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TELEWORK TRENDS:

ANALYZING PUBLIC MANAGERS' EXPERIENCES IN BRAZIL AND PORTUGAL

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Abstract

Telework is established as a people management model for organizing work. Its application was widely used during the COVID-19 pandemic, predominantly adopted by public organizations to maintain and continue their operations. This research aims to analyze the perception of managers regarding teams under telework arrangements in public organizations in Brazil and Portugal. Data were collected through semi-structured interviews with 13 Brazilian and 21 Portuguese managers from public organizations experienced in telework. The analyses were conducted using content analysis techniques. The results revealed that Brazilian and Portuguese managers have convergent perceptions of telework, highlighting modernization, health benefits, cost reduction, and preference for the hybrid model. Managers from both countries recognize improvements in workers' performance and quality of life, although they faced challenges in communication and adapting activities to remote work, especially during the pandemic. In Brazil, managers reported difficulties in getting staff to return to in-person work and focused on adjustments in training, recruitment, and performance evaluation. In Portugal, managers reported a lack of infrastructure for remote work and focused on adjusting schedules and using telework to retain workers. In conclusion, the research contributes by highlighting novel practices such as intentional in-person work and leader trust as a key factor for telework success.

Keywords: People Management In Telework; Remote Work; Telework; Telework in Public Organizations.

Resumo

O teletrabalho configura-se como um modelo de gestão de pessoas para organização do trabalho. Sua aplicação foi amplamente utilizada durante a pandemia da COVID-19, adotada amplamente pelas organizações públicas para manutenção e continuidade dos seus negócios. Esta pesquisa tem como objetivo analisar a percepção de gestores sobre equipes sob regime de teletrabalho em organizações públicas do Brasil e Portugal. Os dados foram coletados por meio de entrevistas semiestruturadas com 13 gestores brasileiros e 21 portugueses de organizações públicas que possuem experiência com teletrabalho. As análises foram realizadas pela técnica de análise de conteúdo. Os resultados revelaram que os gestores brasileiros e portugueses possuem percepções convergentes sobre o teletrabalho, destacando a modernização, benefícios à saúde, redução de custos e preferência pelo modelo híbrido. Os gestores dos dois países reconhecem melhorias no desempenho e qualidade de vida dos trabalhadores embora tenham enfrentado dificuldades em termos de comunicação e adaptação das atividades de forma remota, especialmente na pandemia. No Brasil, os gestores informaram sobre a dificuldade do pessoal retornar ao presencial e focaram os ajustes em treinamento, recrutamento e avaliação de desempenho. Em Portugal, os gestores relataram a falta de estrutura para o trabalho remoto e os ajustes de horários e uso do teletrabalho para reter os trabalhadores. Concluindo, a pesquisa contribui ao evidenciar práticas inéditas como trabalho presencial intencional e a confiança do líder como fator de sucesso do teletrabalho.

Palavras-chave: Gestão de Pessoas em Teletrabalho; Teletrabalho; Teletrabalho em Organizações Públicas; Trabalho Remoto.

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INTRODUCTION

Teleworking, remote work, or even working from home is a form of work where individuals perform their duties in a location different from the office or conventional workplace. It became a widespread practice due to the COVID-19 pandemic and has shown significant advantages for both organizations and workers, especially in densely populated urban areas. Key benefits include reduced commuting time, decreased pollution and congestion in large cities, and the creation of a more flexible work environment for parents and caregivers facing high childcare costs. Additionally, during the global health crisis, teleworking was an effective strategy to preserve jobs, promote public health, and maintain organizational continuity.

Although previous studies have investigated the impacts and antecedents of teleworking on various aspects, such as teleworkers' satisfaction, work-life balance, workplace well-being, productivity, and even the role of leadership and supervisory support, there is still a knowledge gap regarding the specifics of team management in teleworking within public organizations in countries with similar cultural and economic contexts, such as Brazil and Portugal.

The justification for this research lies in the absence of comparative studies between Brazil and Portugal on team management in teleworking. Although both countries share cultural and linguistic proximity, as well as human capital flows, they also have significant structural differences in their public organizations and economies, which can directly influence how teleworking teams are managed. These similarities and differences make comparative study particularly relevant, allowing for a deeper understanding of public managers' perceptions of best practices, challenges, and adopted policies.

Based on this contextual and scientific foundation, the problem this research seeks to address is: What is the perception of Brazilian and Portuguese public managers regarding team management under telework conditions? Therefore, this research aims to analyze managers' perceptions of teams under a telework regime in public organizations in Brazil and Portugal.

The research employed qualitative methods, including interviews with 34 public managers from Brazil and Portugal. Data analysis used thematic analysis, supported by MaxQDA software, to explore managers' perceptions of telework practices.

This research is structured initially with this introduction, followed by a section on teleworking, which theoretically discusses the topic related to the research question. Next, the methodology used is presented, based on qualitative research with data collected from public managers with teleworking experience. The results and discussions are presented, addressing managers' perceptions of telework in their organization, changes in team management and mechanisms, perceptions of managers on telework,

and a comparison of managers' perceptions of telework teams. Finally, conclusions and references used are provided.

THEORETICAL FRAMEWORK

The COVID-19 pandemic has profoundly changed the work environment, making teleworking a widely adopted solution for organizational operational continuity. This once restricted practice, used mainly in the IT and telecommunications sectors, has rapidly expanded to include multiple areas, including public administration. The sudden shift to remote working during the pandemic, with the aim of mitigating health risks while maintaining economic stability, has sparked discussions about the potential long-term benefits and challenges of remote working. This shift has had a significant impact on the functioning of organizations and the way employees balance their personal and professional lives.

As information and communication technology (ICT) advances, teleworking has begun to offer a number of advantages for employers and employees. Reduced travel times, reduced urban congestion and increased flexibility in managing personal responsibilities are just some of the benefits of this model. However, the rapid and, in many cases, mandatory implementation during the pandemic has exposed several challenges, especially in the public sector, where adaptation has often been hasty and inadequate. As a result, concerns about mental health, stress and professional isolation have emerged, highlighting the importance of careful planning and adequate support for remote workers in the future.

This section discusses this context of teleworking amid the pandemic in the first subsection and aspects of teleworking as concepts, antecedents and outputs, and in Brazilian and Portuguese public organizations.

COVID-19 pandemic and telework

The evolution of information and communication technologies (ICTs) has enabled telework to offer advantages for organizations. For example, it significantly reduces commuting time, alleviates city traffic congestion, and decreases air pollution, especially in densely urban environments. Additionally, it provides a flexible work environment for parents and caregivers dealing with high costs of care (HAIDER; ANWAR, 2023).

Telework is a relatively new work organization model that has gained popularity in recent years. During the global health crisis of the COVID-19 pandemic, telework was an effective strategy to

preserve jobs, contribute to public health, and allow organizations to continue their operations (RUSU *et al.*, 2023).

The COVID-19 pandemic has led to a sudden transformation in the way we work, forcing numerous organizations to adopt home office as an emergency measure. This health crisis scenario has impacted not only global health but also the internal functioning of institutions, exposing workers to new conditions that put them at risk of illness. Teleworking, which was previously more common among IT and telecommunications professionals, has become widely used in several other areas (BARROS; GOIS; TRIGO, 2024).

The New Public Management, aligned with contemporary criteria, has continually sought ways to improve efficiency in public service, bringing benefits to both the administration and the population. In this context, teleworking emerges as a modality that, although implemented in an untimely and compulsory manner, tends to remain a common practice in Brazilian organizations even after the end of the pandemic (BARROS; GOIS; TRIGO, 2024).

Caution is needed when generalizing conclusions about teleworking during this critical period. Elsamani and Kajikawa (2024) warn that studies conducted in this pandemic context, marked by stress and isolation, cannot capture all the nuances of remote work under normal conditions. The experience of working during a crisis was atypical and may not represent an improvement on what telework would be like in non-pandemic times.

The changes brought about by telework during this period affect multiple dimensions of workers' lives. This flexible work modality, while offering the possibility of reconciling personal and professional demands, also brings significant challenges, especially in the public sector. The implementation of home office during a pandemic, for example, required rapid and unforeseen adaptations that may have generated negative impacts on workers' mental health (SANTOS; PANTOJA, 2024).

Compulsory telework during the pandemic significantly affected the mental health of workers in public organizations. Words frequently associated with remote work in this context include "pandemic", "home", "telework", "mental health", "environment" and "difficult". These words reflect the experience of public servants who had to adapt their routines to working from home, dealing with social isolation and the lack of face-to-face interaction (SANTOS; PANTOJA, 2024).

The pandemic has had a profound emotional impact, and is considered a period of anxiety, depression, loneliness, and anguish. Teleworking, when implemented hastily and compulsorily, without proper planning and without offering adequate support, contributes to the overload of domestic and



professional responsibilities. This combination of factors has been proven to lead to serious illnesses, such as anxiety and depression, for many workers (SANTOS; PANTOJA, 2024).

Teleworking also presented positive aspects during this period by reducing the need to travel and by offering greater flexibility in hours; remote work was able, in certain cases, to promote the well-being of workers. This reveals the complexity of the issue, since teleworking, when well structured, has the potential to generate positive effects on mental health (ELSAMANI; KAJIKAWA, 2024).

In short, compulsory teleworking during the COVID-19 pandemic has brought a series of challenges, especially with regard to the mental health of workers. Although this modality offered an immediate solution for the continuity of work activities during a crisis, there is a lack of planning and adequate support in the face of an increase in psychological disorders for many. However, it is necessary to recognize that, with adjustments and improvements, teleworking can be a viable and even beneficial strategy in the post-pandemic context, as long as the lessons learned during this critical period are taken into account (BARROS; GOIS; TRIGO, 2024; SANTOS; PANTOJA, 2024).

