



## SOCIAL AND ENVIRONMENTAL RESPONSIBILITY IN THE HOSPITAL CONTEXT: AN INTEGRATIVE REVIEW

### RESPONSABILIDADE SOCIOAMBIENTAL NO CONTEXTO HOSPITALAR: REVISÃO INTEGRATIVA

### RESPONSABILIDAD SOCIAL Y AMBIENTAL EN EL CONTEXTO HOSPITALARIO: UNA REVISIÓN INTEGRADORA

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#### ABSTRACT

**Objective:** to analyze what has been produced about socio and environmental responsibility in the hospital context. **Method:** it forms an integrative review with the databases LILACS and PubMed/ MEDLINE, between March and April 2014. Data were recorded in a summary table and the reading was performed in order to characterize the publications and identify the relevant categories for the construction of knowledge about the subject, which have undergone a process of analysis and interpretation. **Results:** there were analyzed 14 productions. After analysis two relevant categories emerged: << Adoption of sustainable strategies by the part of the hospitals >> and << The role of Nursing before environmental issues >>. **Conclusion:** worldwide, there are studies that indicate to the environmental damages arising from health-care activities, indicating strategies that can be implemented in order to reduce the caused damage. However, there were not found studies focusing on conceptual theoretical issues, neither concerning social and environmental responsibility by the part of health workers. **Descriptors:** Environmental Education; Health Services Waste; Social Responsibility; Institutional Responsibility.

#### RESUMO

**Objetivo:** analisar o que tem sido produzido sobre responsabilidade socioambiental no contexto hospitalar. **Método:** revisão integrativa nas bases de dados LILACS e PUBMED/MEDLINE, no período de março a abril de 2014. Os dados foram registrados em um quadro sinóptico e a leitura foi realizada de forma a caracterizar as publicações e a identificar as categorias relevantes na construção do conhecimento sobre o tema, as quais sofreram um processo de análise e interpretação. **Resultados:** analisaram-se 14 produções. Após análise dessas, emergiram duas categorias relevantes: << Adoção de estratégias sustentáveis por parte de instituições hospitalares >>, e << O papel da enfermagem frente à problemática ambiental >>. **Conclusão:** em âmbito mundial, há estudos que sinalizam para os prejuízos ambientais advindos das atividades assistenciais de saúde, apontando estratégias que podem ser executadas com o objetivo de diminuir os danos causados. No entanto, não foram encontrados estudos com foco no aprofundamento teórico conceitual, nem que visassem a responsabilidade socioambiental por parte dos trabalhadores da saúde. **Descritores:** Educação Ambiental; Resíduos de Serviços de Saúde; Responsabilidade Social; Responsabilidade Institucional.

#### RESUMEN

**Objetivo:** analizar lo que se ha producido en respecto a la responsabilidad ambiental en el contexto hospitalario. **Método:** una revisión integradora hecha en las bases de datos LILACS y PubMed/ MEDLINE, entre marzo y abril de 2014. Los datos se registraron en una tabla resumen y la lectura se realizó con el fin de caracterizar las publicaciones e identificar las categorías relevantes en la construcción de conocimientos acerca del tema, que han sido sometidas a un proceso de análisis e interpretación. **Resultados:** 14 producciones fueron analizadas. Tras el análisis de estos trabajos surgieron dos categorías relevantes: << La adopción de estrategias sostenibles por los hospitales >> y << El papel de la enfermería a las cuestiones ambientales >>. **Conclusión:** en todo el mundo hay estudios que indican que los daños sociales y ambientales derivados de las actividades de atención de la salud, señalando las estrategias que se pueden implementar con el fin de reducir los daños causados. Sin embargo, no hay estudios que se centran en estudios teóricos conceptuales o que estaban destinados a la responsabilidad social y ambiental por parte de los trabajadores de la salud. **Descriptor:** Educación Ambiental; Residuos de los Servicios de Salud; Responsabilidad Social; Responsabilidad Institucional.

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INTRODUCTION

The environmental problems and their impact on all aspects of human health have been a central theme in different scenarios, since it permeates the social, political, economic, biological and cultural perspective. Thus, special attention should be given to health, specifically the health institutions as they also contribute to the worsening of this problem.

