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## The Role of Social Media in Promoting Sustainability of the Healthcare System

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### Abstract

There is no unique definition for sustainability. Nowadays, because of the social and environmental problems, societies are using sustainability in a specific way. Sustainability is defined as the actions and processes through which humans avoid the depletion of the natural resources to keep an ecological balance. Implementing sustainability is one of the most important processes in the services sector. When we think of sustainable development, we think of how we can help future generations by providing them with what they will need. One of the most important systems whose future depends on a current sustainable development is the medical system, the well-being of the people being fundamental to a productive and healthy society as well as a solid economy. This article complements the specialized studies on sustainability in the medical system, offering new solutions, applicable mainly in the human resources management area. We used a comprehensive search into numerous sources of secondary data, such as articles, reports and books from the domains of sustainability in the medical system and we used also electronic databases, the method used is a descriptive, given the fact that the subject is very widely discussed.

**Keywords:** sustainability, management, human resources, social network, medical system.

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### Introduction

Agenda 21 - the United Nations Program of Action on Sustainable Development<sup>1</sup> - highlighted the role of economic, environmental, socio-demographic and health factors for sustainable development. The opening paragraph of this UN meeting in 1992 was: "Health ultimately depends on the ability to successfully lead the interrelationship between the physical, spiritual, biological and economic and social environment. Social development is not possible without a healthy population; however, most development-related activities affect the environment to a large extent, which in turn causes or exacerbates many health problems" (Poenaru, 2007). The medical system is among the first systems that embrace sustainability in order to obtain a better quality of life for future generations.

Health care causes global environmental impacts that, depending on which indicator is considered, range between 1% and 5% of total global impacts and are more than 5% for some national impacts (Lenzen, et al., 2020).

For the near future, we can anticipate increased cardiovascular and pulmonary diseases, as well as mental ill health, besides the health consequences of food insecurity, water shortage, climate migration or territorial conflict ( Ossebaard and Lachman, 2021).

The high importance we find in the various issues related to sustainability determines the implementation of sustainability both within organizations and in important sectors of society, as well as in the medical system. Development process is becoming a common global desire.

Human resources management is one of the essential conditions for increasing the performance of the medical system, by promoting efficient employee recruitment and selection strategies and continuing with strategies focused on the maintenance and continuous improvement of the hired candidates.

The online environment and the social network are one of the most specific factors that have an influence on human resource management. In the specialized literature, this interaction between the online environment and human resources management has been intensely studied.

Social media, through its importance, usefulness and applicability, has become one of the tools intensely used to promote a healthy management in the medical sector.

### **The Importance of a Sustainable Healthcare System**

The current health system is facing a steady and alarming increase in spending. This is due to the aging population, the increase of chronic diseases, the increase in the number of patients with multimorbidity, the emergence of new technologies, the increase in the costs of materials and services. All these things lead to a waste of resources and a decrease in the quality of health care.

The paradox is that human health depends on the health of the environment, our lives depend on natural resources, water quality, air. One of the very important roles of medicine is to promote a healthy lifestyle, exercise and eat right. Medicine should promote the same measure and care for the environment, because according to the WHO about 1.3 million people die every year because of environmental pollution (Anon., 2020).

The operation of the medical system requires many medical equipment, high-tech facility, well-trained medical staff to provide medical care but it's responsible for producing negative effects on the environment, greenhouse gas emissions, polluted air, waste of plastics, pharmaceutical pollution.

Within the medical community, awareness of the negative effects of healthcare on the environment is only beginning to be considered, although the damage to public health caused by pollution caused by medical activities is a safety issue for patients.

The field of health sustainability wants to quantify the consumption of resources and greenhouse gas emissions and to provide solutions to reduce their effects, thus increasing patient safety while protecting public health.

According to the WHO, modern medical techniques generate large amounts of medical waste such as disposable and electronic medical devices, plastics, bandages, furniture, etc. between 15% and 25% of the amount of medical waste is hazardous waste being made up of radiological, biological, and chemical waste. But the biggest problem of this medical waste is that its disposal is harmful for the environment but also harmful from an economic point of view. Discarded products mean discarded resources (Martin and Schouten, 2014).

Healthcare providers can be more sustainable by focusing on the following (TRIVITRON, 2020):

#### *1. Minimize and adequately manage the waste of hazardous chemicals*

Healthcare waste is comparable to domestic waste: chemicals, sharps, pharmaceuticals, radioactive or genotoxic waste and heavy metals.

Also, LCD displays, CRT monitors, fluorescent lamps, wheelchair cushions, flame-retardant mattresses or baby bottles can be hazardous. Hospitals must focus on making conscious purchasing decisions and make a purpose to recycle toxic products more often.

A poor management of the healthcare waste can lead to serious infections, injuries of the health care workers or increase the toxic effects and pollution in the community.