Telework

Recent studies have used various terminologies to refer to telework, such as working from home, remote work, work from anywhere, smart work, agile work, and flexible work. Despite this diversity of labels, they do not differ significantly in meaning, with telework being a form of work performed outside the conventional workplace.

In public organizations, Mele, Belardinelli, and Bellé (2023) identified four consistent dimensions in the concepts of the different terminologies used in their scientific reports: the first, and most logical, considers the alteration of the workspace, not using the traditional office or previous work environment to carry out activities. The second aspect is the alteration of time, where there can be flexibility in schedules. Telework arrangements vary from a few hours a week to full-time, being performed periodically, regularly, or exclusively. The third aspect relates to the use of technologies that support work, allowing workers to fulfill their duties while staying connected to their organization. Finally, the fourth aspect concerns autonomy, which, although there is some flexibility, involves authorization and agreement from management, whose decision governs which, where, or when workers can perform their tasks remotely.

Previous studies investigating the effects and antecedents of telework have examined themes such as telework satisfaction (NAKROŠIENĖ; BUČIŪNIENĖ; GOŠTAUTAITĖ, 2019), impact on work-life balance (ÇOBAN, 2021), well-being at work (LOPES *et al.*, 2023), stressors and mental



health of teleworkers (AFONSO, FONSECA; TEODORO, 2021, GIOVANIS; OZDAMAR, 2021, IPSEN *et al.*, 2021, ADAMOVIC, 2022), teleworker productivity (KAZEKAMI, 2020), mobility management (ABREU E SILVA, 2022), increasing social inequality in telework application (BJURSELL *et al.*, 2021), and success factors in telework (GOHOUNGODJI; N'DRI; MATOS, 2023). Recent reviews and research have shown that there is no consensus on the positive and negative aspects of telework (MELE; BELARDINELLI; BELLÉ, 2023, VRIES, TUMMERS; BEKKERS, 2019, PARK; CHO, 2020).

From an organizational perspective, telework has allowed the continuity of most institutional activities, provided resource savings, enhanced decision-making agility, and increased productivity, among other advantages. However, it has also brought implications for teleworkers, such as counterproductive behaviors, job insecurity, professional isolation, conflicts between personal and professional life (NEMTEANU; DABIJA, 2023), increased working hours, especially for those in managerial positions, sadness, exhaustion (AYED *et al.*, 2023), increased anxiety symptoms and sleep disorders (KIM *et al.*, 2023; AYED *et al.*, 2023), increased costs for teleworkers, and the generation of household waste (ČIARNIENĖ; VIENAŽINDIENĖ; ADAMONIENĖ, 2023).

In terms of antecedents, telework involves remote work and depends on various factors for its adoption and effectiveness. The social distancing and isolation due to the COVID-19 pandemic necessitated the adoption of telework, with work autonomy and reduced interaction being the primary dimensions influencing its implementation (SLYKE *et al.*, 2022). Additionally, during the pandemic, its adoption aimed to ensure employee safety and maintain organizational activities (BELZUNEGUI-ERASO; ERRO-GARCÉS, 2020).

The literature identifies several antecedents of telework, including value, institutional and technological support, limited communication, and costs (NAKROŠIENĖ; BUČIŪNIENĖ; GOŠTAUTAITĖ, 2019). Expenses related to energy and the reduction of distances are antecedents identified by Hook *et al.* (2020). Personal resilience, work-family conflict, workload, and autonomy are also identified as antecedents that affect the stress levels of teleworkers, which in turn influence telework satisfaction and perceived productivity (WANG *et al.*, 2023).

Antecedent factors such as reduced communication with colleagues, trust and support from supervisors, and the adequacy of the home work environment significantly impact telework outcomes, including satisfaction, productivity, and perceived career opportunities (NEMTEANU; DABIJA, 2021). Mele, Belardinelli, and Bellé (2023) identified 31 antecedents of telework in their systematic literature review, with the most recurrent being family responsibilities, expected productivity, supportive



leadership, work control, COVID-19 related measures, legal support, environmental protection efforts, and the availability of home office spaces, among others.

Telework is used as a means to implement flexible work agreements; however, this flexibility comes with more elaborate and careful production controls (GROEN *et al.*, 2018). It can also be adopted within a corporate social responsibility strategy, such as using sustainable human resource management, addressing important social issues like enabling mothers to work while caring for their children, reducing unemployment in rural and remote areas, and impacting vehicle traffic (DIMA *et al.*, 2019).

As observed, the antecedents of telework range from forced changes due to the pandemic to individual and organizational factors such as autonomy, support, the home work environment, and contributions to socio-environmental issues.

Regarding its effects, telework can positively impact job satisfaction, work-life balance, reduction in commute time, relief on urban traffic systems, and productivity, especially for employees facing long distances to work (ABREU E SILVA, 2022; ÇOBAN, 2021; ANDRADE; SOUZA, 2023; AGUIAR *et al.*, 2022; SOUSA-UVA *et al.*, 2021; MELE; BELARDINELLI; BELLÉ, 2023; ÉLLDÉR, 2020).

The adoption of telework generates impacts on turnover intention, stress, health, organizational commitment, perceived organizational performance, effective well-being, resilience, travel costs, work involvement, job engagement, sociability, and more (MELE; BELARDINELLI; BELLÉ, 2023). The most implemented telework strategies tend to be those most positively associated with work performance, especially when the work is task-oriented and contributes to maintaining social contact (HÄRTEL; HÜTTEMANN; MÜLLER, 2023).

Another effect of telework is related to increased efficiency, reduced risk of burnout syndrome (MOENS *et al.*, 2020), professional isolation, greater exchange between leaders (VRIES; TUMMERS; BEKKERS, 2019), and issues related to time management for teleworkers with young children and/or those using smartphones for work purposes outside of working hours (THULIN; VILHELMSON; WETTERSTRAND, 2019).

Telework improves the management of individuals with disabilities, their health, job performance, and personal opportunities (LAKE; MAIDMENT, 2023).

In terms of leadership, telework fosters cooperative behavior between leaders and subordinates, as opposed to increased subordination (STANCIU *et al.*, 2023). Home-based telework negatively impacts work involvement through isolation and workplace pressure, but leadership and support for family issues can mitigate this negative influence (WANG *et al.*, 2023).



However, implementing telework in public organizations can be challenging due to various factors, including legal barriers, cultural resistance, lack of adequate technological infrastructure, and management practices (FORTE; SANTINHA; CARVALHO, 2021; MACHADO; TOLEDO, 2022; ANDRADE; SOUZA, 2023; AGUIAR *et al.*, 2022).

Brazilian and Portuguese public organizations have used remote work to continue their operations, contributing to the health and safety of their workers through human resource management, as shown in previous research with empirical fields in these countries, investigating themes such as teleworker mental health (MENDONÇA *et al.*, 2022), telework conditions and characterization (FORTE; SANTINHA; CARVALHO, 2021, MADUREIRA; RANDO, 2022, TAVARES *et al.*, 2021), productivity (ANDRADE; SOUZA, 2023), work-life balance (AGUIAR *et al.*, 2022, ANDRADE; LOUSÃ, 2021), quality of life in telework (PASCHOAL *et al.*, 2022, VELASCO; PANTOJA; OLIVEIRA, 2023), telework satisfaction (AGUIAR *et al.*, 2022, SOUSA-UVA *et al.*, 2021), well-being at work (PASCHOAL *et al.*, 2022), and bibliometric studies and literature analysis (MACHADO; TOLEDO, 2022, COSTA E SILVA *et al.*, 2022).

Comparative studies between Brazil and Portugal in public management have focused on, for example, verifying differences in university management (LIEVORE *et al.*, 2020; CAETANO; CAMPOS; CAVALCANTI, 2021; KLEIN *et al.*, 2022), job satisfaction (SINVAL; MORÔCO, 2020), public communication (ENTRADAS *et al.*, 2020), sports management structure (ATHAYDE; FIGUEIREDO, 2024), participatory budgeting (FALANGA *et al.*, 2020), and the electoral process (DIÉZ; LÓPEZ-LÓPEZ; MO GROBA, 2021), among others. To the knowledge of these authors, there has not been a comparative study between Portugal and Brazil on people management in telework, representing an important empirical gap.

Portugal and Brazil present cultural and historical symmetries, as well as structural differences in public and economic structures that influence the management of public organizations (DINIZ, 2014, SINVAL; MORÔCO, 2020, VARGAS; SARMENTO; OLIVEIRA, 2015), and consequently, can influence the management of teleworking teams, allowing an understanding of managers' perceptions of best practices, challenges, and policies between these two countries. This factor is reinforced by the cultural and linguistic proximity and the flow of human capital between Portugal and Brazil (SINVAL; MORÔCO, 2020).

RESEARCH METHODOLOGY

The method employed in this research stems from the observed need of the proposed objective, which aims to analyze managers' perceptions of teams under telework regimes in public organizations in



Brazil and Portugal. The data analyzed here should be sufficient to gain a deep understanding of the investigated phenomenon, based on the managers' experience, knowledge, and competencies. It will describe their perceptions regarding team management practices in telework, both in 100% remote regimes and in hybrid models (partially on-site and partially remote), making the use of qualitative methods pertinent for obtaining the necessary depth.

The qualitative method employed in this research is grounded in an antifundamentalist ontological stance, which focuses on the social construction of the phenomenon under study, as a product of people's cognition (TROPHARDY, 2024). Consequently, it aligns with a subjective or hermeneutic epistemological stance, also known as interpretivism, in which the researcher is inseparable from the investigated phenomenon. In this approach, social behavior is constructed through interactions and interpretations of the phenomenon. Unlike the positivist stance, the idealist view emphasizes the meaning of things rather than their explanation (PRASAD, 2002).

