

RESEARCH ARTICLE

Exploring the Importance of the Management of Health and Safety Risks

Mauro Laruccia*

Dept. of Communication and Culture at the University of Sorocaba and Business School (FEA) at the Pontifical Catholic University of São Paulo, Brazil.

***Corresponding Author: E-mail: mauro.laruccia@gmail.com**

Abstract

This paper examines the employee's perceptions about Health and Safety Risks in the Organizations specifically the violence, included harassment (moral and sexual) phenomena considered emerging risk by EU-OSHA. Questions surveyed adapted from European Survey of Enterprises on New and Emerging Risks questionnaire with data collected (N = 407). The results show that health and safety risks are affected by obstacles like a lack of resources such as time, staff or money, a lack of awareness, a lack of training and or expertise, a lack of technical support or guidance, culture within the establishment, and sensitivity of the issue, as well as the difficulties and obstacles in dealing with the risks significantly affect the management and decision making.

Keywords: *Emerging risks, harassment, management, stress, violence.*

Introduction

Historically, emerging public concern over the rise of unemployment in development countries, such as Brazil, has made insignificant the debate on the 'quality' of jobs. Increasing the quantity of jobs was seen as the main priority. In addition, it could be said that the transition of modern economies in the direction of a post-Fordist efficiency model characterized by automation and the rapid growth of services was perceived by many as a development in the direction of the end of physical jobs that brought many health and safety hazards and risks [1].

Statistics on serious and fatal accidents at work at the level of the Brazil corroborate these perceptions, according to Baumecker and Faria [2] between 1998 and 2002 there was a very significant change in the number of deaths and in the fatal accident was 45%. Although downward trends in fatal and non-fatal accidents at work in many developed countries reinforce the perceptions that 'tough jobs' are reducing, job quality has increasingly gained the attention of policymakers, employers, workers, and other stakeholders over recent years in Brazil.

Brazil, officially Federative Republic of Brazil is the world's fifth largest country by geographical area and by population. In 2010, according to data released by the Brazilian Institute of Geography and Statistics (IBGE), urban areas have already concentrated 84.36% of the population, while the

Southeast region remains the most populous, with more than 80 million inhabitants. Brazil has 4,607,261 business establishments and others organizations with 44,574,884 total occupied people. The unemployment rate in Brazil was highlighted for having closed the year 2010 by 5.3%. This indicator occurred due to good performance in the employment level. Beyond the formal sector, there are many other workers who lack the cover of guaranteed social rights established in national work legislation [3].

Recent changes in the world of work like changing demographic patterns, economic globalization, and the emergence and diffusion of information and communications technology certainly affecting majority people concern about the perceptible deterioration in job quality in developed and underdeveloped countries over recent decades [4,5] and their negative consequences and dysfunctions' on occupational safety and health [5-7] moreover, many workers still consider that their jobs pose a threat to their health and safety [5].

Historically, safety and health work in Brazil started in 1912 with Brazilian Labor Confederation (BLC) and regulation was created in 1918 with National Department of Labor. Only in 1930 Brazil created the Ministry of Labor, Industry and Commerce responsibility on behalf of inspection of work contracts, conditions and

occupational safety and health (OSH) issues. In 1941, Brazil creates the first regulation on workplace committees for accident prevention (ICAP) and in 1943, the Consolidation of Labor Laws (CLL) that included the basic legislation referring to OSH issues which is the foundation of 28 regulatory standards in 1977, widening the reference to those OSH questions and contained the principal obligations of companies, workers and government regarding the major questions on the prevention of accidents and illness at work.

At this time government action related was limited or neglected planning despite the legislative and regulatory processes or informally organized within the Ministry of Labor. In addition, the low number of professionals specialized in occupational safety and health (OSH) available at this time, which also they were spread to the country.

The combination of traditional and new forms of work organization ultimately determine high levels of exposure to chemical and physical hazards, repetitive tasks, excessive use of force, awkward postures, exposure to stress and psychosocial factors, causing pain and temporary disability and long-term. This research justified because the adoption of new technologies and management methods in the processes of work contribute to modify the profile of health, illness and suffering of workers. The number of workdays lost due to the accidents increases the cost of labor in Brazil, increasing production and reducing the country's competitiveness in foreign markets. It is estimated that annual lost work time due to accidents at work is of 106 million days, only in the formal market, considering the time off for each employee[8].

Approaches to Emerging Risks

This study approach new and emerging risk as part of changing work scenario of culture of risk prevention. Review scientific literature it is essential to highlight the emerging risks in three main areas of OSH: violence, stress and harassment. Observe and investigate psychosocial risk factors in the workplace is important to changing work environment in the 21st century and the develop (and monitoring) policies and programs to prevent stress and promote mental and physical health and well being at work[9] as well the identification of the ethical issues involved usefully to decision makers[10], specifically employers, workers, investors, and health authorities[11,12]. Walters[13] argue that the consequences of the structure of change and innovation in the organization of work[14],

employment relationships and the labor market are therefore central to highlight the emerging risks. Information to become diffused is a mandated, but understudied, prerequisite of occupational and environmental health laws and capable of making choices initiatives. Information that creates knowledge and understanding the factors to provide with improved, advanced, or sophisticated features the development, transfer, and use about occupational safety and health. Actually changes workforce and workplace, and the essence of work-experience will require new emphasis on the diffusion of information to foster prevention and helping organizations improves people management decisions[15].

Various factors influenced the occupational safety and health, such as changes in economic and labor, consumer behavior, spread of information communication technologies, pressures for sustainable development among others. These factors affect the quantity, quality and type of jobs offered in each sector of activity. The age profile of the workforce is changing. New technologies are creating new categories of employment. Globalization means that health threats that were once distant easily spread around the world in a short period of time. To preserve the health of Brazilian workforce and maintain its economic strength and its competitiveness needs to meet these challenges proactively. European Agency for Safety and Health at Work Outlook offers an overview of the present and future trends of relevance to occupational health, the main workplace risks and their prevention[5]. External influences together with new management practices - materials and processes, organizational design, job enrichment affect and produce new risks increasing the level of stress and worse and deteriorating physical and mental health.

