AMA Journal of Ethics®

June 2017, Volume 19, Number 6: 617-628

HISTORY OF MEDICINE

What Moral Distress in Nursing History Could Suggest about the Future of Health Care

Andrew Jameton, PhD

Abstract

The concept of *moral distress* was defined in 1984 as (a) the psychological distress of (b) being in a situation in which one is constrained from acting (c) on what one knows to be right. A substantial literature on the subject has developed, primarily in nursing ethics. The aforementioned elements of distress are applied here to areas of clinical and organizational significance: (a) distress from causing intimate pain during care of the dying, (b) constraints stemming from proximate and background challenges of health care organizations, and (c) changing perspectives on therapeutic technologies derived from global environmental perspectives. Although moral distress may be increasing in clinical settings, nursing advocates are developing positive ways to cope with it that can help clinicians in general.

Introduction

After its first use in nursing over 30 years ago, the concept of *moral distress* has proven applicable to a growing range of problematic situations. This essay outlines a few motifs in the development of the concept in nursing ethics and then considers some current applications of the concept. Starting with the bedside care of the dying, it sets moral distress in successively wider contexts, concluding with some morally problematic global environmental challenges that health care services will need to address during the next decades.

Coining a Concept

My 1984 book, *Nursing Practice: The Ethical Issues*, introduced moral distress as the experience of knowing the right thing to do while being in a situation in which it is nearly impossible to do it [1]. I was responding to students' stories related during classroom discussions of bioethical dilemmas, such as appropriate care for dying patients, limits to life support, and communication and decision making with patients and families. Some of the students were senior nursing clinicians. A few recalled with regret hospital incidents in which they were required to perform uncomfortable or painful procedures on patients when, in their experience, curative efforts were futile. A common flash point was the suctioning of patients on respirators who had been in intensive care units for weeks and

who were not going to live to discharge. Similarly, providing intensive care to premature infants with expectably poor outcomes disturbed some neonatal nurses [2].

Although standard bioethics texts at the time emphasized cognitive moral reasoning and appeals to abstract moral theories [3], nurses' ethical concerns were heartfelt. Thus, I thought it was important to address the emotional side of moral problems. In so doing, I shared the concerns of educators cultivating the moral development of clinical professionals [4-7]. Nurses were professionally concerned about the role of emotions in providing compassionate care to patients [8-11]. And feminist moral theory was foregrounding emotional factors in ethical theories based on care, compassion, and empathy [12, 13].

As originally conceived in *Nursing Practice*, the authority of nurses as professionals in organizations was also important to the development of the concept of moral distress. Feminist ethics stressed the equal moral standing of women with men, and nurses, in a traditionally women's profession, were building on a more than 80-year struggle to establish a fully autonomous profession with substantial control of their work [1, 14, 15]. The aspiration of equality encouraged nurses to assert their professional judgments and to confront others when they had objections [16, 17].

In situations in which nurses had ethical concerns, secondary ethics questions arose, generally falling under the rubric of "organizational ethics" [18, 19]. Assertive nurses wanting to speak with authority on ethical problems in a timely way faced questions and challenges [20]. Examples include: Should a nurse express doubts about the wisdom of a course of therapy? Whom should he or she first approach—the family? The attending physician? Other nurses? A nursing supervisor? If ethical questions recur, should he or she question persistently? What is a nurse's standing as a professional to raise ethical questions in a clinical context [21]? When is a medical order so problematic that an ethical nurse should refuse to cooperate [22, 23]?

Development of an Idea

Defining moral distress. A diverse literature about moral distress has grown [24, 25], which rightly notes the vagueness of the concept and its relationships to similar concepts [26-32]. Significant questions have arisen that reflect three facets of the definition:

1. What does the power of moral distress derive from? Why is it being labeled as "moral" distress and not simply as psychological distress? Are we really talking about something more like conscience, guilt, shame, or regret [27, 33]?

2. Is it really ever "impossible" to act? Isn't this something that depends on the perceptions of the nurse [26, 30, 34]? Or are there institutional factors that restrict ethical action by clinicians?
3. Do nurses really "know" the right thing to do, or is this simply about their opinion or firm belief [26]? Have moral judgments about the wisdom and aims of care shifted over time?