For the validity and quality of qualitative research, researchers' strategies should not only focus on the research design but also on the type and method of data collection, data analysis, and presentation, justified in relation to the study object, with the aim of presenting evidence that supports new theoretical contributions (GONÇALVES; GONÇALVES, 2021) discuss the validity of qualitative research when its strategies include not only the research design but also data collection, analysis, and presentation.

Complementing the qualitative nature of this investigation, for data collection, the field research technique was employed to reach social actors who provide insights into the observed phenomenon within a specific context, namely public organizations and public managers. In this case, only primary data were used, derived from interviews with public managers.

Research in the field of public administration is justified as it is through these organizations that actions, policies, and public services are implemented, serving as an important vector for social development (FARCA; DRAGOS, 2020). It aligns with the 17 Sustainable Development Goals of the United Nations, considering that public administration can contribute to each of these goals, either facilitating or hindering their achievement. Regarding public personnel management, it plays a crucial role, being considered a primary function of administrative sciences, if not its only function, as organizations cannot exist without people (SIEVERS, 1990).

Within the design, managers were selected using the accessibility or convenience technique for interviews. In this method, research participants are chosen based on the researcher's access during the research development period. It is important that these participants can, in some way, represent the studied population in most of its characteristics (PRODANOV; FREITAS, 2013).



The criteria for selecting participants were: 1) managers from Brazilian and Portuguese public organizations; 2) experience with telework; 3) having team members working remotely. Based on these criteria, the study included 13 Brazilian and 21 Portuguese managers, totaling 34 managers. The information saturation technique was used to compose the sample, as the inclusion of new participants did not yield results different from those already collected (FONTANELLA, 2021).

Table 1 presents the grouped characteristics of the interviewees.

Table 1 - Characteristics of Participating Public Managers

Characteristic	Subcategory	Brazil	Portugal	Total
Average Age		46,9 years	48,5 years	47,9 years
	Doctorate	6	1	7
Education (Quant.)	Master's	2	9	11
	Graduate	4	11	15
	High School	1	0	1
Average Time in Public Organization		18,8 years	13,6 years	15,6 years
Average Time in Management		12,7 years	9 years	10,4 years
Average Number of Subordinates		71,6	21,1	40,4

Source: Self elaboration.

Observing Table 1, the interviewed public managers have an average of 10.4 years of management experience and 15.6 years with their respective organizations. The average age is 47.9 years, and most of the 18 managers hold a graduate degree, indicating their knowledge, experience, and quality to provide the necessary information to meet the research objectives.

The interviews were conducted based on a structured interview guide developed from the theory discussed here, consisting of: 1. Information about the research and the ethical issues involved; 2. The leader's perception of remote work in their organization, in terms of advantages, disadvantages, focusing on organization performance, evaluation, feedback, communication, teamwork, resources, etc.; 3. Perception of changes and challenges in managing their teams and organizational mechanisms, including aspects such as productivity, communication, collaboration, engagement, motivation, job satisfaction, work-life balance, physical and mental well-being, etc.; 4. The interviewee's view on remote work in terms of its applicability trend, legislation, advice for other public managers, and the best telework arrangements.



A total of 17 hours and 52 minutes of interviews were conducted with Brazilian managers and 15 hours and 47 minutes with Portuguese managers, amounting to 33 hours and 39 minutes of recordings, all conducted via videoconference.

The collected data were transcribed, familiarized, organized, coded, and reviewed for subsequent interpretation and report writing, using the data analysis technique known as thematic analysis. This technique offers advantages due to its flexibility and applicability across a variety and quantity of questions, data, and theoretical and epistemological approaches (KING; BROOKS, 2018; SILVA *et al.*, 2020). The software MaxQDA v. 24 was used to assist in organizing, preparing the data, and creating graphical elements.

RESULTS AND DISCUSSION

Managers' Perception of Telework in Their Organization

The perception of Brazilian and Portuguese managers regarding remote work reveals distinct observations. To this end, we examined these perceptions concerning the advantages and disadvantages of using telework, both in a 100% remote work schedule and in a hybrid format, where part of the work hours is remote and part is on-site. However, the observations refer to the remote work hours, as shown in Table 2.

Table 2 - Manager's Perception of Remote Work in Their Organization

Advantages	Br	Pt	Total	Disadvantages	Br	Pt	Total
Performance	10	10	20	Communication	7	10	17
Cost Reduction	8	11	19	Teamwork	4	8	12
Worker Health and Quality of Life	7	10	17	Work Interaction	2	9	11
Communication	6	10	16	Performance	6	2	8
Personal Organization of Worker	5	8	13	Resources	3	4	7
Work-Life Balance of Worker	1	9	10	Lack of Engagement or Identification with the Organization	2	3	5
Teamwork	3	4	7	Increased Work	3	2	5
Building and Retaining Team	4	1	5	Worker Health	3	2	5
Training and Investment in Technologies	0	4	4	Personal Organization of Worker	1	2	3
Worker Satisfaction	2	2	4	Planning	0	1	1
Autonomy and Responsibility of Worker	1	2	3	Inhibits Innovation	0	1	1
Home Office as an Exclusive Space	0	3	3	Work-Family Relationship	0	1	1
Telework as a Form of Inclusion and Diversity	3	0	3	Denial by Superiors	1	0	1
Process Improvement	2	1	3	Reduction in Investments	1	0	1
Work Planning and Execution	1	2	3	Damage to In-Person Citizen Service	1	0	1
Workforce Scaling	3	0	3	Evaluation	1	0	1
Evaluation	1	2	3	Feedback	0	1	1
Alignment of Personal and Organizational Interests	0	2	2				
Reduction of Interpersonal Conflicts	2	0	2				
Environmental Impact	0	1	1				
Real Work View by Supervisor	1	0	1				
Shared Physical Structures	1	0	1				
Feedback	1	0	1				

Source: Self elaboration. Note: Br = Brazil; Pt = Portugal



In terms of advantages, managers from both countries agree on the improvement of worker performance in remote work, cost reduction, and worker health and quality of life, observed by 20, 19, and 17 of the 34 participating managers, respectively.

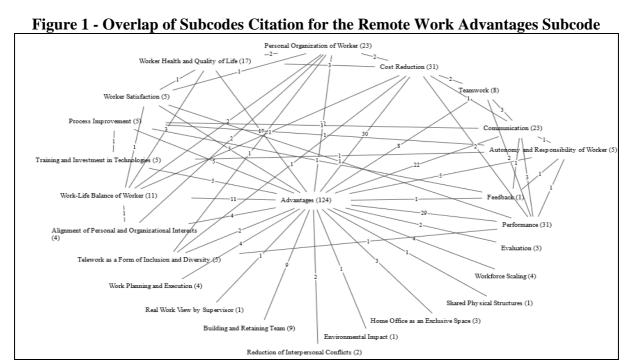
Performance improvement is the most advantageous aspect of telework, which has also been highlighted in the research by Mele, Belardinelli, and Bellé (2023), and Wang *et al.* (2023). This issue is widely discussed by managers in two aspects: first, a specific matter in Brazil, where in 2018 the government issued a normative instruction for the Performance Management Program, which prescribed a minimum percentage of 30% higher productivity for those participating in the program. In most cases, telework is more of an interest for workers than for management, as illustrated by the following statement: "There is a great interest among those in PGD to remain in PGD, so the manifestation and interest are largely driven by the employees themselves" (Manager, Man, Brazil, 50 years old, PhD, 28 years in the organization, 15 years in management, 21 subordinates), leading workers to maintain or improve their performance. The second aspect relates to the social dynamics within the physical space of the organization, which can cause distractions and consequently lower performance, as reflected in the following statement: "In terms of concentration, I think it's also important that people are working remotely. I sometimes work remotely to focus because there are too many people in the office" (Manager, Woman, Portugal, 45 years old, bachelor's degree, 4 years in the organization, 3.5 years in management, 3 subordinates).

The aspect of cost reduction, both for the organization in terms of electricity, building maintenance, water, etc., and for workers in terms of transportation costs, childcare, etc., contributing to quality of life, was highlighted in the research by Sousa-Uva *et al.* (2021) and Forte, Santinha, and Carvalho (2021). This was also acknowledged by the interviewed managers, as seen in the following statements: "The improvement in quality of life, time, and resource savings are important issues for people" (Manager, Woman, Brazil, 44 years old, bachelor's degree, 25 years in the organization, 25 years in management, 70 subordinates); and "The most obvious benefit is the reduction in costs because fewer on-site employees means less spending on water, electricity, rent, among other things" (Manager, Man, Brazil, 35 years old, high school, 7 years in the organization, 4 years in management, 9 subordinates).

Figure 1 illustrates the overlaps of subcodes within the remote work advantages code from the managers' perspective. Notable overlaps include cost reduction with teamwork, communication, personal organization of workers, worker health and quality of life, alignment of personal and organizational interests, and performance. This indicates that, from the managers' viewpoint, remote work presents multiple, complementary advantages, both in terms of antecedents such as family issues



and teamwork, and outcomes like performance, process improvement, and worker health and quality of life.



Source: Self elaboration.

The most frequently cited disadvantages by Portuguese and Brazilian managers were issues related to communication, with 17 managers mentioning it, teamwork with 12 managers citing it, and work interaction with 11 managers noting it.

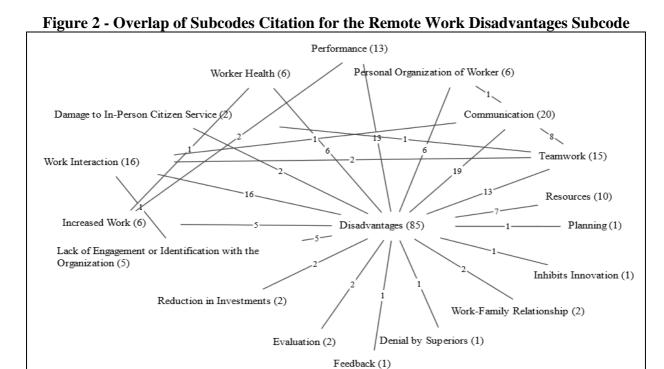
It is observed that less frequent communication with colleagues and supervisors, as well as limited social contact, can negatively impact employee satisfaction and productivity, as discussed by Nemteanu and Dabija (2021). The interviewed managers emphasize the need to avoid isolating team members, as illustrated by the statement: "Clear and frequent communication with the entire team is crucial. This is undoubtedly the most important factor for managing a team that is working remotely" (Manager, Man, Brazil, 35 years old, high school, 7 years in the organization, 4 years in management, 9 subordinates).