Thus, to promote sustainability, it is necessary that health institutions have, as a base of operations, the concern with the development of sustainable activities in providing assistance to health. From this perspective, it is essential that those services involve the workers in discussions about current environmental issues, considering that their doing, is often harmful to the environment. Above all, there is the need for nursing staff direct its activities for environmental vulnerabilities, considering that these professionals work on the front line in health care.

Health care organizations need to call their workers to a process of reflection about the environmental crisis, creating opportunity for discussions about the topic. This process may allow workers to recognize how their work practice can help preserve or degrade the environment, going to act in a more responsible and civic manner with environmental preservation.

For health workers feel co-participants in the process it becomes important to address environmental issues, promoting awareness about the subject, not only establishing norms; so, the worker only will obey without recognizing the reasons that made them necessary, or even without a vision about the whole process.<sup>1</sup>

Thus, advocates the need to work on environmental issues in health institutions in an expanded and contextualized way, beyond a merely point of view, not at the risk of decontextualized it all the complexity that surrounds it.

It is understood, therefore, that health institutions need to become facilitators of this process, providing opportunities for their employees, a sense of environmental responsibility, increasing environmental awareness, to allow an ethical posture that enables an act and reflect based on the whole of being. For only then we will build a new rationality, determined by the need for change and, especially, the need to develop a new human ethics, since the changes that

Social and environmental responsibility in the hospital...

occur in the natural environment have repercussions in their actions.<sup>2</sup>

The development of this study is justified, since health services seem to environmental issues in their daily work have not yet been incorporated. Thus, it is expected to assist in the rise of social and environmental responsibility in health institutions and workers active in them. In addition, point strategies that allow healthcare institutions turn into local socially and environmentally responsible.

OBJECTIVE

- To analyze what has been done about socio and environmental responsibility in hospitals.

METHOD

This is an integrative review in databases Latin American and Caribbean Health Sciences (LILACS) and Medical Literature Analysis and Retrieval System Online (MEDLINE) in the period March-April 2014.

In LILACS and MEDLINE databases there were associated descriptors in advanced form: social responsibility or institutional responsibility or liability or professional liability and environmental or ecology or sustainable development or ecological imbalance or environmental education or environmental management or waste of health services; also were crossed keywords: social responsibility and environment and hospital.

There was no time frame for publications, since it aimed to capture all hitherto published productions. We used the following inclusion criteria: online article available in full, free and be about the researched topic.

Research in LILACS resulted in 33 studies. There were excluded 15 books, four theses/ dissertations, two for not being available online in full; ten not contemplate the researched topic and a summary. Therefore, only a production base of this contemplated the inclusion criteria of the study. In MEDLINE, the search resulted in 498 studies, of which 469 were excluded for not contemplate the theme researched-six are not available online in their entirety.

Given the above, from the inclusion criteria, there were selected 14 scientific publications, 13 in MEDLINE and LILACS, which read in full has been made.

Data were recorded in a summary table built by researchers, covering, among others, the following: article name, authors, journal, publication year, country, and professional category of authors, institution authors,

Soares SGA, Camponogara S, Neves ET et al.

objective, results and conclusions. The reading was performed in order to characterize the publications and identify the relevant categories in the construction of knowledge about the subject, which have undergone a process of analysis and interpretation: << Adoption of sustainable strategies by the part of the hospitals >> and << The role of Nursing before environmental issues >>.

RESULTS

From the characterization of productions found, concerning the year of publication, it is emphasized that there was a higher number in 2003 with three publications, followed respectively by 2005, 2007, 2010 and 2012, each with two publications.

Countries that publish more about the investigated theme are Canada and the United States of America, each with five publications. The others were Portugal, United Kingdom, England and Brazil, each with one publication only.

With regard to the professional category of the authors, there is a diversity of professions and are not necessarily linked to the health sector; however, there was a predominance of

Social and environmental responsibility in the hospital...

doctors and nurses, followed by lawyers. It is noteworthy also that it was not possible to define the professional category of four authors.

Regarding journals, which published more about the theme, there was Health Progress of the United States of America, with three publications. The other showed a publication each. Table 1 presents a summary of selected productions.