Increase and spread. A quick review of *PubMed* reveals that more articles about moral distress were published in the last three years ending 2016 than in the prior three decades, and a bibliometric analysis of articles published on moral distress between 1984 and 2013 revealed a sharp yearly increase in publications on the topic after 2011 [28]. The concept is spreading to other fields including pharmacy, social work, psychiatry, veterinary care, administration, long-term care, organ donation, surgery, palliative care, and managed care [28, 35, 36].

Growth in publication may simply reflect the natural spread of an idea or a trend in academic interest. But the scale of publication may also reflect an increase in the frequency, intensity, or extent of distress among health professionals [28]. I will take this possibility seriously here and in the remainder of the paper discuss some reflections on the rise in distress. Even if the literature proves to be misleading, it is worthwhile to reflect on potential causes of an increase in distress, since the discussion may suggest lines of research that prove fruitful in reducing the rates of distress.

Factors Contributing to the Spread and Increase of Moral Distress

If moral distress is indeed increasing and spreading to other fields, several explanations might plausibly be offered. The themes identified here grow out of *Nursing Practice*'s paradigmatic case of moral distress—when a clinical professional is required to perform uncomfortable procedures on a patient during overextended terminal care. Each theme emphasizes one of the three facets of moral distress outlined in the previous section—the nature of distress, the possibility of action, and the extent of knowledge.

The nature of distress. Most people, including trained professionals, who work with the dying and those close to death react with feeling [37, 38]. A patient dying in a hospital setting seldom experiences an easy passage from rescue with the possibility of recovery to "comfort care only." So when patient, staff, and family are traversing the ordeal of a steepening rise in discomfort to eventually futile care, stressful ethical disagreement is common. In such circumstances, nurses conducting uncomfortable procedures are likely to experience distress [32]. Consequently, a compassionate response to clinicians' feelings will continue to be needed, whatever the frequency of other background issues of health care organizations.

Obstacles to moral action in health care organizations. If moral distress is increasing and spreading among health professionals, one simple explanation may be that many hospitals provide care at higher levels of acuity than in the 1980s. Moreover, morally distressed nurses often identify problematic incidents at the organizations in which they work [39]. Their views deserve respect, and, as some studies show, the frequency of distress is positively correlated with organizational problems [2, 28, 39, 40]. Such problems include short-staffing, inflexible policies, complex documentation, clumsy staff changeovers, poor communication, overly complex technology, mistakes, and other organizational and resource challenges [24, 25, 28, 41]. Some of these problems are local to the institution in which nurses work; others derive from broad challenges of the health services system. Background features, such as ownership by large organizations, profit-oriented management, and complex coding and record-keeping, are putting pressure on the professional autonomy of a variety of professions.

Finding solutions. There is a consensus in the research that moral distress is too frequent and that something should be done to alleviate it [42-44]. At one end of the spectrum, proposed solutions focus on the feelings of individual nurses and seek to comfort and heal them [45]. At the other, solutions address the topical content of the distress and so include organizational and policy measures intended to reduce the frequency of ethically problematic incidents [41, 46-49]. Many proposals combine elements of both. One approach is to support nursing staff in speaking to ethical issues. Some suggest encouraging nurses to be more resilient and courageous in speaking up [44]; others recommend improving nurses' ethical reasoning through education [50]. At another level, hospitals have created committees, such as moral distress consultation services, wherein problems can be discussed in depth [51-53]. Other approaches include involving staff in improvement of interdisciplinary communication and amending organizational culture [54, 55]. With or without institutional support, clinicians who identify distressing organizational problems can advocate creative ideas for improving their organizations and the health care system either within hospitals and clinics or by speaking publicly and in professional circles [14, 25, 41, 56, 57].

Looking Ahead: Larger Problems and Possible Solutions

At a third, more conceptual level—deeper, wider, and harder to discuss in clinical settings—perceptions of the global situation of human life on earth are changing in ways I will discuss below. Although at this point I cannot show that these concerns have begun to affect how clinical professionals feel about their work or challenges in it, I am willing to argue that these concerns ought to affect ethical judgments about clinical care. A good starting point for introducing these general concerns is the cost of care.

