



WORKING CONDITIONS AND THE HUMAN COST OF WORKING FROM HOME IN TIMES OF PANDEMIC

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Abstract

The COVID-19 pandemic has forced many companies to resort to remote work from home as an alternative to carrying out their activities. However, the sudden change without proper planning resulted in increased work demands for employees. This study aimed to investigate the working conditions and human cost of work among professionals at an institution who were working from home during the COVID-19 pandemic. This is a quantitative and qualitative study, involving interviews and the application of the Work Context Assessment and Human Cost of Work scales. The scales were answered using an online form and the interviews were conducted via videoconference, using a semi-structured script. Thirty-three employees from the administrative sector of an educational institution participated in the study. The results showed that work organization is the main risk factor for illness. Cognitive cost was the most prominent factor as a consequence of remote work. It is concluded that the home-office work modality, during the pandemic, required the development of new skills and adaptation to changes in work that favored the increase in the mental workload. The study was useful for pointing out aspects of improvement in the context of home-office work.

Keywords: Home office. Working conditions. Human cost of work.

1. INTRODUCTION

The pandemic of the new coronavirus has severely affected public health, with social distancing and restriction of movement being some of the measures taken to mitigate the spread of the virus. Due to this, many companies have had to resort to remote work from home as an alternative to carry out their activities. Home-based, telecommuting or home-office work refers to the work arrangement in which the employee fulfills their tasks and responsibilities at home, using Information and Communication Technologies (ICT). Teleworking from home in times of pandemic requires temporary and alternative work arrangements, requiring shared responsibility and commitment by employer and worker to maintain both business and employment continuity (INTERNATIONAL LABOUR ORGANIZATION, 2020).

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Due to the sudden change that led workers to have to work from home, many companies were unable to properly supply the necessary resources for employees to perform their work in adequate conditions. Thus, the workers had to set up an office space in their homes with the furniture they had, having to share the place with other people, as well as using environments with a double function. All of this leads to working conditions that result in discomfort and possible future illnesses (DAVIS et al, 2020).

In addition, changes in the conditions and organization of work have repercussions on relevant changes in productivity, which tends to decrease (MORETTI et al, 2020). In this case, it is necessary to consider the cognitive and emotional demands that emerge in the context of the pandemic, contributing to the drop in productivity (MARTINS; AARON; BASTOS, 2020).

This study aimed to investigate the working conditions and the human cost of work in professionals of an institution who performed work activities in the home-office during the COVID-19 pandemic period.

2. METHODOLOGY

The study was carried out in the administrative sector of a private university from May to June 2020. The participants were 33 employees from the Human Resources, Educational Technologies and Purchasing sectors. The sample consisted mostly of men (57.6%), married people (57.6%) and those with a postgraduate degree (54.6%). The predominant age group is 25 to 35 years old (45%). Most participants have less than 5 years of time in the institution (60.6%) and in their current position (78.8%).

A combination of quantitative and qualitative methods was used. For the quantitative approach, the Work Context Assessment (EACT) and Human Cost of Work Assessment (EACHT) scales (MENDES; FERREIRA, 2007). Qualitative data were collected through videoconference interviews, using a semi-structured script.

The Work Context Assessment Scale consists of three factors, namely: work organization; working conditions; and socio-professional relations. The Human Cost of Labor Assessment Scale is also composed of three factors, namely: physical cost; cognitive cost; and affective cost. Each factor presents a set of items that are evaluated by answers from 1 to 5. The interpretation is obtained through the average of the items of each factor, where: averages above 3.7 points mean a situation of severity; averages between 2.3 and 3.69 points, critical situation; and averages below 2.9, a satisfactory situation.



When answering the questionnaire, participants were asked to evaluate the last month of work, therefore, referring to the period of social distancing with home-office activities.

Quantitative analysis was performed using descriptive statistics using Excel. For the qualitative analysis, the Content Analysis technique was used.