## 2. Implement Waste Disposal Protocols

Disinfecting medical waste is known as a process that releases noxious fumes. The representatives of the companies that are part of the Healthcare system must find greener ways to waste disposal. Some examples can be autoclaving, chemical treatment or microwaving.

Autoclaving	Chemical treatment	Microwave treatment
<ul style="list-style-type: none"> <li>• Steam sterilization of the medical waste in chambers that apply heat, pressure and steam</li> </ul>	<ul style="list-style-type: none"> <li>• Use of chlorine compounds that kills microorganisms from the medical waste</li> </ul>	<ul style="list-style-type: none"> <li>• Sterilizes the medical waste respecting the environment with minimal handling of hazardous material</li> </ul>

**Figure no. 1. Green methods to dispose the medical waste**

*Source: Adapted from (TRIVITRON, 2020)*

## 3. Promote a sustainable procurement

The healthcare systems are procuring and using a significant amount of goods and services. from the source of the raw materials to manufacturing, distribution, use and, finally, to the end of the cycle (WHO, 2017).

A sustainable procurement in the healthcare system can lead to:

- Cost reductions through more efficient use of the resources, processes and labor management
- Continuous business even during challenging times like crisis
- Attracting, hiring and retaining skilled employees for a long-term
- Driving to collaborative innovation with the supplier

## 4. Save energy

In order to save energy, hospitals can start by reprogramming the cooling and heating plants, re-engineering the air handling system or upgrade the lighting system. Saving both energy and carbon output can be a complicated mission but it's doable.

## 5. Preserve water

Every effort meant to preserve water can strengthen environmental sustainability in the healthcare system. Of course, the system needs to actively implement measures and engage the health care workers, while inducing a sense of responsibility in them.

## The role of social networks in increasing the sustainability of the medical system

The advent of the Internet has produced, one by one, paradigm shifts. Among them, the use of social networks in terms of public health education removed physical and geographical barriers that prevented access to resources, information, and care. It is undeniable that today, social networks have become a tool for promoting health and the principles of health education among the public (Stellefson, et.all., 2020).

At the same time, the explosion of the use of social networks has a great potential in the widespread awareness regarding the sustainable development of the environment. Mankind has evolved and this evolution has improved the quality of life as well as its longevity. Current generations live longer and better than previous generations and this has led to exponential population growth.

An impossible consequence to ignore is one that leads to an imbalance of the environment. Nature has always had its means of self-regulation, means that man, in the lead, has managed to overcome by artificial means, thus causing not only benefits but also inevitable long-term harms such as: overpopulation, pollution, climate change, mass extinctions of different species, waste of natural resources, global warming. The human species is today facing the greatest challenge of its history. Taking control of the unstoppable upward trend of evolution in harmony with the nature resources must be impossible now but possible from a long-time perspective.

Education, awareness and responsibility are factors that help us shape our future and ensure a healthy and clean-living environment for future generations.

Sustainable development describes the processes of improving the quality of human life today without depleting the resources of future generations. This is an important key to the survival of our species through sustainability.

Sustainability is often defined as the ability to meet current needs without compromising the ability of future generations to meet their own needs and the medical system is also a domain that needs to be maintained sustainable (Blankestijn, 2021).

The United Nations Sustainable Development Goals cover a wide range of global issues and achieving these goals will require effort and education.

The aim of the 2030 Agenda for Sustainable Development, adopted by all Member States of the United Nations in 2015, is to provide "a common plan for peace and prosperity for people and the planet, now and in the future".

The interaction between climate change and health is two-way. There is clear evidence that climate change (extreme weather events, global warming and rising sea levels) can have detrimental effects on human health. The World Health Organization (WHO) estimates that 23% of deaths worldwide are related to environmental factors. Climate change and pollution can lead, through various means, to malnutrition, mental disorders, cancers and cardiovascular, renal, respiratory and infectious diseases (Watts, et al, 2018).

Lifelong learning is a process that has become an essential part of modern life but also a force and support in terms of rapid changes in technology, increased urbanization, globalization, and environmental changes and the evolution of the health care system (Lander and Stever, 2017).

Today, humanity has taken refuge entirely in the online environment due to the largest pandemic it has faced in the last hundred years, the one caused by COVID 19. In this context, social networks can become the most powerful tool of communication, education, global literacy in areas such as health, science, sustainable development as part of the lifelong learning process over the concerns, challenges and priorities related of man's coexistence with the nature from which he derives.

People use these technologies with the help of computers or mobile devices. Social networks now allow a single person to communicate with hundreds or even thousands of other people around the world about ideas, opinions, products, services and culture, politics and religion. At the same time, both sustainable development and health education are topics that require integrated and holistic approaches through the participation of individuals, groups, organizations, the public and governments at the individual, local, regional, national, and global levels and thus lead to the idea of sustainable education.

