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The future of work after the COVID-19, the uncertain role of teleworking at home

O futuro do trabalho após a COVID-19: o papel incerto do teletrabalho no domicílio

Abstract

Introduction: teleworking at home, one of the mitigation measures adopted to control the COVID-19 pandemic, while attempting to maintain employment, has increased in many countries. **Objective:** to reflect on the meaning, magnitude and trends of teleworking at home, before and during the pandemic, focusing on its potential effects on the health of workers. **Discussion:** the precedent of Convention 177/1996 of the International Labour Organization (ILO) on home work, and the agreement on teleworking between social agents in the European Union of 2002, underscore the difficulties of regulating this new form of work organization, and the prevention of possible injuries and associated diseases, especially mental and musculoskeletal disorders. The investigation of its effects on health is a priority to base its regulation at the national and global level on scientific evidence. The incorporation of specific, well-defined questions, such as those proposed by the ILO, in questionnaires of future surveys on working conditions, employment and health may help in this objective and provide an opportunity to monitor the effects on health of teleworking at home, as well as evaluating the impact of its necessary and urgent regulation.

Keywords: COVID-19; telework; occupational health; surveys

Resumo

Introdução: o teletrabalho no domicílio, uma das medidas adotadas para controlar a pandemia de COVID-19 e, ao mesmo tempo, manter o emprego, tem aumentado em vários países. **Objetivo:** refletir sobre o significado, a magnitude e as tendências do teletrabalho no domicílio, antes e durante a pandemia, enfatizando seus potenciais efeitos na saúde do trabalhador. **Discussão:** a precedente Convenção 177/1996 da Organização Internacional do Trabalho (OIT) sobre trabalho a domicílio e o acordo sobre teletrabalho entre agentes sociais na União Europeia, em 2002, apontam a dificuldade de regulamentar essa nova forma de organização do trabalho e da prevenção de possíveis lesões e doenças associadas, especialmente transtornos mentais e distúrbios musculoesqueléticos. São necessários estudos sobre os efeitos na saúde dessa modalidade de trabalho para fornecer evidências científicas que embasarão normas em nível nacional e global. A inclusão de questões específicas e bem definidas, como as que a OIT propõe, em futuros levantamentos sobre as condições de trabalho, emprego e saúde poderá auxiliar tal objetivo e proporcionar uma oportunidade para observar os efeitos do teletrabalho no domicílio na saúde do trabalhador, bem como avaliar o impacto de uma necessária e urgente regulamentação.

Palavras-chave: COVID-19; teletrabalho; saúde do trabalhador; inquéritos

Introduction

The reflection on the future of work promoted by the International Labor Organization (ILO) on the occasion of its centenary, in 2019, probably need to be re-thought after the impact of the COVID-19 pandemic¹. Indeed, according to ILO estimates, the equivalent of 660 million jobs of 40 hours per week were lost since the beginning of the pandemic². World GDP will decrease by 5.2% this year, with an estimated decline of 7.0% in developed economies and 9.1% in Latin America and the Caribbean³. All of this will have, and is having, an enormous impact on the labor market, with an increase in unemployment and a consequent increase in social inequalities⁴.

But in addition to the deep and global economic crisis, the COVID-19 pandemic has brought some consequences that are likely to remain with us even when vaccines have reached a sufficient percentage of the population and we can begin to consider pandemic control. One of them will be teleworking at home. Remote work from home has been the response, to some extent “spontaneous”, to maintain certain economic activities in those jobs where information and communication technologies (ICT) make it possible. In fact, telework may be, at least in part, mitigating the economic and social impact of the health crisis⁵. A response that has been extended from ordinary to extraordinary circumstances, without foreseeing its impact on health^{6,7}.

Indeed, little is known about the effects of telework on health, and even less about the possible interactions with informality and precarious work. In addition, a gender perspective is essential to consider the enormous proportion of women’s informal labor market insertion and the weak social protection policies for family care, leaving them in a particularly vulnerable position in the face of teleworking.

The absence of scientific literature systematic reviews on teleworking impedes assessing, at this time, the evidence of its effects on health, according to the diversity of regulatory and sectoral contexts, as well as its differences according to occupation, educational level, social class or gender. Therefore, the health effects we highlight below are due to an opportunistic selection of background information intended to show the heterogeneity of assumptions and uncertainties in our knowledge about telework, rather than to make recommendations on what criteria should be adopted to legislate telework.

