

Instruments to identify psychosocial risk factors at work: a systematic review**Instrumentos para identificar los factores de riesgos psicosociales en el trabajo: una revisión sistemática**

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Abstract

The human factor within organizations is exposed to different types of risks, especially those that cause damage to their physical and psychological health, which if not identified and treated in time can generate irreversible damage to them. In recent years, investigations have been carried out that address the subject, in which different instruments have been implemented to identify and evaluate this phenomenon, so the purpose of this systematic review article was to analyze the instruments that allow identifying the factors of Psychosocial risks at work (FPR) in Latin America. The information search included databases on the web, such as Redalyc, Dialnet, Scielo and ProQuest. Three people independently selected the articles for review, in a period from 2015 to 2020, where the methodological quality of each of them was evaluated, as well as the inclusion and exclusion criteria considered for the research. It was observed that in recent years different methods and instruments have been implemented to evaluate this phenomenon from different areas, so it is important to determine which are the optimal instruments to identify FPR in workers.

Psychosocial risk, Scale of psychosocial risk, Latin America**Resumen**

El factor humano dentro de las organizaciones se encuentra expuesto a diferentes tipos de riesgos, sobre todo a los que generan daños en su salud física y psicológica, los cuales si no se identifican y tratan a tiempo pueden generar daños irreversibles en ellos. En los últimos años, se han realizado investigaciones que abordan el tema, en las que se han implementado diferentes instrumentos para identificar y evaluar dicho fenómeno, por lo que el propósito de este artículo de revisión sistemática fue analizar los instrumentos que permiten identificar los factores de riesgos psicosociales laborales (FRP) en América Latina. La búsqueda de información incluyó bases de datos en la web, tal como Redalyc, Dialnet, Scielo y ProQuest. Tres personas seleccionaron los artículos para su revisión de manera independiente, en un periodo de 2015 a 2020, donde se evaluaron la calidad metodológica de cada uno de ellos, así como los criterios de inclusión y exclusión considerados para la investigación. Se pudo observar que en los últimos años se han implementado diferentes métodos e instrumentos para evaluar este fenómeno desde diferentes ámbitos, por lo que resulta importante determinar cuáles son los instrumentos óptimos para identificar los FRP en los trabajadores.

Riesgo psicosocial, Escalas de riesgo psicosocial, América Latina

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Introduction

In recent years, human resource management has become increasingly important, since it is people who generate competitive advantages for organizations.

However, despite the fact that the human factor has been considered a valuable resource for organizations and that some of the traditional risks have been reduced with attention to the safety of workers, other risks continue to affect their health, as it has generated an increase in new occupational diseases without taking adequate prevention, protection and control measures (International Labor Organization [ILO], 2013b).

Human resources are frequently exposed to various factors in their workplace and in their social environment, which have generated problems in their physical, mental and emotional health, such as excessive workloads, role ambiguity, lack of social support, work-family conflict, among others, which are known as psychosocial risk factors that affect the productivity of the organization (European Agency for Safety and Health at Work [EU-OSHA], 2020).

This requires that studies be carried out to identify and evaluate the psychosocial risk factors caused by the different changes that organizations face, in order to prevent such risks and promote healthy environments for workers, considering work interactions, conditions organizational and performance environment, in order to guarantee productivity and organizational growth (Muñoz, Orellano & Hernández, 2018).

This article includes aspects related to occupational psychosocial risk factors and the importance that attention and assessment of these risks have generated in Latin American countries, so the objective of this research was to carry out a systematic review to determine and analyze the instruments that make it possible to identify and assess psychosocial risk factors and take the necessary measures with respect to them.

Psychosocial risk factors

Psychosocial factors at work are not a new phenomenon, since they have always been present in organizations, but their importance had been put in the background due to the presence of other occupational hazards that are more visible in workers.

Their study has evolved since the crisis of the 1970s, when a new capitalist accumulation regime was established, and they have been officially considered since 1984 by the ILO (Moreno, 2011; Neffa, 2015).

However, due to the relevance that the subject of occupational health has acquired in recent years, the study of psychosocial risk factors has been increasing, since it is necessary to analyze the interactions that the individual has with the work environment, where they interact genetic, psychological, social components and circumstances that can affect the health and well-being of workers, since no person who works will be exempt from being affected by them (Rodríguez, 2009).