Changing moral judgments about health care costs. Two major concerns about health care costs are now converging. First, the financing and affordability of health care has been a public concern for a century. Many now regard health care as overly expensive and

health care spending as comprising a disproportionate share of the GDP [40, 58-60]. Second, concerns about the contribution of health care materials to toxic waste and other environmental impacts of health care have been growing for about two decades. Increasingly, health professionals and organizations are participating in greening programs to reduce the environmental damage done by health care [61-63].

Accelerating global change is adding weight to these financial and environmental concerns [64]. Levels of consumption in developed nations are decreasingly sustainable on a limited earth [65-68]. In the next decades, US per capita material and energy consumption needs to be scaled down to a terrestrial scale [66, 68, 69-71]. Since US health care already comprises a significant proportion of GDP, if the economy is to be scaled down, so must health care [72, 73]. It needs to be materially less ambitious, more modest, simpler, and more manageable [74].

Climate change. Climate change is emerging as one of the most—if not the most—significant long-term risk to human health and biodiversity [75-78]. The major health professions have expressed grave concerns about the health consequences of climate change [79-83]. And many health care organizations have begun to include clean energy, energy efficiency, and other climate change mitigation methods in their greening programs and building designs [84, 85]. Some health professionals are beginning to realize that in order for health care to adapt to environmentally driven shifts in long-term health risks, health services need to adapt to a potential global decline in population health status, climate refugees, disasters, and disruptions to the supply chain [73, 86].

Philosophical trends. As environmental practices enter hospitals, principles derived from environmental philosophy are being seen as increasingly applicable to health and health care [87-93]. A dominant message of environmental philosophy is that all humans are biologically interconnected in the great web of life [94-97]. This sense of interconnection is beginning to challenge the strong commitment to individual autonomy seen in traditional bioethics [3, 73, 98]. Technologically extensive and intensive care of the dying, as I observed above, is emotionally challenging to clinicians. It is also expensive and therefore environmentally costly [68, 99]. Thus technologically extending an individual's life is diminishingly meaningful in the face of the long-term need to maintain the human and nonhuman biosphere. Arguably, some of the proximate moral distress over technological dying reflects a changing moral perspective. It is likely that those who see things in this light will, to their distress, evaluate overtreatment more negatively than those around them.

Conclusion

As the literature indicates, moral distress may be spreading to medicine and other professions [28, 35, 36, 100-103]. This may reflect that a variety of health professionals are increasingly finding themselves in moral binds similar to those experienced by

nurses. By studying the literature on nurses' moral distress, physicians and other clinicians may learn something useful from nurses about coping with similar problems they may face now and in the future.

Current nursing thinking about moral distress is more positive than my 1984 formulation of the concept. It emphasizes that the cure for moral distress consists in taking action with others to tackle problems both great and small. A recent nursing symposium proposes to replace moral distress with *moral resilience* [44]. The intention of the rephrasing is to turn clinicians' awareness of problems into courage, cooperative speaking up, and persistent action to address the background problems that foster health care failures.

Yet we must consider that we might become even more distressed as we realize that solving the ethical problems of health care now urgently includes global social and environmental advocacy.

References

1. Jameton A. *Nursing Practice: The Ethical Issues.* Englewood Cliffs, NJ: Prentice-Hall; 1984:6.
2. Wilkinson JM. Moral distress: a labor and delivery nurse's experience. *J Obstet Gynecol Neonatal Nurs*. 1989;18(6):513-519.
3. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics.* 2nd ed. New York, NY: Oxford University Press; 1983.
4. Bartlett JL, Thomas-Wright J, Pugh H. When is it okay to cry? An end-of-life simulation experience. *J Nurs Educ*. 2014;53(11):659-662.
5. Brunero S, Lamont S, Coates M. A review of empathy education in nursing. *Nurs Inq*. 2010;17(1):65-74.
6. Crowley MA. The relevance of Noddings' ethics of care to the moral education of nurses. *J Nurs Educ*. 1994;33(2):74-80.
7. Martimianakis MA, Michalec B, Lam J, Cartmill C, Taylor JS, Hafferty FW. Humanism, the hidden curriculum, and educational reform: a scoping review and thematic analysis. *Acad Med*. 2015;90(suppl 11):S5-S13.
8. Hochschild AR. *The Managed Heart: Commercialization of Human Feeling.* Berkeley, CA: University of California Press; 2012.
9. Sinclair S, Norris JM, McConnell SJ, et al. Compassion: a scoping review of the healthcare literature. *BMC Palliat Care*. 2016;15:6. https://bmcpalliatcare.biomedcentral.com/articles/10.1186/s12904-016-0080-0. Accessed May 1, 2017.
10. Riley R, Weiss MC. A qualitative thematic review: emotional labour in healthcare settings. *J Adv Nurs*. 2016;72(1):6-17.
11. Wiechula R, Conroy T, Kitson AL, Marshall RJ, Whitaker N, Rasmussen P. Umbrella review of the evidence: what factors influence the caring relationship