Thus, in order to clarify the different denominations and concepts that overlap around telework, the ILO proposed to differentiate remote work, telework, work at home and home-based work, besides considering the different interactions between them, as is the case of telework from home⁸. Given the context of the pandemic, the focus should be placed on the latter modality, defined by the ILO as “work done at home using electronic equipment” (p.7)⁸.

Thus, the aim of this paper is to think about the meaning, magnitude and trends of teleworking from home, before and during the pandemic, focusing on its potential effects on the workers’ health and welfare, which should be monitored and considered in the post-pandemic regulations.

Before the pandemic

Teleworking from home is not a new phenomenon. In 1995, in the European Union as a whole, the number of people teleworking at home, at least 50% of their time, represented approximately 4% to 7%⁹. A number that in 2015 increased to 17%¹⁰, including in this percentage regular home-based teleworkers and those who alternate work outside and inside the company’s premises, also including high mobile and occasional teleworkers.

In Argentina, in 2007, it was estimated that teleworking occupied only 6% of the economically active population¹¹. In 2018, the estimated percentage of wage earners in productive units performing part of their work at a location outside the employer’s address by means of ICT (more than 3 days a week on average) increased to 13.8%, with women using it to a greater extent (16% vs. 12%)¹².

The regulation of this new form of work organization has a valuable precedent in ILO Convention 177 on home work, passed in 1996¹³. Defining home work as “*work carried out by a person, to be referred to as a homemaker, in his or her home or in other premises of his or her choice, other than the workplace of the employer; for remuneration; which results in a product or service as specified by the employer, irrespective of who provides the equipment, materials or other inputs used*”. It is important to point out that, for the purposes of the aforementioned agreement, occasional work at home is excluded, as well as work performed by self-employed workers. Thus, the company is obliged to provide “*protection in the field of occupational safety*

and health” at the same time that there must be an inspection system in place to “ensure compliance with the laws and regulations applicable to home work”. This agreement has only been ratified by ten countries to date, and the only Latin American country to do so is Argentina. This fact may illustrate the practical difficulties of its application, both because of the diversity of situations that may arise in homes and because of the conflictive situation represented by the control of working conditions by the labor authorities in a private home.

Within the framework of the European Union in 2002, an agreement was reached between entrepreneurs and workers’ representatives in order to give more security to wage earners (employees) who perform teleworking¹⁴. An evaluation of the agreement implementation, solicited by the European Commission in 2008, requires greater clarity on telework carried out by self-employed workers, as it is noted that this can be a way of outsourcing common tasks, performed until then in the company and by wage earners. An outsourcing that may result in contracting these services in other countries with different labor costs and regulations¹⁵.

Chart 1 summarizes the basic conditions to be considered in telework, according to this agreement between the European social partners, which are currently serving as a reference for many countries to regulate telework.

Latin American and Caribbean countries have also addressed the telework regulation. For example, and without wishing to be exhaustive, it should be noted that in 2003, with the collaboration of the Economic Commission for Latin America and the Caribbean (ECLAC), a process of dialogue was initiated leading to the approval of the eLAC2020

Digital Agenda. It defines as a governmental objective the promotion of teleworking in the countries of the region¹⁷. In particular, Argentina already established in 2013 that, for teleworking, the employer must provide the working tools and, among other issues, a manual of hygiene and safety standards¹⁸. In 2017, Brazil defined telework as “[...] provision of services mainly outside the company premises, with the use of information and communication technologies and which, due to their characteristics, are not qualified as outside work”¹⁹. In Costa Rica, a rule was established in 2019 to allow workers to carry out their activities by means of teleworking²⁰. In Chile, although the debate on telework regulation began in 2018, it was only approved when the pandemic began²¹. In Panama, a law regulating teleworking was approved in February 2020²². In summary, we are witnessing an effort to regulate telework. However, despite these advances in the regulation of telework before the pandemic, its effects on health have been little studied and should be analyzed in a comparative study between countries in the region, focusing on the mechanisms and resources provided to comply with the corresponding rules.

The fact was highlighted by the European Agency for Safety and Health at Work, which points out the potential health risks associated with increasing digitization, increasing exposure to psychosocial (stress) and ergonomic (musculoskeletal disorders) risks. In addition, teleworking would hinder the regulation of labor relations (making wage earners into self-employed) and access to social benefits (sick leave, maternity leave, vacations, etc.), as well as labor union involvement²³. **Chart 2** summarizes teleworking pros and cons based on the literature available before the pandemic.

