

Impacts of remote work on mental health: reflections in the light of Nightingale*Impactos del trabajo remoto en la salud mental: reflexiones a la luz de Nightingale**Impactos do trabalho remoto na saúde mental: reflexões à luz de Nightingale***Marcio Pedroso Motta¹**

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The aim was to analyze the impacts of remote work on employees' mental health considering Florence Nightingale's environmentalist theory. The methodology adopted was a study of critical reflection, using Nightingale's principles as a theoretical basis. A comprehensive literature review was carried out using databases such as LILACS, MedLine, Google Scholar, and SciELO, with thematic analysis of the studies selected according to Bardin's approach. The results revealed three thematic categories: "Isolation and loneliness in the remote work environment", "Psychological and emotional impacts of remote work" and "Strategies for promoting mental health in remote work". Discussions highlighted the need for organizational policies that promote in-person social interactions and emotional support to mitigate the adverse effects of social isolation. The need for an integrative approach that values both technology and human sensitivity is emphasized to create a healthier and more sustainable virtual work environment, aligned with the principles of environmental theory.

Descriptors: Mental Health; Health Promotion; Social Isolation; Teleworking; Nursing Theory.**How to cite this article:**

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Resumén

El objetivo fue analizar los impactos del trabajo remoto en la salud mental de los empleados a la luz de la teoría ambientalista de Florence Nightingale. La metodología adoptada fue un estudio de reflexión crítica, utilizando como base teórica los principios de Nightingale. Se realizó una revisión integral de la literatura utilizando bases de datos como LILACS, MedLine, Google Scholar y SciELO, con análisis temático de los estudios seleccionados según el enfoque de Bardin. Los resultados revelaron tres categorías temáticas: "Aislamiento y soledad en el entorno de trabajo remoto", "Impactos psicológicos y emocionales del trabajo remoto" y "Estrategias para promover la salud mental en el trabajo remoto". Las discusiones resaltaron la necesidad de políticas organizacionales que promuevan las interacciones sociales en persona y el apoyo emocional como una forma de mitigar los efectos adversos del aislamiento social. Se enfatiza la necesidad de un enfoque integrador que valore tanto la tecnología como la sensibilidad humana para crear un entorno de trabajo virtual más saludable y sostenible, alineado con los principios de la teoría ambiental.

Descriptor: Salud Mental; Promoción de la Salud; Aislamiento Social; Teletrabajo; Teoría de Enfermería.

Resumo

Objetivou-se analisar os impactos do trabalho remoto na saúde mental dos colaboradores à luz da teoria ambientalista de Florence Nightingale. A metodologia adotada foi um estudo de reflexão crítica, utilizando como base teórica os princípios de Nightingale. Realizou-se uma revisão abrangente da literatura utilizando bases de dados como LILACS, MedLine, *Google Scholar* e SciELO, com análise temática dos estudos selecionados conforme a abordagem de Bardin. Os resultados revelaram três categorias temáticas: "Isolamento e solidão no ambiente de trabalho remoto", "Impactos psicológicos e emocionais do trabalho remoto" e "Estratégias de promoção da saúde mental no trabalho remoto". Discussões destacaram a necessidade de políticas organizacionais que promovam interações sociais presenciais e suporte emocional como forma de atenuar os efeitos adversos do isolamento social. Enfatiza-se a necessidade de uma abordagem integrativa que valorize tanto a tecnologia quanto a sensibilidade humana para criar um ambiente de trabalho virtual mais saudável e sustentável, alinhado com os princípios da teoria ambientalista.

Descritores: Saúde Mental; Promoção da Saúde; Isolamento Social; Teletrabalho; Teoria de Enfermagem.

Introduction

Remote work, widely adopted during the COVID-19 pandemic, has consolidated itself as a common practice in several organizations. This type of work, although it offers significant advantages, such as flexible working hours and reduced travel, also presents considerable challenges, especially concerning the mental health of employees. The absence of a shared physical environment and the predominance of virtual interactions can result in feelings of isolation and loneliness, negatively impacting the emotional and psychological well-being of workers^{1,2}.

Florence Nightingale, pioneer of Modern Nursing, emphasized the importance of the environment in promoting health. His environmentalist theory highlights that factors such as light, fresh air, cleanliness, and human interactions are crucial for maintaining health. The application of Nightingale's principles to the contemporary context of remote work allows for an analysis of the environmental and social effects of this type of work on the mental health of employees³.

The need for interpersonal relationships is a fundamental pillar of good human health. Human beings, as social beings, depend on interactions and interpersonal connections to maintain their psychological and emotional well-being. The absence of physical interaction when working remotely can compromise this vital dimension of health, resulting in feelings of alienation, loneliness, and

social disconnection. Studies indicate that the lack of human contact and excessive interactions mediated by technology can exacerbate symptoms of anxiety, depression, and stress, increasing the risk of developing burnout^{1,3-5}.

