

# RELATIONSHIP BETWEEN PSYCHOSOCIAL RISK FACTORS AND MSD IN HOUSEKEEPERS

---

*Yolanda Garcia Rodriguez*

Department of Social, Work and Differential  
Psychology  
Psychology Course  
Universidade Complutense de Madrid

*Casanueva Rincón, S.*

Department of Social, Work and Differential  
Psychology  
Psychology Course  
Universidade Complutense de Madrid

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



## INTRODUCTION

According to the European Agency for Safety and Health at Work, musculoskeletal disorders (MSD) are one of the most common occupational diseases that affect millions of workers throughout Europe and cost employers billions of euros.

Musculoskeletal disorders (MSDs) affect a quarter of the European population (25% of workers suffer from back pain and 23% complain of muscle pain). According to Eurostat data, the economic cost of MSDs in Europe represents 1.6% of GDP (205,107 million euros per year). On the other hand, in Spain, the VI National Survey of Working Conditions (ENCT, 2007) shows that 74.2% of workers report feeling some musculoskeletal discomfort due to postures and efforts derived from the work they do, specifically, the lower area of the back, the nape/neck, and the upper area of the back are the most affected (40.1%, 27%, and 26.6%, respectively).

The WHO (2004) defines TME as health problems of the locomotor system, that is, of muscles, tendons, bone skeleton, cartilage, ligaments and nerves. This covers all kinds of ailments, from mild and temporary discomfort to irreversible and disabling injuries.

The causes of MSDs are, among others, associated with work conditions such as repetitive movements, standing for long hours, working sitting in a fixed position, forced postures, handling loads, working at a high pace, or poor environmental conditions at work. workplace (vibrations, poor lighting, high temperatures, etc.).

In recent years, however, there is increasing evidence of the association between MSD and psychosocial risk factors. Psychosocial factors are understood as certain working conditions related to the organization, the content of the work and the performance of the task, and which have the capacity to

affect both the well-being or health (physical, mental or social) of the worker as well as the development of work (Martín Daza and Pérez Bilbao, 1997) but psychosocial factors, when they are factors likely to negatively affect the health and well-being of the worker, are risk factors (Benavides et al.2002; INSHT, 2015).

Cox (1993) reported that work factors associated with psychosocial risks include excessive workload and work pace, job insecurity, inflexible work schedules, irregular, unpredictable or socially inappropriate work hours, poor relationships interpersonal difficulties, lack of participation, unclear role in the organization, poor communication, poor career prospects, and conflicting demands of work and home.

As an example of the scientific relationship between psychosocial risk factors and MSD, the study carried out by Simon et al., (2008) shows a greater relationship between MSD and psychosocial risk factors than between MSD and physical risk factors. The psychosocial factors, assessed using the Copenhagen Psychosocial Questionnaire (COPSOQ, (Kristensen et al., 2005)) that appear to be associated with MSDs are quantitative work demand or work intensity, influence at work (control over the work environment, work), and the relationship between the worker's effort and the reward received (economic benefits, career opportunity/security, and professional appreciation).

Table 1 (Annex 1) shows the relationship between the area of the body affected and the psychosocial risk factors according to the study carried out by Devereux et al., (2004). Nogareda (2006) points out that, among the negative effects that work stress generates in workers, it is worth highlighting various disorders, both physical and mental or behavioral, among which are cardiovascular diseases, musculoskeletal disorders and mental illnesses that in turn can give rise

to side effects at the collective level such as increased absenteeism, decreased quality of work performed and productivity. Therefore, the evaluation and assessment of MSDs associated with psychosocial risk factors can be considered as an indirect measure of the level of work stress generated by psychosocial risk factors. Exposure to psychosocial risks can cause stress among employees, resulting in poor performance and, when prolonged, serious health problems, including musculoskeletal ailments (Table 1 in Annex 1).

For Martínez Plaza (2009), an occupational physician at INSHT (now the National Institute for Safety and Health at Work) In the current labor scenario, stress has been identified as one of the most important emerging risks, and consequently, within the main challenges that organizations face due to the repercussion that it can have on the health of workers. Work stress as the main psychosocial risk entails both a social and an individual cost. In 2002, the European Commission (2002) estimated the costs of work stress in the EU-15 at €20 billion per year.