Takala et al.[16] outlines that psychosocial risks are related to new forms of employment contracts and precarious work, job insecurity, work intensification, high emotional demands, violence at work, and a poor work-life balance. Work-related stress is one of the biggest occupational safety and health challenges facing Europe and the number of people suffering from stress-related conditions caused or made worse by work are likely to increase. Studies suggest that 50–60% of all lost working days are related to stress. In 2002, the annual economic cost of work-related stress in the EU's 15 original member states (EU-15) was estimated to be 20 000 million.

There is evidence that suggest that psychological aggression is common among all sectors of activity and physical violence, although far less common, remains a significant problem. In relation of violence against women risks of becoming a victim vary according to numbers of factors including job category, the nature of the work being performed, gender, age and experience. In Brazil the reliability of information about violence against women is changeable[17,18].

Karlsen and Lindøel [19]describes the Nordic model based on principles of flexibility, tripartism and safety, left important aspects of safety and health at work to be regulated by market forces rather than institutional actors.

Among the health problems related to work should be noted the increase in assaults and incidents of violence against the worker in his work, translated by accidents and occupational diseases, violence due to deteriorating labor relations, as slave labor and labor children, violence related to gender relations and moral harassment, characterized by aggression between peers, superiors and subordinates[20].

Thus, the objective of this study is to raise the perception of workers on emerging risks or psychosocial (violence, harassment and stress) at work by searching the perceived importance by workers on the management of psychosocial risks in organizations and the obstacles in managing these risk.

Work-Related Violence

Polysemic and multicausal phenomenon, violence has many forms and levels, which hinders the development of a single definition that embraces the phenomenon as a whole. Resulting from multiple determinations, this phenomenon is linked to social processes, which are based on an unequal and unjust social structure[21]. His approach involves theoretical and methodological knowledge and practices in various areas, multifocal demanding studies, and cross-disciplinary.

The discussion about violence in the work, which is not considered a priori as a possible locus of violence and exclusion, has to deal with such phenomena, is the bias crime, whether in various forms of conflict in work relations, having an impact on the health and dignity of workers[22]. We understand that the questioning on the subject and the proposition of the concept of work-related violence can be instrumental in the production of knowledge that supports the

development of more accurate diagnosis about the condition of the Brazilian worker, and therefore the formulation of policies to combat violence and promoting citizenship. Moreover, it is important because it can reveal situations affront to citizens, enabling them to think about proposals for action that dignify the position occupied by the individual worker.

The multiple and changing nature of violence makes designate, according to times, places and circumstances, quite different realities[23], like genocide, war, segregation, physical attacks, as well as some forms of neglect, ostracism and bullying[24]. In the characterization of violence, are at stake the context in which the event occurs and the judgment of the observer. The author discusses the notion of violence as a fraud, that is, an event harmful, but avoidable, unnecessary, unfair and / or illegitimate. Therefore to be considered violence, the event cannot be a fatality, or there should be justification or legitimacy strong for him, which initiates the aspect of socio-historical construct of this phenomenon.

By debating about the difficulties and possibilities of preventing different forms of violence, Minayo and Souza[25] point out violence in the workplace as one of the problems that most afflict Brazil in the present historical moment. The relationship between work and violence materializes, especially for the violation of fundamental principles and rights at work, so it carries a deep sense of negativity, as it does not contribute to the development of the person or for the betterment of humanity. This discussion is within the scope of the field of Occupational Health, whose object can be defined as the health / disease process of human groups in their relationship with work[26]. The violence appears to be so urgent for Occupational Health and the National Policy for Safety and Occupational Health (NPSOH)[27] provides a mention of it.

At the dissertation about violence in labor history in Brazil, Dal Rosso and Freitas[28] discuss the associations between violence and labor relations, from the definition of violence as a violation of rights. They begin their historical background, focusing on slave work, the main form of supply of labor force in Brazil until 1888. This system, inherently violent, suppresses freedom depriving the exercise of free will by the slave, transforming it into a commodity. For their decisive influence in shaping the Brazilian society, not only left indelible traces[29], and continues to appear as one of the forms of violence that exist in Brazil. Minayo Gomez[23] argues that slavery persists

and is responsible for maintaining, in various states of Brazil, men, women and children deprived of their freedom in ways that confine them away from the view of society, in physical and moral custody and in degrading work conditions.

Dal Rosso and Freitas[28] deal with the relations of wage labor. To better understand the violence in these relationships, it is necessary to consider Marx[30], which describes the work in capitalist society, as a relation of buying and selling of labor between capitalist and worker, who makes this contract, since social conditions do not give you an alternative to "make a living"[31]. Therefore, for the capitalist, the worker process occurs between "things that belong to it"[30] conception in which the worker is dehumanized, reduced to a commodity, a "factor of production" [31]. This description also holds great proximity to the form of organization and management of slave work force. Ribeiro[32] adds that the wage rise conditions and forms of work organization that place workers in specific health risk, producing a social selectivity of illnesses and deaths related to work. Additionally, the author remind that this system; there is a naturalization of death and illness related to work, characterizing them as violence.

One example of this process is what Machado and Minayo Gomez[33] call "scientific management" of workplace accidents. They report that the first concern, aiming at reducing the responsibility of capital on the negative aspects of the work process, is to apportion blame for the accident: Theory of Guilt. This theory, according to the authors, leads to analysis of accidents, seeking to assign them two causes: the worker's unsafe act or unsafe condition made possible by the negligence or lack of diligence of the employer. These conceptions usually impose culpability of the accident victims themselves and hide the complex nature of these particular events.

The same is true for work-related diseases. The increase in these days, the prevalence of Work-Related Musculoskeletal Disorders (MSDs)[34,35], and the appearance, even though discreetly, of mental disorders[35], indicate in large part the result of changes in usage patterns of the labor force promoted by the processes of productive restructuring and globalization of the economy. From this discussion, we conclude that the work in the capitalist production mode acquires a significance of exploitation, a process that occurs in a zone of conflict of contradictory interests: those who sell their workforce and those who

explore. Power is then exercised, preferably by who holds the capital.