Furthermore, to follow the globalization movement and maximize the use of technology in daily and work activities, the individual, without exercising their social role and direct relationships with other people, is prone to developing numerous mental disorders or worsening already existing. The lack of in-person social interaction can lead to the worsening of conditions such as social anxiety, mood disorders, panic syndrome, and other pathologies related to isolation. In this context, managers need to take a careful and sensitive look at the well-being of employees, recognizing that not all activities need to be carried out remotely. The implementation of moments of face-to-face interaction and the encouragement of a hybrid work environment can be fundamental for promoting mental health, consequently leading to increased team productivity⁴⁻⁶.

The relevance of this study for science and society is evident. With the increasing adoption of remote work, it is essential to understand its impacts on workers' mental health and develop effective interventions to promote well-being. This study seeks to fill this gap, offering a critical and



reflective analysis based on Nightingale's environmental theory.

The research question that guides this study is: "How does remote work impact employees' mental health in light of Florence Nightingale's environmentalist theory?" The research hypothesis is that the application of Nightingale's principles can reduce the emotional and psychological damage associated with remote work, promoting a healthier and more balanced work environment, even in a virtual context.

Given the above, the objective was to critically analyze the impacts of remote work on employees' mental health considering Florence Nightingale's environmentalist theory, with a focus on reducing emotional and psychological damage. We sought to identify the challenges and propose strategies to mitigate the negative effects associated with the absence of face-to-face interpersonal interactions and the intensive use of technologies, promoting a healthier and more balanced work environment.

Methodology

This is a reflection study, of a critical-reflective nature, of a qualitative nature, which uses Florence Nightingale's environmentalist theory as a theoretical foundation. This theoretical approach is essential to understanding the impacts of remote work on employees' mental health, highlighting the influence of environmental and social elements in promoting psychological well-being.

The search in current literature was conducted between May and June 2024, using the databases LILACS (Latin American and Caribbean Literature in Health Sciences), MedLine (Medical Literature Analysis and Retrieval System Online), Google Scholar, and SciELO (Scientific Electronic Library Online). These indexing bases were selected because they cover a wide range of scientific publications in Health Sciences, ensuring a comprehensive and updated review of the proposed topic. The eligibility criteria included studies that address the impact of remote work on employees' mental health, published in peer-reviewed journals, within the time frame of 2019 to 2024 and in Portuguese and English. Studies that did not present a clear theoretical approach, were not fully available, or were not directly related to the psychosocial effects of remote work were excluded. Furthermore, studies whose results were based exclusively on quantitative methods without an adequate qualitative discussion were excluded.

The analysis method adopted was the thematic content analysis proposed by Bardin⁷. This approach allowed the organization of selected studies into thematic categories, facilitating the identification of patterns and trends on the impacts of remote work on employees' mental health. The thematic analysis enabled an adequate understanding of the phenomena studied, contributing to a critical reflection based on this study.

Results and Discussion

This study presents three thematic categories⁷ that emerged from the critical analysis of selected studies on the

impact of remote work on employees' mental health. The first category, "Isolation and Loneliness in the Remote Workplace", explores how the absence of face-to-face interactions can contribute to feelings of social isolation and loneliness among virtual workers. The second category, "Psychological and emotional impacts of remote work", investigates the mental and emotional disorders that can be exacerbated by remote work, such as anxiety, depression, and burnout. Finally, the third category, "Strategies for promoting mental health when working remotely", discusses organizational practices and interventions that can be implemented to improve the psychological well-being of employees, highlighting initiatives that aim to create a healthier and more balanced virtual work environment.

Isolation and loneliness in the remote work environment

This category critically addresses the psychosocial challenges faced by employees due to the reduction in face-to-face interactions. Florence Nightingale, a pioneer in understanding social environments as fundamental to mental health, argued that human connection is essential to emotional well-being. In the contemporary context of remote work, the transition to a predominantly digital interaction can amplify feelings of social isolation, contributing to a series of negative impacts on workers' mental health^{1,3}.

Recent studies corroborate that social isolation is associated with a significant increase in levels of anxiety, depression, and occupational stress among remote employees. The lack of informal social interactions and reduced emotional support within the virtual workplace can profoundly affect employee motivation, productivity, and engagement. The absence of a shared physical environment can also limit the ability to build trust and cohesion among team members, essential for effective collaboration and problem-solving^{4,5}.

From a critical perspective, it is essential to examine how organizational policies can be adapted to mitigate the adverse effects of social isolation on remote work. Effective strategies can include implementing virtual platforms that promote meaningful social interactions, such as online discussion forums, virtual brainstorming sessions, and digital team-building activities. Additionally, programs that encourage participation in periodic in-person events or virtual social gatherings can help restore a sense of connection and belonging among employees, even in a predominantly digital environment^{4,6}.

