Sustainability and carbon footprint as quality indicators for health care organizations. The role of nurses

Public Climate School
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Sustainability as an indicator for the quality of health care organizations

StudentsForFuture München
Bachelor of Science (Nursing)
Dual mode course of studies at Munich University of Applied Sciences

https://www.sw.hm.edu/studienangebot/bachelor/pflege/spo.de.html

Campus Pasing/ Munich
The triple impact of nursing to a sustainable development (ICN 2016)
Sustainability as an indicator for the quality of health care organizations

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Components of quality in health care
Donabedian 2003

Figure 1.1. Components of quality in health care.

Efficacy
Effectiveness
Efficiency
Optimality
Acceptability
Legitimacy
Equity

Donabedian 2003:5
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**Impact of Climate Change on Human Health**

- **Injuries, fatalities, mental health impacts**
- **Asthma, cardiovascular disease**
- **Heat-related illness and death, cardiovascular failure**
- **Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus**
- **Forced migration, civil conflict, mental health impacts**
- **Respiratory allergies, asthma**
- **Extreme Heat**
- **Rising Temperatures**
- **Increasing Allergens**
- **Water and Food Supply Impacts**
- **Water Quality Impacts**
- **Environmental Degradation**
- **Changes in Vector Ecology**
- **Cholera, cryptosporidiosis, campylobacter, leptospirosis, harmful algal blooms**

- **Severe Weather**
Top ten emitters as percentage of global health care footprint

- China: 27%
- United States: 17%
- European Union: 12%
- Russia: 12%
- Japan: 7%
- Brazil: 2%
- India: 2%
- South Korea: 2%
- Canada: 2%
- All other nations: 25%

Arup. Health Care without Harm 2019: 22
ICN Code of ethics for nurses
nursing without harm

Nurses and the profession
“The nurse practices to sustain and protect the natural environment and is aware of its consequences on health.” (ICN 2012: 4)
The impact of health care to the economic development

Health expenditure as a share of GDP, 2015 (or nearest year)

Source: OECD Health Statistics 2016; Eurostat Database; WHO, Global Health Expenditure Database.

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The impact of nursing to a sustainable development – the concept of sustainability in nursing

Sustainability is one of the dimensions of quality. (Pencheon 2015)

“The concept of sustainability in nursing can be defined from a core of knowledge in which ecology, global and holistic comprise the foundation. The use of the concept of sustainability includes environmental considerations at all levels. The implementation of sustainability will contribute to a development that maintains an environment that does not harm current and future generation’s opportunities for good health.” (Anaker & Elf 2014: 387)
“Reducing Health Care’s Carbon Footprint—The Power of Nursing” Aliria Muñoz, RN, MSN 2012

- Nurses are the largest group of frontline workers in health care. They can really make a difference.
- Nurses work on all levels in the health care system, education, practice, leadership, management, and research.
- Nurses act in fields and units with high impact on the carbon footprint (e.g. hygiene, ICCU, operation theater).
- Nurses have the knowledge and methodological skills to identify evidence-based and effective measures to reduce the carbon footprint by simultaneously promote patient’s health.
“Reducing Health Care’s Carbon Footprint—The Power of Nursing” Aliria Muñoz, RN, MSN 2012

- Nurses realize the importance of the natural environment for people’s health.
- Nurses‘ code of ethics lead them to protect on the one hand the person in the need of nursing care and on the other hand the natural environment.
- HCWH’s Executive Director, Gary Cohen is asking:
  - Can’t we build cancer centers without carcinogens?
  - Can’t we build pediatric units without chemicals linked to birth defects and asthma?” (HCWH, 2008)?
Global Green and Healthy Hospitals
10 goals

1. LEADERSHIP
2. CHEMICALS
3. WASTE
4. ENERGY
5. WATER
6. TRANSPORTATION
7. FOOD
8. PHARMACEUTICALS
9. BUILDINGS
10. PURCHASING

Source: www.noharm-global.org/issues/global/global-green-and-healthy-hospitals
Example: COVID-19 pandemic

*sustainable use of personal protective equipment*

- sustainable use of personal protective equipment (masks, gloves, protective clothing)
- evidence-based procurement decision about disposable and reusable material (öko balance)
- innovation in reprocessing of protective material
- planned aseptic processes and treatments to avoid unused sterile products
Take Home Messages

*sustainable use of masks (non-binding recommendations)*

- Think about where masks are really necessary/required by law!
- Leave the professional masks (FFP-2, surgical masks) for the health care workers who are at highest risk for infection!
- Leave professional masks for people who are suffering from chronic diseases and weakened immune system!
- Don’t throw masks away carelessly!
- Try to avoid to touch your mask inside!
- Dirty, contaminated and soaked masks must be washed or replaced. Don’t use damaged masks!
- Use community masks made of cotton fabric, wash it (minimum 60 degree Celsius, minimum 45 Min. with high dose laundry detergent) and reuse it.
theses and questions for the discussion

- “We might be more interested in investing more in our health, rather than investing more in health services produced by increasingly financially and environmentally unsustainable hospitals.” (Pencheon 2015: 193)
- Nurses are core elements of a sustainable development of the health care system and the society as a whole. What about the patients? What about other professionals such as social workers?
- What is your experience? What is your opinion?
- What can we do in our daily life practice to reduce the environmental footprint in health care?
- What can we do for a sustainable development of the nursing workforce?

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References

THANK YOU FOR YOUR ATTENTION! 😊