Thulin, Vilhelmson, and Wetterstrand (2019) and Wang *et al.* (2023) note that one disadvantage is that remote work can lead to professional and social isolation, which may increase stress and decrease work engagement. This issue is well represented by the manager:

I think you spend time away from work, which reduces this connection. I believe that in-person work has something extra; people naturally open the door and go give a hug, have a coffee with a colleague, which decreases in remote work. I think it's a negative impact on personal



relationships, which become less strengthened with remote work (Manager, Man, Brazil, 61 years old, PhD, 17 years in the organization, 16 years in management, 80 subordinates).



Source: Self elaboration

Regarding the overlaps of subcodes within the disadvantages code, as observed in Figure 2, there is the greatest overlap between increased workload, performance, and personal organization of the worker. This indicates that the issue of work overload affects both performance and organization. Additionally, the overlap between work interaction and teamwork and communication is notable.

Both Portuguese and Brazilian managers identified the advantages and disadvantages of remote work, including hybrid formats, similarly. The most significant advantages reported were improved worker performance, cost reduction (both organizational and personal), and better worker health and quality of life. The disadvantages noted by both nationalities were communication issues, social interaction problems, and teamwork challenges.

Changes in Team Management and Mechanisms

Organizational changes for implementing telework were discussed by the interviewed managers, providing insights into challenges faced, as well as issues related to resources, motivation, productivity, among other aspects. The first part of this discussion addresses the challenges encountered, as presented in Table 3.



Table 3 - Challenges in Implementing Remote Work

Challenges	Brazil	Portugal	Total
Adaptation to Remote Work	8	6	14
Team Communication and Interaction	2	10	12
Worker Performance Issues	6	1	7
Performance Evaluation	5	2	7
Providing Resources to Workers	4	2	6
Criteria for Remote Work	3	2	5
Return to On-Site Work	0	5	5
Increased Work for Management	3	1	4
No Major Challenges	0	3	3
Urgencies	2	0	2
Responsibility for Organizational Assets and Information	2	0	2
Increase in Volume of Information and Work	2	0	2
Pressure from Workers for Adoption	1	1	2
Flexibility Serving Public Interest	1	0	1
Conflict Resolution	1	0	1
Process Improvement	1	0	1

Source: Self elaboration.

COVID-19 was undoubtedly the greatest driver for the widespread adoption of remote work by public organizations, given the urgent need to maintain public services while ensuring the health of both workers and citizens who require these services. However, these changes presented managers with various challenges, with the most frequently mentioned being the overall adaptation from in-person to remote work, particularly concerning the managers themselves. As one manager noted: "There are some managers who cannot handle it. They are rooted in the belief of 'I need them here for 8 hours,' they need to see them working here, so there is also this aspect of wanting to reduce or even eliminate remote work" (Manager, Man, Brazil, 35 years old, high school, 7 years in the organization, 4 years in management, 9 subordinates).

The second most frequently cited challenge was the changes in team communication and interaction, as the in-person dynamics were no longer present, as reported:

Before, it was very easy to go down the stairs or talk to someone directly. Now, it's about picking up the phone, having Teams meetings, which can be more tiring. What could be resolved in less time now takes more time to resolve. I think in that aspect, yes, it can be a challenge, and it is also a challenge for the leader to keep the team united and maintain team spirit, so it also falls on us to promote that (Manager, Woman, Portugal, 43 years old, bachelor's degree, 4 years in the organization, 1 year in management, 16 subordinates).

The third biggest challenge was managing and adapting the performance evaluation of workers and the workers' own performance, as highlighted by the manager: "Those who do not want to work will

find a way not to work, whether in remote or in-person work. However, it is a bit more difficult to evaluate and take action against someone who is working remotely" (Manager, Man, Brazil, bachelor's degree, 11 years in the organization, 4 years in management, 12 subordinates).

Figure 3 - Overlap of Subcodes Citation for the Challenges in Implementing Remote Work Subcode



Source: Self elaboration.

From the information provided by the managers, the overlapping subcodes within the challenges code revealed that team communication and interaction overlapped with providing resources to workers, handling urgencies, increased workload for management, performance evaluation, and worker performance issues. This suggests that disruptions in communication and interaction impact these other issues represented by these subcodes.

Differences in the perception of challenges between managers from both countries were evident. Although adaptation to remote work is a common issue, Brazilian managers identified performance evaluation and worker performance as the primary challenges. Portuguese managers, on the other hand, emphasized communication and social interaction as more significant challenges.

Similarly, Forte, Santinha, and Carvalho (2021) and Andrade and Lousã (2021) highlight that adapting activities to remote work presents a unique challenge, particularly regarding technological integration, team interaction, and maintaining effective communication. Regarding leadership, Carvalho *et al.* (2022) report the need for leadership support to help workers optimize their work-family balance. Stanciu *et al.* (2023) demonstrate the necessity for leaders to exhibit cooperative behavior rather than a more autocratic style in remote work settings.



The remaining aspects of changes in team management and mechanisms in implementing remote work are detailed in Table 4.

Table 4 - Changes in Team Management and Mechanisms in the Implementation of Remote Work

Observed Changes	Brazil	Portugal	Total
Access to Resources for Performing Work	13	20	33
Physical and Mental Well-being	12	21	33
> Mental	11	16	27
> Physical	6	16	22
Productivity	11	20	31
Communication	11	20	31
Motivation	12	18	30
Collaboration	10	19	29
Work-Life Balance	11	16	27
Engagement	9	16	25
Satisfaction	8	14	22

Source: Self elaboration.

As observed in Table 4, the primary concerns of managers during the transition to remote work were ensuring access to resources for performing work and addressing the physical and mental well-being of workers, which both Portuguese and Brazilian managers agreed upon. In addition to resource access, most Portuguese managers emphasized issues related to worker productivity and communication. Most Brazilian managers also highlighted concerns about motivation.

The changes regarding access to resources for remote work varied over time and across structures. Initially, during the COVID-19 pandemic, the issue of access was marked by a lack of equipment, as observed in the following excerpt:

Not always; there was a period when the organization was not even able to provide the necessary material resources, and everyone, with great dedication to their work and team spirit, had to improvise. Many even invested their own money to acquire the material resources that would allow them to work remotely (Manager, Woman, Portugal, 40 years old, bachelor's degree, 5 years in the organization, 5 years in management, 10 subordinates).

During the pandemic period, actions such as lending equipment were also observed, as illustrated by the following case:

We created a WhatsApp group where people had access to a catalog. In this catalog, they could say, I want a laptop stand, I want a footrest, I want a mouse pad, I want a mouse, I want a keyboard, I want a second screen. [...] And we allowed people to make requests. When they did, we would say: Look, everything requested by Wednesday can be picked up on Friday. [...] We



also included a little card with a message: Name, we hope this makes your home office more enjoyable. Count on us. Stay home for us. We are here for you. [...] And we had a little card, like those hotel door hangers that say Do not disturb, but ours said: [name omitted] is in a meeting. You could hang it on your door so your child wouldn't knock (Manager, Woman, Brazil, 44 years old, bachelor's degree, 25 years in the organization, 25 years in management, 70 subordinates).

Adaptation of systems for remote work, both during and after the pandemic, included the adoption of systems running on VPN (Virtual Private Network), as demonstrated by the following statement:

"What is provided for everyone is that people maintain their work positions and must have a laptop at home with VPN access, and this laptop is not provided by the organization" (Manager, Woman, Portugal, 49 years old, master's degree, 20 years in the organization, 7.5 years in management, 7 subordinates).

After the pandemic period, in most organizations, the equipment costs are borne by the employees, as noted in the following excerpt:

One of the premises of remote work is that it requires home infrastructure. The university did not provide infrastructure for this. Even in our case, we provided webcams as well because having meetings with the camera off is challenging, but we did not provide infrastructure for anyone. What we provide is infrastructure if VPN access is needed and so on (Manager, Man, Brazil, 45 years old, doctorate, 13 years in the organization, 9 years in management, 100 subordinates).

Concerns about physical and mental well-being, whether through specific programs aimed at mental and physical health, the availability of health professionals such as doctors and psychologists, or just leadership initiatives, were prominent among the managers interviewed, especially in the context of remote work. Concerns about mental well-being were noted by Brazilian managers and similarly by Portuguese managers.

Portuguese managers reported conducting webinars on health, nutrition, and happiness at work, offering online sessions of pilates, meditation, and yoga, as well as monthly social gatherings called "Cafeína" to combat social isolation. They also provided psychological consultations and occupational health services. Brazilian managers, on the other hand, provided both in-person and online psychological support, organized workshops on mental health, implemented workplace fitness initiatives, scheduled breaks, and maintained open dialogue to understand employees' individual needs. In some organizations, they proactively called and encouraged contact to check on workers' well-being, managed conflicts, and reassigned staff to ensure a healthy and productive work environment.