Therefore, we propose the use of the concept of work-related violence, considered as any voluntary action of an individual or group against another individual or group that will cause physical or psychological damage, which occurred in the workplace, or involving relations established at work or activities related to work. It is also considered work-related violence throughout deprivation and violation of fundamental principles and rights at work and social security, the neglect of working conditions, and the omission of care, help and solidarity in the face of misfortune, characterized by the naturalization work-related death and of illness. Within this macro concepts established the following subcategories of violence: in labor relations, in work organization, in working conditions, resistance, delinquency, and symbolic.

According to the EU-OSHA[5], violence or the intimidation of violence against workers occur at or outside the workplace and varying from threats and verbal abuse to physical assaults and homicide, one of the foremost causes of job-related deaths. In a contemporary society anyone could suffer in workplace violence, despite the fact that some are more vulnerable than others. Workplace violence that occurs in a work setting and causes physical or emotional harm to customers, coworkers, or managers is an act of aggression, physical assault, or threatening behavior. Broad definitions of workplace violence also often include acts of sabotage on work-site property. Workplace violence has emerged as a subject of considerable interest to both small and large businesses in recent years. Some small business owners deny that this grim issue is a concern for them, but in reality, workplace violence can strike even tiny start-up firms. And as many analysts and business owners have charged, even the threat of violence can have a dreadful impact on the culture and productivity of a small business. Whereas employees of larger firms generally have more avoidance options to choose from when forced to share workspace with a volatile employee, the more modest facilities and resources of smaller businesses do not provide the same level of protection.

Stress at Work

The word stress was first used in physics, which has characterized as the wear loss of materials exposed to pressures and forces. From the eighteenth and nineteenth centuries, the term is related to the concepts of force, effort and

strain[36]. Hans Selye[37] introduced the term stress in the scientific community, using it to name the forces in the mutual interaction that occur anywhere in the body. In his studies he realized that many people suffered from various physical ailments and had some common complaints, such as depression, fatigue, hypertension and lack of appetite [36].

Stress can be defined as a body wear, which in turn causes psycho physiological changes that occur when the individual is forced to face situations that excite, irritate, frighten, or even do so overjoyed[38] other authors mention that this is a term widely used as a synonym of frustration, fatigue, difficulties, anxiety, helplessness and lack of motivation, being considered responsible for a significant portion of modern problems, especially in large urban centers[39,40].

When the body is exposed to stress and triggers a stimulus perceived as threatening to their homeostatic balance, whether physical agent, chemical, biological or psychosocial, the body will organize to respond in the form of adaptation. These agents were named stressors for their characteristic of lead to stress, which can be internal or external. The external refer to situations experienced in daily life, and internal to their own personality - personal characteristics, values, beliefs, how to deal with and interpret the diversity of situations[41].

Stress linked to work, called occupational stress refers to the lack of worker's ability to (re) adapt existing demands at work and those which he perceives. The occupational stress or labor may also refer to the set of die psychological disturbances and psychological pain associated with work experience, whose demands go beyond the physical or mental capacities of the individual to meet the demands of the professional environment[40,42]. The key factors that induce stress in the workplace involve aspects of the organization, administration, system of work and the quality of human relationships[43]. It should be noted, however, that occupational stress is not related only to questions of the external environment in which the worker is interrelated, but also those that are internal to the worker.

In this sense, stress is characterized as an adaptive response of the organism to new situations, especially those perceived as threatening. However, this process is individual, with variations on the perception of stress and various psychopathological manifestations[44]. It can generate a variety of physical symptoms,

psychological and cognitive because it requires extended adaptive responses as well as overcome, tolerate or adapt to stressors, which may compromise the individual and organizations[45]. Essentially, stress was conceived of as pressure from the environment, then as pressure within the person[46,47]. Phenomena that interact between the situation and the individual that creates a psychological and physical state called stress that results when the individual competencies are not sufficient to handle with the demands and pressures of a given situation. Thus, occurrence of symptoms of stress is more likely in some situations than others and in some individuals than others. These phenomena can compromise the achievement of goals and their relationship to professional quality of life.

Historically, the typical employer's responses to stress at work have been to blame the victim of stress, rather than its cause. Increasingly, it is being recognized that employers have a duty, in many cases in law, to ensure that employees do not become ill. It is also in their long term economic interests to prevent stress, as stress is likely to lead to high staff turnover, an increase in sickness absence and early retirement, increased stress in those staff still at work, reduced work performance and increased rate of accidents, and reduced client satisfaction.

Harassment at Work

The phenomenon known as bullying at work in a short time got wide repercussions and has mobilized news media, organizational, unions, physicians, law and scholars in various fields, including psychology. It takes, however, be careful not to banalize it and make it just another theme of fashion and lose relevance theory and practice. Bullying is also known as psychological horror or psychological violence, and elsewhere, as *mobbing* (Italy, Germany and Scandinavia), *harcèlement moral* (France), *acoso moral* (Spain), bullying (England), moral harassment (United States and Japan), and other denominations. Thus becoming social phenomena, despite cultural differences, indeed, refers to attacks on human dignity, which occurred intermittently, which can manifest in family, school or work.

For the understanding of bullying in the workplace, it is worth mentioning the work of Heloani[48], Hirigoyen[49,50], Leymann[51] and Piñuel and Zabala[52].

Heinz Leymann[51] studied different professional groups and described the process found a "psicoterror", introducing the concept of mobbing

to describe forms of harassment that occur within organizations. As stated in the origin of the term (mob: crowd, mob, mob to designate "mafia"), it is a phenomenon of group that corresponds to collective persecution and violence, which may include physical violence. Mobbing comes from a conflict that develops and degenerates, with a severe form of psychosocial stress.

Piñuel & Zabala[52] states that harassment destroys the work capacity and psychological resistance of the victims. The action of the aggressor, analyzing defenses and rationalizations of the victims difficult to leave an active response to the problem. Intimidate, diminish, humiliate, frighten and consume the victim emotionally and intellectually, with the objective of eliminating it from the organization or satisfy the insatiable need for attack, destroy and control is provided by the harasser that takes advantage of particular organizational situation (reorganization, reduction of costs, bureaucracy, drastic changes, etc.) to canalize a series of impulses and psychopathic tendencies.

