

Environment, health & sustainability in the context of cities

was honored by the invitation from **Acta Paulista de Enfermagem** to address the theme of Environment, Health and Sustainability. The relationship between this editorial and the International Nursing Day (celebrated in May) was also significant for me due to the comprehensive actions taken and developed by these professionals.

Both the reference global conceptual frameworks and the practical fields indicate that the current social changes are pressing researchers to consider other forms of conducting their investigations, including the environment-health-sustainability relationship in urban contexts. Researchers need to focus on the human beings and their intrinsic relationship with environment and health to better understand the new social contexts. Such focus will contribute to give effective responses to the concrete needs in the people daily life and the changing urban environment, taking into account both the sustainability principles and articulation needs, including the interdisciplinary concepts of knowledge production. Therefore, expanding the reflection and discussion spaces in the academic field is necessary to deepen new analytical categories and environmental and health intervention in the urban context.

Currently, 54% of the world's population live in big cities, where this number should reach 66% in 2050. Today, the situation is even more alarming in Latin America and the Caribbean, where 80% of the population already lives in urban areas, with the perspective of increasing to 87% until 2050. This means that 650 of the 750 million people are expected to live in urban areas in this region by 2050. (1)

Furthermore, 28 megacities were formed, with more than 10 million inhabitants until today, and this number is predicted to be 41 by 2030. The metropolis of São Paulo, Mexico, and Mumbai, each one with about 21 million people, occupy the 4th place among the largest cities in the world, being exceeded only by Shanghai (23 million), Delhi (25 million), and Tokyo (38 million).⁽¹⁾

In the international scenario, the decisions of the Paris Agreement (21st General Conference of the Parties, COP-21, 2015) and the Sustainable Development Goals (SDG) caused the urban themes to be reassessed. An agreement has been reached with 17 SDG and 169 goals involving different issues. The discussions arising from the Millennium Development Goals (MDGs), COP-21 and SDG guidelines have already inspired a number of initiatives. They used technologies as ingredient to connect and engage both government and citizens in a common effort to rebuild, recreate, and motivate urban communities with view to the social welfare.

The thematic areas of sustainability, information, vulnerability, and participatory inclusion are gaining additional relevance when contemporary urban changes are studied. This is due to factors such as the global phenomenon of urban population growth, increasing demand for housing, mobility, infrastructure, cultural and leisure equipment, environmental, health, and educational services, and new productive occupations. These factors require new responses to rethink and reorganize the urban lifestyle in the contemporary social time.

In social terms, building and developing a greater population protagonism in decision-making processes allows to incorporate people's knowledge, cultures, and longings, that open perspectives to obtain a greater convergence in plans, programs, projects, and activities directed to the development of cities on a sustainable basis.⁽²⁾

When dealing with the health-environment-sustainability relationship in this perspective, three articles of the Constitution of the Federative Republic of Brazil (1988), concerning Urban Policy (Art. 182), Health (Art. 196), and Environment (Art. 225), are brought to consideration. Article 182 (Urban Policy) aims at "ordering the full development of the social functions in the city and ensuring the well-being of its inhabitants". Article 196 (Health) establishes that "the universal and equal access to actions and services for health promotion, protection, and recovery is the right of all and a duty of the State". Article 225 (Environment) defines the "right to the ecologically balanced environment, which is essential to a healthy quality of life, imposing on the public power and the collectivity the duty to defend and preserve it for the present and future generations".

In these three articles, the desire of the Brazilian constitutional legislator to leave the sustainability principles clear to the Society is perceived. The search for the well-being of its inhabitants (from the development of the social functions of the city) and consideration of their rights (universal and equal access to actions and services and the balanced environment, which are essential to the healthy quality of life of the present and future generations) are emphasized in those articles.

Public policy guidelines (including environment, health, water resources, conservation units, urban development, climate change, solid waste, as well as environmental crimes, education, and sanitation) were defined and established by the Brazilian Congress to move in this direction.

In view of the urban development complexity, considering the challenges posed by the accelerated urbanization processes (demographic growth, migration, and transition, as well as capacity for governance and governability) is necessary because they can affect improvement in the quality of life of their inhabitants. Since quality of life presupposes environmental quality, then attention should be given to the specific needs of human beings, flora, and fauna, as well as their physiological, epidemiological, and psychological mechanisms, including the general environmental needs (i.e, the necessary ecological balance). In this context, the search for quality of life (starting

from the virtuous relationship between environment and health) essentially requires education, work, housing, sanitation, leisure, mobility, which are considered central elements for the development with basis on sustainability.

The availability of knowledge, tools, and technologies, (such as territorial, environmental, and urban planning, environmental and health education, social research, environmental and health legislation, information system, monitoring, evaluation, and control) provide solid foundations for decision-making processes at all levels. They contribute to establish integrated development systems, becoming an important subsidy to meet the SDG.

While searching for economic growth with viability, eradication of poverty and reduction of social inequalities, and environmental and health balance concern, cities can be more and more sustainable, resilient, and adapted. "The world would not be less happy, democratic, or with less opportunities for self-realization; instead, it will be different cultivating planning, accepting the limits to human action, and seeking satisfaction in less materialistic values, so that the challenge of sustainability can be achieved". (3) In this approach, the inherent complexity of this issue is that the development paradigm leads to a double ethical imperative: "synchronic solidarity with the present generation and diachronic solidarity with the future generations". (4)

It should be highlighted that the social condition and human development are changed by the scientific and technological development, which reciprocally influence development. Thus, "defining the place that science and technology should occupy in a society means understanding both an important part the human condition and the development stage in which that society is". (5) In this context, the complex and bordering nature of the theme "environment, health, and sustainability" requires interaction, interrelationship, including integration between sciences. Thus, it also requires competence and commitment from professionals in different fields of knowledge for a better perception of realities; consequently, greater possibilities for better equating problems and routing solutions will arise.

Studies conducted within this theme by *Schools of Nursing* have brought answers to problems and issues related to the theme of "environment, health, and sustainability". New fields of teaching, research, and extension for health professionals were shown here, thus increasing their responsibilities and possibilities of contributions to the development of more fair and happy, i.e, sustainable cities and societies.

References

- 1. United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, Highlights (ST/ESA/SER.A/352) [Internet]. New York: United Nations; 2014. [cited 2016 Sep 7]. Available from: http://esa.un.org/Unpd/Wup/Highlights/WUP2014-Highlights.pdf.
- Coutinho SM, Vasconcellos MP, Zancul ES, Yanase KH Lopes, RD. Contextos criativos: potencializando a institucionalização da interdisciplinaridade na graduação. In: Philippi Jr A, Fernandes V, Pacheco RC. Ensino, pesquisa e inovação: desenvolvendo a Interdisciplinaridade. Barueri (SP): Manole, 2017.

- Hogan DJ, Marandola Jr E, organizadores. População e mudança climática. Campinas, SP: NEPO/UNFP; 2010.
- 4. Sachs I. Caminhos para o desenvolvimento sustentável. 2a ed. Rio de Janeiro: Garamond; 2002.
- Philippi Jr A, Fernandes V, Pacheco RC. Ensino, pesquisa e inovação: desenvolvendo a Interdisciplinaridade. Barueri (SP): Manole, 2017. Interdisciplinaridade e institucionalização: reciprocidade e alteridade.

Arlindo Philippi Jr.

Civil Engineer (UFSC), Sanitary Engineer (USP), MSc in Environmental Health, PhD in Public Health (USP), Post-Doctor in Urban and Regional Studies (MIT), Livre-Docente in Environmental Policy and Management (USP), and Full Professor (Faculdade de Saúde Pública, USP)

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