

Interconnection between planetary health and HIV/AIDS response: a reflection from the perspective of complex thinking

Interconexão entre saúde planetária e resposta ao HIV/aids: uma reflexão sob a ótica do pensamento complexo

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ABSTRACT

Objective: To reflect on the connections between planetary health and the world's response to HIV/AIDS from the perspective of complex thinking. **Method:** This is a theoretical reflective essay anchored in the complex thinking proposed by Morin and in the current and relevant literature on planetary health and HIV/AIDS. **Results:** Recognizing that the Sustainable Development Goals are linked to current discussions on planetary health, the reflection was woven around the five Ps (i.e., people, planet, prosperity, peace, and partnerships) that are reflected in the response of different nations to HIV/AIDS. **Conclusion:** The reflections raise some important points related to planetary health and access to and treatment adherence, intending to control and eliminate HIV/AIDS by 2030. Caring for planetary health will mean caring for all people, especially those with greater vulnerability, such as people living with HIV/AIDS.

Descriptors: HIV; Acquired Immunodeficiency Syndrome; Environmental Health; Global Health; HIV Seropositivity.

RESUMO

Objetivo: Refletir sobre os pontos de interconexão entre saúde planetária e a resposta do mundo ao HIV/aids sob a ótica do pensamento complexo. **Método:** Trata-se de ensaio teórico do tipo reflexivo, ancorado no pensamento complexo proposto por Morin e na literatura atual e pertinente sobre saúde planetária e HIV/aids. **Resultados:** Considerando que os Objetivos do Desenvolvimento Sustentável se interconectam com as atuais discussões sobre a saúde planetária, a reflexão foi tecida a partir dos cinco Ps (isto é, pessoas, planeta, prosperidade, paz e parcerias), os quais tem refletido na resposta do HIV/aids entre as diferentes nações. **Conclusão:** As reflexões incitam alguns pontos importantes que envolvem a saúde planetária e o acesso e a adesão ao tratamento, com a finalidade de controlar e erradicar o HIV/aids até 2030. O cuidar da saúde planetária representará o cuidado com todos os seres humanos, em especial aqueles com maior vulnerabilidade, como pessoas vivendo com HIV/aids.

Descritores: HIV; Síndrome de Imunodeficiência Adquirida; Saúde Ambiental; Saúde Global; Soropositividade para HIV.

INTRODUCTION

Discussion of the concept of planetary health is growing. It is an emerging paradigm, a social movement, and a transdisciplinary field of knowledge that seeks to understand and intervene in problems related to the impact on life and health of changes in Earth's natural systems. In this way, it has been possible to identify and recognize that human actions, governed by the rules of capitalism, have affected the health of terrestrial ecosystems and human health. On the other hand, from the perspective of planetary health, there is also the possibility of planning strategies that seek to prevent risks and mitigate harmful consequences for mankind and the planet's natural systems⁽¹⁾.

The United Nations (UN), which is committed to the sustainable development of societies, published the Sustainable Development Goals (SDGs) almost a decade ago. These goals represent a set of established targets to reduce the consequences associated with socio-economic inequalities and climate change, expand the pursuit of equality, health, justice, and well-being, and increase the production and consumption of renewable energy sources⁽²⁾.

When considering the most vulnerable populations, it is essential to remember that they are disproportionately affected by the changes taking place on the planet compared to non-vulnerable groups. Recent studies show that climate change is felt more acutely by people living in poverty and those living in developing countries or on the periphery of developed countries⁽³⁻⁴⁾. Therefore, this geographic, socioeconomic, and educational context should be a fundamental concern of planetary health. At the 27th United Nations Climate Change Conference (COP27), countries agreed to create a monetary fund to help the poorest countries respond to losses and damages related to the climate crisis and other inequalities⁽⁵⁾. This is because the economic, social, political, and health inequalities produced by the capitalist and neoliberal systems of production and consumption at both local and global levels can further exacerbate social, economic, and health vulnerabilities, making some people less able to access health services and adhere to prevention and treatment strategies than others⁽⁶⁾.

People living with HIV/AIDS are considered vulnerable because HIV infection and the development of AIDS are associated with precarious housing, low levels of education, low income, and situations of violence. In a vicious circle, such situations have a direct impact on the response to HIV/AIDS, as these characteristics also affect access to and adherence to treatment for these people⁽⁷⁻⁸⁾.

Because of the impact of climatic conditions associated with lower economic incomes and food and water insecurity—as a result of erratic rainfall, river eutrophication, and drought—people who are often forced to migrate or seek refuge in different parts of the world have faced challenges related to the loss of their homes, jobs, and livelihoods. This complex context has contributed to undermining global attempts to address the prevention of HIV infection and adherence to antiretroviral therapy (ART), which have been directly affected⁽⁸⁾.