Based on the analysis of the results, it appears that studies related to this issue has not been widely performed in academia, identifying a gap in the scientific literature about the subject, especially at the national level, to the extent that there was a predominance international publications, found only a national publication.

Against this background it is clear that more attention has been paid to losses arising from health-care activities worldwide, to the extent that some studies suggest strategies for making health institutions "friends" of the environment; however, there were not identified studies that focus on the conceptual theoretical deepening, nor to have in order to investigate social and environmental responsibility by the part of health workers.

Title	Authors	Journal	Year
Social Responsibility: A New Paradigm of Hospital Governance? <sup>3</sup>	Brandão C, Rego G, Duarte I, Nunes R.	Health Care Anal	2012
Health Care in the Age of Ecology <sup>4</sup>	Hite R W.	Health Progress	2003
"Creating health and health promoting hospitals: a worthy challenge for the twenty-first century" <sup>5</sup>	Hancock T.	International Journal of Health Care Quality Assurance incorporating Leadership in Health Services	1999
Water, ecology and health: ecosystems as settings for promoting health and sustainability <sup>6</sup>	Parkes M W, Horwitz P.	Promotion International	2009
Promoting Environmentally Responsible Health Care <sup>7</sup>	Gaudry J, Shiehar K.	Canadian nurse	2007
The impact of healthcare on the environment: improving sustainability in the health service <sup>8</sup>	Fitzpatrick J.	Nursing Times	2010
Bio (ethics): environmental strategy to address the global vulnerability <sup>10</sup>	Brama G. M. R. Grisólia C. K.	Journal Bioethics (impr)	2012
Guidelines for the evaluation and assessment of the sustainable use of resources and of wastes management at healthcare facilities <sup>11</sup>	Townend W K, Cheeseman C R.	Waste Manage Res	2005
Cleaning up our "environmental footprints" <sup>12</sup>	Mardock J.	Health Progress	2003
Powering the Future: How Hamilton Health Sciences Put Cogeneration to Work for Healthcare <sup>13</sup>	MacLeod W B, Martin M T.	Health Care Quarterly	2007
The Earth is our "Household" <sup>14</sup>	Zaiac S.	Health Progress	2003
Taking the "Leed". Environmentally friendly design and construction earns distinction <sup>15</sup>	Eagle A.	Health facilities management	2005
The Ecological Footprint of Lions Gate Hospital <sup>16</sup>	Germain S.	Hospital Quarterly Winter	2001 / 2002
Climate Change and Human Health The Role of Nurses in Confronting the Issue <sup>20</sup>	Sayre L, Rhazi N, Carpenter H, Hughes N.	Nurs Admin Q	2010

Figure 1. Distribution of studies according to title, authors, journal and year. Santa Maria, RS, 2014.

DISCUSSION

♦ **Adoption of sustainable strategies by the part of the hospitals**

After the analysis of the found productions, we realized that several activities can be carried out in order that the health institutions from becoming environmentally responsible places. These activities run through the waste management of health services, the consumption of water and energy by minimizing the incineration and the implementation of a purchasing policy; in addition to reducing the use of paper and plastic disposable in routine care and management, among others.<sup>3-16</sup>

Studies show that health institutions, to become environmentally responsible, will not be a benefit only for the health of the environment and people, but also have

financial benefits with this attitude. Some health institutions are finding ways of reduce, reuse and recycle waste, thus preventing thousands of dollars are spent on incineration.

Health institutions consume significant resources, leading inevitably medical waste, some of which are dangerous, and all have the potential to pollute the environment if not properly managed.<sup>7</sup> Faced with this, the management of health care waste it constitutes the basis for the sustainability of health institutions, becoming the key part to the support of a health insurance system.<sup>8</sup>

Means for waste management of health services, the set of management procedures, planned and implemented in scientific and technical, regulatory and legal bases, which aims to minimize production and provide a safe waste generated routing and efficiently.<sup>17</sup>

Soares SGA, Camponogara S, Neves ET et al.

