

**Environmental problems, sustainability and nursing research**Milca Severino Pereira<sup>1</sup>, Adenícia Custódia Silva e Souza<sup>2</sup>

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Do current the concerns of public health policies include environmental problems and sustainability? Studies<sup>(1)</sup> have shown that the rates of health professionals' involvement in these issues are relatively low. The implementation of sustainable development principles, particularly in health and health services, is not yet a reality; many health care professionals are still to be persuaded.

If global warming, the exacerbation of warming by heat islands in large urban areas, deforestation, socio-economic-demographic standards, the fast growth of vulnerable populations, among other activities do not threaten human existence, they certainly represent the possibility of suffering to millions of people. Hence, adapting to the current situation is inevitable in order to manage adverse health outcomes<sup>(2-3)</sup>.

Seven billion people coexist in the world. Many are hungry, thirsty and deprived of economic and basic physical security. According to United Nations' estimates, by 2050 the figure will reach 10 billion<sup>(4)</sup>. Several countries currently show a great difficulty to work coordinately, both regionally and internationally. The implementation of important treaties for the environment is made difficult by a persistent lack of cooperation. If there is any chance to save the planet from the impasse involving the environment, it consists in improving and accelerating technological and scientific advancement, until achieving a technologically sustainable civilization.

To think of urban sustainability presupposes to include and interrelate the many themes involved: consumables/supplies, society, economy, soil and waste management; treating all as a whole rather than separately. As one of the outcomes of this process, urban sustainability has been constantly under pressure. Flooding caused by the overflow of rivers or heavy rain, houses being buried by landslides, proliferation of disease-transmitting vectors, heavy traffic jams, and increased criminality rates are some of the symptoms that indicate the loss of sustainability<sup>(4)</sup>.

Technological and industrial development has taken a toll from contemporary society, including the increase of waste produced by the population. When these solid residues are not treated appropriately and are simply discarded in inappropriate locations, several harms are posed on the environment, with direct effects on those who originated it: man.

Many problems and challenges for the health area emerge, including: management of physical, biological and chemical waste in all states (solid, liquid or gas); noise and its effects on quality of life; quality of water in many sectors and health care services; quality of air in environments that require rigorous asepsis; disposable materials; recyclable materials; uncontrolled use of antimicrobials (in humans and animals) affecting the resistance of microorganisms to antibiotics; abuse of pesticides in agriculture and farming, among many others. There is a never-ending list of research themes.

The highlight for research, however, regards the meaning of these issues for health care in terms of the quality of care being delivered and their (issues) interface with sustainability. Literature shows, very expressively, the existing negligence in procedures regarding the concern towards environmental impact and its effects on society<sup>(5)</sup>. Considering the comprehensiveness of health care, advancements should be made in studies that focus on the prodigal relationship between man and nature, to produce knowledge that would contribute to environmental sustainability, and, therefore, improve quality of life.

Including nursing in this context may prove extremely important, particularly in approaching this issue within the context of health promotion. Hence, in addition to gaining new knowledge, which should be cross-sectional to every

field of knowledge – the health/environment interaction by means of sustainability is certainly a contribution to peoples' better health and quality of life.

By addressing research themes related to health promotion principles, causal factors of the health-disease process, the ways of care, equity, intersectoral actions, and social participation, nursing is able to understand how families and communities organize regarding preservation and the use of natural resources and the relationship they establish between health, disease and the environment.

Environmental sustainability and health are broad, complex themes that should be studied beyond their cause-and-effect relationship, and, therefore, with multiple views from interdisciplinary studies that contemplate the diversity of science and contribute to peoples' quality of life and health. Research in this field is the key to implementing biosafety measures and integrated management strategies of the environment and health promotion.

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