It is noteworthy that concerns during the pandemic were more pronounced and required more significant actions from managers regarding mental well-being, as illustrated by the following Brazilian manager's experience:

Everyone received a call. So, if you were a general coordinator, the general coordinator of HR would call you. "This is [name omitted] from HR, I'm calling to check if you're okay, if your family is okay, if you need anything. Note down my number if you need anything." Interns would call other interns, and outsourced staff would call other outsourced staff, because sometimes people felt intimidated. Or you might think, "Oh, an intern called me." So, we tried to mobilize a task force. Within two months, everyone received a call. We named the initiative "Acolhe RH". Some people would say, "Thank you for the call, but everything is fine, thanks." And some would spend two hours venting because they needed to talk to someone. We then guided HR on what to do if a call revealed someone was depressed, because they're not psychologists. There was a protocol for what to do if a call led to a serious issue (Manager, Woman, Brazil, 44 years old, bachelor's degree, 25 years in the organization, 25 years in management, 70 subordinates).

Or as with concerns about physical and mental well-being, in structured activities, as mentioned by the Portuguese manager:

Our Human Resources were very proactive in providing alternatives to people. For example, they created packages that individuals could choose to participate in or not. Even today, for instance, some people do online yoga or sessions related to mental health. They were very proactive in implementing activities and tools that allowed those who wanted to participate. They frequently emphasized mental health issues, encouraged exercise, and stressed the importance of taking breaks at work. We always maintain this concern; our Human Resources are very active in this area (Manager, Woman, Portugal, 51 years old, bachelor's degree, 27 years in the organization, 8 years in management, 23 subordinates).

In terms of productivity, it was clear to both Portuguese and Brazilian managers that teleworkers, in most cases, experienced a productivity gain. During the pandemic period, productivity varied depending on the nature, individual factors, and team management itself, as stated in the excerpt:

Eventually, the team was shaken by the upheavals of the pandemic, and as the drama of families increased, their productivity declined. So, during those times when there was a surge here, with no hospital beds available, and someone had COVID, everyone was under tension. However, each person's best day, their best effort each day, was different, but we had a lot of confidence that most people, as a rule, were doing their best. The exception was a few who took advantage of the lack of controls (Manager, Woman, Brazil, 44 years old, bachelor's degree, 25 years in the organization, 25 years in management, 70 subordinates).

Or due to the perception that telework is a benefit for the worker and to remain in this modality, it is necessary to demonstrate performance, as in the case: "The idea developed that, as a benefit, you

had to somehow return to the administration an individual productivity gain" (Manager, Man, Brazil, 50 years old, graduate, 32 years with the organization, 28 years of management, 460 subordinates).

In addition to these aspects, the relationship between the worker's quality of life and the telework model produces better performance, as observed in the excerpt:

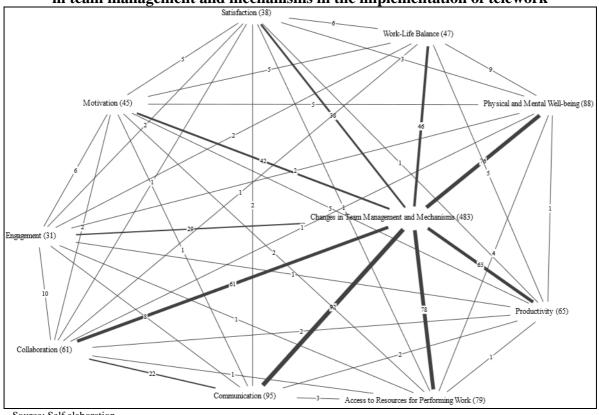
We believe that when employees are happy, they work better. So, since telework greatly improves quality of life, with its particular benefit to the employee, and also reduces, for example, the commuting time from home to the institution, it significantly improved productivity. It enhanced the processing of tasks and greatly improved the overall quality of work. Thus, this change had a very positive impact on the organizational aspect of implementing telework for employees (Manager, Man, Brazil, 35 years old, high school education, 7 years with the organization, 4 years of management, 9 subordinates).

Changes related to communication were presented as an essential factor for the success of telework, both in terms of systems and equipment that facilitate communication, as in the excerpt: "Here we use Teams, which is a tool that people use, from Microsoft, relatively good, and also have WhatsApp groups, WhatsApp groups are relatively efficient" (Manager, Man, Brazil, 50 years old, PhD, 28 years with the organization, 15 years of management, 21 subordinates), and in the management of communication with teams, as in the statement: "We try very hard, we encourage a lot the increase of synchronous communication, you have to make more records. You finally migrate from oral communication to written communication. [...] Virtualization stimulates this. So, having someone in telework stimulates more recording of things and having better management elements" (Manager, Man, Brazil, 50 years old, graduate, 32 years with the organization, 28 years of management, 460 subordinates).

The main overlaps of subcodes during the interviews on the topic of changes in team management and mechanisms, as observed in Figure 4, were related to collaboration and motivation with 9 overlaps of subcodes each, meaning they overlapped with all the subcodes of this code. However, this is still a very small amount compared to the frequency of citations of the code, which totals 483 citations.

Similarly, the changes faced by Portuguese and Brazilian managers with their teams in this transition to telework summarize into ensuring access to necessary resources, caring for well-being, improving communication, and other actions to ensure the development of activities, significantly influencing team and organizational productivity and performance. In this regard, Brazilian and Portuguese managers converge in pointing out that telework improved productivity and communication, and worker well-being was a concern that warranted adaptations.

Figure 4 - Overlay of citation subcodes for the subcode changes in team management and mechanisms in the implementation of telework



Source: Self elaboration

The main differences observed were that Brazilian managers placed more emphasis on actions to motivate workers, the teleworker's responsibility for their work equipment, and health-related actions such as mental health workshops, workplace gymnastics, and open dialogue for individual needs. For the Portuguese, it was noted that managers emphasized productivity and communication, the use of VPN, webinars on health, nutrition, happiness, pilates sessions, meditation, yoga, and a social gathering called "Cafeina" (How to caffeine).

Among the innovative actions and best practices, the top highlight is the care for workers' health as mentioned in the previous paragraph, sending motivational cards, and implementing a WhatsApp group with a "menu" for equipment and support requests. Another important practice highlighted was "Acolhe RH" (how to "Welcome HR"), where all workers received individual calls to check their status and offer support. Additionally, the use of tools that enhanced communication, such as Microsoft Teams and WhatsApp, improving synchronous communication and providing written records of these communications, was significant.



Perception of Managers on Telework

The intensification of telework, remote work, or home office from the beginning of 2020 due to the sanitary need for social isolation in the face of the COVID-19 pandemic required public managers to adapt necessary changes to maintain the functioning of public organizations. Consequently, they gained relevant experiences and perceptions on how to manage people in telework and the observed impacts.

The first part of these perceptions relates to the trend of telework in public management. Table 5 presents these results.

Table 5 - Perception of Managers on the Trend of Telework

Telework Trend	Brazil	Portugal	Total
Productivity	7	2	9
Reduction of Costs for Public Management	5	3	8
Quality of Life for the Worker	4	3	7
Use of Technologies	2	3	5
Flexibility of the Model	2	3	5
Pressure from Workers	3	2	5
Social Interaction of the Worker	1	2	3
Need for In-Person or Hybrid	2	1	3
Returning to In-Person	1	1	2
Associated with Deliverables (Performance Evaluation)	1	1	2
Difficult to Revert to 100% In-Person	2	0	2
Autonomy of Agencies to Adopt Telework	1	0	1

Source: Self elaboration.

Telework as a trend was extensively discussed by the managers participating in the research, as shown in Table 5, where only 2 managers, one Brazilian and one Portuguese, stated that the trend is to return to in-person work. The other managers asserted that the telework model, especially the hybrid model, is a trend, as explained by the manager:

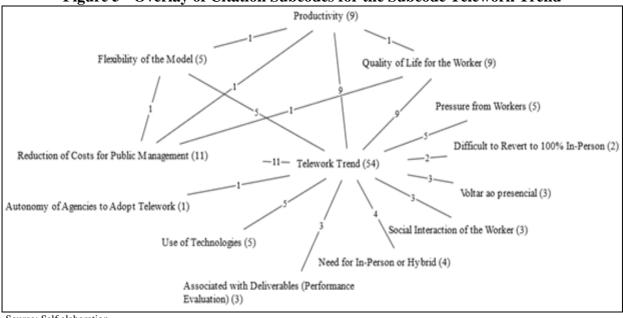
Because the impact is very positive, not only on quality of life, I'll mention quality of life again, but also on the way productivity of services being performed is monitored. As I mentioned earlier, we are trying to link this productivity monitoring to a resizing of the workforce. So, telework is beneficial not only for the employees themselves but also for the institution and is expected to improve even more. I believe it has arrived as a new way of working and is here to stay, and should prevail for many years (Manager, Man, Brazil, 35 years old, high school education, 7 years with the organization, 4 years of management, 9 subordinates).

The main differences were: for Brazilians, the use of this work modality is a trend due to its improvement in performance, reduction of costs for public management, and enhancement of workers' quality of life. For the Portuguese, it is a trend because of the reduction in costs for public management,

improvement in workers' quality of life, the opportunity to use technological tools and equipment, and the inherent flexibility of the model.

Observing Figure 5, the subcode that stands out due to the number of citation overlaps is the reduction of costs and productivity with the flexibility of the model, as well as the quality of life of the worker, factors that are important for the decision to use the telework model or a hybrid model.

Figure 5 - Overlay of Citation Subcodes for the Subcode Telework Trend



Source: Self elaboration.

Recommendations for other public managers in the implementation of telework were also observed in the research, with the main points presented in Table 6.

As shown in Table 6, there is a consensus among both Brazilian and Portuguese managers that the most important actions pertain to the focus on performance evaluation and the support that managers need to provide to workers, including psychosocial support, planning, goal tracking methods, access to resources for performing work, among others. As recorded in this interview excerpt:

I think above all it's about trying to reconcile, trying to meet the expectations of workers and provide them with the best possible working conditions within the current legal framework, because I believe that people are indeed the most important factor in organizations, and unhappy workers certainly do not allow for good organizational performance or truly good productivity (Manager, Woman, Portugal, 59 years old, bachelor's degree, 9.5 years with the organization, 9.5 years of management, 38 subordinates).