These managerial procedures are guided by the waste characteristics, the classification into different groups and generated volume, and, in Brazil, health institutions have, as compulsory, the development of a Plan of Health Services Waste Management (PGRSS), to establish management guidelines such waste and contemplate the segregation, packaging, identification, internal transport, intermediate storage, temporary storage, treatment, external storage, collection and external transport and disposal.<sup>17</sup>

However, for this chain of procedures occur efficiently you need to know if the managers are supportive and how to understand and value sustainable development.<sup>7</sup> This involves having as a goal, not only the implementation of its management, but rather an approach to the whole process of extended and contextualized way, in order that all professionals working in the institution are properly instrumented to manage the resulting waste the health care process.<sup>18</sup>

Environmental problems caused by inadequate solid waste management lead to health consequences, which justifies the need for Health Promotion concrete actions integrated in different sciences, among them nursing, to be an important topic to be discussed with the society seeking to adopt intervention measures.<sup>9</sup>

No less important and it should not go unnoticed is the incineration of waste. For a long time, hospitals were using incineration to give the final allocation of the waste generated. However, this procedure disperses an unacceptable amount of chemical residues such as dioxins, heavy metals and other toxic chemicals into the atmosphere.<sup>3</sup> Against this problem, there is a safe and practical alternative which can be adopted: autoclaving.<sup>4</sup>

The US Environmental Protection Agency (EPA) says that the incineration of medical waste is the third largest source of dioxins and the fourth largest source of mercury released into the environment, contributing significantly to the destruction of the environment.<sup>5</sup>

There are considered dioxin byproducts of incineration, industrial processes and uncontrolled chemical burning of chlorine.<sup>4</sup> In health institutions, the main source that emits dioxin is the incineration of plastics coming health care.

Constitute main risks of exposure to dioxin to humans, heart disease, diabetes, cancer, liver disorders and development.<sup>13</sup>

It is recommended that for the elimination of dioxins and dietilhexilftalato (DEHP), as

Social and environmental responsibility in the hospital...

well as mercury from their facilities, health institutions use better management of medical waste, with well-trained staff, and develop procurement contracts for products environmentally safe health.

According to the International Council of Nurses, an option to reduce the damage caused to the environment, there is the standardization of nursing competencies in environmental health, the approach of nursing education in environmental programs, waste management and toxins and safe disposal of waste.<sup>4</sup>

It is worth noting that these institutions can still use the purchasing power to buy less aggressive materials to the environment, and attract competitive costs, making the delivery of health care less wasteful and polluting.<sup>5</sup>

Thus, implementing a purchasing policy includes the adoption of criteria for purchasing products/sustainable services covering the following features: be less toxic; minimally pollutants; more energy-efficient; safe and healthy for patients, workers and the environment; ease of repair; ease of recycling; incorporate less packaging; have greater durability (have a longer shelf life); as well as being produced locally (travel short transport distances).<sup>3-4</sup>

Still according to the study, an important tool for the sustainability of healthcare institutions is the management of water and energy consumption, since hospitals consume significant amounts of energy and water, and many do not address the need to develop energy efficiency or use of renewable resources.<sup>3</sup>

Access to clean water has global importance, since, has a limited amount and is influenced by climate change, the depletion of the water table, droughts and melting glaciers.<sup>6</sup> Thus, health institutions to manage consciously water consumption, are playing an important role in the conservation of this element in the world.

Besides these, other measures can be adopted by health institutions to develop environmental policies, they are: the use of renewable energy resources and products without polyvinyl chloride (PVC), with the possible use of alternative materials such as silicone, ethylene vinyl acetate, polypropylene, polyethylene, other polyolefin and plastic laminates, reusable shopping and autoclaving. These choices do not present risks to the environment and to humans during phase flow, not release dioxins.<sup>4</sup>

Another issue, not least, is the reduced use of paper and plastic disposable in routine care and management, among others.



Soares SGA, Camponogara S, Neves ET et al.

Thus, it is clear that several measures can be taken to transform the health institutions in environmentally responsible places. However, it emphasizes the need for managers are sensitized to environmental issues as well, proper awareness and exploitation of workers through an expanded approach rather than requiring compliance with pre-established rules and routines.