To promote planetary health and achieve the SDGs related to the control and treatment of HIV/AIDS, the involvement of health professionals, especially nurses, is crucial today. They need to be familiar with these concepts and structures to extend the reach of the goals for a healthier and more sustainable planet capable of meeting the needs of the most vulnerable⁽⁹⁾. This is essential because climate change has the potential to resurrect old scourges such as malaria, polio, tuberculosis, influenza, plague, and HIV/AIDS, which have been controlled in most regions. This would occur in the context of water and food insecurity, conflict, and probably totalitarianism in areas where order still prevails⁽¹⁰⁾.

In addition, the influences to which people living with HIV/AIDS are exposed, which may or may not act in isolation, must be considered increasing their vulnerability⁽¹¹⁾. Conditions of vulnerability include psychosocial issues that cause physical and emotional harm, resulting in greater health risks. Therefore, early detection of HIV and prevention of opportunistic diseases are essential care strategies⁽¹²⁾ so that people living with HIV/AIDS can access health services, receive appropriate treatment, and have a good quality of life. Thus, complex thinking should guide and broaden the understanding of the problems, linking them, contextualizing them, and contributing to the ability to deal with the uncertainties that permeate the phenomenon of HIV/AIDS treatment, which is linked to anthropogenic impacts on planetary health⁽¹¹⁾.

Therefore, this study aimed to reflect on the interconnections between planetary health and the global response to HIV/AIDS from the perspective of complex thinking.

METHOD

This is a theoretical reflective essay resulting from studies and discussions carried out in the postgraduate course *Salud planetaria y salud global: retos y afrontamientos actuales*, offered in Spanish in the second semester of 2022 by the Graduate Program of Nursing at the State University of Maringá (PSE/UEM). In addition, the studies of the main author, related to her dissertation presented to the PSE/UEM in 2021, support this reflective study. The text is anchored in the theory of complex thinking proposed by Edgar Morin⁽¹¹⁾ and in the current and relevant literature on planetary health and HIV/AIDS.

Searches were conducted in the Latin American and Caribbean Health Sciences Literature (LILACS) via the Virtual Health Library (VHL), the Nursing Database (BDENF), and PUBMED/MEDLINE using the descriptors "HIV", "Síndrome de Imunodeficiência Adquirida", "Mudanças Climáticas", "Saúde Ambiental" and "Saúde Global" with the Boolean operators "AND" and "OR". This search was important for the authors to identify the most relevant texts to theorize about the subject.

The search was conducted in November 2022 and was limited to Portuguese, English, and Spanish texts. It considered the fluency of the researchers in these languages. Only texts published since 2015, the year in which the term "planetary health" appeared in the scientific literature and the year in which the UN published the SDGs, were included in the reading and analysis. In these texts, the focus was on describing how anthropogenic climate change has affected the global response to HIV/AIDS. A manual search was conducted to expand the scope of the selected studies, allowing the addition of relevant texts that contributed to the theoretical discussion and were not identified in the previous database search.

After identifying and carefully reading the texts, the authors understood that there was a need to reform the current thinking and rethink how people living with HIV/AIDS access health services to treat the disease. This is especially true because the 2030 Agenda for Sustainable Development predicted the occurrence of numerous complex situations arising from the current scenario the world is facing. Therefore, there is a need for collective global action to advance the SDGs in a multisectoral response to HIV/AIDS⁽¹³⁾. Since reality is constantly changing and evolving⁽¹¹⁾ and since planetary health can influence the response to HIV/AIDS as well as society as a whole, some questions arise to guide this reflection:

What are the impacts of anthropogenic climate change on planetary health that affect the response of different nations to HIV/AIDS?

What considerations are driving changes in the way access and adherence to HIV/AIDS treatment are managed, leading to shared goals for 2030?

The organization and presentation of the formulated reflections were done in the form of guiding axes, which connect the assumptions of planetary health and the SDGs, derived from the interpretation of the scientific literature, as well as the reflective insights of the authors.

RESULTS

Based on the theoretical construction of reflective thinking, five guiding axes were addressed through the five Ps of the SDGs (i.e., people, planet, prosperity, peace, and partnerships), which can reflect on the response to HIV/AIDS in public health systems.

People

The complexity of living with HIV/AIDS and the ways in which society has intervened in people's lives⁽¹¹⁾ can pose problems for individual health, as each person is embedded in a different reality. Poverty, exacerbated by climate change in different regions of the world⁽³⁾, has increased vulnerability to HIV infection. This is because socio-economic inequalities affect people's ability to prevent infection or postpone/minimize the impact of AIDS⁽¹⁴⁾. Individuals and their families affected by HIV/AIDS are more likely to fall into and remain in poverty because of the vulnerability of their location. This increases the likelihood of treatment failure⁽¹⁵⁻¹⁶⁾.