Programs for the development of these concepts can reach their potential by including an efficient use of social networks such as Facebook, YouTube, Instagram, Twitter (Balaswamy and Palvai, 2017).

In the health field, doctors are often involved in the care, research and/or education of the patient. Sustainable health education can be described as a teaching and learning process that prepares future health professionals to promote sustainable health and provide sustainable healthcare. And this is how, in this way, global institutions emphasize the importance of the transition to a sustainable society (Blankestijn, 2021).

Redefining the role of human resource management in the medical sector is necessary given the increasingly accelerated globalization and the need for sustainability of the medical sector. That is why

an adaptation of human resources management to an environment in full transformation is necessary in order to ensure the quality of medical services.

Traditional recruitment methods involve launching the announcement, receiving applications, selecting candidates, holding the interview and hiring the chosen candidates (Dessler and Varkkey, 2005). These methods can be moved into the online environment. Therefore, the needs of human resources management can be satisfied while offering more flexibility and sustainability to the process itself. Companies can be more productive and efficient by holding online interviews.

All these recruitment methods can be achieved through online recruitment platforms and social media platforms, thus facilitating the process of evaluating and selecting the candidates (Zide, et al., 2014).

Through the online environment, in the human resources management, the following operations can be done (Ruparel, et al., 2020):

- The use of online platforms to facilitate the application and the selection process.
- The possibility of performing analyzes using online platforms that allow the evaluation of employees' potential.
- Reducing the possibilities of favoritism during the recruitment process by using online platforms.

Numerous researches have been conducted in the field of human resource management to analyze to what extent a sustainable human resource management style can help employees to reduce the negative impact of traditional business practices on employees, society and environment (Randev and Jha, 2019). Further research is needed to determine the extent to which social media and the online environment influence human resource management in the health sector.

In this equation, social networks are important vectors both in terms of the means of communication of sustainable education and the transformation of society into a sustainable one. Ultimately, they can make a difference in terms of health, well-being, quality education, responsible consumption and production, and climate action.

### **Methodology**

The present article includes an analysis of the documentation found in various publications and scientific articles to illustrate the advantages of sustainability in the medical system. Therefore, we used a comprehensive search into numerous sources of secondary data, such as articles, reports, and books from the domains sustainability in the medical system,

For the research, we used also electronic databases, such as PubMed, Academia. EDU, BRILL and Wiley Online Library.

The method used is a descriptive, given the fact that the subject is very widely discussed.

### **Results and discussions**

The health system has adopted over time various strategies to obtain a high quality of health services. One of the departments with an essential role in implementing these strategies is the management of human resources due to its factors influencing the quality of health services. Among the most important current strategies that offer a global boost in human resources management in the medical sector is the sustainability strategy.

Sustainability, through social networks, through the online environment, has become an important tool in the distribution of quality services in the medical sector.

The results of this study highlight the significance and importance of sustainability in the medical sector by providing tools that can be used by human resources management to increase the quality of medical services.

The solutions applicable in the medical sector that we propose following this study are the following:

- Introduction of new procedures for waste collection to reduce the negative impact on the environment.
- The use of social networking for: Attracting, hiring, and retaining skilled employees for a long-term.
- Introduction of new procedures regarding the efficient use of energy by implementing systems to reduce energy consumption and by training medical staff on the optimal use of energy.
- Using online platforms to measure employee performance.

The present study aims to improve the literature by providing support in understanding the role of sustainability in the medical sector.

Our results come to complement to current studies and as a debut for future research on the importance of sustainability in society and the influence it has on the quality of health services.

### **Conclusions**

This paper contributes to the relatively recent body of knowledge linking healthcare system with sustainability and highlights the relationship between those two concepts and social media environment.

The findings reflect upon the use of social media networks in promoting sustainability of the healthcare system.

Social networks offer new opportunities in promoting communication strategies both in the field of health and in terms of sustainable development program. Their use effectively and at low cost covers a wide spectrum of audience in a context in which the current health system is facing a steady and alarming increase in spending due to an aging population, increasing chronic diseases, increasing the number of patients with multimorbidity, the emergence of new technologies, increasing the costs of materials and services

However, we cannot ignore the management of the challenges that social networks bring along with opportunities, such as: propaganda, misinformation, fake-news, discrimination (there are small categories of people who do not have access to information through technology), respect for the protection of privacy.

Some social platforms have initiated, albeit belatedly, measures to limit such situations (for example, Facebook with anti-vaccination groups).

We signal both the importance of the way in which the communication and promotion campaigns are designed to be carried out through the right message for the compatible audience, through its communication channel and the monitoring and evaluation of public health promotion and communication activities that appear on different social media websites.

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