#### ♦ The role of Nursing before environmental issues

Another aspect raised in the investigated publications mentions the work of the nursing staff to ecological issues, pointing to the need for these professionals develop actions for health promotion and preservation of the planet.<sup>3-4,6,19</sup>

In general, it is known that the work of nursing in health institutions is still associated with the biomedical model, which seeks logical causes for organic effects in a sick body, a hostage of medicalization and technological arsenal coating, particularly, hospital health care. In this sense, the idea of a comprehensive look at the subject and the context in which it operates looks away in making health and move away from the concepts of health promotion and quality of life.<sup>20</sup>

Thus, this distance is also reflected in the removal of issues involving the environment, since this also has implications for the health and disease. It follows therefore, that this may be a reason that impedes a rapprochement between the nursing worker and environmental issues, bringing damage to an environmentally responsible manner.

The health sector needs to be aware of the impact of its operations on the environment and should strive to be environmentally responsible. For this reason, the nursing staff has the responsibility to defend the environment and safety of humans.<sup>4</sup>

It should be noted that the nursing staff can work on the front line of "environmental issues". As the largest group of workers in the health sector, the nursing staff may have an authority on this subject.

Nursing workers are in direct contact with clients and their families, and may therefore have a strong influence on the development of services that respond to ecosystem concerns, health and welfare.<sup>3</sup> Furthermore, they can defend the reduction of use of toxic products, requesting the promotion of care without the use of PVC products, as well as actively participating in the development of policies related to procurement, waste management practices and incineration.<sup>6</sup>

Social and environmental responsibility in the hospital...

It is noted, however, that in addition to the nursing staff, other health professionals can play an important role in educating their peers on the impact of climate change on health, the ways in which the health sector can reduce emissions of toxic gases, as well as providing guidance to clients and their families on how to avoid medical conditions caused by events related to climate.<sup>6</sup>

According to the analyzed publications, the International Council of Nurses has worked tirelessly on this issue, working heavily on nurses' relationship, climate change and individuals, through the approach to public health issues resulting from the direct and indirect impact of climate change.<sup>6</sup>

Still according to the Council, the nursing staff should be an integral part of measures to mitigate the impact of climate change with a special focus on particularly vulnerable to disease and injury.<sup>4,6,19</sup>

Nurses are called into action to join forces with other health professionals, aiming to assist in mitigation, adaptation and policy around global climate change, by doing so, that leadership is a vital component to address and tackle environmental problems.<sup>6</sup> In this sense, individually nursing workers have ample opportunities to help reduce health care waste, water consumption and energy, as well as the emission of toxins into the atmosphere. Education and assistance are needed to make these opportunities a reality.<sup>6</sup> It is noteworthy, therefore, the importance of nursing workers are imbued with its social and environmental responsibility, because only then can develop actions to the overall well-being.

Based on the analyzed publications, has been mentioned as study the gap the absence of studies that address how and/or strategies can be used to address this issue with the health workers, in order to seek to be a socio-environmental stance, based on the principles of citizenship and ethics.

Facing the context presented, it seems that health workers, especially the nursing staff, need to have their actions based on the principle of environmental responsibility, as these have an ethical character of citizenship, responsibility and commitment to with all.

From these considerations, there is the need for a broad debate concerning the subject, particularly about health interface in the environment, the sense of environmental value as an essential dimension for the process of human living and what contributes fundamentally to health promotion and quality of life of individuals and populations.<sup>21</sup>

## CONCLUSION

With this systematic review it was found that, worldwide, there are studies that indicate the environmental damage resulting from health care activities, pointing out strategies that can be implemented in order to reduce the caused damage. However, there were not found studies focusing on conceptual theoretical deepening, neither those that were intended to social and environmental responsibility by the part of health workers.

It is evident that there is a gap in the production of knowledge about social and environmental responsibility in hospitals, mainly nationally, once there was found only one publication.

In short, it is essential that health institutions adopt environmental conservation as an institutional policy, acquiring a socio-environmental stance, providing tools for health workers for a change of attitude towards a global well-being.

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Soares SGA, Camponogara S, Neves ET et al.

Social and environmental responsibility in the hospital...

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Submission: 2015/09/17

Accepted: 2016/03/24

Publishing: 2016/11/01

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