Harassment can propagate in organizations more rigid, bureaucratic, with work overload or enrichment of tasks, in which is still a lack of ethics. The victims, individuals available to change and self-critical, empathic, ethical and with capacity for informal leadership perceived as threats by aggressors (those "less capable" or have personality disorders or psychopathic changes) and become targets threats, unfounded criticism, slander, manipulation and stigmatization compared to other colleagues. Piñuel and Zabala [52] states that the fight against bullying at work, in addition to its relevance regarding ethical and humanitarian questions, is also a way to preserve business competitiveness through the protection of human intellectual capital of the organization. The difficulty in diagnosing and addressing bullying at work is the fact that they originate from the company and not the victim.

Surveyed workers in the chemical industry in Brazil by Barreto [53] to understand the sense of humiliation in the discourse on health, illness and work built and sustained by ill, concluding that the humiliation is pathogenic and fits in with the authoritarian relations of power. The moral harassment or violence at work are the exposure of workers to embarrassing situations, embarrassing and humiliating, repetitive work, characterizing attitudes inhuman, violent and unethical by the heads against the subordinate. Based on the concept that each individual is a product-producer of a socio-historic, Heloani [48] analyzes the subjectivity at work in theories

and practices of management models, discusses the traditional view of the administrative and technological paradigms to characterize the process of bullying as intention of neutralizing certain individuals in terms of power by constant and deliberate disqualification. Heloani [48] believed that the moral perversion and hyper competitiveness together with the current context of work, encourages exploitation of others.

It is therefore possible to understand bullying as a psychological violence, a restriction of individual autonomy and the establishment of relationships of otherness, which is characterized primarily by the field and control the action of the social labor. Without intending to minimize the importance of debates and joint actions for the unveiling of plots of these social, it must be remembered, however, the "power handle" of the dominant neoliberal ideology in the process of construction of individuals who adapt to the capitalist status quo. The ideology of the culture industry requires individuals fully framed and standardized to encourage greediness in extortion of the added value demanded by capital accumulation[54].

Generating Hypotheses

Njaine et al.[55] Pointemerging risks inherent in the work activity occur for several reasons but the main reason is the lack of information. Einarsen and Skogstad [56], Einarsen [57] investigates the prevalence of bullying and harassment at work, to identify risk groups and risk organizations and a poor information flow and an authoritative way of settling differences of opinion. Thus, this research proposes hypothesis 1 and hypothesis 2 is proposed on argument that poor information contributes to the formation and perception of emerging risks in organizations, based on European Survey of Enterprises on New and Emerging Risks 2009 (ESENER, 2009) questionnaire.

H1: The perception that companies concerned with emerging risks (indicated by variable/question MM200) positively related with health and safety services used (MM150) and psychological risks (MM202).

H2: The decisions how establishment have a procedure to deal with work-related stress (MM250) and measures (MM253) are associated with reasons prompted establishment to deal with psychosocial risks (MM262) and obstacles in managing (MM300, MM301).

H3: Companies that take action if individual employees work excessively long or irregular

hours (MM256) and inform employees about psychosocial risks and their effect on health and safety (MM259) consulting employees (MM266) and encourages them participate actively in the implementation and evaluation of the measures (MM267).

H4: The lack of information (MM302, MM303a) on the perception of psychosocial risks in business influence sensitization, competence, and technical support (MM301).

H5: Sex and Work level influences on perception that organizations having concerns about emerging risks issues (MM200).

H6: Establishment that has a procedure to deal with work-related stress (MM250) has developed a policy, management system or plan of action plan on health and safety (MM157).

Methodology

The empirical analysis builds on framework relating to various aspects of management of OSH. These questions related to a set of processes and procedures perceived by the community of managers and business students about management of Emerging Risks (ER) based on ESENER (2009) questionnaire, which is the largest ever survey of OSH management in the European Union (2009). The items surveyed were: profile of respondents (sex, age, instruction, work level, sector of activity, Internal Commission for Accident Prevention (ICAP), Occupational Safety and Health Services (OSH-S), number of employees, size of establishment; proportion of foreigners working in the company, type of company: small, medium and large, and economic situation of the company), questions about psychosocial risks at work: (psychosocial risk factors existing in the establishment; existence of action plans or policies for dealing with psychosocial risks; measures taken to prevent respectively deal with psychosocial risks; difficulties and obstacles in the management of psychosocial risks; need of further assistance in this area; involvement of employees in the management of psychosocial risks), and questions about health and safety representative (Resources available to the health and safety representatives; existence of policies or action plans on OSH in general and on psychosocial risks; involvement of HSR in risk assessment and follow-up actions; OSH risk profile; psychosocial risk factors existing in the establishment; difficulties and obstacles in the management of psychosocial risks).

The process of developing the final questionnaire lasted from June 2012 until September 2012. During this period draft versions of questionnaire were developed and circulated among the members of the research team and a pre-test were carried out. The researcher issued an official recommendation by e-mail aimed at raising the acceptance of the survey among respondents (N=414) by emphasizing its importance and by serving as verification of the project. The reliability of internal consistency of scores evaluated using Cronbach's alpha test and binomial test for dichotomous data (e.g. yes/no).

To evaluate the significance of the responses, we approached chi-square test to check independence between questions and test the hypotheses (Table 3). The coefficient χ^2 , chi-square test or chi-square value is one of the two variables for dispersion of nominal scale, used in statistical tests. It reports to what extent the observed values deviate from the expected value if the two variables are not correlated. The higher the chi-square is the most significant relationship between the dependent and the independent variable.

We applied multivariate analysis technique known as multidimensional scaling (MDS) in order to find the behavior of respondents within a broader analysis. This method allows identifying, through a perceptual map, interlacing each of the questions, the degree of similarity, association, correlation, completeness or replacement. Visual information provided by MDS allows conduct the investigation taking into account what observed [58].

Results

Were requested the acceptance the Term of Consent to participate as a volunteer in the research aimed to analyze the Emerging Risks (ER) in Occupational Safety and Health (OSH) and 99% agreed to participate. The profile of respondents and company situation are described on Table 1.

The coefficient of Cronbach's alpha and standardized are respectively, 0.779 and 0.865 based on 31 items (variables). In this case, the scales showed consistency, because they are values recommended by the statistical literature. The binomial test on Table 2 which tests the hypothesis that the yes and no responses have the same proportions (50% response for each) as shown in the value .50 Test prop columns.

