

Ergonomics in Remote work TV

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ABSTRACT

The study presented seeks to report ergonomics with remote work, highlighting some of the main characteristics related to the use of ergonomics with work routines. The same has the general objective to characterize and analyze the occupational activity from the ergonomic point of view of the worker. The specific objectives are: to identify and describe the importance and procedures that must be adopted in ergonomics; analyze and identify adverse conditions and good practices at work from the perspective of health and safety at work and describe how ergonomics can be inserted together with remote work. For greater stability of the contents presented, a literature review was carried out, based on works published over the last 20 years, in order to consolidate how ergonomics can be something fundamental within the work environment.

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Received: May 11, 2022; **Accepted:** May 23, 2022; **Published:** May 30, 2022

Keywords: Ergonomics, Job, Remote

Introduction

Ergonomics is the science that studies the efficiency of people in their workplace, as well as planning what could be done to make them more productive. In simple terms, an ergonomics study is conducted to determine if an employee is working at his full capacity under the working conditions offered to him. If the study concludes that productivity would increase and the employee would benefit from a change in supplies, such as a chair, table, mouse, monitor, gymnastics, etc. necessary changes must be made to ensure that the employee does not suffer any harm and is able to achieve maximum productivity.

The general objective of the present work is to characterize and analyze the occupational activity from the ergonomic point of view of the worker. The specific objectives are: to identify and describe the importance and procedures that must be adopted in ergonomics; analyze and identify adverse conditions and good practices at work from the perspective of health and safety at work and describe how ergonomics can be inserted together with remote work.

The psychodynamics of work and ergonomics speak and defend complementary ideas, important for the study of the work context. Ergonomics contributes to the bias with a view to adapting work to man. In this way, it favors the transformation and recovery of workers' health. Psychodynamics, in turn, contributes through the study of mediation strategies for the resignification of suffering at work. To obtain greater stability regarding the contents presented, a literature review was carried out, highlighting the main concepts and analyzes of renowned authors in the field of occupational health. It was based on works published over the last 20 years, understanding and measuring some of the most relevant aspects of ergonomics. More about this source text Source text required

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The Health of Workers in The Corona Virus

The right to health is a fundamental right that aims to guarantee life. It is a social right, which corresponds to mandatory performance practices from the point of view of the State, of care and observance of the citizen.

In Brazil, universal health care is provided by the Unified Health System (SUS), established by Law 8,080/1990 in order to comply with the provisions of art. 196 of the CRFB/1988, which states that health, in addition to being a right for all, is also a duty of the State.

By expressly making health a social right, according to the teachings of Silva, the Constitution considered these rights as "positive benefits provided by the State directly or indirectly, enunciated in constitutional norms, which enable better conditions of life to the weakest, tending to achieve the equalization of unequal social situations".

The CRFB/1988 provides that it is the duty of the State to guarantee the right to health, using social and economic policies with a view to reducing the risk of diseases and other aggravations. For this reason, universal access to health services must be given equally, putting into practice the actions and providing the services that are necessary for the protection, promotion and recovery of the user's health. Having presented these brief notions about the right to health, the Covid-19 pandemic is contextualized before moving on to the analysis of the increase in risk factors to the health of workers.

It is known that from 03.11.2020, when the World Health Organization (WHO) announced a global pandemic caused by the new coronavirus - Covid-19, an unprecedented historical period is being lived. The disease grew rapidly in all countries, regardless

of their economic power, causing public health chaos and loss of life; unprotecting formal workers and throwing informal workers into misery.

It should be noted that the outbreak of the new coronavirus, which started in China in December 2019, arrived in Brazil at the beginning of the year and claimed its first victim in March, whose contamination resulted from a trip abroad. However, the second victim, a domestic worker, contracted the disease in the course of her work, which implies that the environment and working conditions became the locus for the spread of the disease. This brings enormous challenges to market segments that develop essential services and continue to operate in person. For essential services, pursuant to art. 3, § 1 of Law 10.282/2020 is understood to be “those indispensable to meet the unavoidable needs of the community, thus considered those who, if not met, endanger the survival, health or safety of the population”.

The biggest challenge in facing the pandemic was the maintenance of essential activities and the protection of workers’ health, requiring concentrated efforts from the employer and the employee, as well as the State, in order to define, implement and supervise safety measures. Certainly, no society and no branch of activity was prepared for the economic and social collapse resulting from the pandemic. Not even Labor Law was prepared to deal with this new socioeconomic reality.

