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## Examining the antecedents and conceptualisations of presenteeism and absenteeism in the workplace and its impact on teleworkers: a scoping review protocol

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
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### Abstract

Presenteeism and absenteeism impact an individual's ability to work efficiently. The onset of the COVID-19 pandemic has exacerbated their effect on teleworkers. The current literature regarding presenteeism and absenteeism is broad, with various definitions of both phenomena making it difficult for researchers to measure accurately. This scoping review protocol aims to examine existing definitions of presenteeism and absenteeism in the workplace and focus on the antecedents for why they occur among teleworkers. The scoping review protocol has been pre-registered on Open Science Framework ([osf.io/ur5a6](https://osf.io/ur5a6)). Online databases MEDLINE, CINAHL, PsycINFO, ABI Inform Global, SCOPUS, Web of Science and Business Source Premier will be searched to identify studies investigating presenteeism and absenteeism. Inclusion criteria will include individuals 18 or older who are part of the working population and currently employed in a teleworking environment for at least 50% of the working hours. The findings of this review will be of interest to companies and health professionals who seek to develop more practical policies and guidelines to assist those who engage in presenteeism and absenteeism.

## 1. INTRODUCTION

The COVID-19 pandemic has transformed many aspects of an individual's life, especially their workplace. To minimise the spread of the COVID-19 pandemic, a significant portion of the workforce has moved to working remotely. Technological advances and increased accessibility to technology have allowed individuals to transition to a virtual work environment, otherwise known as telework (Martínez-Tur et al., 2022). Telework is a flexible working method where individuals can work anytime from any place. It is defined as working outside the employer's workplace while utilising modern information and communication technologies (ICT) (Llave & Messenger, 2018). It is also understood as working from home or remote work (Llave & Messenger, 2018). While the number of employees working from home depends on the nature of their occupation and work, a significant increase of individuals who opted to work remotely during COVID-19 was present in several countries (Biron et al., 2021).

Having a flexible work environment due to working remotely presents both opportunities and challenges. The association between employees and their employers comes with the notion that the worker is always available. Increased work demand may lead to adverse physical and mental health outcomes. Telework comes with many caveats, some of the most prominent being presenteeism and absenteeism. Presenteeism can be defined as working despite being sick, thus reducing their overall work efficiency (Ruhle et al., 2020). Absenteeism is the inability to fulfil one's expected responsibilities, typically including unforeseen situations such as sick leave, leading to productivity loss (Avusuglo et al., 2023). Presenteeism and absenteeism occur across various occupations, leading to different physical and psychological health conditions.

Steidelmüller and colleagues (2020) found that there has been a strong positive association between teleworking and presenteeism using data from the pre-COVID 19 era (Steidelmüller et al., 2020). Furthermore, the increased incidence of sickness presenteeism across 35 European countries relates to telework and ICT-based mobile work (Steidelmüller et al., 2020). While health problems are a prominent reason for presenteeism and absenteeism, psychosocial factors also play a significant role. Absenteeism or presenteeism can be impacted by both individual and institutional factors such as attendance and rewards (Miraglia & Johns, 2016).

Presenteeism and absenteeism can change the employee's overall health and professional life and impact the organisations they work for. Presenteeism can be challenging to measure, and its relative invisibility makes its management an essential source of competitive advantage. A study by Tomohisa and colleagues (2018) found that presenteeism and absenteeism cost an estimated \$3055 and \$520 USD per person in Japan, respectively, revealing the significant economic costs associated with work-related productivity and absenteeism (Nagata et al., 2018). However, there is a scarcity of literature surrounding the topic in the context of telework from remote work. Additionally, there is a lack of research on the antecedents of presenteeism and absenteeism among workers in the context of telework, which would better inform employers and promote work-life satisfaction and productivity.

Ruhle and colleagues (2020) outline concerns with defining and measuring presenteeism, such as the various social, occupational, and cross-cultural aspects (Ruhle et al., 2020). Additionally, Navarro and colleagues (2019) state that both the definition and concept should be considered in research studies (Navarro et al., 2019). Due to employees' work constantly evolving through means such as telework, a more concise and possibly different definition may be needed to review the effects of presenteeism and absenteeism accurately throughout different contexts. Cooper and Locke (2007) define absenteeism as a lack of presence in the workplace while there is a social expectation for attendance. However, it is essential to recognise a common universal problem in the presence of individual differences (Cooper & Locke, 2007).