This work aims to analyze the relationship between psychosocial risk factors and musculoskeletal disorders in a housekeeper, based on data collected in a first qualitative phase and a second quantitative phase.

## **METHODOLOGY**

### **PARTICIPANTS**

During the qualitative phase, 36 housekeepers participated with different working conditions and from six autonomous communities with a high rate of tourism. The participation of occupational doctors, occupational health managers, housekeepers, prevention technicians or union delegates was also requested, with the intention of learning about the situation from all perspectives.

During the quantitative phase, 19 housekeepers from the Balearic Islands participated. On this occasion, the sample was random and consisted of those waitresses who volunteered to participate.

### **MATERIALS**

For the qualitative phase, the internal project carried out by the CCOO in 2018, “Pharmacological Dependencies in housekeepers”, was used, reviewing all the data provided by it.

For the quantitative phase, a check-list was made with the most common TMEs according to the INSST, and some of the new occupational diseases recognized for their sector. For the evaluation of psychosocial risks at work, they were given the Manual of the CoPsoQ PSQCAT method (version 2), the short version of the questionnaire.

### **PHASES OF THE STUDY**

#### **1. Qualitative and descriptive phase.**

In the CCOO project, 6 discussion groups were formed, made up of accommodation facility floor staff, and 15 in-depth interviews with key people in the sector, such as occupational doctors, occupational health managers, housekeepers, prevention technicians or union delegates. All of them were directed by 2 members of the CCOO work group and recorded for later analysis.

Once all the recordings were transcribed, a document was created that included those aspects of working conditions, health problems and drug use, in which all the groups and interviews that were carried out coincided.

#### **2. Quantitative phase.**

In this phase, the objective was to obtain quantitative data with which to compare the information collected in the first phase.

## RESULTS

### 1. Qualitative and descriptive phase.

In this phase, it was found that all the psychosocial risk factors and the risk factors for MSDs are found in the current working conditions of the interviewed housekeepers.

As a summary of all the data collected in this first phase, Tables 2 and 3 are attached, where the real situations with the greatest coincidence appear, regarding MSD risk factors and psychosocial risk factors, narrated by the participants of the study groups. discussion.

Going deeper into the content provided by the document prepared by the CC.OO, we can say that, with regard to the organization of work, the housekeepers point out that situations that cause the demands of work to vary (distribution of the rooms on each floor, the type of room, the type of client, nor the season and the environmental conditions that they entail).

They also point out that the total workload, during the working day, has grown exponentially due to the increase in the number of rooms that must be done during it, between 20 and 25 and can reach 30.

They also denounce the lack of preventive measures and the lack of ergonomic improvements in the materials they have to use daily. In addition, in the cases in which ergonomics is taken into account and things are modified, they point out that there is a lack of training courses on how to work with the new installations.

First of all, as specific aspects of the furniture that they have to use on a daily basis, they reveal that the trolleys are not ergonomic, the weight is much higher than what they can easily push and the carpeted corridors aggravate this situation. The beds are getting bigger, with heavier mattresses and no wheels to move them.

Secondly, they highlight the daily use of strong cleaning products and the exposure to all the chemicals that this entails. If these liquids can already be dangerous in themselves, many times they do not use those that are approved and do not follow the prevention regulations.

Lastly, with respect to Individual Protection Equipment (EPIS), they claim that the first problem, in many cases, is that they are not provided with the necessary protections.

Some of the clearest and most abundant psychosocial risk factors that have been collected in the discussion groups are the *isolation and work environment*. Whereas before it was normal for them to be accompanied and there would be two chambermaids per room, now they work alone and, on the other hand, they argue that there is added pressure from the housekeepers, superiors and middle managers when it comes to meeting the requirements. ratios of rooms assigned to each one.

The most common injuries referred to in the interviews are hernias, cervical problems, carpal tunnel, knees, tendonitis in the arms, wrists, ankles... All these pains prevent them from continuing to work in many cases, so the need to take leave is very high and there are many who say they have had at least one loss per year.

They expose that there is a lack of attention on the part of the occupational doctors and the Mutualls towards the employees. The referral of workers to Social Security is common, although the causes and reasons for consultation are derived from work.