Currently, people are exposed to various damages generated by their jobs, such as stress, burnout, workplace violence, fatigue, sleep disorders, addictions, alcoholism, among others, so the psychosocial risks at work began to be object of concern in various parts of the world, beyond traditional approaches to occupational safety and health (Henry, 2017).

Psychosocial risk factors are those characteristics of working conditions that affect people's health, through psychological and physiological mechanisms called stress, such as their internal and external environment, work activities and activities. organization conditions, which interact with the worker's capacities, needs, culture and personal situation outside of work, (Joint ILO / WHO Committee, 1984; National Institute for Occupational Safety and Health [INSST], nd; ILO, 2013a).

Sometimes, psychosocial risk factors are convenient for the development of work activities and for the quality of work life and personal development of workers, but in most cases, these factors are unfavorable and have harmful consequences for their health and for their physical and mental well-being (Ruiz, Pulla, Parra, Parra and Zamora, 2017).

Among the effects generated by these factors, we can mention work overload, interpersonal conflicts, low levels of participation in company decisions, role ambiguity, job insecurity, as well as different mental and health disorders, such as alterations in the sleep, anxiety, depression, work accidents, absenteeism and occupational diseases (Gil-Monte, López-Vílchez, Llorca-Rubio and Sánchez-Piernas, 2016).

However, not all workers react in the same way to the psychosocial risk factors to which they are exposed, and this will depend on the perceptions and experiences of each of them (Gil-Monte, 2012), as well as their own skills to handle the work situations they perform and the environment that surrounds them (Rodríguez, 2009).

It is inevitable that workers are exempt from various occupational risks, so it is necessary for organizations to seek and guarantee their protection and safety, in order to avoid damage to the health of personnel, as well as damage to the organization.

Therefore, it is necessary to identify and evaluate the psychosocial risk factors that negatively influence productivity and well-being at work, in order to design and implement strategies to counteract their negative effects, as well as strategies that allow satisfying the organizational and personal needs and objectives of workers (Muñoz, Orellano and Hernández, 2018).

Identification and evaluation of psychosocial risk factors in Latin America

Different international organizations such as the ILO, the World Health Organization (WHO), the EU-OSHA, the Organization for Economic Cooperation and Development (OECD), among others, have been concerned about the psychosocial aspects generated by work in people, classifying them as one of the world priorities to be treated, since psychosocial factors and stress generate negative effects on health, such as musculoskeletal disorders, metabolic dysfunctions, cardiovascular, physical and mental problems (Leka and Jain, 2010).

However, in Latin American countries, issues related to occupational safety and health have received little attention, since developed countries have an advantage of between 20 and 40 years over the study and attention to factors of psychosocial risks, while in Latin America in the last 10 years there have been advances in legal issues, such as rules, laws and regulations, as well as some academic research that has implemented standardized questionnaires, which are developed or adapted in countries such as Colombia, Peru, Chile, Mexico and Argentina (Juárez-García, 2015).

Such is the case of Mexico, that until October 23, 2018, the need to identify, evaluate and control psychosocial risk factors was regulated, through the Official Mexican Standard NOM-035-STPS-2018, which includes strategies for the identification, analysis and prevention of psychosocial risk factors, workplace violence, and the promotion of a favorable organizational environment (Ministry of Labor and Social Security [STPS], 2019).

In Colombia, psychosocial risk factors are regulated by legal statutes and the Ministry of Social Protection of Colombia, so the evaluation of these factors is based on Resolution 2646 of 2008, which was issued in the same year, as well as the psychosocial risk battery, which is an instrument designed by the Pontificia Universidad Javeriana and the Ministry of Social Protection of Colombia (Salamanca, Pérez, Infante and Olarte, 2019), with which it is possible to identify, evaluate, prevent, intervene and monitor permanently exposing people to psychosocial risk factors at work, as well as determining the origin of pathologies caused by occupational stress (Ministerio de la Protección Social, 2008).

In Argentina the situation is different, since the psychosocial risks generated at work have not been taken into due importance by the corresponding authorities, since these aspects are considered minor damages and are not mentioned or recognized as such in the legislation on the matter. risks at work, but is limited to risks that damage the physical health of workers, without considering the psychic and mental dimensions (Neffa, 2015, 2017).

