source: self made

4. DISCUSSION

The sections that keep important percentages in the High risk level are as follows.

Insecurity about the future: It shows a decrease from 78.69% to 65.57%, that is, 13.12% because companies are influenced by factors that determine working conditions such as government policies, economic situation of market, social and political stability, which prevents them from generating greater labor permanence for the worker who is worrying about how difficult it is to find a new job that allows him to generate economic resources for the sustenance of his family; besides his working day, In many cases it is altered in relation to his schedule or the activities that he develops, causing a certain degree of demotivation and uncertainty.

Double Presence: In this area, a decrease of 3.28% in the six-month period is observed, since it is a component given by planning at work, strategies that contributed to better organization being applied and, on the other hand, the activities at home, which involve a reorganization that clearly considers personal components due to different family structures.

It is worth emphasizing that the majority of respondents work to meet the needs of third parties, becoming the source of income at home and, as workers, they have to meet a schedule of work that is perhaps inflexible, causing problems in this dimension; therefore, production or the well-being of the worker can be affected.

Esteem: The 42.62% reduction in the high range in this field is due to the fact that this need is unique and changing, depending on the individual, this self-updating is associated with the requirements of satisfying the individual nature, recognition for their work in search of personal and professional growth.

Once the research done on this topic has been reviewed, we identified that the psychosocial risks in the industrial safety of a population of the sector of textile laundries in Pelileo Canton have not been related, and we obtained values and reference levels that allow us to compare them with other organizations, and we could determine specific conditions of the factors of psychosocial risks present at work.

Analyzing previous research, similar results were observed for the psychological requirements, which can be mentioned in the piece of research by Martínez J, García S. Castellanos V. (2016) "Analysis of psychosocial occupational risk in a metalworking company in Colombia, an intervention experience supported by models based on evidence", this author mentions:

Considering the valuation of "variable 6": estimates ", 100% of employees find the state of the risk of this section in red. The fashion representative of 100% for the questions in this section corresponds to 1, with an average of general response of 4.2 (red risk) ... The variables in order from highest to lowest incidence are: 1) No recognition of work by superiors, without necessary support in difficult situations, perception of minimum recognition of one's effort and; 2) Unfair labor treatment.

In the estimation, aspects that contribute to intrinsic motivation are considered, they being key elements to stimulate the worker and increase their commitment and productivity in the organizations.

In the same study, it is concluded that:

The ISTAS 21 method in its short version is a useful tool to identify possible risks in workers derived from psychosocial work factors; that the psychosocial analysis carried out encourages new studies, changes and modifications in order to increase levels of healthy work for workers; finally, it also motivates to build protocols and follow-up programs for safe work, strengthening a culture of work without risk (p.16).

The CoPsoQ questionnaire has been used in several pieces of research allowing assessment of the different areas that comprise the Psychosocial risk factors.

Ahyara de Leon, Sofia Silva, Romina Sum, Melisa Teixeira, Evelyn Villa, Freddy Sponton (2015) mention " Istas-21 Test short version, which is an adaptation to the Psychosocial Questionnaire of Copenhagen for psychosocial risk assessment."

Gil-Monte (2016), in his article "Prevalence of psychosocial risks in the personnel of the administration of justice of the community of Valencia (Spain)". quotes:

A report published by Eurofound and EU-OSHA(2014) notes that concern about work-related stress reaches more than 80% of centers within the public administration sector, a percentage slightly higher than the average of economic sectors of the European Union (79%). Another relevant fact is that most of workers in this sector consider that changes are necessary through the development of new technologies and processes (48% of cases) and reorganization and organizational restructuring (38% of cases) (P.11).

In Spain, Workers Commissions (2006) points out that some of the main problematic exposures to psychosocial risk factors are esteem (87%), psychological demands (62%) and double presence (52%). On the other hand, contractual insecurity at work (46.1%) and social support and leadership quality (43.4%) are also considered to be other problematic exposures. In this sense, the wide gender differences that occur in the dimensions of psychological demands (50.9% of males in the most unfavorable situation for their health as opposed to 65.9% of females) and double presence (33% males versus 62.9% women) are noteworthy (p.11).

5. CONCLUSIONS

- It is evident that the sections that have the greatest interval of evaluation are Insecurity about the future and Double presence, the same ones that belong to factors of psychosocial risks and result from lack of work stability and little planning of the time for the accomplishment of the working and family activities.
- Lack of knowledge or lack of management of psychosocial factors has led to organizations lacking prevention, control and treatment plans to promote the health and quality of life of workers in relation to this issue.
- The sections, Psychological Requirements, Control of Work, Social Support and Leadership Quality, and Esteem have a considerable decrease due to the actions implemented correctly, it is expected that, in the course of time, they will be fully controlled.
- The contracting modalities that are generally practiced in textile laundries that, due to the number of workers and the business sector, belong to the artisanal sector, are usually of an occasional nature, per season, for certain work, for maquila, which is reflected in the results achieved in the evaluation, mainly in relation to Insecurity about the future; therefore, it is evident that, as long as the modality of hiring by the company is not changed, this section will remain at the High level.
- The use of standardized instruments such as CoPsoqlstas 21 for the identification and evaluation of psychosocial risks contribute to controlling and mitigating the generation of physical, psychological and emotional health conditions, avoiding the erosion of the work capacity of collaborators.

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