In contrast, Mason and Griffin (2003) describe absenteeism as the failure of an individual to show up at their workplace for whatever reason (Mason & Griffin, 2003). On the other hand, Feltz-Cornelis et al. (2020) define absenteeism as the psychological and physical symptoms of remote working that may lead to reduced work productivity (Van Der Feltz-Cornelis et al., 2020). Additionally, Sikorki (2001) has a drastically different definition of absenteeism in which the employee can either be absent, participating, or not present, experiencing and indicating a lack of attention and concern for their work (Sikorki, 2020). While most studies describe absenteeism as a lack of employee presence during working hours, their definitions vary (Grigore, n.d.). A scoping review can be effective when considering appropriate methods to understand the current state of the literature (Hervieux et al., 2020) and categorising the various definitions of absenteeism and presenteeism.

While the literature has identified various and often contrasting definitions of absenteeism (Cooper & Locke, 2007; Mason & Griffin, 2003; Van Der Feltz-Cornelis et al., 2020) it is unclear why teleworkers recurrently engage in presenteeism and absenteeism behaviours. It is, therefore, essential to explore literature in a systematic way to identify the full range of antecedents, or factors, that precede absenteeism and presenteeism behaviours, as well as how they are defined. This scoping review will

investigate the various definitions of presenteeism and absenteeism, specifically focusing on the antecedents for why they occur within telework. Creating a more concise definition of both terms may improve our understanding of presenteeism and highlight the potential factors for why employees choose to disengage from the workplace. In addition to creating a definition of presenteeism and absenteeism based on existing literature, the study aims to map out definitions used across studies to provide a comprehensive overview of the contexts in which certain variations of definitions take precedence over others. Understanding the current state of how researchers understand both these phenomena has many benefits. Many of these benefits possibly include measuring presenteeism and absenteeism more accurately within telework and creating methods to ease future transitions to remote work. Synthesising the antecedents for presenteeism and absenteeism can illustrate why they occur and provide a foundation for developing interventions to target the antecedents of such phenomena in the workplace.

As such, this paper seeks to investigate the following two questions: 1) what is presenteeism, and what are the antecedents for presenteeism among teleworkers, and 2) what is absenteeism, and what are the antecedents for absenteeism among teleworkers?

## **2. METHODOLOGY**

A scoping review will be conducted to synthesise empirical evidence on absenteeism and presenteeism and its relation to telework, which will be proposed through a new protocol. The Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for scoping reviews (PRIMA-ScR) (Tricco et al., 2018) and the guidelines set by the Joanna Briggs Institute (JBI) (Aromataris & Munn, 2020) were followed to prepare this protocol and to ensure rigour and replicability of the scoping review. The protocol has been registered with Open Science Framework (Nowrouzi-Kia, 2023).

### **2.1 Search strategy**

Preliminary work testing various search strategies to balance specificity and sensitivity was carried out. For example, preliminary keywords were used, and results were discussed with the research team and revised to ensure the results were relevant to the study objectives. The search strategy was finalised after discussion with a Health Science Librarian from the (censored for peer review) and consulting with the internal team of methodology experts. The trained health science librarian provided expert feedback on the search strategy and oversight to ensure the avoidance of research bias.

The scoping review uses the following electronic databases for the preliminary search strategy: MEDLINE via Ovid, CINAHL via EBSCOhost, PsycINFO via Ovid, ABI Inform Global via ProQuest, SCOPUS, Web of Science and Business Source Premier via EBSCOhost. Such a combination of databases can produce a holistic search yield across disciplines. The search will include the usage of terms associated with teleworking (e.g., "telecommuting" and "remote work"), as well as presenteeism and absenteeism. Each database's search strategy was modified due to differences in MeSH terms, boolean operators and wildcards, as listed in Table 1.

Additional studies will be identified by reference chaining suitable studies. In personal collections, grey literature will also be identified via Google Scholar, and direct contacts will be made with experts in the fields of sickness presenteeism, absenteeism, and its relation to telework.

### **2.2 Eligibility criteria**

The search results of the study will be downloaded and imported into the reference management software program EndNote. Duplicate studies will be automatically removed before the file is made available to the reviewers for further processing. Two reviewers will apply the inclusion and exclusion criteria to all potential studies at the title and abstract level by utilising the software Covidence to facilitate the screening process. The two reviewers will work independently and have meetings to discuss challenges and questions related to the study selection based on the inclusion criteria and refine the

search strategy if necessary. Disagreements will be identified, and a consensus will be reached in discussion with the research team. The inclusion and exclusion criteria can be visualised in [Table 2](#).