Chart 1 Conditions to be considered in the regulation of teleworking according to the agreement between workers’ and entrepreneurs’ representatives in the European Union¹⁶

- This work must be by mutual agreement between the worker and the company.
- Employment conditions must be equivalent to those of workers in the company’s premises.
- The teleworkers’ personal data must be protected by the company.
- The company must protect the teleworker’s privacy.
- Work equipment must be supplied and maintained by the company.
- The company is responsible for the teleworkers’ health and safety; and workers’ representatives, as well as the labor inspectors, must have access to the workplace.
- The organization of work, working day, schedule, etc. must follow the current regulations for workers in the company premises.
- Teleworker’s training must be equivalent to that of the workers in the company’s premises.
- Teleworkers’ rights must be equivalent to those working on company premises.

Chart 2 Pros and cons of teleworking from home before the pandemic

<i>PROS</i>
<ul style="list-style-type: none"> • Increased flexibility and autonomy • Increased productivity • Choice of where to work • Improved work-life balance • Reduced displacement (<i>in itinere</i> accidents and pollution)
<i>CONS</i>
<ul style="list-style-type: none"> • Increases working hours • Makes it difficult to separate work from personal life • Makes it easier to work with health problems (presenteeism) • Social isolation • Makes it difficult to control working conditions • Limits worker participation • Lack of support and equipment • Hinders career advancement • Threatens personal data protection • Transfers costs to the worker (electricity, connectivity, etc.)

Source: Adapted from Eurofound and ILO¹⁰, European Agency for Safety and Health at Work²³.

During pandemic

The arrival of the COVID-19 pandemic, with the declaration of a health emergency by WHO on January 30, 2020, resulted in the incorporation of millions of workers into telework as a strategy to control the pandemic and maintain economic activity and employment. According to a European online survey with more than 85,000 people at home, in April 2020, 37% of the participants started working at home at the beginning of the pandemic²⁴. A percentage that reaches 60% in Finland, 20% in Romania, 40% in Portugal and 30% in Spain²⁵. In the United States, on a sample of 25,000 workers in 2020, the percentage was 34%²⁶.

In Latin America, in a study conducted in Argentina, Brazil, Chile, Colombia and Mexico, between the first and second trimesters of 2020, telework increased 324%, and this despite the fact that only 21.3% were estimated to be able to telework (from 80% among professionals, scientists and technicians to 15% among trade employees and 1% in agriculture), showing the characteristic of the work, as well as the Internet access gap. In June 2020, 44% of the countries in Latin America and the Caribbean did not reach the internet speed access that allows several online activities to be carried out simultaneously²⁷.

In this context, in Brazil, a first study conducted between May and June 2020 showed that 8.7 million people were working remotely, corresponding to 24.7% of the public sector and 8% of the private sector, mostly women, with higher education and between 30 and 39 years old²⁸. In Argentina, based on the 2018 survey, it was estimated that

26.3% of occupations would have the potential for teleworking²⁹. At present, about 75% of government employees are performing their tasks remotely during preventive isolation³⁰. In the private sector, according to another estimate, 28.5% of registered employment in Argentina could be carried out remotely³¹.

A preliminary review about the health effects caused by the massive incorporation to teleworking points out that it may increase the frequency of domestic injuries (due to falls, slips, fire, etc.), musculoskeletal problems associated with working with video screens, mental health problems associated with stress and those associated with habits such as diet, physical exercise, sleep and addictions³². In Brazil, an online survey with 45,161 people over 18 years old showed that during the pandemic, 34% of smokers increased their cigarette consumption, 17.6% increased their alcohol consumption, and 17% reduced physical activity. In addition, among young adults (18 to 29 years old), consumption of unhealthy foods increased from 54.2% to 63.0% during the pandemic³³.

For example, in Argentina, according to a survey among teachers in private schools³⁴, it was found that forced teleworking dilutes the bond with the student. It also blurs the boundary between personal and work life: 44% do not manage to take a break from their work and disconnect. Regarding the working day extension, 47% of teachers work more hours than usual. In another study conducted in Costa Rica with a sample of 437 call center employees, 11% reported working more than 48 hours per week, in the bedroom (39%), in the living room (16%) or in the dining room (9%)³⁵.