With respect to outsourcing, it seems important to highlight that in addition to all the risks inherent to this sector exposed in the results, there are also some inherent to this contracting condition, such as, for example, that they usually have contracts below their professional category, which

<b>Workload and pace</b>		<b>Organizational culture and functions</b>	
Work overload, work pace, high levels of time pressure, etc.	“The lack of time for everything I had to do and everything I had left. It is a vicious circle and you get more nervous because you have a lot of work left to do, you want to finish it and that causes you more stress, more stress”.	Bad internal communication, low levels of support for problem solving and personal development, lack of definition of objectives.	“Talking with the boss, in case they could make me an adaptation of the position, by myself, because I had no protection from anyone and until one day it was decided and she sent me to AVIA, and she never told me you are going to stay there, the hours change because they are not fixed and he had me doing everything: One day he would put me on duty, another day with the valet, another day he would send me to clean the wall, another to make 25-story corridors and so on, a little bit of everything”
<b>Working hours</b>		<b>Interpersonal relationships at work</b>	
Inflexible Schedule	“Another girl recently put on, her father-in-law dies and tells her that she will go to the funeral, she will cry when she gets off work.”	Social or physical isolation, bad relationships with superiors interpersonal conflicts, lack of social support	“The housekeeper told them that whoever spoke, especially those with a contract, that the contract was not renewed and they stopped looking at the girl. Well, the poor girl, 11 months later she was sick, with a horse depression that she caught”.
Unpredictable schedule	“That is what the majority have to do, they leave before and leave later, so that they have time to do their work.”		
Long and lonely shifts	“The loneliness that the waitress has upstairs, she is alone, because she doesn't even see her partner, from time to time the housekeeper comes by to tell her this is wrong, she comes back and looks around the room, but she is alone.”		
<b>Control</b>		<b>Career development</b>	
Low participation in decision making, lack of control over workload, pace, etc.	“The problem is also that they talk about a room with two beds, with two night tables and the reality is different.. they have no idea what we really find. They question us and direct our work and organize us people who don't know, don't know“	Low pay	“Rooms have been being built for 60 or 70 euro cents; the one that cleans it at the end does not charge even 70 cents, it charges even less”.
<b>Environment and equipment or tools</b>		Job insecurity	“This same summer, a discontinuous Fifa lady comes in, she gets the child who was operated on for appendicitis, admitted and the next day I see her, “But what are you doing here?” and she tells me, “she threatened me, and she told me that if I didn't come back, it would be the contract.”
Poor environmental conditions, such as lack of space	“The car kills me, the narrow corridors with carpet” “The worst thing is that the window cleaner wears out and that we use ammonia with water. I hallucinate”.		
Equipos de trabajo inadecuados, poco idóneos o con un mal mantenimiento.	“There are colleagues who have complained that they get pimples from sweat and clothes that do not perspire. However, in winter it is a very cold uniform and it is what we have to wear, we buy very thick socks because we freeze”.	Conflicting demands for work and home, low family support, dual career issues.	“That makes it hard for you to balance your personal life, I come home and it's not that I don't have time for my children, no, what I don't have is encouragement, I don't have the strength”

Table 2. Real situations of psychosocial stress factors.