**Table 1.** Search strategy employed on each database

Databases	Search Terms
MEDLINE	Presenteeism AND Definition; Presenteeism AND Telework; Absenteeism AND Definition; Absenteeism AND Telework; Sickness Presenteeism AND Definition; Sickness Presenteeism AND Telework; Sickness Absenteeism AND Definition; Sickness Absenteeism AND Telework
CINAL	Presenteeism AND Definition; Presenteeism AND Telework; Absenteeism AND Definition; Absenteeism AND Telework; Sickness Presenteeism AND Definition; Sickness Presenteeism AND Telework; Sickness Absenteeism AND Definition; Sickness Absenteeism AND Telework
PsycINFO	Presenteeism AND Definition; Presenteeism AND Telework; Absenteeism AND Definition; Absenteeism AND Telework; Sickness Presenteeism AND Definition; Sickness Presenteeism AND Telework; Sickness Absenteeism AND Definition; Sickness Absenteeism AND Telework
ABI Inform Global	Presenteeism AND COVID-19; Presenteeism AND Remote Working; Absenteeism AND COVID-19; Absenteeism AND Remote Working; Sickness Presenteeism AND COVID-19; Sickness Presenteeism and Remote Working; Sickness Absenteeism AND COVID-19; Sickness Absenteeism AND Remote Working
Scopus	Presenteeism AND COVID-19; Presenteeism AND Remote Working; Absenteeism AND COVID-19; Absenteeism AND Remote Working; Sickness Presenteeism AND COVID-19; Sickness Presenteeism and Remote Working; Sickness Absenteeism AND COVID-19; Sickness Absenteeism AND Remote Working
Web of Science and Business Source Premier	Presenteeism AND Definition; Presenteeism AND Telework; Absenteeism AND Definition; Absenteeism AND Telework; Sickness Presenteeism AND Definition; Sickness Presenteeism AND Telework; Sickness Absenteeism AND Definition; Sickness Absenteeism AND Telework

**Table 2.** Inclusion and exclusion criteria

Study Characteristics	Inclusion Criteria	Exclusion Criteria
Population	Employed Individuals Aged 18-65 Working in telework for at least 50% of working hours	Non-working age populations (e.g., older adults or children)
Study framework	Empirical studies (quantitative or qualitative) Discuss the definition of presenteeism and/or absenteeism Discuss antecedents of presenteeism and/or absenteeism	Population-Concept-Context (PCC) Tertiary studies (knowledge syntheses) Non-empirical studies Non-peer reviewed
Timeframe	Studies that implemented telework during the COVID-19 pandemic (2019- present)	Studies that moved to telework prior to the COVID-19 pandemic

### 2.3 Selection of studies

Literature that was retrieved by the search was exported to Covidence. Relevant studies were identified by assessing each article’s titles and abstracts and then conducting a full-text review. Two researchers independently conducted the initial screening of the titles and abstracts of all articles. Disagreements were recognised and resolved through discussions with the research team. Two researchers independently reviewed the full text of the articles that passed the initial screening to determine eligibility. Discussions with the research team resolved disagreements between the two screeners involving

the full-text screening. The researchers have screened 826 titles and abstracts and conducted 144 full-text screenings. Twenty-three studies that met the criteria were included in the review. The process will be reported using a PRISMA flow diagram (Tricco et al., 2018).

### 2.4 Data extraction

Currently, we are at the stage of extracting data from the articles that met the eligibility criteria. Three researchers will extract data from the included studies using the data extraction table from Table 3. The title, authors, publication year, country of origin, study sample, and study design aid in conceptualising the study findings. Moreover, the definitions and antecedent column helps identify the various definitions in the literature regarding presenteeism and absenteeism and their antecedents. Data collection and entering results are iterative during scoping reviews, so the data extraction table will be continuously updated. The full scoping review will detail all modifications made.

**Table 3.** Data extraction table

Data	Data Description
Title	
Author(s)	
Publication year	
Country of origin	
Study sample	Information regarding the sample population (i.e., sample size, age, gender)
Study design	Qualitative studies, quantitative studies, mixed methods
Antecedents for Presenteeism and Absenteeism	Describe the factors that contribute to presenteeism and/or absenteeism among teleworkers
Definition of Presenteeism/Absenteeism	Definition of presenteeism and absenteeism used within the study

### 2.5 Data synthesis

As a scoping review, the study aims to aggregate the findings and present an overview of the literature rather than evaluate the quality of the studies; therefore, the results will be presented in two ways: numerically and thematically. By delivering the data numerically, the data extraction will be summarised in tabular form, and further categories may be added if appropriate. Using the Braun and Clarke framework, a descriptive thematic analysis will be conducted to generate themes (Braun & Clarke, 2006). This entails a six-step process where the research team will review the data, systematically code significant items in the data set, collate data suitable to each code, group codes into possible themes, and verify and refine the themes.