between a nurse and patient? *J Adv Nurs*. 2016;72(4):723-734.
12. Noddings N. *Caring: A Feminine Approach to Ethics and Moral Education*. Berkeley, CA: University of California Press; 1984.
13. Tong R. *Feminist Approaches to Bioethics: Theoretical Reflections and Practical Applications*. Boulder, CO: Westview Press; 1997.
14. Tobbell DA. "Coming to grips with the nursing question": the politics of nursing education reform in 1960s America. *Nurs Hist Rev*. 2014;22:37-60.
15. D'Antonio P. *American Nursing: A History of Knowledge, Authority, and the Meaning of Work*. Baltimore, MD: Johns Hopkins University Press; 2010.
16. Buback D. Assertiveness training to prevent verbal abuse in the OR. *AORN J*. 2004;79(1):148-150.
17. Walczak MB, Absolon PL. Essentials for effective communication in oncology nursing: assertiveness, conflict management, delegation, and motivation. *J Nurses Staff Dev*. 2001;17(3):159-162.
18. Hirschman AO. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press; 1970.
19. Suhonen R, Stolt M, Virtanen H, Leino-Kilpi H. Organizational ethics: a literature review. *Nurs Ethics*. 2011;18(3):285-303.
20. Purtilo RB, Doherty RF. *Ethical Dimensions in the Health Professions*. 5th ed. St. Louis, MO: Elsevier/Saunders; 2011.
21. Leyshon S. Empowering practitioners: an unrealistic expectation of nurse education? *J Adv Nurs*. 2002;40(4):466-474.
22. Berlinger N. Conscience clauses, health care providers, and parents. In: Crowley M, ed. *From Birth to Death and Bench to Clinic: The Hastings Center Bioethics Briefing Book for Journalists, Policymakers, and Campaigns*. Garrison, NY: Hastings Center; 2008:35-40.
23. Ford NJ, Fraser KD, Marck PB. Conscientious objection: a call to nursing leadership. *Nurs Leadersh (Tor Ont)*. 2010;23(3):46-55.
24. Oh Y, Gastmans C. Moral distress experienced by nurses: a quantitative literature review. *Nurs Ethics*. 2015;22(1):15-31.
25. Rodney PA. What we know about moral distress. *Am J Nurs*. 2017;117(2)(suppl 1):S7-S10.
26. Johnstone MJ, Hutchinson A. "Moral distress"—time to abandon a flawed nursing construct? *Nurs Ethics.* 2015;22(1):5-14.
27. Fourie C. Moral distress and moral conflict in clinical ethics. *Bioethics*. 2015;29(2):91-97.
28. Lamiani G, Borghi L, Argentero P. When healthcare professionals cannot do the right thing: a systematic review of moral distress and its correlates. *J Health Psychol*. 2017;22(1):51-67.
29. McCarthy J, Deady R. Moral distress reconsidered. *Nurs Ethics*. 2008;15(2):254-262.
30. Thomas TA, McCullough LB. A philosophical taxonomy of ethically significant