These are just some countries in Latin America that have deficiencies in the prevention and assessment of psychosocial risk factors, which until a few years ago began to raise awareness of their importance to ensure the well-being of workers, therefore The regulatory policies of the countries should be the basis for organizations to manage these factors, through the different instruments that serve to diagnose and evaluate them (Potter, O'Keeffe, Leka, Webber, and Dollard, 2019).

Methodology

The methodology of this research is based on a review of the scientific literature, in relation to the instruments to identify the factors of occupational psychosocial risks, taking into account the inclusion criteria, such as articles in Spanish published in scientific journals in a period of 2015 to 2020, which include instruments to identify psychosocial risk factors at work, with samples from Latin American countries.

The search and review chain procedure was carried out by three people independently, in the period from 2015 to 2020, in databases such as Redalyc, Dialnet, Scielo and ProQuest, which are databases with scientific articles in Spanish, with publications from Latin America.

To carry out the initial search of the articles, terms such as "psychosocial risk", "psychosocial risk scales" and "Latin America" were used, which were entered into the databases directly or in combination, in order to find publications relevant to the content of this review, within the established search period (Figure 1).

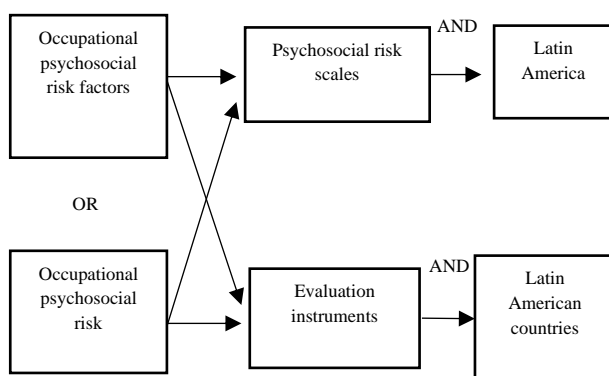


Figure 1 Keywords and Boolean operators used to search for information

Selection of documents

The articles were selected through a first filter, in which the following inclusion criteria were considered: a) articles published in scientific journals in a period from 2015 to 2020, b) publications of studies carried out with samples from Latin American countries, c) articles published in Spanish, d) articles presenting the research instrument implemented, e) articles that used instruments to identify psychosocial risk factors at work and f) articles with a quantitative research approach.

The following exclusion criteria were established: a) theses, books, abstracts of congresses and presentations, b) publications from countries other than Latin America, c) theoretical articles, d) duplicate publications, and e) articles with a research focus qualitative and mixed.

As a second filter, a manual review of the selected articles was performed, to verify that they met the specified criteria and that they were relevant to the research, which was carried out through meetings between the reviewers.

In this search, all those articles that were repeated in the selected databases, theoretical articles and articles that did not have a quantitative research approach, as well as those articles that did not report the psychosocial risk scales analyzed were excluded (Figure 2).

Finally, information was obtained from each of the articles, such as the title, authors, year of publication, country, study design, as well as the scales and main psychosocial risk factors.

With this information, we proceeded to analyze the instruments implemented to assess psychosocial risk factors in Latin American countries.

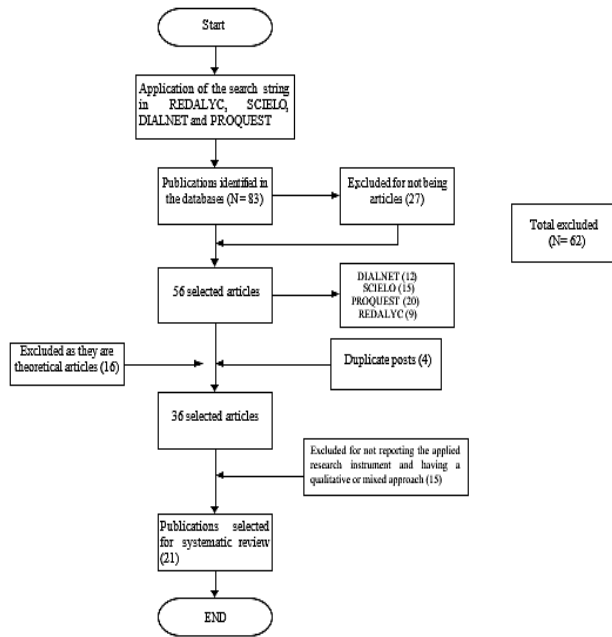


Figure 2 Selection process of the articles included in the systematic review

Results

The articles selected for the present systematic review responded to the indicated inclusion criteria, resulting in a total of 21 articles (Table 1).