The promotion of effective communication and worker participation in planning and decisionmaking arenas were other points highlighted by most managers from both countries. The differences



were that, for the Portuguese, trust in the team and conducting a prior diagnosis of people management to determine necessary adaptations are important points. For the Brazilians, another significant point is generating social interaction and connection with the organization, particularly by promoting meetings among workers, both in-person and remotely.

Table 6 - Recommendations for Other Public Managers on Using Telework

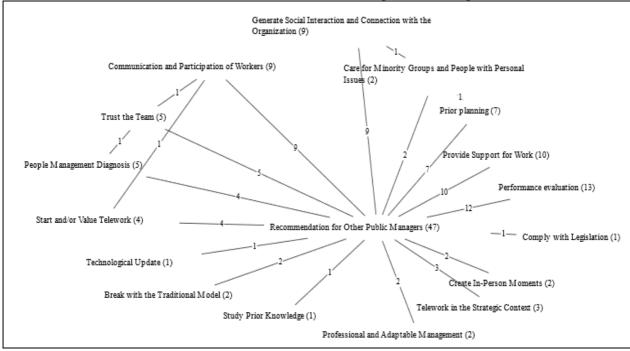
Recommendation for Other Public Managers	Brazil	Portugal	Total
Performance evaluation	8	3	11
Provide Support for Work	4	6	10
Communication and Participation of Workers	3	5	8
Generate Social Interaction and Connection with the Organization	5	2	7
Trust the Team	2	3	5
Prior planning	3	2	5
People Management Diagnosis	1	3	4
Start and/or Value Telework	1	2	3
Create In-Person Moments	0	2	2
Telework in the Strategic Context	1	1	2
Professional and Adaptable Management	0	2	2
Care for Minority Groups and People with Personal Issues	2	0	2
Study Prior Knowledge	0	1	1
Break with the Traditional Model	1	0	1
Technological Update	1	0	1
Comply with Legislation	1	0	1

Source: Self elaboration.

As shown in Figure 6, the recommendations for other public managers that most frequently overlapped in the interviewees' citations were: trusting the team, conducting a people management diagnosis, ensuring communication and promoting worker participation, and caring for minority groups and individuals with personal issues, as well as generating social interaction and connection with the organization and performing prior planning.



Figure 6 - Overlay of Citation Subcodes for the Subcode Recommendations for Other Public Managers on Using Telework



Source: Self elaboration.

The managers also provided information on which aspects of legislation need to be adjusted (Table 7).

Table 7 - Perception of Managers on Legislation Applied to Telework

Perception of Managers on Legislation	Brazil	Portugal	Total
Flexibility	5	5	10
Performance Measures	8	1	9
Adequate	2	6	8
Costs for Work Structure of the Employee	4	3	7
Responsibility for Illness and Work Accidents	3	2	5
Legal Security for the Worker to Remain in Telework	1	3	4
Data/Information Security	3	0	3
Work Hours Provision	0	2	2
Punishment for Employee in Telework	1	0	1
Support for Family Needs	0	1	1
Telework May Weaken Labor Collectivity	0	1	1
Formalization of the Employment Contract	1	0	1

Source: Self elaboration.

Based on the data from Table 7, for most Portuguese managers, the legislation is considered adequate, whereas Brazilian managers indicate a need to clarify performance measures for teleworking employees. Overall, between Portuguese and Brazilian managers, the majority reported that the issue of flexibility should be better discussed and addressed in the legislation, both in terms of increasing and reducing flexibility, as stated by the Portuguese manager:



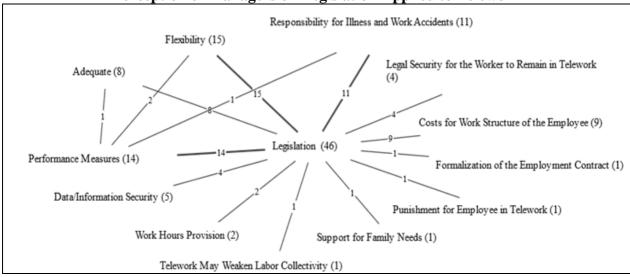
I believe that the Portuguese Public Administration and the Government have had the capacity and agility to produce specific legislation based on needs, including the urgent requirements we had at the beginning of the pandemic and now the adaptations. We have the tools from a legal standpoint; I think we have the instruments (Manager, Man, Portugal, 58 years old, master's degree, 7 years with the organization, 5 years of management, 9 subordinates).

From the Brazilian manager:

I think the management program today is as good as it could be. Now, we need more studies and data to further improve the legislation (Manager, Man, Brazil, 35 years old, bachelor's degree, 11 years with the organization, 4 years of management, 12 subordinates).

As observed, both Portuguese and Brazilian managers find the regulations and laws to be adequate. However, it is worth noting that Brazilian federal public agencies have legislation regarding the Performance Management Program, which includes provisions for telework.

Figure 7 - Overlay of Citation Subcodes for the Subcode Perception of Managers on Legislation Applied to Telework



Source: Self elaboration.

The overlaps observed in Figure 7 relate to performance measures and issues related to flexibility, followed by "legislation is adequate" and responsibility for illness and work accidents. Discussions revolve around the flexibility of current legislation, which does not clearly address performance measures, and the responsibility of organizations in the event of an accident or illness occurring during telework.

The final aspect discussed is related to the best work arrangement within public organizations, with the data summarized in Table 8.



Table 8 - Best Work Arrangement for Managers

Best Arrangement	Brazil	Portugal	Total
Hybrid	7	19	26
100% Telework	3	0	3
Depends on the Nature of the Work and the Organization	1	1	2
In-Person	1	0	1

Source: Self elaboration.

Table 8 clearly shows the strong preference for the hybrid model, with part of the work done in person and part done remotely, as explained by the manager:

I am an advocate of the hybrid work model; I am not an advocate of exclusively remote work or telework. For several reasons, including the people who are in the team, those who are new to the team, the need for interactive moments, and the need to plan and work on things together, I consider this to be particularly important (Manager, Man, Portugal, 58 years old, master's degree, 7 years with the organization, 5 years of management, 9 subordinates).

The main arguments related to the hybrid work model are consolidated in this manager's statement, highlighting the need for social interaction, planning discussions, and informal exchanges. Other justifications include cost reduction for public administration, such as the sharing of spaces and equipment, where the hybrid model allows workers to use the same workspaces at different times.

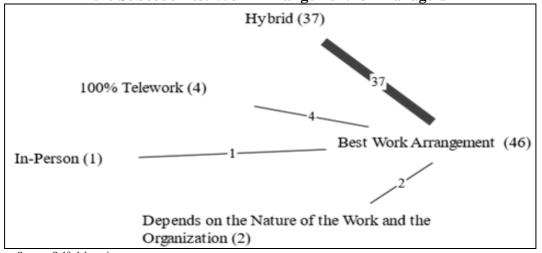
However, the definition of in-person and remote work hours needs to be strategically determined, with preparation of leadership, as explained by the manager:

So, I want to be a strategic people manager; I don't think that's strategic. I speak from the heart, I don't believe in the hybrid model by force. I think the hybrid model needs to have a purpose. So, I need you every Wednesday. Why? Because Wednesday is our briefing day, the day we pass on knowledge, it's the day we do balance and planning meetings, it's the day we talk about cocreation and we run test balloons in our innovation lab. Wednesday is shopping day, Wednesday is the day to make friendships, Wednesday is the day of the wall of lamentations, whatever you want to do on Wednesday in person. You schedule Wednesday with something that can't be done online or wouldn't be done with the same quality. Because having someone take the bus and travel to have a meeting on Teams, with noise around, and producing less, is shooting yourself in the foot. Got it? And don't tell me that at the end of the month, it was good to meet me in the restroom. We had an incidental chat that wouldn't have happened if we weren't at the headquarters. That coffee chat was worth a month on the day we bumped into each other. Man, do you need a coffee chat to bump into someone? Schedule an agenda-less meeting. Online coffee chat, got it? It needs to be. I'll put you 30 hours at the headquarters because maybe at some point we'll meet and remember. Be intentional. I need time to meet people without fail. Chat casually. Create the spaces (Manager, Woman, Brazil, 44 years old, bachelor's degree, 25 years with the organization, 25 years in management, 70 subordinates).

It is clear that the definition of work moments needs to be set clearly and with purpose, allowing people to perceive transparency and fairness in these definitions, and consequently generating greater commitment and satisfaction.

As observed in Figure 8, there was no overlap in citations among the analyzed subcodes. This section clearly demonstrates that telework is viewed positively by managers, considering its improvement in productivity, reduction in costs, and enhancement of workers' quality of life. These factors are discussed and appear in the research results of Mele, Belardinelli, and Bellé (2023), Wang et al. (2023), Nemteanu and Dabija (2021), Çoban (2021), Andrade and Souza (2023), Aguiar et al. (2022), Sousa-Uva et al. (2021), Élldér (2020), Filardi, Castro, and Zanini (2020), Velasco, Pantoja, and Oliveira (2023), Forte, Santinha, and Carvalho (2021), and Sousa-Uva et al. (2021) among others.

> Figure 8 - Overlay of Citation Subcodes for the Subcode Best Work Arrangement for Managers



Source: Self elaboration

Managers also provided advice to other public administration managers on telework, emphasizing the importance of providing support and effective communication, as discussed in the research by Nakrošienė, Bučiūnienė, and Goštautaitė (2019), Nemteanu and Dabija (2021), Slyke et al. (2022), Härtel, Hüttemann, and Müller (2023), Forte, Santinha, and Carvalho (2021), and Carvalho et al. (2022). They also highlighted the importance of trust in their team as a key advice for efficient management of telework.