moral distress. *J Med Philos*. 2015;40(1):102-120.
31. Peter E. Guest editorial: three recommendations for the future of moral distress scholarship. *Nurs Ethics*. 2015;22(1):3-4.
32. Liaschenko J. Artificial personhood: nursing ethics in a medical world. *Nurs Ethics*. 1995;2(3):185-196.
33. Hanna DR. Moral distress: the state of the science. *Res Theory Nurs Pract*. 2004;18(1):73-93.
34. McCarthy J, Gastmans C. Moral distress: a review of the argument-based nursing ethics literature. *Nurs Ethics*. 2015;22(1):131-152.
35. Pauly BM, Varcoe C, Storch J. Framing the issues: moral distress in health care. *HEC Forum*. 2012;24(1):1-11.
36. Verrinder JM, Ostini R, Phillips CJ. Differences in moral judgment on animal and human ethics issues between university students in animal-related, human medical and arts programs. *PLoS One*. 2016;11(3):e0149308. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149308. Accessed April 28, 2017.
37. Becker E. *The Denial of Death*. New York, NY: Free Press; 1997.
38. Kübler-Ross E. *On Death and Dying*. New York, NY: Macmillan; 1969.
39. Corley MC, Elswick RK, Gorman M, Clor T. Development and evaluation of a moral distress scale. *J Adv Nurs*. 2001;33(2):250-256.
40. Goldhill D. *The Real Costs of American Health Care.* New York, NY: Vintage Books; 2016.
41. Austin W. Moral distress and the contemporary plight of health professionals. *HEC Forum*. 2012;24(1):27-38.
42. Harrison KL, Dzeng E, Ritchie CS, et al. Addressing palliative care clinician burnout in organizations: a workforce necessity, an ethical imperative [published online ahead of print February 11, 2017]. *J Pain Symptom Manage*. doi:10.1016/j.jpainsymman.2017.01.007.
43. Kennedy MS. Mitigating the effects of moral distress. *Am J Nurs*. 2017;117(2):7.
44. Rushton CH, Schoonover-Shoffner K, Kennedy MS. Executive summary: transforming moral distress into moral resilience in nursing. *Am J Nurs*. 2017;117(2):52-56.
45. Rushton CH, Batcheller J, Schroeder K, Donohue P. Burnout and resilience among nurses practicing in high-intensity settings. *Am J Crit Care*. 2015;24(5):412-420.
46. Ruger JP. Ethics in American health 1: ethical approaches to health policy. *Am J Public Health*. 2008;98(10):1751-1756.
47. Ruger JP. Ethics in American health 2: an ethical framework for health system reform. *Am J Public Health*. 2008;98(10):1756-1763.
48. Kohn LT, Corrigan JM, Donaldson MS, eds; Committee on Quality of Health Care in America. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 2000.

49. Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing; Institute of Medicine. *The Future of Nursing: Leading Change, Advancing Health*. Washington, DC: National Academies Press; 2011.
50. Lang KR. The professional ills of moral distress and nurse retention: is ethics education an antidote? *Am J Bioeth*. 2008;8(4):19-21.
51. Marshall MF, Epstein EG. *Development and Evaluation of Resources to Address Moral Distress and Moral Residue* [videotape]. Minneapolis, MN: University of Minnesota; 2016. https://mediasite.ahc.umn.edu/Mediasite/Catalog/catalogs/development-and-evaluation-of-resources-to-address-moral-distress-and-residue-2016. Accessed January 29, 2017.
52. Epstein EG, Delgado S. Understanding and addressing moral distress. *J Issues Nurs*. 2010;15(3). http://www.nursingworld.org/MainMenuCategories/EthicsStandards/Resources/Courage-and-Distress/Understanding-Moral-Distress.html. Accessed February 1, 2017.
53. Hamric AB, Epstein EG. A health system-wide moral distress consultation service: development and evaluation [published online ahead of print January 9, 2017]. *HEC Forum*. doi:10.1007/s10730-016-9315-y.
54. Pavlish C, Brown-Saltzman K, So L, Wong J. SUPPORT: an evidence-based model for leaders addressing moral distress. *J Nurs Adm*. 2016;46(6):313-320.
55. Levine-Ariff J, Groh DH. *Creating an Ethical Environment*. Baltimore, MD: Williams and Wilkins; 1990.
56. Jonsen AR, Jameton AL. Social and political responsibilities of physicians. *J Med Philos*. 1977;2(4):376-400.
57. Varcoe C, Pauly B, Webster G, Storch J. Moral distress: tensions as springboards for action. *HEC Forum*. 2012;24(1):51-62.
58. Bodenheimer T. High and rising health care costs. Part 1: seeking an explanation. *Ann Intern Med*. 2005;142(10):847-854.
59. Ubel PA. *Pricing Life: Why It's Time for Health Care Rationing.* Cambridge, MA: MIT Press; 2000.
60. World Health Organization. *The World Health Report 2000: Health Systems: Improving Performance*. Geneva, Switzerland: World Health Organization; 2000. http://www.who.int/whr/2000/en/whr00_en.pdf?ua=1. Accessed April 28, 2017.
61. Eckelman MJ, Sherman J. Environmental impacts of the US health care system and effects on public health. *PLOS One*. 2016;11(6):e0157014. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0157014. Accessed February 1, 2017.
62. Practice Greenhealth. *2016 Sustainability Benchmark Report*. Reston, VA: Practice Greenhealth; 2016.
63. McGain F, Naylor C. Environmental sustainability in hospitals—a systematic