The prevailing psychosocial factors were double presence (33.3%), followed by psychosocial demands (28.6%), work conditions (23.8%), and workload (19%).

Code/ Base	Title	Author/ Country	Main FRP found
A1 DIALNET	Psychosocial factors and symptoms of occupational stress in workers in the production area of a metal-mechanic company in El Salto, Jalisco	Aranda, Mares, Ramírez and Rojas (2016). Mexico	Labor requirements (90.7%), Workload (86.7%), Job role and career development (77.3%), Workplace conditions (70.7%) and task characteristics (66.7%).
A2 DIALNET	Diagnosis of psychosocial risk factors in the workplace in the company Miramar in the municipality of Maicao in the Guajira	Muñoz, Pitre and Amaya (2017). Colombia	Role Clarity (25.67%), Training (41.67%) and Participation and Change Management (16.67%) are at high risk.
A3 PROQUEST	Identification of psychosocial risk factors in a high complexity clinic	Bobadilla, Garzón and Charria (2018). Colombia	Work demands and control over work; at the extralaboral level: Time away from work, economic situation of the family group, characteristics of the home and its environment, and home-work displacement.

Code/ Base	Title	Author/ Country	Main FRP found
A4 REDALYC	Psychosocial factors at work and their relationship to the dual presence of women workers in primary health care	Toia, Mattos, Figueroa, Aguilar, Chavez, Del Carpio, Gamarra, García, Miranda, Romero and Muñoz (2018). Peru	Double presence (93.9%), Psychological requirements (59.2%), Active work (93.2%), Social support (100%)
A5 REDALYC	Psychological well-being, stress and psychosocial factors in workers of government institutions in Jalisco, Mexico	Saldaña, Polo, Gutiérrez and Madrigal (2020). Mexico	Control, autonomy and workload, conditions in the work environment and limited training. The FRPs were related to Stress and Burnout.
A6 SCIELO	Psychosocial risk factors and perceived stress in university teachers	Tacca and Tacca (2019). Peru	Stress is positively related to psychological demands, active work, double presence and compensation.
A7 SCIELO	Psychosocial risk factors and job satisfaction in seasonal workers in Chile	Palomo, Carrasco, Bastías, Méndez and Jiménez (2015). Chile	The factors Dual presence, and Active work and development possibilities had a high risk level. FRPs are negatively associated with job satisfaction.
A8 SCIELO	Diagnosis of the perceptions of psychosocial risk factors in the work of personnel in a manufacturing industry	Luna-Chávez, Anaya-Velasco and Ramírez-Lira (2019). Mexico	Work Content (55.2%) and Work Context (40.2%), making them likely psychosocial risk factors for Psychic Attrition.
A9 PROQUEST	Psychosocial risk in the nursing staff Emergency service at the University Hospital of Cartagena	Bustillo-Guzmán, Rojas-Merino, Sánchez-Camacho, Sánchez-Puello, Montalvo-Prieto and Rojas-López (2015). Colombia	High levels of risk in Personnel Management (98%), Task Content (75%) and Organisation of Working Time (56.3%)
A10 REDALYC	Psychosocial factors, psychological stress and burnout in nursing: a model of trajectories	Brito-Ortíz, Juárez-García, Nava-Gómez, Castillo-Pérez and Brito-Nava (2019) Mexico	We found high levels of social support, labor control, and enthusiasm for work; moderate degrees of psychological demand and psychological stress; and low levels of psychological burnout, indolence, and guilt.

