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ABSTRACT

The influence of environment on our health is widely acknowledged. Thus, it would seem that protecting the environment would also protect our health. However, healthcare produces waste which endangers the environment, thus jeopardizing as our health. I here examine Pierce and Jameton proposed solution to this issue. Their approach consists, in addition to light green solutions, a proposal to limit the number of procedures offered in a Green Healthcare center. My claim is that this proposal would undermine the fiduciary relationship between the physician and the patient, as well as pressure people into choosing to die sooner. Instead, I propose that environmental concerns should be addresses in public health ethics, rather than clinical ethics.

Environment significantly impacts our health. In 2012, 12.6 mil died as a result of working or living in unhealthy environments. World Health Organization (WHO) estimates that 23% of all deaths are attributable to environmental risks, of which 26% are deaths of children under the age of 5. Stroke, ischemic heart disease, diarrhea and cancers lead the list (WHO, 2016). Over 3.5 million people die each year from outdoor air pollution. Between 2005 and 2010, the death rate rose by 4% worldwide, 5% in China and 12% in India (UN Environment Programme, 2014). This data illustrates that protecting our environment should also protect our health. However, the relationship between human health and the environment isn't without conflicts. Food production is an important factor for human health, yet our agricultural practices endanger the environment. Fighting malaria with DDT is another example of conflict. While our environment directly impacts both our mental and physical health, I will focus specifically on our healthcare. Aiming to rid us of disease, healthcare system produces approximately 3 million tons of waste annually in the US alone. This waste is then incinerated, resulting in emissions of cadmium, arsenic, nickel, lead, chromium,

dioxins, furans, and several volatile organic compounds (Houssain et al, 2011, Pierce and Jameton, 2004). Dioxin is a known carcinogenic. In addition, traces of pharmaceuticals are frequently found in US water system. Healthcare uses massive technical devices, such as X-ray and magnetic resonance imaging machines, with elaborate production histories, as well as special building infrastructure requirements, such as heavy bracing and lead-lined walls (Pierce and Jameton, 2004). Thus, healthcare endangers both the environment and the people. The question is how to make healthcare more sustainable and less dangerous to both the environment and the people?

This issue hasn't received much attention in bioethics, the umbrella term for clinical ethics, ethics in biomedical sciences and public health ethics. This is despite the fact that the origin of the term is tied to the environment. Namely, the first coinage of the bioethics (bioethik) comes from a German theologian Fritz Jahr who, in the 1927 argued for the establishment of a new discipline, and practice of an ethical approach to issues concerning humans and the environment (Gordon, IEP) His bioethical imperative read: "Respect every living being, in principle, as an end in itself, and treat it accordingly wherever it is possible" (Jahr, 1927). In The US the term 'bioethics' is attributed to Potter who argued that bioethics should foster concern for ethics and environment by combining "human values with ecological facts" (Potter, 1971, cited in Gordon, IEP). Instead, bioethics has developed in a different direction. Pressing concerns for the new discipline involved catching up with the discoveries in the biomedical sciences and exploring ethical issues these posed, as well as dealing with clinical ethics and ethical research. Since the development of the discipline, Beauchamp and Childress (1979) have argued that bioethics should provide useful guidance to decision makers and that principles would be more useful in this regard than ethical theories. They list and elaborate on four principles essential to bioethics which are:

autonomy, beneficence, non-maleficence and justice. Autonomy concerns the obligation of the medical practitioner or researcher to respect and promote the patient/research subject's autonomy. Non-maleficence concerns the obligation not to inflict harm on others, beneficence concerns preventing harm and promoting good, and finally justice concerns the obligation to promote fair distribution of burdens and benefits. Beauchamp and Childress claim that the principles are prima facie rules (following Ross) and can be overridden in cases of conflict. I have only briefly explained Beauchamp and Childress's four principles, but even this cursory explanation is sufficient to show that the principles do not concern the environment. This of course does not mean that environmental issues could not be incorporated within the principles. This is an approach that Pierce and Jameton took in their attempt to connect bioethics with environment, and it is their proposed solution that I will discuss here.