Regarding legislation, most managers stated that the legislation is appropriate for the current reality. This point is also covered by Belzunegui-Eraso and Erro-Garcés (2020), Vilarinho, Paschoal, and Demo (2018), Filardi, Castro, and Zanini (2020), Costa e Silva et al. (2022), Machado and Toledo (2022), Forte, Santinha, and Carvalho (2021), Madureira and Rando (2022), and Mendonça et al. (2022), indicating that changes in legislation have resulted in challenges. In Brazil, Law No. 13.467/2017 regulates telework, while in Portugal, the General Law of Public Functions has been adapted to mandate telework in specific cases.



Finally, for the vast majority of research participants, the hybrid model is preferred as it allows for better social interaction and strategic in-person moments for planning and collaboration.

Comparison of Managers' Perceptions on Telework Teams

The discussions in this research highlighted the perceptions and experiences of Brazilian and Portuguese managers regarding the implementation and use of telework in public organizations. Table 9 provides a summarized overview of the main aspects raised.

Table 9 - Comparative Synthesis of Key Aspects Raised

Table 3 - Comparative Synthesis of Key Aspects Raiseu						
Aspect	Topics	Main Congruences	Brazilians*	Portuguese*		
Managers' Perception on Remote Work	Advantages	Performance, cost reduction, worker health, quality of life, and communication	Team formation and retention	Organizational communication and worker's personal organization and work-family balance		
	Disadvantages	Communication issues and teamwork; Performance issues	Performance problems	Interaction issues problems		
Changes in Team	Challenges in Telework Implementation	Adaptation to remote work	Employee performance issues and performance evaluation	Team communication and interaction and return to face-to-face work		
Management and Mechanisms	Other Aspects of Changes	Actions to access resources to carry out work and physical and mental well-being. Perception of productivity, communication and motivation				
	Trend	Cost reduction for public management and worker's quality of life	Productivity	Technology use and flexibility of the model		
Perception on	Advice for Other Public Managers	Performance evaluation and Support, communication, and worker participation	Social interaction and organizational connection	Trust in the team and management diagnosis		
Telework Trend	Legislation Perception	Flexibility	Performance measures	Adequacy of current legislation		
	Best Work Arrangement for Managers	Hybrid				

Source: Self elaboration.

Note: *The columns for Brazilians and Portuguese reflect the main points highlighted by the majority of respondents from each country, excluding congruent points.

In summary, the main advantages of telework identified were improved performance, cost reduction, better worker health and quality of life, and enhanced communication. The disadvantages included communication issues and teamwork challenges. Brazilians discussed advantages related to team formation and retention and performance problems, while Portuguese managers noted improvements in personal organization and work-family balance, along with issues related to work interaction.

Changes in team management and mechanisms showed congruences among managers, including actions for resource access, physical and mental well-being, and perceptions of productivity, communication, and motivation. Managers generally viewed resource access and worker well-being as challenges, while productivity, communication, and motivation were mostly considered positive factors.

Managers perceive telework as a trend due to cost reduction and improved quality of life, with Brazilians emphasizing productivity and Portuguese managers highlighting technology use and



flexibility. They emphasized the importance of performance evaluation and the supporting teleworkers, improving communication, and engaging workers as advice for public managers. Brazilian managers recommended creating social interactions and organizational bonds, while Portuguese managers advised trusting the team and conducting a prior management diagnosis.

Regarding legislation, flexibility remains a key issue requiring more attention from legislators. Brazilians emphasized the need for legal guidelines on performance measures, whereas Portuguese managers considered the current legislation adequate.

Finally, regarding the best work arrangement, most public managers favor the hybrid model, combining both remote and in-person work.

CONCLUSION

The changes in team management during telework have proven to be challenges for public managers, a process accelerated by the COVID-19 pandemic that represented both challenges and opportunities for cultural change and modernization of techniques and technologies. In this context, this research aimed to analyze managers' perceptions of teams under telework regimes in public organizations in Brazil and Portugal.

The results reveal similar perceptions and experiences among the interviewed managers, such as the performance improvements that telework has provided, benefits to worker health and quality of life, and cost reductions for both the organization and its staff. Managers emphasized challenges related to team collaboration and communication. They indicated that effective people management in telework requires performance evaluation and providing necessary resources to workers and implementing actions that contribute to their well-being at work. Managers from both countries prefer the hybrid model: part of the work time in-person and part remote.

Observed differences were few: regarding telework advantages, Brazilians highlighted ease in team formation and increased productivity, while Portuguese managers noted improvements in workfamily balance and personal organization. Disadvantages observed by Portuguese managers included work interaction issues, while Brazilians identified personnel performance problems, although they also noted overall productivity increases.

The theoretical contributions include presenting practices not yet explored in the literature, such as intentional or purposeful in-person work, especially in large cities, justifying the need for workers' presence and trust in the team. The reviewed literature discusses leader trust as a success factor for telework; here, it was observed that leader trust in their team is also a significant factor.



The empirical contributions are more evident, as other studies have not analyzed perceptual differences between Portuguese and Brazilian managers regarding telework.

Study limitations include the non-probabilistic sample used and the data collection period, which prevent generalizations. Future research could explore the cultural aspects of nations and their influence on people management in telework as a promising area of investigation.

REFERENCES

ABREU E SILVA, J. "Residential preferences, telework perceptions, and the intention to telework: insights from the Lisbon Metropolitan Area during the COVID-19 pandemic". **Regional Science Policy and Practice**, vol. 14, n. 1, 2022.

ADAMOVIC, M. "How does employee cultural background influence the effects of telework on job stress? The roles of power distance, individualism, and beliefs about telework". **International Journal of Information Management**, vol. 62, 2022.

AFONSO, P.; FONSECA, M.; TEODORO, T. "Evaluation of anxiety, depression and sleep quality in full-time teleworkers". **Journal of Public Health**, vol. 44, n. 4, 2021.

AGUIAR, S. F. B. *et al.* "Telework and women: perceptions of balancing professional and family life". **Cadernos EBAPE.BR**, vol. 20, n. 6, 2022.

ANDRADE, C.; LOUSÃ, E. P. "Telework and Work–Family Conflict during COVID-19 Lockdown in Portugal: The Influence of Job-Related Factors". **Administrative Sciences**, vol. 11, n. 3, 2021.

ANDRADE, P. A. F.; SOUZA, M. J. R. "O impacto da implementação do teletrabalho nas análises dos projetos de pesquisa, desenvolvimento e inovação na Superintendência da Zona Franca de Manaus". **Revista de Carreiras e Pessoas**, vol. 13, n. 1, 2023.

ATHAYDE, A. P. F.; FIGUEIREDO, A. "Gestión pública del deporte: descripción y análisis comparativo de la estructura organizativa en Brasil y Portugal". **Retos**, vol. 51, 2024.

AYED, W. et al. "Psychological impact of telework during the COVID-19 pandemic in Tunisia". **European Psychiatry**, vol. 66, n. 1, 2023.

BARROS, A. O.; GOIS, S. R. F. S. M.; TRIGO, J. A. "Qualidade de vida de teletrabalhadores de uma organização pública federal brasileira". **Boletim de Conjuntura (BOCA)**, vol. 18, n. 54, 2024.

BELZUNEGUI-ERASO, Á.; ERRO-GARCÉS, A. "Teleworking in the Context of the Covid-19 Crisis". **Sustainability**, vol. 12, 2020.

BJURSELL, C.; BERGMO-PRVULOVIC, I.; HEDEGAARD, J. "Telework and Lifelong Learning". **Frontiers in Sociology**, vol. 6, 2021.

CAETANO, E. F. S.; CAMPOS, I. M. B. M.; CAVALCANTI, V. P. A "Captação de Recursos Próprios pelas Universidades Públicas Federais: autonomia ou mercantilização?". **FINEDUCA - Revista de Financiamento da Educação**, vol. 11, 2021.



CARVALHO, V. S. *et al.* "Family supportive supervisor behavior and work-family boundary control in teleworkers during a lockdown: Portugal and Pakistan comparison". **Frontiers in Psychology**, vol. 13, 2022.

ČIARNIENĖ, R.; VIENAŽINDIENĖ, M.; ADAMONIENĖ, R. "Teleworking and sustainable behaviour in the context of COVID-19: the case of Lithuania". **Engineering Management in Production and Services**, vol. 15, n. 1, 2023.

ÇOBAN, S. "Gender and telework: Work and family experiences of teleworking professional, middleclass, married women with children during the Covid-19 pandemic in Turkey". **Gender, Work and Organization**, vol. 29, 2022.

COSTA E SILVA, T. F. *et al.* "Teletrabalho na Pandemia de Covid-19: quais as contribuições da pesquisa brasileira em Administração?" **Revista de Administração da Unimep**, vol. 19, n. 12, 2022.

DÍEZ, N. L.; LÓPEZ-LÓPEZ, P. C.; MO GROBA, D. "Nuevos espacios, viejas agendas: la construcción temática de los procesos electorales de Portugal y Brasil en Twitter". **Journal of Iberian and Latin American Research**, vol. 26, n. 3, 2020.

DIMA, A. *et al.* "Sustainable Social and Individual Implications of Telework: A New Insight into the Romanian Labor Market". **Sustainability**, vol. 11, n. 3, 2019.

DINIZ, G. P. M. "O Controle Externo dos Contratos da Administração Pública pelo Tribunal de Contas: Ensaio sobre o Momento da Fiscalização Financeira Adotado no Brasil e em Portugal". **Cadernos do Programa de Pós-Graduação em Direito – UFRGS**, vol. 9, n. 1, 2014.

ÉLLDÉR, E. "Telework and daily travel: New evidence from Sweden". **Journal of Transport Geography**, vol. 86, 2020.

