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IMPLEMENTING SUSTAINABLE PRACTICES IN HEALTHCARE FACILITIES TO ENHANCE ENVIRONMENTAL HEALTH

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Abstract

The escalating climate crisis poses significant threats to healthcare systems worldwide, compromising their capacity to safeguard patients from climate-induced hazards. Healthcare facilities play a crucial role in addressing the impacts of climate change, but they may also contribute to the release of greenhouse gases during the provision of essential treatment and services. This study aims to evaluate current methods, identify barriers to implementation, and provide strategies for improvement to promote sustainable practices for enhanced environmental well-being in healthcare establishments. A quantitative research methodology was used, including the surveying of facility managers, healthcare professionals, and environmental health specialists from a sample of 100 healthcare companies. The findings revealed a positive perception of sustainability initiatives, with a general consensus on the significance of sustainability in the workplace. The analysis of questionnaire responses provided insights into workers' comprehension, commitment, and actions related to energy efficiency, water preservation, waste control, sustainable procurement, and staff education. This study contributes to the existing information by examining the connections between sustainable empowerment, green human resource management, and workers' green actions in the healthcare sector. The results underscore the importance of encouraging behaviors that prioritize sustainability, aligning organizational policies and procedures with sustainability goals, and providing enough training and support to employees. The findings provide valuable perspectives for healthcare institutions striving to enhance their ecological sustainability and contribute to the larger goal of providing healthcare coverage for everyone.

Keywords: Healthcare facilities; sustainability; healthcare professionals; environmental health

Introduction

The dynamic climate is increasingly endangering health systems and infrastructure, including clinics, hospitals, and community medical centers, therefore impeding health practitioners' ability

to protect patients from a range of climate-related hazards. Health care facilities (HCFs) are essential in tackling the consequences of climate change. According to Corvalan et al. (2020), they may both emit a large amount of greenhouse emissions and provide necessary care and services to persons impacted by extreme weather and climate-related dangers.

Hydrochlorofluorocarbons (HCFs) may produce substantial ecological pollution and waste, including greenhouse gases and other dangerous compounds, which might potentially endanger the health of individuals and communities. Health care facilities provide medical treatment and surgical interventions to patients, varying in scale from small clinics to large hospitals. Several countries suffer from a lack of operational infrastructure, competent healthcare professionals, and inadequate resources to address environmental concerns. These nations also have challenges in terms of electricity supply, water availability, sanitation, and waste management services. It is essential to improve these qualities in order to build resilience and encourage environmental sustainability.

Enhancing the capacity of Healthcare Facilities (HCFs) to protect and promote the health of their assigned populations in an unpredictable and changing environment is of utmost importance. Furthermore, it is crucial to provide HCFs the authority to function in an ecologically friendly fashion by effectively using resources and minimizing waste emissions. Healthcare facilities that possess climatic resilience and ecological sustainability augment the caliber of care, boost service availability, and reduce facility costs, thus rendering healthcare more economical. Therefore, they play a vital role in ensuring universal health coverage (UHC). The Operational Model for Constructing Climate Resilient Health Devices, issued by the World Health Organization (WHO) in 2015, provides a framework consisting of 10 areas for implementing initiatives (World Health Organization, 2015).

There are several explanations that help us understand these things. Health systems include both commercial and governmental institutions, organizations, and resources that are accountable for improving, safeguarding, or reinstating health (World Health Organization, 2014). Additionally, they include strategies to prevent sickness, promote good health, and urge other industries to incorporate health concerns into their regulatory frameworks. Health system durability pertains to the capacity of health institutions, organizations, and communities to effectively anticipate and respond to crises, maintain critical services during emergencies, gain understanding from the experience, and make necessary adjustments. The ability to assimilate disruption, adapt, and provide needed services is crucial (Kruk et al., 2015)

Health care facilities are institutions that provide direct medical treatment services to individuals, including hospitals and medical care clinics. During times of crises, Health Care institutions (HCFs) include hospitals, primary medical groups, remote camps, nutrition centers, and other associated institutions (Kutzin and Sparkes, 2016).

Environmentally sustainable health care institutions strive to improve, conserve, or restore health while minimizing negative impacts on the environment and taking advantage of

opportunities to improve and restore it (Change, 2014). Environmental sustainability, as defined by the IPCC, aims to reduce the risks associated with healthcare facility operations, such as the management of medical waste (Figure 1; Field, 2012). It also aims to reduce the risks and vulnerability both within and outside the healthcare institution. According to the IPCC, it is highly certain that the most effective approaches to decrease susceptibility to health issues in the near future involve improving essential public health policies. These measures include ensuring access to sanitation and clean water, providing basic healthcare services such as vaccination and child medical care, enhancing disaster preparedness and response capabilities, and reducing poverty (World Health Organization, 2019).