Table 1: Profile of respondents and company situation

Variable	Results	Percentages
Sex	Female	56,5%
Age	From 18 to 25 years	54,6%
Instruction	Incomplete higher education	57,7%
Work level	Operational (staff)	60,4%
Sector or activity	Service activities	29,7%
Internal Commission for Accident Prevention (ICAP)	Yes	67,9%
Occupational Safety and Health Services (OSH-S)	No	57,5%
Number of employees	More than 500	51,2%
Size of establishment	Large-sized company	52,9%
Proportion of foreigners working in the company	None	27,5%
Economic situation of the company	Very good	85,9%

The last column (Asymp. Sig.(2-tailed)) shows that there is significant difference between these proportions. Thus, values below 0.05 indicate a high significance, since they indicate that the proportions are different. Values above 0.05

indicate that statistically no difference in the proportions as the proportion of respondents yes is close to the proportion of not responding (50% each).

Table 2: Binomial Test: responses with no difference in the proportions

Binomial Test	Category	N=407	Observed Prop.	Asymp. Sig. (2-tailed)
Please tell me if psychosocial risks like having to deal with difficult customers, patients, pupils etc. is a concern in your establishment. (MM202)	Group 1 No	192	,47	,275 ^a
	Group 2 Yes	215	,53	
Please tell me if a psychosocial risk like problems in supervisor employee relationships is a concern in your establishment. (MM202)	Group 1 Yes	219	,54	,137 ^a
	Group 2 No	188	,46	
Please tell me if psychosocial risks like long or irregular working hours is a concern in your establishment. (MM202)	Group 1 No	218	,54	,165 ^a
	Group 2 Yes	189	,46	
Please tell me if psychosocial risks like an unclear human resources policy is a concern in your establishment. (MM202)	Group 1 No	214	,53	,322 ^a
	Group 2 Yes	193	,47	
In the last 3 years, has your establishment measure to deal with psychosocial risks changes to the way work is organized. (MM253)	Group 1 Yes	190	,47	,197 ^a
	Group 2 No	217	,53	
In the last 3 years, have your establishment measure to deal with psychosocial risks a redesign of the work area. (MM253)	Group 1 Yes	228	,56	,017 ^a
	Group 2 No	179	,44	
In the last 3 years, have your establishment measures to deal with psychosocial risks provision of training. (MM253)	Group 1 Yes	242	,52	,552 ^a
	Group 2 No	165	,48	
Which of the following reasons prompted your establishment to deal with psychosocial risks?-A decline in productivity or in the quality of outputs (MM262)	Group 1 Yes	224	,55	,047 ^a
	Group 2 No	183	,45	
Which of the following reasons prompted your establishment to deal with psychosocial risks?-Requirements from clients or concern about the organizations reputation (MM262)	Group 1 Yes	228	,56	,017 ^a
	Group 2 No	179	,44	
Which of the following reasons prompted your establishment to deal with psychosocial risks?-Pressure from the labor inspectorate (MM262)	Group 1 No	177	,43	,010 ^a
	Group 2 Yes	230	,57	
Does your establishment take action if individual employees work excessively long or irregular hours? (MM256)	Group 1 No	210	,52	,552 ^a
	Group 2 Yes	197	,48	

By observing the matrix, Multidimensional scaling (MDS), Figure 1, we detect meaningful underlying dimensions (MM150_1, MM150_2, MM150_5, MM202_5 and MM202_10), dimensions (MM150_3, MM150_4 and MM267), dimensions (MM262_2, MM262_3, MM302,

MM253_5 and MM253-3) and dimensions (MM202_1, MM202_2, MM202_3, MM202_4, MM301_1, MM301_2, MM301_4 and MM303a) that allow the researcher to explain observed similarities or dissimilarities (distances) between the investigated objects.