Code/ Base	Title	Author/ Country	Main FRP found
A11 PROQUEST	Psychosocial factors and Burnout syndrome in general practitioners in Tepic, Nayarit (Mexico)	Aranda, Barraza, Romero, Quiñonez, Ceniceros, González and Esparza (2015). Mexico	Essence of the task (46.4%), Social interaction (33%) and lack of accomplishment (26.8%)
A12 REDALYC	Psychosocial risk factors in the workplace affect teachers' mental health depending on the type of facility's funding	Caceres, Campillay, Cvitanic and Bargsted (2015). Chile	Psychological requirements (53.31%), Double presence (48.36%) and Active work and development possibilities (33.15%).
A13 PROQUEST	Psychosocial risks, occupational stress and burnout syndrome in university workers at a bioanalysis school	Seijas-Solano (2019). Venezuela	Work rhythm (80.8%), Insecurity in working conditions (54.9%), Work stress (3%) and burnout syndrome (5%) in the most unfavorable situation. Double presence (52.7%) and Role conflict (38.9%), intermediate situation.
A14 PROQUEST	The double presence in female workers: balance between work and family life	Ruiz, Pullas, Parra and Zamora (2017). Ecuador	Double presence (54.25%), quantitative requirements (45.78%) and sensory requirements (74.39%).
A15 PROQUEST	Prevalence of Burnout Syndrome in teachers: Factors associated with the labor bonding statute in Colombia	Posada, Molano, Parra, Brito and Rubio (2019). Colombia	Working overtime, lack of communication spaces with the bosses, inadequate salary and lack of support from the bosses.
A16 REDALYC	Psychosocial, burnout and psychosomatic risks in public sector workers	Uribe-Prado (2020). Mexico	Performance recognition deficiente (26.9%), pain disorders (26.2%), workplace violence (24.9%), long hours, adverse leadership and work relationships deficiente (24.6%)
A17 SCIELO	Psychosocial risk factors and perceived stress in workers of an electricity company in Chile	Güilgüiruca, Meza, Góngora and Moya (2015). Chile	Social support (34.2%), psychological demands (32.2%), active work (31.5%), compensation (34.2%) and double presence (44%).

Code/ Base	Title	Author/ Country	Main FRP found
A18 SCIELO	Teaching stress and psychosocial factors in teachers in Latin America, North America and Europe	Alvites-Huamani (2019). Peru	There is a significant correlation between teacher stress and psychosocial factors, with the level of stress due to anxiety, depression and maladaptive beliefs prevailing.
A19 SCIELO	Psychosocial factors and Burnout syndrome in academics from a public university in Mexico	Villamar, Juárez, González and Osuna (2019). Mexico	Social problems (40.9%), Organizational problems (34.8%), Burnout (33.6%)
A20 DIALNET	Psychosocial factors that influence work behavior according to the processes of administrative management and human talent presented by employees of the company Distraves S.A. de Cúcuta	Jaimes, Márquez and Pernía (2015). Colombia	Lack of training; conditions in their jobs and availability of resources.
A21 PROQUEST	Psychosocial factors and psychic wear and tear in the work environment	Carrión-García, Hernández-Gracia (2017). Mexico	Harmful Working Conditions in Working Context (13.6%), Working Content (22.1%), Individual Factors (11.4%) and Perceived Psychic Wear (11.4%)

Table 1 Description of the articles selected for the systematic review

100% of the studies have a quantitative approach; however, there is a variation in the methodological aspects to assess psychosocial risk factors, where 66.7% is descriptive, 52.4% non-experimental, and 76.2% cross-sectional (Table 2).

The number of participants in the research ranged from 16 to 597, and included a total of 3,608 workers from companies in Latin American countries.

Regarding the sociodemographic data, only four investigations (19%) did not report the gender of the participants (studies A3, A15, A18 and A20), while in seven studies the sample of the male gender was larger (33.3%), and in 10 studies, the female gender sample prevailed (47.6%).

Most of the studies were conducted in Mexico (38%), followed by Colombia (24%), Peru (14%), Chile (14%), Ecuador (5%) and Venezuela (5%). Of the selected investigations, the sector in which more inquiries have been made about psychosocial risk factors is education (29%), followed by the health sector (24%), while the energy sector (5%) and services (5%) are poorly studied.