Promoting an organizational culture that values the emotional and social well-being of employees is also crucial. This can be achieved through policies that encourage open communication, mutual support and recognition of individual needs. By adopting an integrative approach that combines technology with human sensitivity, organizations can create a healthier and more sustainable remote work environment that not only protects against the adverse effects of social isolation, but also promotes the personal and professional flourishing of its employees^{4,8}.

The discussion about isolation and loneliness in the remote work environment reveals a fundamental aspect of



the psychosocial challenges faced by employees. The transition to a predominantly digital environment not only limits social interactions, as already discussed but also has profound repercussions on the psychological and emotional aspects of workers and the lack of focus and separation between life and work hours. The impacts arising from this 'labor alienation' are worsened by the absence of a shared physical environment, which traditionally offers emotional and social support in the workplace. Therefore, understanding both the social and psychological aspects of remote work is essential to developing effective strategies that promote a healthier and more resilient virtual work environment^{4,5,9}.

Psychological and emotional impacts of remote work

This category examines the complex psychological and emotional impacts of remote work, expanding the discussion to include the significant consequences these effects can have on other areas of employees' lives. The transition to a virtual environment can not only increase levels of anxiety and depression among workers, but it can also adversely affect their family and social relationships⁴.

A lack of regular in-person interactions can lead to a decreased quality of time spent with family and friends, causing feelings of isolation and emotional disconnection. This can result in additional strain on personal relationships, as employees may find it difficult to balance the demands of work with the needs and expectations of their loved ones⁹.

Furthermore, over-reliance on digital communications for social interactions can increase remote workers' social anxiety. Lack of practice in face-to-face interpersonal skills can lead to the development of panic attacks and insecurity when facing social situations outside the virtual work environment. The inability to actively participate in social events or take care of personal health due to the demands of remote work can create a cycle of chronic stress and social alienation^{4,10}.

Critically, organizational policies must recognize and respond to these multifaceted impacts of remote work. Effective strategies can include establishing policies that promote flexible work schedules and allow for regular breaks to reconnect with family and friends. Encouraging employees to maintain an active social network and participate in community activities can strengthen emotional and social support outside of the professional context^{9,10}.

Strategies for promoting mental health when working remotely

This category addresses essential organizational practices and interventions to promote a healthier and more balanced virtual work environment, with an emphasis on promoting social interactions and employee health care in person, fostering a healthy work environment and social relationships - in accordance with the theory of Florence Nightingale³.

A crucial strategy is the implementation of periodic in-person events that allow employees to physically meet. These meetings not only strengthen interpersonal

connections and a sense of belonging, but they also provide a space for genuine social interactions, fundamental to emotional well-being. Florence Nightingale emphasized the importance of these human interactions for promoting mental health, arguing that human contact is essential for psychological well-being^{3,4,9}.

In addition to in-person events, organizations can establish emotional support programs that include in-person counseling sessions. These sessions allow employees to discuss their concerns confidentially and receive expert guidance for dealing with stress and other emotional challenges related to remote work. By integrating mental health care practices based on Nightingale's theory, organizations can create a work environment that not only supports but also strengthens employees' overall well-being^{3,8,9}.

Another effective measure is the promotion of team-building activities that take place in person at regular intervals. These activities not only promote team cohesion and collaboration but also allow employees to disconnect from the demands of virtual work and engage in shared experiences that reinforce team spirit. Implementing policies that encourage participation in these face-to-face activities can help mitigate the adverse effects of social isolation and promote a more integrated and healthy work environment^{8,10}.

It is necessary to invest in strategies that combine face-to-face social interactions with emotional support and is essential to create a virtual work environment that respects the principles of Florence Nightingale's environmentalist theory. These initiatives not only protect against the negative effects of remote work, but also promote the holistic well-being of employees, aligning with a humanized and compassionate approach to managing mental health in the modern workplace, which consequently influences employee well-being and quality of life.

Final Considerations

This study examined the impacts of remote work on employees' mental health considering Florence Nightingale's environmentalist theory, revealing important issues for the contemporary management of virtual work environments. It has become clear that social isolation and lack of in-person interpersonal interactions are significant challenges that negatively impact the psychological well-being of remote workers.

The proposed strategies, such as holding regular in-person events, in-person emotional support programs, and team activities that promote authentic social interactions, proved crucial to minimizing these adverse impacts. Furthermore, flexibility in working hours and the promotion of regular breaks are essential measures to balance professional demands with the personal needs of employees.

Nightingale emphasized that the physical and social environment directly influences mental health, defending the importance of conditions such as light, fresh air, and human interactions for general well-being. Adapting these principles to the contemporary context of remote work



suggests that organizations should consider not only operational efficiency but also care for the emotional and social well-being of employees.

Therefore, to promote a healthier and more sustainable virtual work environment, companies must adopt an integrative approach that values both technology

and productivity and human sensitivity. Investing in strategies that promote meaningful social interactions and in-person emotional support not only protects against the adverse effects of social isolation, but also strengthens team cohesion and productivity in the context of remote work.

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