<b>Repetitive work</b>		<b>Lifting loads</b>	
Movement frequency: high repetition and speed movements	"In my case, last year I had a stress fracture and movement repetitive at the hip. I fell and gave myself a blow to the head, I have broken one rib pulling out a mini bar for clean and I slipped. This all is because I want to finish and of course You go at a pace that causes these things, it is inevitable".	Weight to lift: of the loads or objects that must be lifted manually	"The complaints of the chambermaids It was that the mattresses weigh a lot, they have done the reform and they have put the same mattresses back".
Use of force: Time and intensity of physical effort biomechanics required by the employee	"You start with a very strong rhythm from nine in the morning, we work with the clock and you know that at this time you have to carry so much, to go well and that is like a long-distance runner"	Load grip: If the load is round, smooth, slippery or does not have adequate grips to hold it properly.	"I have 2X2 beds in the rooms, on top of the carpet, without wheels, it is that it gets caught in the carpet and there is neither forward nor backward."
Adoption of positions and Forced Movements: Work repeatedly forcing any of the joints.	"In my company, they have renovated, they have put ergonomic beds, they can get up but there are people who are shorter and now they have to raise their arms to a height, because they have not had a basin at the time of the workers, the measures".	<b>Transport, push and pull loads</b>	
Recovery time insufficient: few pauses rest and change to tasks inactivity or without repetitive movements.	"The half hour of lunch, that you don't go down to eat, because that means losing that 30 minutes that you are dedicating to the rooms. It's not even to pee; It's that you don't go down."	Frequency: number of times the load must be transported from one place to another.	There the 6-hour ones have 25 rooms...Sometimes they have given us up to 30".
Duration of repetitive work: Total exposure time to repetitive work throughout the day.	"I am working seven days, to rest two, when they allow us; It's eight hours a day, I make forty- odd beds, twenty-odd baths, repetitive movements...".	Características del objeto empujado o arrastado.	"It's completely unstable, the front and back wheels are rotating, you push with your weight and I go with the walls boom, boom, it's not surprising that I get injured."
		<b>Forced postures</b>	
		Frequency of movements to a forced position.	"The mop; They bought us a very tall white mop from the Chinese. I can't with the mop, my arms are destroyed".

Table 3: Real situations of MSD risk factors.



entails a reduction in salary. There is a precariousness in hiring, the contracts of these companies are usually temporary or permanent-discontinuous, so there is a greater *job instability*.

Since they are not employees of the company, they are not part of the hotel's health prevention and surveillance, so they are helpless in any situation, since this type of multi-service company has general assessments that are not appropriate to the specific jobs that they perform.

## 2. Quantitative phase

The grouped results shown in graph 1 reflect that, of the 15 psychosocial risk dimensions measured by the CoPsoQ psqcat, the majority of the sample concentrates on the most unfavorable situation for health in 10 of them.

It is worth highlighting the dimension of the pace of work, where 100% of the sample is in a situation of maximum risk. Other dimensions such as quantitative requirements, development possibilities, role conflict and justice also appear as psychosocial risk factors where more than 80% are in the most unfavorable situation.

Only the dimensions of insecurity regarding working conditions and job insecurity have a slightly higher result in the most favorable situation for health, the difference with the result in the most unfavorable situation being only 1 point. That is, the sample is distributed practically equally between these two conditions.

The results on the data referring to each one of the questions that make up each dimension, are exposed in graphs 2 and 3. In them, all the answers of "Always" or "Many times" / "To a great extent" have been counted. o "To a large extent", those of "Sometimes" / "To some extent" and those of "Only sometimes" or "Never" / "To some extent" or "To some

extent" no case". In red, we find the response options that correspond to the categories that contribute to worse working conditions.

We can observe that, of the 30 questions raised that guide the origin of the exposure, the sample would be at risk in 20 of the situations.