Code.	Sample	Sector	Design	% H	% M
A1	150 workers	Industrial	Descriptive, transversal	68%	32%
A2	50 technicians, assistants and operators	Services	Non-experimental, descriptive, transversal	80%	20%
A3	183 workers	Sanitary	Non-experimental, descriptive, transversal	-	-
A4	142 workers in health centers and posts	Sanitary	Non-experimental, descriptive, cross-sectional, relational	-	100%
A5	121 workers from a government institution	Of the administration	Non-experimental, correlational, cross-sectional	44%	56%
A6	117 university teachers	Educational	Correlational and transversal	52%	48%
A7	106 workers of a fruit trading and exporting company	Commercial	Observational, transversal	-	100%
A8	199 workers in a manufacturing industry.	Industrial	Non-experimental, cross-sectional, descriptive, correlational	39.2%	60.8%
A9	16 nurses and 64 nursing assistants	Sanitary	Descriptive	10%	90%
A10	357 nurses	Sanitary	Cross-sectional, observational, analytical	2%	98%
A11	97 general practitioners	Sanitary	Cross-sectional, analytical	50.5%	49.5%
A12	340 teachers	Educational	Non-experimental, descriptive, comparative	40%	60%
A13	75 university professors	Educational	Descriptive, transversal	14.7%	85.3%
A14	67 employees of a textile company	Industrial	Descriptive, transversal	32.8%	65.7%
A15	54 teachers from an Educational Institution	Educational	Correlational, descriptive	-	-
A16	305 Mexican workers of a human rights institution	Of the administration	Descriptive, Pearson correlation analysis, structural equations.	50.8%	49.2%
A17	292 workers	Energetic	Non-experimental, descriptive, correlational	82.5%	17.5%
A18	81 basic and higher education teachers from Latin America, North America and Europe	Educational	Non-experimental, descriptive, correlational, cross-sectional	-	-
A19	247 professors and researchers	Educational	Non-experimental, cross-sectional, correlational	49.4%	50.6%
A20	12 employees of the company Distraves S.A.	Commercial	Non-experimental, descriptive, transversal	-	-
A21	597 workers of a company in the industrial sector in Jalisco (Mexico)	Industrial	Non-experimental, cross-sectional	57.8%	37.4%

Table 2 Description of the gender data, sample and design of the selected studies

The instruments for data collection varied depending on the objective and size of the sample, where 20 scales were identified to identify and evaluate the psychosocial risk factors (Table 3).

According to the data, the most widely implemented instrument is the ISTAS21, in its short and medium version (38.1%), which was designed by the Trade Union Institute of Work, Environment and Health (2002), and has 5 dimensions, with each of them.

Likewise, the Battery of instruments for the evaluation of psychosocial risk factors was implemented in 14.3% of the selected studies, an instrument designed by the Pontificia Universidad Javeriana and the Ministry of Social Protection of Colombia, which has different questionnaires to identify said factors (Ministry of Social Protection, 2010).

Code.	Instrument	Valuated dimensions
A1	- Symptomatic Stress Scale of Psychosocial Factors at Work	- 18 items of symptoms associated with stress (somatic, physiological or emotional nature). - Conditions of the workplace, Workload, Content and characteristics of the task, Labor demands, Labor role and career development, Social interaction and organizational aspects and Performance compensation.
A2	- Battery of instruments for the evaluation of psychosocial risk factors (Ministry of Labor and the Javeriana University): Questionnaire of intra-labor psychosocial risk factors (form B)	- Work demands (Quantitative demands, Mental load demands, Emotional demands, Demands of responsibility of the position, Environmental and physical effort demands, Demands of the working day, Consistency of the role Influence of the work environment on the extra work). - Control (Control and autonomy over work, Opportunities for development and use of abilities and skills, Participation and change management, Clarity of role, Training). - Leadership and social relations at work (Characteristics of leadership, Social relations at work, Performance feedback, Relationship with collaborators). - Reward (Recognition and compensation Rewards derived from belonging to the organization and the work that is done).
A3	- Battery of instruments for the evaluation of psychosocial risk factors (Ministry of Labor and the Javeriana University): Questionnaire on intra-occupational psychosocial risk factors (form B) and the Questionnaire on Non-occupational Psychosocial Risk Factors.	- Form B: Demands of work, Control, Leadership and social relations at work and Reward, described in publication A2. - Non-work questionnaire: Time away from work, Family relationships, Communication and interpersonal relationships, Economic situation of the family group, Characteristics of the home and its environment, Influence of the non-work environment on work and Home-work-home movement.