3. FINDINGS

The EACT evaluates the representations related to the organization of work, socio-professional relations and working conditions (MENDES; FERREIRA, 2007). The overall average obtained in the EACT was 2.21, which represents a positive classification, suggesting a level of general satisfaction related to the work context. However, the Work Organization factor presented a moderate average, being the dimension that was most negatively evaluated in this category, as shown in Table 1.

Table 1. Average and interpretation of the Work Context Assessment

Factor	Average	Interpretation
Work Organization	2,9	Moderate
Working Conditions	1,9	Positive
Socio-Professional Relations	1,8	Positive

The best evaluated aspects were those related to the adequacy of working conditions, safety at work, integration and cooperation among professionals. In this case, the physical working conditions are seen as non-precarious and without safety risks, and the environment is favorable to socio-professional relationships. From the perspective of the participants, working from home brings the comfort and security of being at home. As one of the interviewees said: "working from home is much more comfortable, if I want to sleep late and wake up a little later I can do my activities".

The most negatively evaluated aspects were the division between those who plan and those who execute, performance inspection, repetitive tasks and pressure for deadlines. Working from home seems to affect, mainly, the way work is organized, especially with regard to the content of the task and supervision. As most participants perform administrative activities, it is considered that the work tends to have a certain repetitiveness, regardless of whether the activity is remote. However, it is possible that remote work has exacerbated the



aspects of performance demand from leaders, who have also had to adapt to the rapid changes in the way they work, without proper preparation.

In the interviews, the workers reported as advantages of working from home the flexibility of schedule, more free time for not wasting time commuting, development of new skills and greater interaction with the family. Among the disadvantages, they cited the increase in the number of tasks, excessive electronic monitoring, irregular work schedules, excessive meetings, difficulties in accessing information, which confirm the emphasis on aspects of work organization. In addition, the interviewees also considered the use of technology (including internet connection), noise, little space, interruptions due to working from home and lack of interaction with colleagues as hindering factors

Regarding the time spent working at home, the participants reported that it was difficult to organize the work schedule, as seen in the statement of this interviewee:

There's no such thing, it's half past nine at night you're on WhatsApp working. There are no fixed working hours properly, so that you can actually be at your work and then go home, you try to organize, but when the work comes into your home then the difficulty gets even greater, right?

The organization of work is considered an important source of psychic suffering, especially when it restricts the space of freedom to use the resources of intelligence and creativity of workers, which also compromises the productivity and quality of work (MENDES, 2007). Thus, more than physical working conditions, the organization of work is shown to be the greatest risk factor for illness for home-office workers.

The ECHT presented an overall mean of 2.55, which represents a moderate, critical evaluation. The cognitive cost was the one that obtained the most negative or severe evaluation, while the affective cost was moderate and the physical cost was positive, with less impact on work exhaustion, as can be seen in Table 2.

Table 2. Average and interpretation of the Human Cost of Labour Assessment

Factor	Average	Interpretation
Physical cost	1,6	Positive
Cognitive cost	3,7	Negative
Affective cost	2,4	Moderate



The items with the least implication for the human cost were those related to physical requirements, such as handling heavy objects, using physical force, standing, and going up/down stairs. The items that showed the highest cost are related to the cognitive cost, involving mental concentration, solving problems, using creativity, making mental effort, using vision continuously and dealing with unforeseen events.

The results point to the excessive mental workload, which can be associated with the content of the work itself, but also with the work from home, as this system required the development of new skills (such as the use of technologies and participation in videoconferences) and the adaptation to the new work context (such as, for example, interruptions and distractions in the performance of professional tasks at home). It is noteworthy that high mental load can generate fatigue, leading to a reduction in the discrimination of signals and delay in sensory responses, in addition to greater difficulty in solving problems, changes in memory and an increase in the rate of errors (BONFATTI, 2011).