In this context, the International Labor Organization (ILO) has recommended social dialogue between governments, employers and workers, in order to review their pacts and reach an acceptable level of solution to the pandemic, with the preservation of the greatest good that is the human life. In turn, the Union has regulated formal labor relations through Provisional Measures; while entities and institutions have dictated protocols and recommendations for professionals, aimed at adopting preventive measures.

On the other hand, precarious work situations are reported every day, especially in the health area, in which professionals have direct contact and perform extremely high-risk procedures on patients. In this sense, unions and the Public Ministry have neglected complaints for non-compliance with protective measures, neglected by employers. And in the Brazilian scenario, green and yellow have turned brown, and the biggest pandemic seems to be the political crisis, given the neglect of authorities and the head of the Executive Branch, the thousands of deaths of victims of Covid-19. The actions taken by the government, not infrequently, the result of political differences, added to attempts to manipulate the numbers of Covid-19 (infected and deaths), complaints of overbilling and embezzlement of public funds, show signs of this neglect; while the population pays with their lives for the lack of ethical commitment of those who have a duty to guarantee their rights.

Meanwhile, several branches of activity that encompass the so-called essential services, including the retail branch, have managed to adopt measures to maintain have the distance between the worker and the public he serves, minimizing the risks of contamination. In contrast, the health segment whose professionals are more vulnerable due to the high risk of contamination, protective measures tend to compose a list of recommendations that are not always met. Among the factors pointed out by the Federal Nursing Council (COFEN), which contribute to the contamination of thousands of professionals, are the lack of PPE, the non-immediate removal of those professionals belonging to the risk group and the lack of adequate training. This shows the degree of professional

appreciation, as well as the disrespect for the right to life, safety and health of those who fight to save the lives of thousands of Brazilians.

But the problems don’t stop there. It is not only health professionals who suffer the catastrophic effects of the pandemic. A large number of workers have been injured. Thus, from January to May 2020, according to data from the Superior Labor Court (TST), the Labor Court-including all Brazilian labor courts and courts – received almost 8 million lawsuits. In addition, due to social isolation, many companies closed their doors and laid off employees. For this reason, 22.9% of the total cases that run in the Labor Court are to collect the severance payments defaulted by employers.

Not even the US, the world’s biggest economic power, was immune to the effects of Covid-19. According to the Department of Labor of this country, from 24.05.2020 to 30.05.2020, 1.9 million people applied for unemployment insurance. Since the end of March, more than 42 million Americans have lost their jobs.

The picture, in general, is not encouraging and the impacts of the crisis on the labor market are historical. But, if nothing will really be the same, at least two points need to be urgently placed as priorities: the revaluation of employment protection policies and the improvement of social protection systems.

Increase in Occupational Health Risk Factors

Of all the activities considered essential, those related to health expose the worker to greater risks to which the rest of the population is exposed. In normal work situations, in addition to physical, chemical and biological risks, they are exposed to greater intensity to psychosocial risks, understood as those resulting from “deficiencies in the conception, organization and management of work, as well as the social context of problematic work”.

Thus, most of these risks are related to interactions between work content and precarious working conditions, poor management and communication practices, lack of support to perform tasks, rational decision-making with scarce resources, aggression from patients’ relatives, among many others.

In this context, risks of accidents with biological fluids, high levels of stress and anxiety can lead to temporary or permanent physical or mental disabilities. A study carried out before the pandemic “shows that mental and behavioral disorders appear as the fifth highest occurrence in nursing workers”. With the pandemic crisis, the tendency is to increase the number of occurrences.

A recent survey carried out by the Associação Paulista de Medicina (APM) in May this year shows that “86.6% of the physicians interviewed have the perception that their colleagues are apprehensive, depressed, dissatisfied and angry”.

A survey by the Federal Nursing Council, from April 5 to May 5, shows that the number of suspected and confirmed cases jumped from “230 to 11 thousand. The report also points out that deaths tripled in the period, from 30 to 98 deaths in a month”. The Ministry of Health announced on 05.14.2020 that Brazil had 31,790 cases of Covid-19 among health professionals since the epidemic began in the country.

Undoubtedly, in the period of a pandemic, especially health professionals who are on the front line of combating Covid-19, have increased risk factors given the conditions and labor relations, most of the time precarious. In addition to the risks of contracting

the disease, there are factors resulting from the pandemic that have an impact on workers' health, such as long and exhausting working hours, fatigue and a high level of stress; lack of rest, inadequate sleep and use of psychoactive drugs; lack of PPE and failure to use standard measures; risk denial, as a way of dealing with fear and anxiety in direct contact with patients on a large scale; discrimination and psychological violence.