Derived Stimulus Configuration

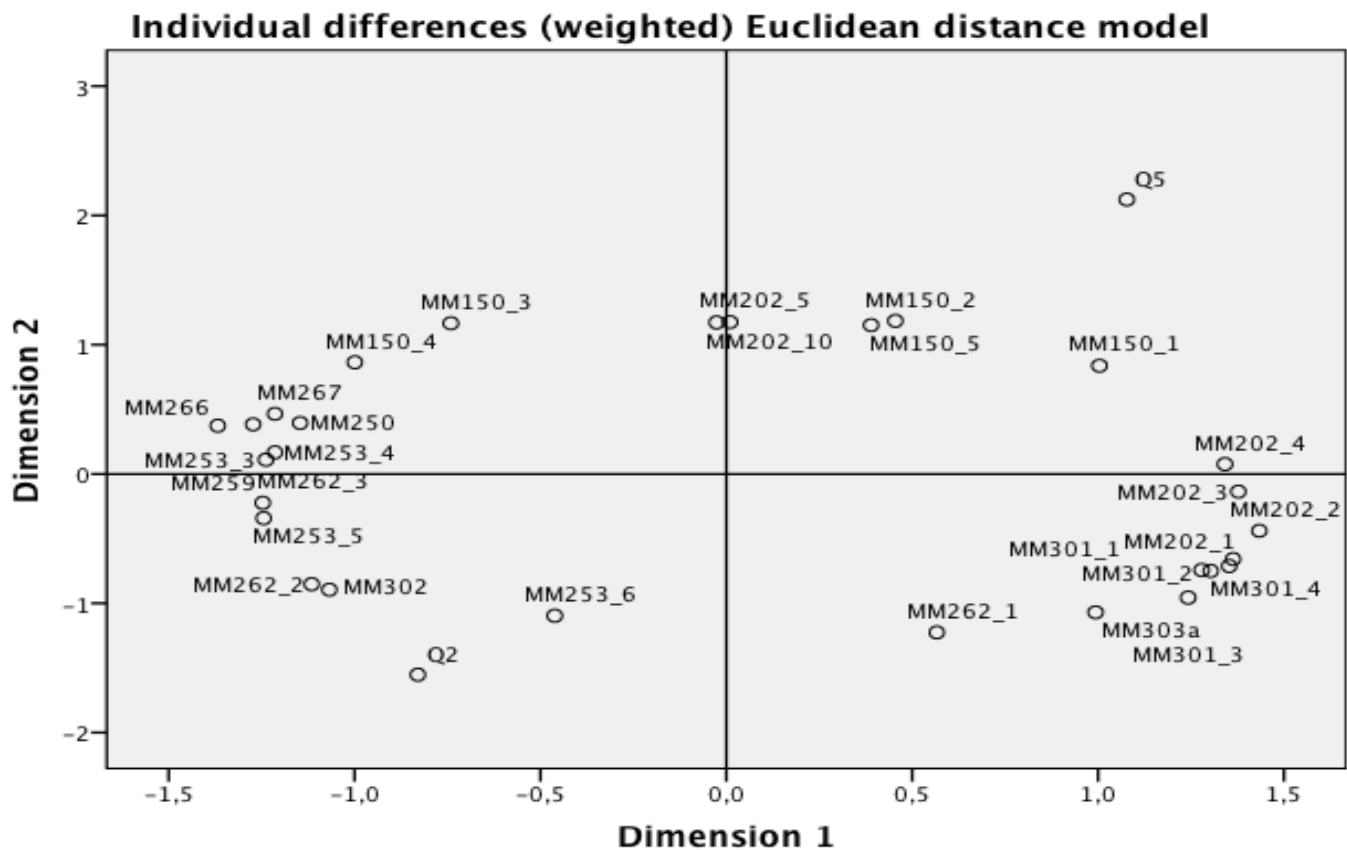


Fig.1: Multidimensional scaling (MDS) for binary variables (dichotomous).

A perceptual map (MDS) indicated clearly, four clusters indicating something obvious in the questions within each cluster. Note, for example, that the question MM150_1, Do you use, in-house or contract external an occupational health doctor? is close to MM150_2 Do you use, in-house or contract external a safety expert?, MM150, Do you use, in-house or contract external a general health and safety consultancy? MM202_2 If psychosocial risks like poor communication between management and employees are concern and MM202_10 If psychosocial risks like and

discrimination are concern in your establishment? are proximity.

According Table 3, hypothesis 1 not confirmed, because there is no relation ($p > .001$) between perception that companies concerned with emerging risks (indicated by variable/question MM200) positively related with health and safety services used (MM150) and psychological risks (MM202).

Table 3: Hypothesis tests

Test	Relation between variables and Result of a Chi-Square Test	Results	Accept/Reject Ho
H1	Ho: There is no relation between be it in-house or contracted external occupational health doctor (MM150_1) and Job insecurity (MM202_5). $\chi^2(1, N = 407) = .532, p > .001$, Cramer's $V = .036$	$p = 0,466$	Accept null hypothesis
	Ho: There is no relation between be it in-house or contracted external occupational health doctor (MM150_1) and discrimination (MM202_10). $\chi^2(1, N = 407) = .092, p > .001$, Cramer's $V = .015$	$p = 0,762$	Accept null hypothesis
	Ho: There is no relation between be it in-house or contracted external safety expert (MM150_2) and Job insecurity (MM202_5). $\chi^2(1, N = 407) = 1.170, p > .001$, Cramer's $V = .054$	$p = 0,279$	Accept null hypothesis
	Ho: There is no relation between be it in-house or contracted external safety expert (MM150_2) and discrimination (MM202_10). $\chi^2(1, N = 407) = 2.849, p > .001$, Cramer's $V = .084$	$p = 0,091$	Accept null hypothesis
	Ho: There is no relation between be it in-house or contracted external general health and safety consultancy (MM150_5) and Job insecurity (MM202_5). $\chi^2(1, N = 407) = .190, p > .001$, Cramer's $V = .022$	$p = 0,663$	Accept null hypothesis
	Ho: There is no relation between be it in-house or contracted external general health and safety consultancy (MM150_5) and discrimination (MM202_10). $\chi^2(1, N = 407) = .975, p > .001$, Cramer's $V = .049$	$p = 0,322$	Accept null hypothesis

There was a significant effect for gender, $t(407)=234$, $p<.000$, with women receiving higher scores than men. The fulfillment of legal obligation is the most important decision factor that drives companies to worry about, develop measures and procedures to address psychosocial risks, also health and safety risks management in the Brazilian organizations. The fulfillment of legal obligation is strong associated also with the pressure of time, such as communication and collaboration. There was no significant or not confirmed the perception about other decision factor as reasons prompted your establishment to deal with psychosocial risks like (a) requests from employees or their representatives, (b) high absenteeism rates, (c) a decline in productivity or in the quality of outputs, (d) requirements from clients or concern about the organization's reputation, and (e) pressure from the labour inspectorate.

Discussion and Conclusion

The fulfillment of legal obligation is the most important decision factor that drives companies to worry about, develop measures and procedures to address psychosocial risks, also health and safety risks management in the Brazilian organizations. The fulfillment of legal obligation is strong associated also with the pressure of time, such as communication and collaboration. There was no significant or not confirmed the perception about other decision factor as reasons prompted your establishment to deal with psychosocial risks like (a) requests from employees or their representatives, (b) high absenteeism rates, (c) a decline in productivity or in the quality of outputs, (d) requirements from clients or concern about the organization's reputation, and (e) pressure from the labour inspectorate.

Health and safety risks management in the Brazilian organizations is affected by obstacles like (a) a lack of resources such as time, staff or money, (b) a lack of awareness, (c) a lack of training and or expertise, (d) a lack of technical support or guidance, (e) The culture within the establishment, and (f) the sensitivity of the issue, as well as the difficulties and obstacles in dealing with the risks significantly affect the management and decision making.

Among the factors surveyed that contribute to stress, violence and harassment at work; they concern the way work is organized and are often referred to as 'psychosocial risks' only (a) time pressure, (b) poor communication between management and employees, (c) poor co-operation amongst colleagues and (e) lack of employee

control in organizing their work are significant. In addition, to minimize the risk of stress related to pressure and demands of work in organizations, people tend to use one of the three main coping strategies (either appraisal-focused, problem-focused, or emotion-focused coping) and the work situation such as a good working environment and social support, also by organizing invest in work, training, employment and management practices[47,59].

The measures to deal with deal with psychosocial risks like (a) changes to the way work is organized, (b) a redesign of the work area, confidential counseling for employees, (c) set-up of a conflict resolution procedure, (d) changes to working time arrangements, adjusts provision of training are applied by companies in the perception of employees.