Regarding the affective cost, having control of emotions and having to deal with contradictory orders were items evaluated more negatively, with moderate classification. It is possible that participants perform tasks that require a certain level of emotional control in order to avoid difficult or conflictive situations in socio-professional interactions. In this sense, the affective cost can aggravate stressful situations at work (ANTLOGA et al, 2014).

In the interviews, the affective cost of working from home was highlighted due to social isolation and non-interaction with colleagues. One interviewee said: "the lack of coexistence is complicated, in the workplace you talk about one subject and another; What I miss is the lack of coexistence with the team and with the people we live with on a daily basis."

To deal with the human cost of labor, workers develop individual and collective mediation strategies. If these strategies are ineffective, workers may experience suffering and even become ill (ANTLOGA et al, 2014). In the interviews, the following strategies were identified: try to keep the working hours the same as in person, take breaks during work, avoid watching the news, perform physical activity, watch movies. These measures seek to mitigate not only the cost of labor, but also the psychological suffering arising from social isolation during the pandemic period.

Based on this study, some recommendations were made to improve the health and quality of life of these professionals. Among them, the following are mentioned: training in the use of new technologies, periodic meetings for planning and problem solving, adequacy of the physical conditions of working at home, organization of the working day, development of



leadership, increased autonomy and control over work, creation of psychosocial support systems.

4. CONCLUSIONS

The study made it possible to investigate the work context and the human cost of working from home. The results highlighted the organization of work as the main risk factor for illness. Mental load was the most prominent factor as a consequence of remote work during the pandemic.

The COVID-19 pandemic has radically changed the organization of work, with implications for the health and well-being of workers. The data obtained in this study are useful to seek improvements in the context of work at home. Future research, especially of a longitudinal nature, is needed to investigate the risks of illness from working from home.

REFERENCES

- ANTLOGA, C. S. et al. Contexto de trabalho e custo humano no trabalho em um órgão do poder judiciário brasileiro. *Ciência & Saúde Coletiva*, v. 19, p. 4787-4796, 2014.
- BONFATTI, R. J. Fisiologia do Trabalho. In: MÁSCULO; VIDAL. *Ergonomia: trabalho adequado e eficiente*. Rio de Janeiro: Elsevier, 2011. p. 132-166.
- DAVIS, K. G.; KOTOWSKI, D.D.; GERDING, T.; NAYLOR, J.; SYCK, M. The home office: ergonomic lessons from the “new normal”. *Ergonomics in design*, v. 28, 4-10, 2020. doi.org/10.1177/1064804620937907.
- FERREIRA, M. C.; MENDES, A. M. Inventário sobre trabalho e adoecimento – ITRA: instrumento auxiliar de diagnóstico de indicadores críticos no trabalho. In: Mendes, A.M. (org) *Psicodinâmica do trabalho: teoria, método e pesquisas*. São Paulo (SP): Casa Psi, 2007. p. 111-22.
- INTERNATIONAL LABOUR ORGANIZATION. *An employers' guide on working from home in response to the outbreak of COVID-19*. Geneva: International Labour Office, 2020.
- MARTINS, L. B.; AGUIAR, C. V. N. A.; BASTOS, A. V. B. COVID-19: seus impactos nas relações trabalho-família. In: QUEIROGA, F. (org.). *Orientações para o home office durante a pandemia da COVID-19* [recurso eletrônico]. Porto Alegre: Artmed, 2020. p. 49-58.
- MENDES, A. M. Da psicodinâmica à psicopatologia do trabalho. In: _____(org). *Psicodinâmica do trabalho: teoria, método e pesquisas*, 2007. p. 29-48.



MORETTI, A.; MENNA, F.; AULICINO, M.; PAOLETTA, M.; LIGUORI, S.; IOLASCON, G. Characterization of home working population during COVID-19 emergency: a cross-sectional analysis. *International Journal Environmental Research and Public Health*, 17, 2020, <https://doi.org/10.3390/ijerph17176284>

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