ELSAMANI. Y.; KAJIKAWA. Y. "How teleworking adoption is changing the labor market and workforce dynamics?". **Plos One**, vol. 19, n. 3, 2024.

ENTRADAS, M. *et al.* "Public communication by research institutes compared across countries and sciences: building capacity for engagement or competing for visibility?" **PLoS ONE**, vol. 15, n. 7, 2020.

FALANGA, R. *et al.* "Participatory budgets in Canoas (Brazil) and Cascais (Portugal): a comparative analysis of the drivers of success". **Journal of Civil Society**, vol. 16, n. 3, 2020.

FARCA, L.; DRAGOS, D. "Resilience in Times Of Pandemic: Is the Public Procurement Legal Framework Fit for Purpose?" **Transylvanian Review of Administrative Sciences**, vol. 16, 2020.

FILARDI, F.; CASTRO, R. M. P.; ZANINI, M. T. F. "Vantagens e desvantagens do teletrabalho na administração pública: Análise das experiências do Serpro e da Receita Federal". **Cadernos EBAPE.BR**, vol. 18, n. 1, 2020.

FORTE, T.; SANTINHA, G.; CARVALHO, S. A. "The COVID-19 Pandemic Strain: Teleworking and Health Behavior Changes in the Portuguese Context". **Healthcare**, vol. 9, n. 9, 2021.



GIOVANIS, E.; OZDAMAR, O. "Implications of COVID-19: The effect of working from home on financial and mental well-being in the UK". **International Journal of Health Policy and Management**, vol. 11, n. 9, 2021.

GOHOUNGODJI, P.; N'DRI, A. B.; MATOS, A. L. B. "What makes telework work? Evidence of success factors across two decades of empirical research: a systematic and critical review". **The International Journal of Human Resource Management**, vol. 34, n. 3, p. 605-649, 2023.

GONÇALVES, S. P.; GONÇALVES, J. P. "Qualidade e ética na investigação qualitativa". *In*: GONÇALVES, S. P. *et al.* (eds.). **Manual de investigação qualitativa**: conceção, análise e aplicações. Lisboa: Pactor, 2021.

GROEN, B. *et al.* "Managing flexible work arrangements: Teleworking and output controls". **European Management Journal**, vol. 36, n. 1, 2018.

HAIDER, M.; ANWAR, A. I. "The prevalence of telework under COVID-19 in Canada". **Information Technology & People**, vol. 36, n. 1, 2023.

HÄRTEL, T.; HÜTTEMANN, D.; MÜLLER, J. "Associations between the implementation of telework strategies and job performance: Moderating influences of boundary management preferences and telework experience". **Frontiers in Psychology**, vol. 14, 2023.

HOOK, A. *et al.* "A systematic review of the energy and climate impacts of teleworking". **Environmental Research Letters**, vol. 15, 2020.

IPSEN, C. *et al.* "Six key advantages and disadvantages of working from home in Europe during COVID-19". **International Journal of Environmental Research and Public Health**, vol. 18, n. 4, 2021.

KAZEKAMI, S. "Mechanisms to improve labor productivity by performing telework". **Telecommunications Policy**, vol. 44, n. 2, p. 1-15, 2020.

KIM, M. *et al.* "Teleworking is significantly associated with anxiety symptoms and sleep disturbances among paid workers in the COVID-19 era". **International Journal of Environmental Research and Public Health**, vol. 20, n. 2, p. 1488, 2023.

KING, N.; BROOKS, J. "Thematic analysis in organizational research". *In*: CASSELL, C.; CUNLIFFE, A. L.; GRANDY, G. (eds.). **The SAGE Handbook of Qualitative Business and Management Research Methods**: Methods and Challenges. London: Sage Publications, 2018.

KLEIN, L. L. et al. "Lean management and sustainable practices in Higher Education Institutions of Brazil and Portugal: A cross country perspective". **Journal of Cleaner Production**, vol. 342, 2022.

LAKE, B.; MAIDMENT, D. "Is this a new dawn for accessibility? A qualitative interview study assessing teleworking experiences in adults with physical disabilities post COVID-19". **Work**, vol. 79, n. 2, 2023.

LIEVORE, C. *et al.* "Universities of applied sciences in Brazil and in Portugal from conception to practice". **Interchange**, vol. 52, 2021.



LOPES, S.; DIAS, P. C. *et al.* "Employees' fit to telework and work well-being: (in)voluntariness in telework as a mediating variable?" **Employee Relations**, vol. 45, n. 1, 2023.

MACHADO, P. S. X.; TOLEDO, D. A. C. "Estudo bibliométrico da produção científica sobre o teletrabalho no serviço público em âmbito nacional". **Revista Reuna**, vol. 27, n. 2, 2022.

MADUREIRA, C.; RANDO, B. "Teleworking in Portuguese public administration during the COVID-19 pandemic: Advantages, disadvantages, work-life balance and motivation". **Work Organisation, Labour and Globalisation**, vol. 16, n. 2, 2022.

MELE, V.; BELARDINELLI, P.; BELLÉ, N. "Telework in public organizations: A systematic review and research agenda". **Public Administration Review**, vol. 83, n. 6, 2023.

MENDONÇA, I. *et al.* "Telework and mental health during COVID-19". **International Journal of Environmental Research and Public Health**, vol. 19, n. 5, 2022.

MOENS, E. *et al.* "The COVID-19 crisis and telework: a research survey on experiences, expectations and hopes". **The European Journal of Health Economics**, vol. 23, 2020.

NAKROŠIENĖ, A.; BUČIŪNIENĖ, I.; GOŠTAUTAITĖ, B. "Working from home: characteristics and outcomes of telework". **International Journal of Manpower**, vol. 40, n. 1, p. 87-101, 2019.

NEMTEANU, M.; DABIJA, D. "Negative impact of telework, job insecurity, and work–life conflict on employee behaviour". **International Journal of Environmental Research and Public Health**, vol. 20, n. 5, p. 4182, 2023.

PARK, S.; CHO, Y. J. "Does telework status affect the behavior and perception of supervisors? Examining task behavior and perception in the telework context". **The International Journal of Human Resource Management**, vol. 33, n. 7, 2022.

PASCHOAL, T. *et al.* "Qualidade de vida no teletrabalho, redesenho do trabalho e bem-estar no trabalho de professores de ensino público no Distrito Federal". **Contextus – Revista Contemporânea de Economia e Gestão**, vol. 20, 2022.

PRASAD, A. "The contest over meaning: hermeneutics as an interpretive methodology for understanding texts". **Organizational Research Methods**, vol. 5, 2002.

PRODANOV, C. C.; FREITAS, E. C. **Metodologia do trabalho científico**: métodos e técnicas da pesquisa e do trabalho acadêmico. Novo Hamburgo: Feevale, 2013.

RUSU, M. S. *et al.* "Determinants of job insecurity during COVID-19: quantitative insights from the Romanian labor market". **Employee Relations**, vol. 45, n. 5, 2023.

SANTOS, L. S.; PANTOJA, M. J. "Teletrabalho obrigatório e saúde mental: narrativas de trabalhadores no setor público". **Boletim de Conjuntura** (BOCA), vol. 18, n. 53, 2024.

SIEVERS, B. "Além do sucedâneo da motivação". **Revista de Administração de Empresas**, vol. 30, n. 1, 1990.

SILVA, M. R.; BARBOSA, M. A. S.; LIMA, L. G. B. "Usos e possibilidades metodológicas para os estudos qualitativos em administração: explorando a análise temática". **Revista Pensamento Contemporâneo em Administração**, vol. 14, n. 1, 2020.



SINVAL, J.; MARÔCO, J. "Short index of job satisfaction: validity evidence from Portugal and Brazil". **PLoS ONE**, vol. 15, n. 4, 2020.

SLYKE, C. *et al.* "Telework distress and eustress among Chinese teleworkers". **Journal of Global Information Management**, vol. 30, p. 1-29, 2022.

SOUSA-UVA, M. *et al.* "Telework during the COVID-19 epidemic in Portugal and determinants of job satisfaction: a cross-sectional study". **BMC Public Health**, vol. 21, 2021.

STANCIU, P. et al. "Dynamics of teleworking and impact on stakeholders in the current pandemic context". **Sustainability**, vol. 15, 2023.

TAVARES, F. *et al.* "Teletrabalho nas comunidades portuguesas durante a pandemia COVID-19". **Journal of Enterprising Communities: People and Places in the Global Economy**, vol. 15, 2021.

THULIN, E.; VILHELMSON, B.; WETTERSTRAND, M. "New telework, time pressure, and time use control in everyday life". **Sustainability**, vol. 11, n. 11, 2019.

TROPHARDY, Y. "Ontological anti-foundationalism in sociology". **Philosophy of the Social Sciences**, vol. 54, n. 2, 2024.

VARGAS, C.; SARMENTO, C.; OLIVEIRA, P. "Cultural networks between Portugal and Brazil: a postcolonial review". **International Journal of Cultural Policy**, vol. 23, n. 3, 2015.

VELASCO, S. M. V.; PANTOJA, M. J.; OLIVEIRA, M. A. M. "Qualidade de vida no teletrabalho compulsório no contexto da COVID-19: percepções entre os gêneros em organizações públicas". **Administração Pública e Gestão Social**, vol. 15, n. 1, 2023.

VILARINHO, K. P. B.; PASCHOAL, T.; DEMO, G. "Teletrabalho na atualidade: quais são os impactos no desempenho profissional, bem-estar e contexto de trabalho?" **Revista do Serviço Público**, vol. 72, 2021.

VRIES, H.; TUMMERS, L.; BEKKERS, V. "The benefits of teleworking in the public sector: reality or rhetoric?". **Review of Public Personnel Administration**, vol. 39, 2019.

WANG, H. *et al.* "Who knows me understands my needs: the effect of home-based telework on work engagement". **Psychology Research and Behavior Management**, vol. 16, 2023.



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