In this sense, the preservation of workers' physical and mental health depends on factors beyond their control, which tends to increase stress and worsen clinical conditions, causing illness and absence from work.

Protective Measures and Their Effectiveness

As scientific data and specific cases show, the new coronavirus proliferates very quickly, causing a high number of deaths and leading the health systems of several countries, such as Brazil, to collapse. Aware of this world scenario and concerned with the health and safety of workers, international organizations have been positioning themselves in order to edit measures and recommendations aimed at reducing risks to contamination and protecting workers.

In this vein, the Occupational Safety and Health (OSHA) has made a great contribution by classifying the risks according to the occupation of workers in four categories, namely: a) group of very high risk of exposure, in which professionals work with high potential for contact in confirmed or suspected cases of coronavirus, collecting samples, performing medical procedures, laboratory tests or autopsy; b) high risk of exposure, which refers to support professionals who work in contact with confirmed or suspected Covid-19 patients, transporting patients, preparing bodies for cremation or burial; c) medium exposure risk group in which work requires close contact (less than two meters) with people who may be infected, such as those who work in the retail trade, cleaning personnel; and a low-risk group that includes employees who do not require contact with suspected cases.

In general, this classification has based recommendations to companies and unions, in a succinct way, but which are decisive for the control of the proliferation of the new coronavirus. The Joint Technical Note 02, of 03.13.2020-PGT/Codemat/Conap of the Public Ministry of Labor, brought recommendations of security measures to be adopted by companies from different sectors, among them the following stand out: PROVIDE washbasins with soap and water and sanitizers (70% alcohol or others suitable for the activity); ADOPT measures that imply changes in the work routine, for example, a flexible working hours policy quarantine and other health service guidelines FOLLOW the contingency plans recommended by local authorities in cases of epidemic, such as: allowing absence from work, organizing the work process to increase the distance between people and reduce the necessary workforce, allow remote work to be carried out; ADOPT other measures recommended by local authorities, in order to protect vulnerable groups and mitigate community transmission; WARN the managers of service contracts, when there are outsourced services, about the responsibility of the contracted company to adopt all necessary means to raise awareness and prevent their workers about the risks of contagion of the new coronavirus (SARS-COV-2) and the obligation to notify the contracting company when a worker is diagnosed with the disease (COVID-19).

It also recommends that employers and professional unions negotiate agreements and/or collective work instruments providing

for flexible working hours, especially for workers who are part of vulnerable groups, allowance for absences without the presentation of a medical certificate for those who show symptoms suggestive of Covid-19, among others measures.

It can therefore be said that the MPT has taken an active role in the dissemination of guidelines to the company and workers and in the inspection of the implementation of measures, in order to obtain greater effectiveness in the control of preventive actions. In addition to propositional measures, the MPT has dealt with complaints from workers against companies that fail to comply with decrees issued by municipal and state authorities in order to contain the spread of the pandemic.

The National Association of Occupational Medicine (ANAMT) released on 03.16.2020, Anamt Recommendation 1/2020 containing guidelines for occupational physicians, in order to strictly follow safety measures and develop guidelines in accordance with health standards that must be adopted by companies. Among the recommendations, the following stand out: the clinical assistance of triage of workers who, during the service, present flu-like symptoms; providing necessary assistance at the primary care level, so as not to overload the health system; establish, together with managers, guidelines for cases with flu symptoms; remove the worker who shows symptoms of Covid-19; suspend its activities in the event that adequate safety conditions do not exist for the care of workers with flu-like symptoms; keep up to date on the recommendations of health authorities and scientific publications about Covid-19 to guide their conduct and decisions.

In turn, the National Health Council, through Technical Opinion 128/2020, which provides for the physical and psychological protection of health professionals in the face of the Covid-19 pandemic, brought several protection measures in the fight against coronavirus, from which should be highlighted: adequate training in the management and treatment of infected people; effective practices to combat the spread of the virus; use Personal Protective Equipment (PPE) appropriate to the risks to which workers are exposed; measures to identify and manage risks in employee exposure; guarantee of diagnostic and therapeutic support services, among others .