review and research agenda. *J Health Serv Res Policy*. 2014;19(4):245-252.
64. Gaffney O, Steffen W. The Anthropocene equation. *Anthropocene Rev*. 2017;4(1):53-61.
65. Ophuls W. *Immoderate Greatness: Why Civilizations Fail*. North Charleston, SC: CreateSpace Independent Publishing; 2012.
66. Meadows DH, Randers J, Meadows D. *Limits to Growth: The 30-Year Update*. White River Junction, VT: Chelsea Green Publishing; 2004.
67. Durning AT. *How Much Is Enough? The Consumer Society and the Future of the Earth*. New York, NY: W.W. Norton; 1992.
68. Wackernagel M, Rees WE. *Our Ecological Footprint: Reducing Human Impact on Earth*. Gabriola Island, BC, Canada: New Society Publishers; 1996.
69. Anderson K, Bows A. Beyond "dangerous" climate change: emission scenarios for a new world. *Philos Trans A Math Phys Eng Sci*. 2011;369(1934):20-44.
70. Daly HE, ed. *Toward a Steady-State Economy*. San Francisco, CA: W.H. Freeman; 1973.
71. Victor PA. Growth, degrowth and climate change: a scenario analysis. *Ecol Econ*. 2012;84:206-212.
72. Benatar S, Poland B. Lessons for health from insights into environmental crises. *Int J Health Serv*. 2016;46(4):825-842.
73. Pierce J, Jameton A. *The Ethics of Environmentally Responsible Health Care*. New York, NY: Oxford University Press; 2004.
74. Callahan D. *Setting Limits: Medical Goals in an Aging Society*. New York, NY: Simon and Schuster; 1987.
75. Steffen W, Richardson K, Rockström J, et al. Planetary boundaries: guiding human development on a changing planet. *Science*. 2015;347(6223):1259855. doi:10.1126/science.1259855.
76. McMichael AJ. Globalization, climate change, and human health. *N Engl J Med*. 2013;368(14):1335-1343.
77. McMichael AJ, Dear KB. Climate change: heat, health, and longer horizons. *Proc Natl Acad Sci U S A*. 2010;107(21):9483-9484.
78. Kovats RS, Campbell-Lendrum D, Matthies F. Climate change and human health: estimating avoidable deaths and disease. *Risk Anal*. 2005;25(6):1409-1418.
79. Adlong W, Dietsch E. Nursing and climate change: an emerging connection. *Collegian*. 2015;22(1):19-24.
80. Frumkin H, Hess J, Luber G, Malilay J, McGeehin M. Climate change: the public health response. *Am J Public Health*. 2008;98(3):435-445.
81. Pearson D, Walpole S, Barna S. Challenges to professionalism: social accountability and global environmental change. *Med Teach*. 2015;37(9):825-830.
82. Sayre L, Rhazi N, Carpenter H, Hughes NL. Climate change and human health: the role of nurses in confronting the issue. *Nurs Adm Q*. 2010;34(4):334-342.
83. Crimmins AJ, Balbus JL, Gamble CB, et al. eds; US Global Change Research