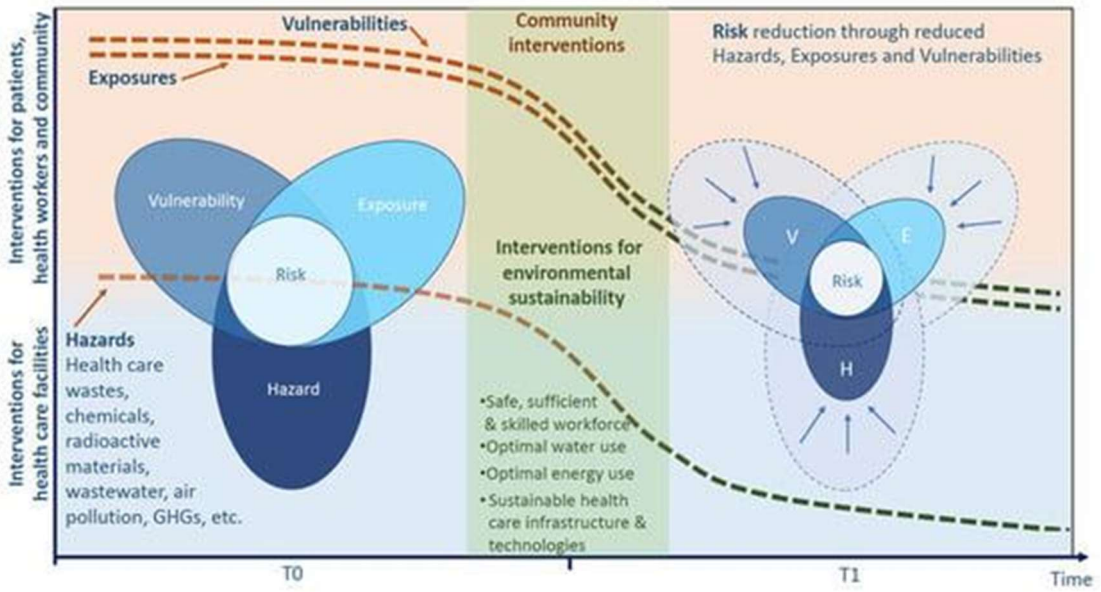

Figure 1. Healthcare institutions' ecological sustainability (Corvalan et al., 2020).

Therefore, the objective of this study is to assess current methodologies, recognize obstacles in implementation, and propose approaches for enhancement with the intention of advancing sustainable practices that enhance environmental health within healthcare establishments.

1. Literature Review

A number of recent studies have underscored the complex interconnections between health, the environment, and sustainable food, thereby emphasizing the multifaceted character of these vital domains (Ammann et al., 2023; Byrne and Zabetakis, 2023). Advocacy for environmentally friendly food entails addressing pressing issues through the promotion of health and environmental sustainability through conscientious dietary choices and practices. Healthcare professionals and affiliated medical professionals play a vital role in environmental wellness advocacy through their endorsement of sustainable dietary practices and legislative initiatives that prioritize the sustainability and well-being of the food supply. The promotion of sustainable

nutrition and the upkeep of ecological food facilities have become increasingly vital in healthcare systems.

A sustainable food system ensures that all individuals have access to sufficient nutrition and food security, while also safeguarding the economic, environmental, and social resources required to preserve food safety and sustenance for future generations. In order to meet these criteria, the system should be economically viable (financial sustainability), provide substantial advantages to society (social sustainability), and exhibit a favorable or indifferent influence on the environment (environmental sustainability) (El Bilali et al., 2019; Prosen et al., 2023).

In their study, Guillaumie et al. (2020) identified several significant factors that promote healthy eating: self-efficacy, knowledge of environmental issues, comprehension of sustainable food dietary practices, and recognition of the importance of promoting sustainable energy in the context of professional responsibilities. Furthermore, their investigation revealed distinct approaches to promote sustainable nutrition, such as strengthening institutional support through guidance, informational tools, and financial aid, and augmenting public support through awareness campaigns.

Alberdi and Begiristain-Zubillaga (2021) underscored the importance of advocating for sustainable nutrition and employing sustainable food purchasing practices as means to address environmental and health impacts. A sustainable food procurement strategy centered on three primary objectives: multi-level governance, the establishment of a sustainable food supply chain, and the provision of nutritious and environmentally conscious food services. An effective plan is formulated by considering the following six essential criteria: long-term commitment, expenditures, assessment, interaction, race, and an integrated strategy. Despite the fact that public health personnel are capable of instituting substantial changes in nutrition and health, their current role and influence within health systems are undervalued.

In their study, Antasouras et al. (2023) investigated the substantial issue of food waste within hospital settings and the detrimental consequences it has on the environment, finances, health, and community. The significance of plate waste, denoting uneaten food provided to patients, in relation to food waste in hospital settings was underscored. Numerous strategies were suggested by the research in an effort to reduce plate waste, including the implementation of adjustable serving sizes, the provision of choice menus, nutritional counseling, and improved ordering procedures. It was determined that variable portion sizes were the most effective approach among them.