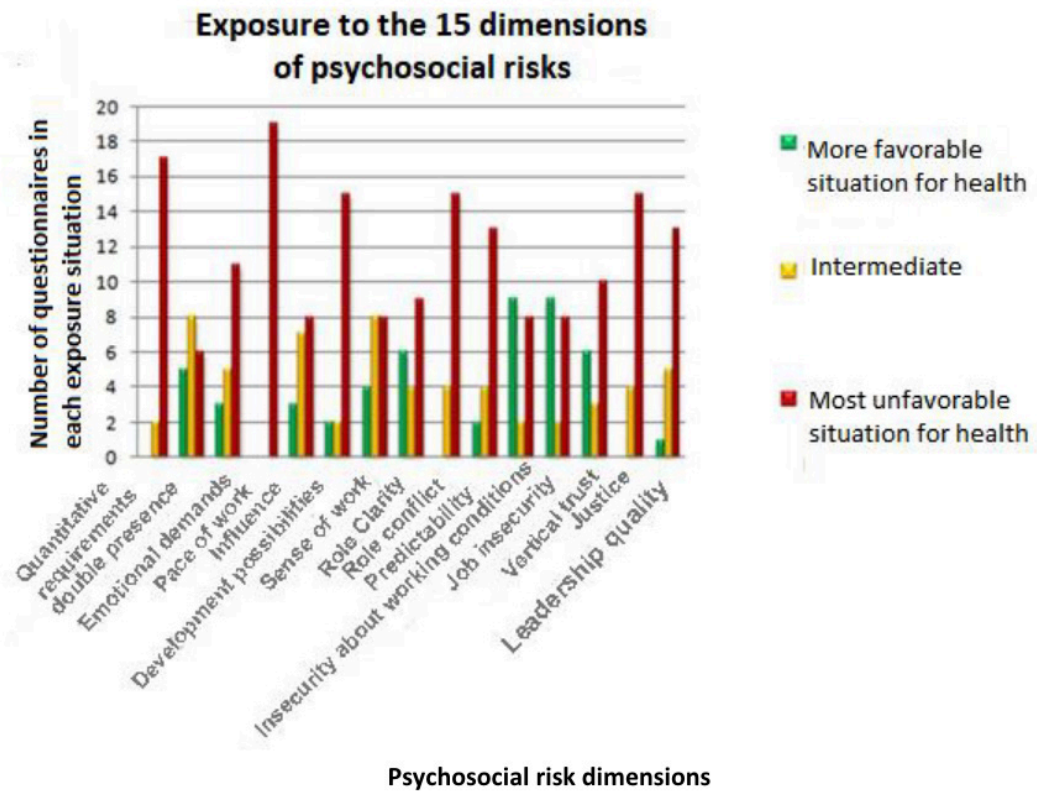
It is worth highlighting the results obtained in questions 6 (Do you have to work very fast?), 9 (Is your work, in general, emotionally exhausting?), 10 (Is the work rate high throughout the day?), 18 (Do you have to do tasks that you think must be done differently?) and 19 (Does your company inform you sufficiently in advance of important decisions, changes and future projects?), where 80% of the sample is in the category that contributes to the worst working conditions.

Questions 14 (Do the tasks you do, they seem important to you?) and 16 (Do you know exactly what is expected of you at work?), stand out in the opposite direction; the majority of the sample is in the risk-free conditions, with the minority in the category of worst conditions.

With respect to the information obtained on the suffering and diagnosis of MSD, we can observe in graph 4 that 18 of the study participants have suffered or been diagnosed with MSD, and that only one person interviewed has not reported any pathology by TME.

Of those 18 who have suffered or been diagnosed with MSD, we can see in graph 5 that 11 of them (65%) have had a leave due to temporary disability caused by MSD, 1 of them refers to a leave but we cannot ensure that it is derived from TME, and 6 of them (35% have not taken any leave even suffering from TME.

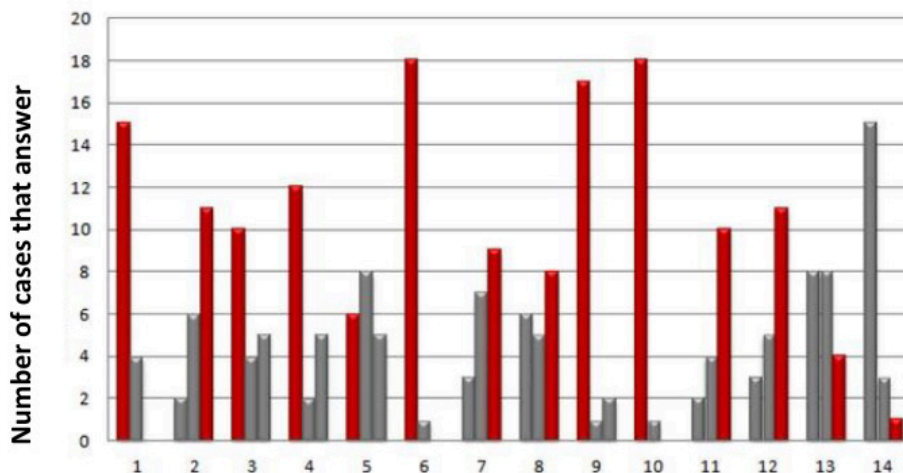
The most common MSDs, of which more than half of the cases report suffering, are reflected in graph 6. We can see that both



**Psychosocial risk dimensions**

Graph 1. Exposure data in each of the 15 psychosocial risk dimensions, expressed in absolute numbers.