With regard to mental health care, in addition to access to specialized services, the report provides for work management actions aimed at the overload produced by the pandemic: a) in terms of workload; b) in terms of the stigma and segregation that the disease produces in sick people and in those who provide care; c) in relation to the imaginaries that are mobilized by news about the progress of the pandemic and by fake news disseminated by different sources; d) in relation to the interference that the pandemic produces in the family and social life of workers; e) in relation to the consequences of social distancing and isolation of workers, as well as the loss of close people and family members that will also happen to health workers; f) in relation to the uncertainties that the current moment produces in those who deal with clinical decisions mediated by knowledge that changes very quickly and by fake news that spread rumors and generate insecurity and interpersonal violence; among other aspects .

As for the organization of work, the Technical Opinion guides that mental health must be a constant, urgent and essential concern, following the WHO guidelines aimed at workers' health, and the promotion of a healthy work environment. In this context, it is

extremely important to monitor work-related overload and stress; adopt health self-assessment and isolation procedures when the employee is sick; and raise the level of trust among the team. The greater the confidence in the information provided and in individual and collective protection, the greater the safety climate for the development of work and the smaller the impact on physical and mental health.

Finally, it is worth highlighting Joint Ordinance 20, of the Ministry of Economy/Special Secretariat for Welfare and Work, of 06.18.2020, which establishes a list of preventive measures, control and reduction of the risks of transmitting Covid-19. Among the measures are: prevention and early identification guidelines, as well as removal of workers with signs and symptoms of Covid-19; promotion of vaccination and laboratory testing; hand hygiene and respiratory etiquette; cleaning, ventilation and disinfection of environments; risk group workers; Personal protective equipment; cafeterias, changing rooms, transportation provided by the company and measures to resume activities.

There is an extensive list of recommendations and regulations in force in the pandemic scenario, seeking to mitigate the risks of contamination and safeguard the health of the employee. However, its effectiveness must be questioned. In practice, there is a large gap between such recommendations and the factual reality of many work environments. Thus, it can be said that the effectiveness of the recommendations and protection measures are intrinsically related to the ethical issues that place the dignity of the human person at the center of the pandemic.

Telework in the Pandemic

Telework was endorsed by Law n° 13.467/17, art.75-B, recently partially modified by the already revoked Provisional Measure n°. 927/2020, proposed and published by the current President of the Republic, Mr. Jair Messias Bolsonaro, with the aim of making this form of work adjustment unilateral, previously only allowed through bilateral agreement of will, either through a main employment contract or through a contractual amendment. However, this MP expired on July 19, 2020 because it was not voted on in time by the Federal Senate.

Based on this, it can be said that teleworking was of enormous importance for the development, advancement and impulse of forms of work in Brazil, giving greater legal certainty to guarantee minimum fundamental rights within society, especially within of the labor sector, being predominantly used in the period of the Pandemic due to Covid-19, increasing the occurrence of moral harassment, especially due to the violation of the right to disconnect.

This concern about the right to rest was amplified with the Covid-19 Pandemic, in which a significant number of people began to perform their activities at home. In fact, Almeida and Colnago point out that the right to disconnect is intrinsically related to fundamental rights regarding health, hygiene and safety at work, in addition to the right to have a limited working day, right to rest, vacations, protection against occupational diseases and accidents and the right to privacy and privacy.

The worker who fulfills exhaustive working hours is more susceptible to being victimized by accidents at work. This is, according to Dellagrave Neto due to the fatigue and occupational stress that are installed as a result of excessive work. There is even talk of burnout syndrome, a disease arising from the absence of obstacles to the connection established between employees and

the company, in which case they remain completely exhausted, without energy to properly carry out any activities.

The right to adequate rest, therefore, directly affects the health of the worker and the safety of the work environment, reducing the risks inherent to it and safeguarding an environment conducive to the regulatory development of activities, without compromising the psychophysical health of the worker.

That said, the right to disconnect is also based on the right to mitigate risks related to work, through the adoption of health, hygiene and safety standards, since only with disconnection, the worker can recover from fatigue, caused by work activities. Thus, both your health and safety will be protected by reducing the chances of accidents at work.

From the above, it can be observed that companies must implement preventive measures against moral harassment aimed not only at workers who perform their work function in person but also at those who perform it in a telework regime and, in this context, it is recommended that ergonomics be applied.

Ergonomics and Remote Work

Unfortunately, in many workplaces, ergonomic analyzes are neglected, resulting in employees who develop long-term back pain, carpal tunnel syndrome, sore throat, vision problems, among other comorbidities, which lead to absence from work and early retirement. There are many benefits of working in an ergonomic environment, the main ones being: reducing costs, increasing productivity, increasing employee satisfaction and improving the quality of life at work [1].