Code.	Instrument	Valuated dimensions
A4	ISTAS 21	<ul style="list-style-type: none"> - Psychological demands (cognitive demands, quantitative demands, sensory demands, emotional demands and demands to hide emotions). - Active work (Development possibilities, Integration in the company, Control over working time, Sense of work, Influence on general work conditions and Influence on specific work conditions). - Social support in the company (Clarity of role, Conflict of role, Quality of leadership, Possibilities of social relationship, Quality of relationship with superiors and Quality of relationship with colleagues). - Compensations (Estimates, Insecurity regarding the conditions of the contract and Insecurity regarding the conditions of the work performed). - Double presence (Concerns about housework, Burden of housework).
A5	<ul style="list-style-type: none"> - FRP: (NOM-035-STPS) (Campa, 2018), in the revised version by Almirall, et al. (2018). - Shackelton's Reward-Effort Imbalance Questionnaire, Spanish Version 	<ul style="list-style-type: none"> - Conditions in the work environment, Workload, Lack of control over work, Working hours, Interference in the work-family relationship, Leadership, Work relationships and Violence. - Extrinsic effort and reward.
A6	<ul style="list-style-type: none"> - ISTAS 21 short version. - PSS14 Perceived Stress Scale, Mexican adaptation 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4. - Perceived stress, Family and friend support, Hamilton Depression, Depressive symptomatology and Violence and severity index.
A7	<ul style="list-style-type: none"> - ISTAS21 - Questionnaire S10 / 12 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4. - Satisfaction with the benefits received, Satisfaction with the physical environment of the company and Satisfaction with supervision.
A8	<ul style="list-style-type: none"> - Battery for the study of Psychosocial Conditions of Work (CTCPS-MAC), validated in a Latin American population (Colombia, Ecuador, Mexico, Peru and Venezuela) by a group of experts 	<ul style="list-style-type: none"> - Work Context (Culture of the organization and management, Role or role in the organization, Interrelation of work with family and social problems and Interpersonal relations at work). - Work Content (Workload and rhythm, Work environments, Equipment and physical agents, and Conceptions of job tasks). - Individual Factors (Psychic risk buffers, Company characteristics and Personal characteristics). - Psychic Burnout (Subjective symptoms and health disorders - Psychological states- Emotional cognitive response, Subjective symptoms and health disorders - Psychological states- Behavioral response and Subjective symptoms and health disorders - Psychological states- Physiological response).
A9	<ul style="list-style-type: none"> - Diagnosis of Psychosocial Factors 	<ul style="list-style-type: none"> - Content of the task, Human relations, Organization of work time and Personnel management.
A10	<ul style="list-style-type: none"> - Perceived Stress Scale - Job Content Questionnaire - Questionnaire for the Evaluation of Burn-Out Syndrome 	<ul style="list-style-type: none"> - Favor of control and loss of control. - Psychological demands, Use of skills, Decision authority, Social support from colleagues and Social support from the boss. - Illusion for work, mental exhaustion, indolence and guilt.