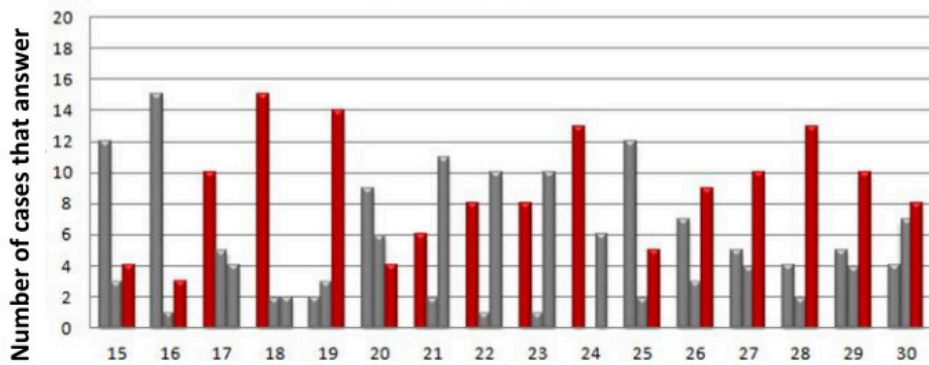
### Distribution of responses to the questions associated with each dimension of exposure to psychosocial risks



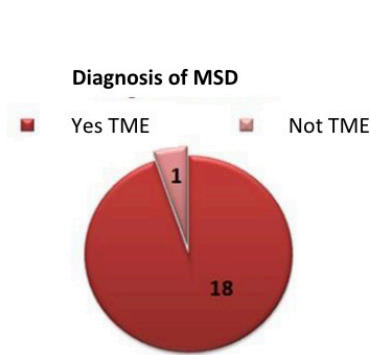
Graph 2. Exposure data in each of the questions that make up each exposure dimension, expressed in absolute numbers.



## Distribution of responses to the questions associated with each dimension of exposure to psychosocial risks



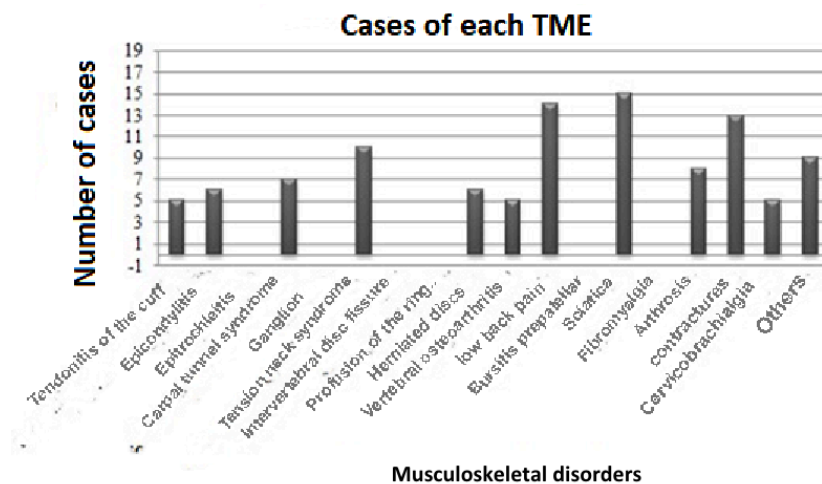
Graph 3. Continuation.



Graph 4. Number of housekeepers diagnosed with MSD.



Graph 5. Number of housekeepers who were diagnosed with MSD, who have also had a sick leave.



Graph 6. List of MSD and number of housekeepers who suffer from it. Of the MSDs that did not appear on the check-list, there have been cases of tendinitis in the hands, vertigo, back pain, broken ankle and, to highlight, several cases of injury to the knee joint, such as a meniscus tear, tendinitis and fissure. patellar.

sciatica and low back pain and contractures are the type of MSD with the highest incidence in our sample. The cervical tension syndrome also reaches high prevalence values.

## CONCLUSIONS

The job of a chambermaid is a job that in itself requires physical effort, having to lift a heavy mattress, having to move the car, or clean mirrors and partitions, is a physical burden that is also aggravated by the repetitive movements, having to make that extra effort in each of the rooms.

If we add an exponential increase in the workload to these conditions, risk situations begin to appear with respect to psychosocial factors and result in TME.