The more ergonomic the work environment, the less absenteeism and the number of compensation claims a company faces. Providing employees with a comfortable workspace reduces the risk of occupational illnesses, while also making the employee feel valued by the company.

The acceptable rate of absenteeism would be approximately 1.0%, however in some work activities, such as the civil construction sector, absenteeism rates reach very high levels, around 3 to 4%. In companies whose employee absenteeism rate exceeds 5%, it is important to recognize that something is misaligned, impacting costs due to the need to hire more labor, the costs of stopped machinery, orders placed on hold and dissatisfied customers [2].

The aim is, through research, to favor reflection and the possible transformation of a work context, possibly causing pain, considering that ergonomics is fundamental to minimize problems arising from professional activity due to ergonomic issues.

According to data released by Social Security, in the 1st quarter of 2016, approximately 24,000 leaves were recorded, which on average amounts to 269 workers on leave every day (one leave per minute) due to back problems [3].

It is estimated that the Unified Health System invests approximately R\$ 6 billion in assistance for occupational diseases annually, not counting expenses with early retirement (XXXX). This cost is borne by the whole of society, also harming entrepreneurs, due to absenteeism.

The concept of ergonomics was introduced in 1948 due to the design of the American space capsule, when man tried to adapt

any type of machine or environment to human characteristics.

As a result of the discomfort experienced by the astronauts in the first prototype of the space capsule, there was a need to replan the time and means for space travel. Consequently, anthropometric assessment began, based on the concept that the fundamental thing is not to adapt man to work, but, on the contrary, to seek to adapt the conditions of work to human beings.

The International Ergonomics Association - International Ergonomics Association, defines ergonomics as: [...] the scientific discipline that deals with understanding the interactions between humans and other elements of a system. It is the profession that applies theories, principles, data and methods to projects that aim to optimize human well-being and overall systems performance. Professionals who practice Ergonomics, ergonomists, contribute to the planning, design and evaluation of tasks, jobs, products, organizations, the environment and systems, with a view to making them compatible with people's needs, capabilities and limits.

The Brazilian Association of Ergonomics (ABERGO) defines ergonomics as the study of the relationship between people and technology, organizations and the environment to implement interventions and projects that aim to improve safety, comfort, the well-being and effectiveness of human activities [4].

According to the author Grandjean, the term Ergonomics originates from the Greek words *ergon* (work) and *nomos* (rules, norms) [1].

This term was adopted in the main European countries, where the International Ergonomics Association (IEA) was founded, which currently represents associations from 40 countries, with a total of 19 thousand members.

Ergonomics can be defined

As an anthropocentric scientific approach that is based on interdisciplinary knowledge of the human sciences to, on the one hand, make products and technologies compatible with the characteristics of users and, on the other hand, humanize the socio-technical context of work, adapting it both to the objectives of the subject and/or group, as to the requirements of the tasks [4].

According to Ferreira, it is a scientific branch that studies the relationship between workers and the Context of Production of Goods and Services (CPBS). It aims at action and transformation, in addition to the point of view that work must be adapted to man and not man to work. It is seen, therefore, as a device for transforming the situation and restoring workers' health. And this happens through the analysis of concrete work situations, the visible, manifest, observable, and the search for individual and collective operative mediation strategies.

According to the International Ergonomics Association

Ergonomics (or Human Factors) is the scientific discipline that deals with understanding the interactions between human beings and other elements of a system, and the profession that applies theories, principles, data and methods, to projects that aim to optimize human and the overall performance of the systems.

According to Masculo, ergonomics studies several aspects: posture and body movement (sitting, standing, pushing, pulling and lifting weights), environmental factors (noise, vibration, light, weather, chemical agents), information (by the information captured (visual, auditory and other senses), controls, relationships between displays and controls, as well as roles and tasks (suitable tasks, interesting

roles) [2]. The right combination of these factors allows us to design safe, healthy, comfortable environments and efficient at work and in daily life.

Conclusion

Work safety procedures and systems have become an essential component of activities promoted in the business market, as they provide workers with greater security within the business environment and make the activities promoted by them safer over time. Something that can still motivate workers in carrying out their activities.

Through safety programs and equipment, companies seek to promote employee safety and prevent them from taking unnecessary risks, always checking which equipment can provide greater assistance to employees in terms of the safety and efficiency of their activity.

Some scholars and researchers consider that safety legislation, programs and procedures are a response of the legislature to the needs presented by workers, as well as a way to minimize the large numbers of work accidents caused by the lack of safety instruments within the productive routines. or business.

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