To improve management, enhance the importance of emerging risks or health and safety risks in companies it is necessary more information and additional support from institutions and professionals from outside the company like Chappell et al[46] that examines the full range of aggressive acts that occur in workplaces including sexual harassment, threats, bullying, mobbing, and verbal abuse, offering new information and evidence about the incidence and severity of workplace violence in different countries (including examination of some terrorist and mass murder events), identifies occupations and situations of particular risk, evaluates various causal explanations, and details some of the social and economic costs. Chappell et al[46] also evaluates the effectiveness of workplace antiviolence measures and responses such as regulatory innovations, policy interventions, workplace designs that may reduce risks, collective agreements, and various "best practice" options.

Under the organization of production, more than the spoliation of the labor force and the restrictions on their material conditions of survival, adversities imposed on individuals expresses the expropriation of human possibility to become protagonists of their own existence, it is to single and develop its otherness in ties of reliability and acceptance with their peers.

This study has some limitations, namely: (1) it is an empirical research conducted with people located in the Greater São Paulo, Brazil surveyed in June 2012 until September 2012, therefore, does not refer to this study at any other time, another geographical region or object, (2)

respondents were asked to reply to specific questionnaires, assuming that the answers: a) have been given effectively respondents to whom the questionnaires were addressed, and b) express the opinion of respondents. Thus, only this set of responses was taken into account, (3) the data collected were analyzed by statistical techniques described above, be appropriate to the type of

ordinal data, so the analysis results do not take into account other possible observations arising from use of other analytical tools. The results refer only to the number of respondents surveyed considering that the responses to the questionnaires expressed, in fact, the thought of the respondents.

References

- Askenazy P (2004) Les désordres du travail: enquête sur le nouveau productivisme. Paris: Seuil.
- Baumecker IC, Faria MP de (2006) Private and state interventions in safety and health at work. *OSH Dev* 8: 9–22.
- Instituto de Pesquisa Econômica Aplicada (2011) Mercado de Trabalho Conjuntura e Análise.
- Harris R, Seid M (2004) Globalization and Health in the New Millennium. *Perspect Glob Dev Technol* 3: 1–46. doi:10.1163/1569150042036729.
- European Agency for Safety and Health at Work (2009) Outlook 1: new and emerging risks in occupational safety and health; European risk observatory. Luxembourg: Office for Official Publications of the European Communities.
- Sauter SL, Murphy LR, Hurrell JJ (1990) Prevention of work-related psychological disorders: A national strategy proposed by the National Institute for Occupational Safety and Health (NIOSH). *Am Psychol* 45: 1146–1158. doi:10.1037/0003-066X.45.10.1146.
- Yamamoto EY, Scarpi MJ, Laruccia MM (2011) Competitive Dysfunctions: The Contribution for Services of Ophthalmology Clinics. *J Manag Strateg* 2: p64. doi:10.5430/jms.v2n4p64.
- Brasil (2005) Portaria Interministerial MPS/MS/MTE n. 800, de 3 de maio de 2005.
- Dollard M, Skinner N, Tuckey MR, Bailey T (2007) National surveillance of psychosocial risk factors in the workplace: An international overview. *Work Stress* 21: 1–29. doi:10.1080/02678370701254082.
- Rogerson MD, Gottlieb MC, Handelsman MM, Knapp S, Younggren J (2011) Nonrational processes in ethical decision making. *Am Psychol* 66: 614–623. doi:10.1037/a0025215.
- Schulte PA, Salamanca-Buentello F (2007) Review of Ethical and scientific issues of nanotechnology in the workplace. *Cien Saude Colet* 12: 1319–1332. doi:10.1590/S1413-81232007000500030.
- Schulte PA, Salamanca-Buentello F (2006) Ethical of Scientific Issues of Nanotechnology in the Workplace. *Environ Health Perspect* 115: 5–12. doi:10.1289/ehp.9456.
- Walters D (2005) The challenge of change for strategies on health and safety at work in the 21st century. *Policy Pract Heal Saf* 3: 3–20.
- Laruccia MM (2009) From Creativity to Innovation in Organizations. *InterSciencePlace* 2: 107–127.
- Schulte PA, Okun A, Stephenson CM, Colligan M, Ahlers H, et al. (2003) Information dissemination and use: Critical components in occupational safety and health. *Am J Ind Med* 44: 515–531. doi:10.1002/ajim.10295.
- Takala J, Urrutia M, Hämäläinen P, Saarela KL (2009) Global and European work environment—Numbers, trends, and strategies. *Scand J Work Environ Health* 35: 15–23.
- Heise LL, Raikes A, Watts CH, Zwi AB (1994) Violence against women: A neglected public health issue in less developed countries. *Soc Sci Med* 39: 1165–1179. doi:10.1016/0277-9536(94)90349-2.
- Mayhew C, Chappell D (2007) Workplace violence: An overview of patterns of risk and the emotional/stress consequences on targets. *Int J Law Psychiatry* 30: 327–339. doi:10.1016/j.ijlp.2007.06.006.
- Karlsen JE, Lindoe PH (2006) The Nordic OSH model at a turning point? *Policy Pract Heal Saf* 4: 17–30.
- Oliveira RP de, Nunes M de O (2008) Violência relacionada ao trabalho: uma proposta conceitual. *Saúde e Soc* 17: 22–34. doi:10.1590/S0104-12902008000400004.
- Macedo AC, Paim JS, Silva LMV da, Costa M da CN (2001) Violência e desigualdade social: mortalidade por homicídios e condições de vida em Salvador, Brasil. *Rev Saude Publica* 35: 515–522. doi:10.1590/S0034-89102001000600004.
- Campos VF (2004) Gerenciamento da rotina do trabalho do dia-a-dia. Belo Horizonte, MG: INDG Tecnologia e Serviços.
- Minayo MC de S, Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde (2005) Violência: um problema para a saúde dos brasileiros Brasília: Ministério da Saúde. pp. 9–33.
- Mendes R, Campos AS (2003) Violência e trabalho. Rio de Janeiro: Atheneum. pp. 1641–1655.
- Minayo MC de S, Souza ER de (1999) É possível prevenir a violência? Reflexões a partir do campo da saúde pública. *Cien Saude Colet* 4: 7–23. doi:10.1590/S1413-81231999000100002.
- Mendes R, Dias EC (1991) Da medicina do trabalho à saúde do trabalhador. *Rev Saude Publica* 25. doi:10.1590/S0034-89101991000500003.
- Brasil. Ministério da Previdência Social. Conselho Nacional de Previdência Social (2004) Aprova a Política Nacional de Segurança e Saúde do Trabalhador.
- Silva JF da, Lima RB de, Dal-Rosso S, Dal-Rosso S, Freitas CES (2001) A violência na história brasileira do trabalho Goiânia: MNDH: Editora UFG. pp. 31–45.
- Chauí M (1998) Ética e Violência. *Teor e Debate* 11: 32–41.
- Marx K, Engels F (2007) Capital: a critique of political economy. New York: Cosimo.
- Braverman H (1977) Trabalho e capital monopolista: a degradação do trabalho no século xx. Rio de Janeiro: Zahar.
- Ribeiro HP (1999) A violência oculta do trabalho: as lesões por esforços repetitivos. Rio de Janeiro: Fiocruz.