The results will be categorised in a table based on their understanding of sickness presenteeism and absenteeism to show how both concepts of telework are studied. The table elements for the results would include the study name, name of authors, year of publication, country of origin, study sample, causes/antecedents for sickness presenteeism/absenteeism and the definition of sickness presenteeism used within the study. Since there is difficulty defining presenteeism and absenteeism (Navarro et al., 2019), the results will address this issue and identify how both terms are defined.

### 3. RESULTS AND DISCUSSION

The results will be published in a peer-reviewed journal and contribute to the literature surrounding presenteeism, absenteeism and its relation to telework. Identifying relevant studies and understanding how they are defined presents a unique opportunity to compare the results by how sickness and absenteeism are defined further to shed light on the literature gap regarding this issue. Furthermore, the scoping review has the potential to improve our understanding of some of the inconsistencies observed in the literature, such as the issue of defining the two terms effectively (Navarro et al., 2019).

The effects of the COVID-19 pandemic have led to a long-lasting impact on how workplaces operate, and the dynamics of workplaces will continue to shift as time goes by with further advances in technology, making tasks and communication more convenient. Therefore, problems such as presenteeism and absenteeism in teleworking will continue and possibly grow even more significant with further technological advancements being adopted within workplaces. The identified articles within the scoping review will most likely cover presenteeism and absenteeism found in individuals during the time of the switch to telework and the various strategies they utilise to deal with these unique challenges.

The scoping review findings will interest companies in developing more efficient work policies to assist employees during their work and increase work efficiency overall and/or revenue. A study done by Brouwer et al. (2023) found that 23.6% of individuals (877 total) ages 15-65 in the Netherlands experienced their co-workers being affected by absenteeism and/or presenteeism (Brouwer et al., 2023). Furthermore, 27.8% of losses in work were experienced due to either of those reasons. In fact, 12.5% of participants reported that one of their colleagues was not present, stopping all work. Additionally, the research may evoke interest amongst healthcare professionals such as occupational therapists or mental health professionals in helping their patients with work-related problems and assisting them in adapting better practices. Tronco Hernandez et al. (2021) found significant relationships between time spent sitting and poorer mental health, also related to poor work productivity. The results found a correlation between higher mental distress scores, worse work productivity and worsened well-being. Therefore, the scoping review findings will inform professionals who may want to utilise the research within their specific areas of interest. However, the review contains limitations as the quality of the studies selected will not be analysed. As such, the data's reliability and integrity cannot be commented on.

### 4. CONCLUSIONS

This scoping review will aim to create a more precise definition of presenteeism and absenteeism and, therefore, can be utilised to develop a valid tool to measure both terms within the workplace. It will strengthen the knowledge and understanding of where the field of presenteeism and absenteeism currently stands and its relation to telework. Additionally, this study will attempt to spotlight the gap in the literature regarding the diverse definitions of presenteeism and absenteeism, reinforcing the understanding of these phenomena and the rationalisation for specific definitions taking precedence over others within the scientific community.