The government must, therefore, develop strategies that promote social protection and economic empowerment for these people while implementing measures to mitigate the degradation of terrestrial ecosystems and slow climate change. This would help to reduce the vulnerability of groups already at high risk of poverty and HIV to help people living with HIV to remain healthy. When it comes to poverty and climate change, there is also the issue of food insecurity, which can lead to hunger and dehydration, which in turn can lead to health risk behaviors. This can be reflected in low adherence to ART and the progression of AIDS. When people are in an advanced stage of AIDS, their immune systems are severely weakened, which can lead to unemployment and lack of financial resources, contributing to food insecurity and affecting their nutritional status⁽¹³⁾. These factors affect the care of people living with HIV/AIDS.

Therefore, when examining the relationship between the health of human civilization and the health of natural systems, it is important to emphasize that food and water support systems for people living with HIV and their families, especially in regions already suffering from prolonged droughts because of climate change, and health services that provide support, can have a positive impact on the health outcomes of these people.

Moreover, the increased risk of HIV infection disproportionately affects women and girls due

to gender inequalities, violence, and discrimination⁽¹³⁾. For example, education programs can help reduce men's violence and empower women⁽¹³⁾. However, it is necessary to integrate rights-based HIV services with sexual and reproductive health services. In addition, when faced with gender inequalities, violence, and discrimination, women may discontinue treatment and suffer negative consequences for their actions, which are influenced by society as a whole.

Planet

Complex thinking makes it possible to reflect on and understand the harmful and still uncertain effects of human actions on the environment, as well as the reflection of such actions by individuals on their health and global and planetary health⁽¹¹⁾. There is a great diversity of territories and populations in the world, with the most disadvantaged facing water and sanitation crises, taking into account the effects of climate change, such as drought⁽⁸⁾. Undoubtedly, climate change is directly and indirectly related to human health, including through access to care and treatment⁽⁸⁾.

Therefore, interventions by leaders to improve the health and well-being of people living with HIV should take a systemic approach to improve the health of the planet in general by ensuring the sustainable availability of water and sanitation for all and by taking urgent action to minimize and combat climate change and its impacts. People with greater social vulnerability are more affected by the actions and interactions of society, which can lead to non-adherence to ART⁽⁸⁾.

HIV has a particular impact on cities and urban areas, with more than a quarter of the world's population living with HIV. With rapid urbanization, people living in poorer communities are more vulnerable to HIV infection and have higher rates compared to the rest of the city⁽¹³⁾. Therefore, it is necessary to invest in smart cities and more sustainable communities that support social transformation and consequently strengthen social and health systems to reach marginalized populations that do not have access to prevention, care, and treatment strategies for HIV and other diseases.

This leads to an important reflection on the problems affecting human destiny. In this sense, we can understand that the essential problems of human beings are embedded in specific local-regional contexts, but they are interconnected and globalized because of global issues such

as deforestation, climate change, and air and water pollution. This brings a broad, holistic perspective of the interconnectedness between different people and their contexts, and allows us to discuss an uncertain world, but one that manages to find ways to face the uncertainties of impacts on planetary health and human health in a particular way⁽¹¹⁾.

Prosperity

Prosperity requires people to adopt a planetary education perspective, enabling knowledge mobilization to address local and global challenges in their daily lives. It is necessary to go back and forth between certainties and uncertainties, between the elementary/particular and the global/planetary, and between the inseparable and the separable. Meanwhile, it is necessary to recognize the global community, the human condition, human values, the past, present, and future problems and challenges of the contemporary world⁽¹¹⁾.

It is therefore necessary to provide people living with HIV/AIDS with opportunities for personal and professional development and to offer them a safe and protected working environment. It is also necessary to facilitate access to specialized health services and ensure quality monitoring of people living with HIV/AIDS. Special attention should be paid to informal workers, refugees, undocumented migrants, and sex workers, given their increased vulnerability. People living with HIV/AIDS are three times more likely to be unemployed than others⁽¹³⁾. Addressing HIV in the workplace and protecting workers' rights can ensure that people living with and affected by HIV have employment, which provides income and increases opportunities for access to better education, food, housing, and treatment⁽¹³⁾.