33. Minayo MC de S, Minayo Gómez C, Machado JMH, Minayo MC de S (1995) *Acidentes de trabalho: concepções e dados* São Paulo; Rio de Janeiro: Editora Hucitec; ABRASCO. pp. 117–142.
34. Dias EC, Hoefel M da G (2005) O desafio de implementar as ações de saúde do trabalhador no SUS: a estratégia da RENAST. *Cien Saude Colet* 10: 817–827. doi:10.1590/S1413-81232005000400007.
35. Wünsch Filho V (2004) Perfil Epidemiológico dos Trabalhadores. *Rev Bras Med do Trab* 2: 103–117.
36. Pereira AMTB (2002) *Burnout: quando o trabalho ameaça o bem-estar do trabalhador*. São Paulo, SP: Casa do Psicólogo.
37. Selye H (1955) Stress and disease. *Laryngoscope* 65: 500–514. doi:10.1288/00005537-195507000-00002.
38. Pafaro RC, De Martino MMF (2004) Estudo do estresse do enfermeiro com dupla jornada de trabalho em um hospital de oncologia pediátrica de Campinas. *Rev da Esc Enferm da USP* 38: 152–160. doi:10.1590/S0080-62342004000200005.
39. Botti NC, Barbosa FR (2008) Estudo sobre a síndrome de Burnout e coping nos profissionais das unidades de suporte avançado. *Rev Enferm Atual* 45: 9–13.
40. Schmidt DRC, Dantas RAS, Marziale MHP, Laus AM (2009) Estresse ocupacional entre profissionais de enfermagem do bloco cirúrgico. *Texto Context - Enferm* 18: 330–337. doi:10.1590/S0104-07072009000200017.
41. Filgueiras JC, Hippert MI (2002) Estresse: possibilidades e limites. In: Codo W, Jacques M da GC, editors. *Petrópolis: Vozes*. pp. 112–129.
42. Murofuse NT, Abranches SS, Napoleão AA (2005) Reflexões sobre estresse e Burnout e a relação com a enfermagem. *Rev Lat Am Enfermagem* 13: 255–261. doi:10.1590/S0104-11692005000200019.
43. Costa JRA da, Lima JV de, Almeida PC de (2003) Stress no trabalho do enfermeiro. *Rev da Esc Enferm da USP* 37: 63–71. doi:10.1590/S0080-62342003000300008.
44. Trindade L de L, Lautert L, Beck CLC (2009) Coping mechanisms used by non-burned out and burned out workers in the family health strategy. *Rev Lat Am Enfermagem* 17: 607–612. doi:10.1590/S0104-11692009000500002.
45. Paschoalini B, Oliveira MM, Frigério MC, Dias ALRP, Santos FH dos (2008) Efeitos cognitivos e emocionais do estresse ocupacional em profissionais de enfermagem. *Acta Paul Enferm* 21. doi:10.1590/S0103-21002008000300017.
46. Chappell D, Di Martino V, International Labour Office (2006) *Violence at work*. Geneva: International Labour Office.
47. Michie S (2002) Causes and Management of Stress at Work. *Occup Environ Med* 59: 67–72. doi:10.1136/oem.59.1.67.
48. Heloani R (2003) *Gestão e organização no capitalismo globalizado história da manipulação psicológica no mundo do trabalho*. São Paulo: Atlas.
49. Hirigoyen M-F (2002) *Mal-estar no trabalho: redefinindo o assédio moral*. São Paulo: Bertrand Brasil.
50. Hirigoyen MF (2003) *Assédio moral: a violência perversa no cotidiano*. São Paulo: Bertrand Brasil.
51. Leymann H (1990) *Psychological Reactions to Violence in Working Life: Bank Robberies*. Sweden: Umeå University.
52. Piñuel y Zabalza I (2001) *Mobbing: cómo sobrevivir al acoso psicológico en el trabajo*. Santander, ES: Editorial Sal Terrae.
53. Barreto MMS (2000) *Uma jornada de humilhações* São Paulo.
54. Horkheimer M, Adorno TW, Noerr GS (2002) *Dialectic of enlightenment: philosophical fragments*. Stanford, Calif.: Stanford University Press.
55. Njaine K, Souza ER de, Minayo MC de S, Assis SG de (1997) A produção da (des)informação sobre violência: análise de uma prática discriminatória. *Cad Saude Publica* 13. doi:10.1590/S0102-311X1997000300016.
56. Einarsen S, Skogstad A (1996) Bullying at work: Epidemiological findings in public and private organizations. *Eur J Work Organ Psychol* 5: 185–201. doi:10.1080/13594329608414854.
57. Einarsen S (1999) The nature and causes of bullying at work. *Int J Manpow* 20: 16–27. doi:10.1108/01437729910268588.
58. Borg I, Groenen PJ. (2005) *Modern multidimensional scaling: theory and applications*. New York: Springer.
59. Weiten W, Lloyd MA, Dunn DS, Hammer EY (2009) *Psychology applied to modern life: adjustment in the 21st century*. Belmont, CA: Wadsworth Cengage Learning.