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## REFERENCES

- Aromataris, E., & Munn, Z. (Eds.). (2020). JBI manual for evidence synthesis. Joanna Briggs Institute. Retrieved from <https://synthesismanual.jbi.global>
- Avusuglo, W. S., Mosleh, R., Ramaj, T., Li, A., Sharbayta, S. S., Fall, A. A., Ghimire, S., Shi, F., Lee, J. K. H., Thommes, E., Shin, T., & Wu, J. (2023). Workplace absenteeism due to COVID-19 and influenza across Canada: A mathematical model. *Journal of Theoretical Biology*, 572, 111559. <https://doi.org/10.1016/j.jtbi.2023.111559>
- Biron, C., Karanika-Murray, M., Ivers, H., Salvoni, S., & Fernet, C. (2021). Teleworking While Sick: A Three-Wave Study of Psychosocial Safety Climate, Psychological Demands, and Presenteeism. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.734245>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brouwer, W., Verbooy, K., Hoefman, R., & van Exel, J. (2023). Production Losses due to Absenteeism and Presenteeism: The Influence of Compensation Mechanisms and Multiplier Effects. *PharmacoEconomics*, 41(9), 1103–1115. <https://doi.org/10.1007/s40273-023-01253-y>
- Cooper, C., & Locke, E. (2007). *Industrial and Organizational Psychology*, Malden, MA, Blackwell Business.
- Grigore, O. M. (2020). Factors Contributing to Work-Related Absenteeism during the COVID-19 Pandemic. *Management Dynamics in the Knowledge Economy*, 8(4) doi:<https://doi.org/10.2478/mdke-2020-0026>.
- Hervieux, V., Biron, C., & Dima, J. (2020). Investigating associations between physical activity and presenteeism: a scoping review protocol. *BMJ Open*, 10(12), e040740. <https://doi.org/10.1136/bmjopen-2020-040740>
- Llave, O. V., & Messenger, J. (2018). 1757b Working anytime, anywhere: The effects on the world of work. *Occupational and Environmental Medicine*. 75(Suppl 2), A219 <https://doi.org/10.1136/oemed-2018-ICOHabstracts.623>
- Martínez-Tur, V., Estreder, Y., Tomás, I., Moreno, F., Mañas-Rodríguez, M. A., & Díaz-Fúnez, P. A. (2022). Not Every Day is Monday for Employees Confined due to COVID-19: Anticipatory Happiness Matters. *Revista de Psicología Del Trabajo y de Las Organizaciones*, 38(3), 201–211. <https://doi.org/10.5093/jwop2022a12>
- Mason, C. M., & Griffin, M. A. (2003). Group absenteeism and positive affective tone: a longitudinal study. *Journal of Organizational Behavior*, 24(6), 667–687. <https://doi.org/10.1002/job.210>
- Miraglia, M., & Johns, G. (2016). Going to work ill: A meta-analysis of the correlates of presenteeism and a dual-path model. *Journal of Occupational Health Psychology*, 21(3), 261–283. <https://doi.org/10.1037/ocp0000015>
- Nagata, T., Mori, K., Ohtani, M., Nagata, M., Kajiki, S., Fujino, Y., Matsuda, S., & Loeppke, R. (2018). Total Health-Related Costs Due to Absenteeism, Presenteeism, and Medical and Pharmaceutical Expenses in Japanese Employers. *Journal of Occupational & Environmental Medicine*, 60(5), e273–e280. <https://doi.org/10.1097/JOM.0000000000001291>
- Navarro, A., Salas-Nicás, S., Llorens, C., Moncada, S., Molinero-Ruiz, E., & Moriña, D. (2019). Sickness presenteeism: Are we sure about what we are studying? A research based on a literature review and an empirical illustration. *American Journal of Industrial Medicine*, 62(7), 580–589. <https://doi.org/10.1002/ajim.22982>
- Nowrouzi-Kia, B. (2023, June 21). Investigating Definitions of Presenteeism and Absenteeism in the Workplace and its impact on Telework: A Scoping Review Protocol. <https://doi.org/10.17605/OSF.IO/UR5A6>
- Ruhle, S. A., Breitsohl, H., Aboagye, E., Baba, V., Biron, C., Correia Leal, C., Dietz, C., Ferreira, A. I., Gerich, J., Johns, G., Karanika-Murray, M., Lohaus, D., Løkke, A., Lopes, S. L., Martinez, L. F.,

- Miraglia, M., Muschalla, B., Poethke, U., Sarwat, N., ... Yang, T. (2020). "To work, or not to work, that is the question" – Recent trends and avenues for research on presenteeism. *European Journal of Work and Organizational Psychology*, 29(3), 344–363. <https://doi.org/10.1080/1359432X.2019.1704734>
- Sikorki, L. (2020). *Absenteeism and Call Centre*, TML Business Publishing.
- Steidelmüller, C., Meyer, S.-C., & Müller, G. (2020). Home-Based Telework and Presenteeism Across Europe. *Journal of Occupational & Environmental Medicine*, 62(12), 998–1005. <https://doi.org/10.1097/JOM.0000000000001992>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garrity, C., ... Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Tronco Hernández, Y. A., Parente, F., Faghy, M. A., Roscoe, C. M. P., & Maratos, F. A. (2021). Influence of the COVID-19 Lockdown on the Physical and Psychosocial Well-being and Work Productivity of Remote Workers: Cross-sectional Correlational Study. *JMIRx Med*, 2(4), e30708. <https://doi.org/10.2196/30708>
- Van Der Feltz-Cornelis, C. M., Varley, D., Allgar, V. L., & de Beurs, E. (2020). Workplace Stress, Presenteeism, Absenteeism, and Resilience Amongst University Staff and Students in the COVID-19 Lockdown. *Frontiers in Psychiatry*, 11, 588803. <https://doi.org/10.3389/fpsy.2020.588803>