A direct consequence of this increase in the workload and its poor organization is the increase in the pace of work and the constant pressure of time to try to finish everything stipulated within their schedule. Another of the direct consequences is insufficient recovery time, since they give up their rest hours during the day to be able to finish the job. This reduction also occurs between shifts, since when they fail to finish, the workers end up leaving several hours later than they must, with the aggravating circumstance that these hours do not count as hours worked.

This situation of high load and pace of work and high pressure of the times, ends up generating that they cannot comply with the ergonomics and prevention specifications, which affects seriously increase the risk of MSD. Many allege that it is impossible to put on and take off the protections (EPIS), because they waste a lot of time and do not get to finish.

Muscle aches and exhaustion cause them to have trouble falling asleep, which in turn prevents moments to recover. The feeling of not reaching the set ratio, of having to do the work by timing the times in each room, having

to run and not being able to rest throughout the day and the situation of “double shifts” that they have to do at the same time. get home, makes them be subjected to a situation of permanent or chronic stress. The pressure of having to meet certain quality standards, even without the necessary conditions to meet them and the fear of dismissal and sanctions by the company, also affects them. This situation affects their personal life, not allowing them to reconcile family life with work life.

From all these ailments, they end up deriving psychological problems since they perceive the situation as an overdemand to which they cannot respond effectively. This is a great risk for diseases such as anxiety or depression.

As they are not treated by occupational doctors and Mutual Societies, all illnesses suffered as a result of work are not recognized as occupational illnesses and, therefore, they do not have access to recognition of incapacity for work.

## REFERENCES

- Benavides, F. G.; Gimeno, D.; Benach, J.; Martínez, J. M.; Jarque, S.; Berra, A. y Devesa, J. (2002). Descripción de los factores de riesgo psicosocial en cuatro empresas. *Gaceta Sanitaria*, 16, 3.
- Cox. T. (1993). *Stress Research and Stress Management: Putting Theory to Work*. Sudbury: HSE Books.
- Devereux, J.; Rystedt, L.; Kelly, V.; Weston, P. y Buckle, P. (2004). The role of work stress and psychological factors in the development of musculoskeletal disorders The stress and MSD study. Prepared by Robens Centre for Health Ergonomics for the Health and Safety Executive 2004.
- ENCT (2007) VI Encuesta Nacional de Condiciones de Trabajo. Madrid: Instituto Nacional de Seguridad e Higiene en el Trabajo.
- INSHT (2015) Algunas orientaciones para evaluar los factores de riesgo psicosocial. Madrid: Instituto Nacional de Seguridad e Higiene en el Trabajo.
- Kristensen, T. S.; Borritz, M.; Villadsen, E. y Christensen, K. B. (2005) The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, 19, 3, 192-207.
- Martín Daza, F. y Pérez Bilbao. J. (1997). Factores Psicosociales: Metodología de Evaluación. NTP 443, INSHT.
- Nogareda, C. y Almodóvar, A. (2006). El proceso de evaluación de los factores psicosociales. NTP 702. INSHT, Barcelona.
- Simon, M.; Tackenberg, P.; Nienhaus, A.; Estryng-Behar, M.; Maurice Conway, P.; y Hasselhorn, H.M., (2008) Back or neck-pain-related disability of nursing staff in hospitals, nursing homes and home care in seven countries--results from the European NEXT-Study. *International Journal of Nursing Studies*, 45, pp: 24-34.

## ATTACHMENT 1

AREA EXPOSED TO INJURIES MUSCLES- SKELETAL	PSYCHOSOCIAL WORK FACTORS
Lower back	Extrinsic effort intrinsic effort role conflict Threat of harm or physical injury
Neck	Intrinsic effort Ambiguity of the future of work Verbal abuse and/or confrontations with clients and the general public
Shoulders	Low social support Little reward. Uncertainty about the future of work Threat of harm or physical injury.
Elbow/forearm	Low decision-making capacity Low social support little reward role conflicts Uncertainty about the future of work Threat of harm or physical injury.
Hand/Wrist	intrinsic effort role conflicts Uncertainty about the future of work.

Table 1: Relationship between the affected body zone and the psychosocial factors of risk (Devereux et al., 2004).

(Extracted from [http://www.ergonautas.upv.es/art-tech/tme/TME\\_Psicosociales.htm](http://www.ergonautas.upv.es/art-tech/tme/TME_Psicosociales.htm)).