Therefore, if there is a supply of decent work with the possibility of economic growth, income inequality will be reduced. At this point, it is important to emphasize that while planetary health is concerned with the impact that humans have had on terrestrial ecosystems through the unrestrained use and exploitation of natural resources, it also recognizes that countries' economic growth is relevant to social development and, therefore, must be sustainable. This emphasis is made because income inequality is known to be associated with higher HIV incidence, leaving vulnerable communities more vulnerable to infection and with less access to health care and housing⁽¹³⁾. Thus, protection against discrimination, literacy, health literacy,

and access to justice can promote prosperity, empower people to claim their rights, and improve access to care services.

People living with HIV/AIDS, when properly supported by health services and with high rates of treatment adherence, are fully capable of continuing to support local economies. Therefore, providing access to treatment for all is crucial, which will lead to a better quality of life and individual prosperity, which will lead to social prosperity.

Peace

Anthropogenic climate change and its consequences have increased the number of armed conflicts and the climate of tension in various regions of the planet already suffering from water and food scarcity^(3,8). In addition, the HIV/AIDS epidemic is permeated by exclusion, stigma, discrimination, and violence, and these factors affect treatment retention⁽¹³⁾.

Importantly, peacebuilding can promote more peaceful and inclusive societies and provide access to rights for all⁽²⁾. Therefore, access to justice and accountability mechanisms focused on people's health and sustainable development are necessary to respond to HIV⁽¹³⁾.

In light of this, pursuing changes that promote peace, including measures to reduce global warming, would be more than a reform or a revolution; it would be a metamorphosis in how humanity thinks and consumes⁽¹¹⁾. Because of the importance of the peace axis in sustaining the treatment of people living with HIV/AIDS, there should be a global commitment to improving living conditions on a planetary scale.

Partnerships

The strategies to respond to the current global problems that affect the outcome of people living with HIV are not only technical, as they require a reform of thinking to encompass the relationship between society and nature in its complexity and the demands of society⁽¹¹⁾. The establishment of partnerships between countries and means of joint implementation of global collective actions to provide and improve the living conditions and health of people in regions affected by climate change, in zones of greater vulnerability to HIV infection and the development of AIDS, and efforts to ensure quality and accessible health care for people living with HIV/AIDS, including antiretroviral drugs, can benefit the health context and equity among different nations, as these aspects are essential for the control and eradication of the epidemic⁽¹³⁾.

The complexity of these issues, which permeate access to early diagnosis and treatment of HIV, provides an opportunity to articulate knowledge of multiple relationships, interdependencies, and causalities that span the biological, cultural, economic, and social⁽¹¹⁾. Global partnerships that seek to reduce disparities among nations in the management of HIV/AIDS in their local and regional contexts while promoting broad, proactive discussions on solutions to planetary health problems are beneficial and deserve attention in the scientific and management landscape.

DISCUSSION

The study is limited by the paucity of scientific production in HIV/AIDS management concerning planetary health. This has led the authors to rely heavily on their analysis, comparing the limited existing literature with the complex conceptual framework. Nevertheless, it allows reflection on possible strategies to address the issues of access and adherence to HIV/AIDS treatment in a context where different parts of the planet are suffering from the consequences of climate change and increased vulnerability. Further research is needed to understand the nuances of the scientific field of HIV treatment, social space, and geopolitical conditions.

Today's world is quite complex, with globalization, wars, anthropogenic climate change, pandemics, migration crises, and other aspects that challenge health professionals, including nurses. When specifically considering the case of people living with HIV/AIDS and in need of treatment, nurses need to base their practice on the SDGs and understand the concepts that include planetary health. Indeed, when thinking about controlling and eliminating the HIV/AIDS epidemic, it is necessary to address health determinants and vulnerabilities, as well as the holistic needs of people living with HIV/AIDS who are at risk of treatment discontinuation. This scenario has proven to be more complex in regions already suffering from the effects of climate change.

The lessons learned in the multisectoral and international response to HIV/AIDS are essential for the progress of sustainable development. In this way, a dialogical being emerges that confronts and contemplates the confrontations of planetary health. From a complex perspective, it is a matter of rethinking, reflection, and thought that do not isolate themselves from the planetary context but situate the people in HIV treatment, recognizing the specificity of each

according to the reality in which they are inserted. Thus, this reflective essay encourages nurses to think about their care practice with this population differently from the conventional one, aligning themselves with the SDGs.

CONCLUSION

The reflections raise some important points regarding planetary health and access to and adherence to treatment to control and eliminate HIV/AIDS by 2030. Caring for planetary health will mean caring for all humans and non-humans, especially those with greater vulnerability, such as people living with HIV/AIDS. Therefore, it is important to (re)think about individual daily practi-

ces related to HIV/AIDS, considering the behavior of each individual, along with the multiple social, educational, cultural, and environmental aspects involved in a world marked by gradual and constant anthropogenic climate change.

CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

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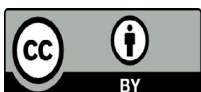
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