Code.	Instrument	Valuated dimensions
A11	<ul style="list-style-type: none"> - Guide for the identification of psychosocial factors of the Mexican Institute of Social Security Scale of "Maslach Burnout Inventory (MBI)" 	<ul style="list-style-type: none"> - Emotional exhaustion, depersonalization and decreased personal fulfillment at work.
A12	<ul style="list-style-type: none"> - ISTAS 21 - DASS 21 - MBI scale 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4. - Depression, anxiety and stress. - Emotional exhaustion, depersonalization and decreased personal fulfillment at work.
A13	<ul style="list-style-type: none"> - ISTAS21, medium versión 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4.
A14	<ul style="list-style-type: none"> - ISTAS21, short versión 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4.
A15	<ul style="list-style-type: none"> - Battery of instruments for the evaluation of psychosocial risk factors (Ministry of Labor and the Javeriana University). 	<ul style="list-style-type: none"> - Communication with superiors, Sufficient salary, Working overtime, Social recognition, Absences and penalties, Support from superiors, Pauses during the day, Work evaluation, Tasks according to the teaching profession, Relationship with colleagues, Working hours, Union membership and Opportunities training.
A16	<ul style="list-style-type: none"> - Occupational burnout and psychosomatic manifestations were measured with the Uribe-Prado EDO scale (2008) - Standard 035 Scale (Reference Guide III; STPS, 2018) 	<ul style="list-style-type: none"> - Emotional exhaustion, Depersonalization, Achievement dissatisfaction, Sleep disorders, Pain disorders, Gastrointestinal disorders, Psychoneurotic disorders, Anxiety indicator and Depression indicator. - Recognition of poor performance, Work violence, Long working hours, Pain disorders, Emotional burnout, Adverse leadership, Poor work relationships, Work-family interference, Sleep disorders, Anxiety indicator, Achievement dissatisfaction, Depression indicator, Disorders Gastrointestinal, Depersonalization and Psychoneurotic Disorders.
A17	<ul style="list-style-type: none"> - ISTAS21, short version - Perceived Stress Scale 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4. - Unpredictability, Uncontrollability, Overload, and direct questions about experienced stress levels.
A18	<ul style="list-style-type: none"> - Questionnaire on Psychosocial Factors in Academic Work 	<ul style="list-style-type: none"> - Workplace conditions, Workload, Content and characteristics of the task, Labor demands, Academic role and career development, Social interaction and organizational aspects and Performance compensation.
A19	<ul style="list-style-type: none"> - Online battery adapted from the questionnaire on Psychosocial Factors of Academic Work (FPSIS) - Questionnaire for the Evaluation of Burn-Out Syndrome for Education Professionals (CESQT-PE) 	<ul style="list-style-type: none"> - Social and organizational problems, Excessive working hours, Insufficient spaces and materials, Problems with students, Dissatisfaction with financial reward, Mental and physical effort and Biochemical risks. - Illusion for work, Psychic exhaustion, Indolence, Guilt.
A20	<ul style="list-style-type: none"> - ISTAS 21 	<ul style="list-style-type: none"> - Dimensions mentioned in publication A4.
A21	<ul style="list-style-type: none"> - Battery for the study of psychosocial working conditions CTCPS-MAC 	<ul style="list-style-type: none"> - Dimensions mentioned in study A8.

Table 3 Scales to identify and evaluate Psychosocial Risk Factors in selected studies

Conclusions

In organizations, people are the most important resource; However, they are exposed to different risks that generate health problems, especially those that damage their mental health, known as psychosocial risk factors, so it is necessary to incorporate processes and strategies that promote their physical and mental well-being, through the implementation of instruments that allow identifying and evaluating the influence of these factors, in order to eliminate or reduce them (Muñoz, Orellano and Hernández, 2018).

The review and analysis carried out in this work have made it possible to know the different scales that have been designed to identify and evaluate the psychosocial risk factors at work, where in recent years their study has become more relevant, since norms, laws have been implemented and regulations to regulate and oblige companies to analyze and evaluate these factors.

However, one of the findings found in this research revealed that the identification and evaluation of psychosocial risk factors is still deficient, since so far there are no relevant investigations in many of the Latin American countries, since they have not been detected in the search, and most of the articles excluded were for having a merely theoretical approach, so the corresponding authorities should raise awareness about the importance of addressing these risks in a timely manner before they negatively influence workers .

Although there are different scales for the study of these factors, the best known and implemented are the ISTAS21 (38.1%) and the Battery of instruments for the evaluation of psychosocial risk factors (14.3%), which are versions that can be applied in Spanish-speaking countries; However, it does not mean that they are adequate to apply in all investigations, since there is a variety of instruments that can be chosen, depending on the factors to be investigated.

The review of the selected studies confirms the presence of psychosocial risk factors in workers from different sectors of Latin American companies, prevailing factors of double presence (33.3%), psychosocial demands (28.6%), as well as the conditions (23.8%) and workload (19%), which can be reflected not only in work errors, but also in work accidents, in the development of work stress and in diseases that can even lead to death (Moreno and Báez, 2010). Psychosocial risk factors generate negative impacts on personnel regardless of gender, also influencing their quality of life, as well as the productive conditions of the organization, so it is important to ensure the physical and mental well-being of workers (Cobo , Muñoz, Martos, Carmona, Pérez, Cirici and García-Parés, 2010). Ultimately, such risks must be prevented and healthy environments created, taking into account work interactions, organizational conditions and other factors that influence the performance of workers, in such a way that productivity and growth of the company can be guaranteed.

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