2. Discussion

This study's principal objective was to assess how employees perceive and implement sustainability strategies in the workplace. (Harrach et al., 2020) The study revealed that employees firmly concurred with statements of sustainability empowerment, which alludes to the application of psychological empowerment to sustainability in the workplace. This implies that

the employees experienced a sense of direction, competence, independence, and impact regarding sustainability issues within the work environment. Additionally, the employees exhibited environmentally conscious behaviors, including the utilization of sustainable energy sources, water conservation, proper waste management, procurement of sustainable products, and application of acquired skills and knowledge in their professional responsibilities. The actions demonstrated are consistent with the tenets of green human resource management (GHRM), an HRM approach that promotes the environmentally responsible use of resources within corporations and advocates for sustainable practices (Foster et al., 2022).

Other studies that have examined the relationship between sustainability empowerment, GHRM, and employees' green practices concur with the results of this investigation. The significance of employees' sustainability orientation and perceived organizational support for sustainability as determinants of sustainability empowerment was identified by Harrach et al. (2020). Consequently, this empowerment resulted in enhanced levels of job satisfaction and organizational commitment.

In their study, Chreif and Farmanesh (2022) identified that ethical leadership influences the environmentally conscious behaviors of employees via Green Human Resource Management (GHRM) and harmonious environmental passion. The latter was defined by Khamdamov et al. (2023) as an individual's positive emotions towards the natural environment and their capacity to maintain a healthy balance between this passion and other facets of life. Chreif and Farmanesh (2022) identified a moderating effect of psychological green environment and green creativity on the relationship between GHRM, ethical leadership, and employees' green actions. Green creativity pertains to the generation of novel and advantageous concepts for the development of environmentally sustainable products, services, or procedures. The psychological green climate refers to the shared convictions of staff members regarding the policies, procedures, and practices of the workplace that promote eco-conscious actions (Norton et al., 2017).

Upon comparing the results of this study with previous investigations, it becomes evident that a number of variables could potentially influence the perspectives and behaviors of employees with regard to workplace sustainability initiatives. Employee sustainability behavior is influenced by various factors. These factors encompass individual attributes such as environmental passion, sustainability orientation, and green creativity; the leadership style of management, which includes ethical values and actions; human resource management policies and practices, including training, incentives, and feedback provision; and the organizational climate and culture, which encompass levels of support, recognition, and communication. Organizations ought to scrutinize these components and adopt a holistic approach to foster sustainability within the work environment.

3. Conclusion and Future Research

The research emphasizes the critical urgency for healthcare establishments to implement sustainable measures in order to lessen their ecological impact and promote environmental

health. The findings establish a definitive correlation between the implementation of green human resource management practices, sustainability empowerment, and the adoption of environmentally conscious behaviors by healthcare personnel. Healthcare institutions ought to prioritize specific critical domains in order to effectively advocate for sustainable practices. Prior to anything else, they ought to foster a culture of sustainable empowerment among employees by bolstering their sense of agency, competency, purpose, and impact regarding sustainability matters. Systems of encouragement, recognition, and communication that are effective may foster sustainable behaviors.

It is imperative for organizations to embrace comprehensive green human resource management strategies, encompassing performance evaluation, incentive systems, recruitment, and training with a sustainability focus. This will facilitate the recruitment, development, and retention of personnel who are committed to sustainability and possess the necessary skills to advance sustainable transformation. In addition, it is imperative that organizations offer extensive training and development initiatives to enhance employees' understanding of sustainability issues and equip them with the practical competencies required to integrate sustainable practices into their daily responsibilities. Energy efficiency, water conservation, waste management, sustainable procurement, and green innovation education may be included. By adhering to these principles, healthcare organizations can foster a culture of sustainability, enable their employees to enact positive environmental modifications, and contribute to the development of ecologically sustainable and resilient healthcare systems.

Numerous limitations of this work must be acknowledged and addressed in subsequent investigations. The study was limited to non-profit organizations in Lebanon and utilized a modest sample size. The generalizability of the results may be constrained to environments and industries that are similar to the one in question. Subsequent investigations may attempt to replicate this study employing more extensive and diverse samples, encompassing public sector entities, for-profit organizations, and multinational corporations, in order to validate the findings' applicability across diverse cultural and environmental contexts. The study employed a cross-sectional design, which limits the ability to establish causal relationships and monitor temporal developments.

A longitudinal approach could be considered for future research in order to capture the dynamic and intricate nature of sustainable practices in the workplace, which may involve feedback loops and interactions between factors. Self-reported information was utilized in the study, which is susceptible to social desirability bias and prevalent method variation. Further research could incorporate objective indicators such as energy consumption, water usage, waste generation, and purchase records in order to assess the environmental friendliness of employees' behaviors and compare them with their self-assessed beliefs. Further investigation is warranted to incorporate a variety of data sources—supervisor ratings, peer evaluations, and customer feedback—in order to obtain a more comprehensive and accurate assessment of the environmental impacts of employees' practices.

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