Program. *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, DC: US Global Change Research Program; 2016. https://health2016.globalchange.gov/. Accessed April 28, 2017.
84. Charlesworth KE, Jamieson M. New sources of value for health and care in a carbon-constrained world [published online ahead of print January 17, 2017]. *J Public Health (Oxf)*. doi:10.1093/pubmed/fdw146.
85. Dhillon VS, Kaur D. Green hospital and climate change: their interrelationship and the way forward. *J Clin Diagn Res*. 2015;9(12):LE01-LE05.
86. Balbus J, Berry P, Brettle M, et al. Enhancing the sustainability and climate resiliency of health care facilities: a comparison of initiatives and toolkits. *Rev Panam Salud Publica*. 2016;40(3):174-180.
87. Dwyer J. How to connect bioethics and environmental ethics: health, sustainability, and justice. *Bioethics*. 2009;23(9):497-502.
88. Grose J, Richardson J. Can a sustainability and health scenario provide a realistic challenge to student nurses and provoke changes in practice? An evaluation of a training intervention. *Nurs Health Sci*. 2016;18(2):256-261.
89. Hancock T. Healthcare in the Anthropocene: challenges and opportunities. *Healthc Q*. 2016;19(3):17-22.
90. Moreno JD. In the wake of Katrina: has "bioethics" failed? *Am J Bioeth*. 2005;5(5):18-19.
91. Potter VR. *Bioethics: Bridge to the Future*. Englewood Cliffs, NJ: Prentice-Hall; 1971.
92. Resnik DB. Human health and the environment: in harmony or in conflict? *Health Care Anal*. 2009;17(3):261-276.
93. Whitehouse PJ. The rebirth of bioethics: extending the original formulations of Van Rensselaer Potter. *Am J Bioeth*. 2003;3(4):W26-W31.
94. Boyden SV. *Biohistory: The Interplay between Human Society and the Biosphere, Past and Present*. Park Ridge, NJ: Parthenon Publishing; 1992.
95. Lichtenberg J. *Distant Strangers: Ethics, Psychology, and Global Poverty*. New York, NY: Cambridge University Press; 2014.
96. Margulis L, Sagan D. *Microcosmos: Four Billion Years of Evolution from Our Microbial Ancestors*. New York, NY: Summit Books; 1986.
97. Singer P. *One World: The Ethics of Globalization*. New Haven, CT: Yale University Press; 2002.
98. Miles S. *Bioethics and the Crisis of Global Ecology* [videotape]. Minneapolis, MN: University of Minnesota; 2017. https://mediasite.ahc.umn.edu/Mediasite/Play/735bf29a837b43b1907d9304400b18f81d?catalog=3cf8b3b4-f2e3-4d7a-bc0f-5651c135ade7. Accessed February 23, 2017.
99. Scitovsky AA. "The high cost of dying": what do the data show? *Milbank Q*. 2005;83(4):825-841.
100. Astbury JL, Gallagher CT. Development and validation of a questionnaire to

measure moral distress in community pharmacists. *Int J Clin Pharm*. 2017;39(1):156-164.
101. Dzeng E, Colaianni A, Roland M, et al. Moral distress amongst American physician trainees regarding futile treatments at the end of life: a qualitative study. *J Gen Intern Med*. 2016;31(1):93-99.
102. Franco RS, Franco CA, Kusma SZ, Severo M, Ferreira MA. To participate or not participate in unprofessional behavior—is that the question? *Med Teach*. 2017;39(2):212-219.
103. Resnik DB. Moral distress in scientific research. *Am J Bioeth*. 2016;16(12):13-15.

Andrew Jameton, PhD, is professor emeritus at the College of Public Health at the University of Nebraska Medical Center in Omaha. He is also on the affiliate faculty of the Center for Bioethics at the University of Minnesota. He has been working as a philosopher in health care since 1972 and now studies the environmental aspects of health care and the risks to health and civilizations from climate change.

Acknowledgements

I would like to thank members of the editorial staff at the *AMA Journal of Ethics* for their attention to detail and clarity of argument in editing this manuscript.

Related in the *AMA Journal of Ethics*

A Brief History of Environmental Bioethics, September 2014
Caring for the Health of the Community Means Caring for the Health of the Environment, June 2009
Climate Change and Human Health 101, June 2009
Educating Patients as Medicine Goes Green, June 2009
Greener Clinics, Better Care, September 2014
Hospitals and "Used Goods", June 2009
Medicine's Role in Mitigating the Effects of Climate Change, June 2009
What Primary Physicians Should Know about Environmental Causes of Illness, June 2009

ISSN 2376-6980