It is possible that part of these effects, especially those related to mental health during the pandemic, may also have to do with the general confinement of the population as a whole, and particularly in those cases in which teleworking has had to be combined with the care of dependents, mainly children, since schools have also been closed during some periods. A situation that can be particularly serious in the case of women who have to conciliate teleworking and caring for dependents at home. In this sense, among the most notable consequences of the pandemic, an increase in domestic violence has been observed³⁶; therefore, it is possible that teleworking exacerbates a pre-existing problem, perhaps with different characteristics.

In response to all the problems arising from the emergence of this kind of work organization³⁷, countries such as Argentina³⁸ and Spain³⁹ have approved specific laws to regulate teleworking in the midst of the pandemic, with the aim, among others, of preventing its negative effects on health. These regulations are designed to be applied after the end of the exceptional period of the pandemic.

The future of teleworking at home

The expansion of the capacity and coverage of Internet connections has facilitated the exponential progress that has taken place in these months of pandemic. Such an abrupt change can be analyzed as a natural experiment, since it can provide us with information about its effects on health, both positive and negative.

The study of telework and its effects on health is an urgent priority today for research in occupational health, as its results are essential to regulate it adequately. A regulation that must include occupational safety and health as a central element, including employees who have voluntarily accepted to telework, as well as the self-employed people. Otherwise, we may see an increase in the number of self-employed teleworkers, if regulation is very weak or non-existent for them, contributing even more to precariousness and even informality in employment.

That is, telework will not be the economic and social panacea, neither during nor after the pandemic. Some structural economic characteristics impose limits: some development models based on the intensive use of labor and natural resources; abundant economic activities with low productivity; high business profitability without the need for investment or innovation; incipient coverage and access to connectivity among the population and in very large geographic areas; and labor markets

with high informality, especially in the case of Latin America. Likewise, there are limits derived from the political and institutional configuration of some states, with little development of social and labor policies, enormous deficiencies in taxation and tax collection, and low capacity to supervise and control compliance with regulations. In this context, this type of work facilitates job insecurity, outsourcing or intensifying people's work.

However, the pandemic is not over yet, and may not be over until we have effective vaccines available to all, so it is difficult to make a conclusion about which of the changes introduced by the pandemic will remain and which will be temporary. What we can anticipate is that the need for telework as a prevention (or mitigation) strategy will last for some time. And we can hypothesize that a substantial part of teleworking will continue once the pandemic has completely ended. Among the arguments to support this hypothesis are the benefits companies are having due to the increase in productivity²⁵. Some of these benefits must be contrasted regarding the workers' occupational safety and health, especially in relation to working time. Telework itself could increase inequalities, if it continues to be an option, mainly for the most productive sectors of the economy and for people with higher levels of education.

The teleworking particularities mean that its epidemiological impact, although exerted on the health and safety of those engaged in it, is not limited to them. In other words, it is not possible to limit the observation of workers at home as if they were not mothers, fathers or sons and daughters, because work invades family realities and involves family members in the workers' performance. Work responsibilities complement and contrast with family responsibilities; work spaces and workplaces are also for fun and leisure; paradoxically, labor rights could be contradictory to citizens' rights and public protection to privacy and individual freedom. Likewise, and as a counterpoint, the physical distance from the workplace and the social relations that this generates weaken the perception of belonging and collective identity.

One strategy to deepen our knowledge about working at home is to monitor and compare its magnitude in different countries by means of surveys. To this end, and as proposed by the ILO, it is necessary to include some questions related to the usual place of work in surveys on working conditions, for example: *Where do you usually work? And if the answer is in her/his own home, ask 1) do you use a computer, phone or tablet to work at home? 2) do you telework in your office or in a space in common use with other dwellers?* These simple questions, included in the questionnaires, such as

the basic questionnaire and methodological criteria for Surveys on Working Conditions, Employment, and Health in Latin America and the Caribbean (CTESLAC by its Spanish acronym)⁴⁰, will allow to identify the employment, health and working

conditions of people who perform telework at home, and compare them with those who are engaged in it in other places and using other means. This will contribute to produce empirical evidence supporting the regulation and control of this type of work.

Authorship contributions

The authors contributed substantially to the study design, data analysis and interpretation, writing, revisions and final version approval, and are responsible for the work and content published here.

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