Namely, Pierce and Jameton are concerned with not only the high cost of healthcare in the US in particular, but also its high production of waste and toxic emissions that damage human health and the environment. In the US, healthcare represents over 13% of the GDP and consumes 8 billion dollars in electricity alone. Moreover, Pierce and Jameton are concerned with the amount of waste produced by the healthcare system which in the US is 7-10 kg per bed per day (Houssain et al, 2011). This waste, when incinerated produces toxic emissions at a higher rate than municipal waste incinerators. If we consider Beauchamp and Childress's principles of beneficence and non-maleficence, we can see that the healthcare system compromises human health as well as damages the environment. The solution, according to Pierce and Jameton, is to include the environment in the "do no harm" and "promote the good" principles. Those who shouldn't be harmed and whose good should be promoted are future human generations, people around the world, nonhuman species, earth

ecosystem. Including environmental concerns in a medical setting would involve significant shifts, however. Once a physician is obligated to consider not only the potential harm to the patient, but also to the community and the ecosystem, medical ethics could hardly remain the same, if such concerns are heeded. Pierce and Jameton envision that the physician and medical practitioners could incorporate environmental concerns in their clinical and research work by understanding the damage that healthcare technologies cause to the environment and the people. As they write: "If a clinician must take into account not only his or her patient's good, but also the good of the factory worker who assembled the thermometer that the nurse is reading, and the good of those who might be exposed to the waste products of the thermometer once it is discarded, the range of application of the principle has broadened dramatically." (Pierce and Jameton, 2004, 117)

While bioethics should address environmental concerns, my contention is that a patient's medical decision making is not a proper place for introduction and resolution of such concerns. This is for the following reasons. First, the physician and the patient have a fiduciary relationship. Maintaining such a relationship is not easy as things stand, given the physician's authoritative position. For the patient and the physician to have a good relationship, the patient has to trust the physician to have her interests at heart. Once the physicians begin presenting medical procedures which not only include risks and benefits to the patient, but also the environment and the future generations, the patient will have less reason to maintain trust in her physician as her own good and interest now merit far less concern. As bioethicist Robert Veatch puts it: "Asking a clinician to take on resource allocation tasks is in effect asking him or her to remove the Hippocratic Oath from the waiting room wall and replace it with a sign that reads: "Warning all ye who enter here. I will generally serve your interests, but in

the case of marginally beneficial expensive care I will abandon you in order to serve society as their cost-containment agent." (Veatch 2000, 138, cited in Pierce and Jameton, 2004)

Pierce and Jameton, however, are unmoved by such criticism, as they think that the hospital should make it clear that the environment is a significant concern, and that physicians should be stewards of resources. They write: "If physicians are going to take on a stronger role as stewards of resources, it makes sense to be sure everyone understands this, particularly the patient." (Pierce and Jameton, 2004) Now, Pierce and Jameton envision a system of Green hospitals, whose patients would be willing participants in the protection of the environment. These Green Health Hospitals are a model of what sustainable healthcare should be, claim Jameton and Pierce. Aside from savings in energy from sustainable architecture and other light-green solutions, Pierce and Jameton also propose a reduction in medical procedures offered. Specifically, limiting what they call heroic end-of-life-services, eliminating unnecessary treatment, ending of medical research aimed to increase the lifespan, educating women on birth control as well as population increase. Now, Pierce and Jameton think that green healthcare (GHC) such as this one would address social inequality issues by providing higher level of access and more public health services for more people. (ibid. 4) Yet, they fail to acknowledge the problem such a GHC would create for a patient. Insofar as a GHC offers less procedures, it would be likely that the center would provide services at a lower cost, which would attract poorer people as they couldn't afford anything else. Thus, the poor people would be the ones whose interests are weighed against the environmental cost, despite the fact that the rich have a much higher carbon footprint.

Jameton and Pierce suggest that the GHC might not be cheap due to higher cost incurred in selecting for environmentally friendly materials and equipment. This might deal with the problem of attracting poor people to the center. However, the center itself would

send a strong message to its patients, willing or otherwise. This message is that a patient's interests are, even in sickness, just a part of a general interrelatedness of interests and can be measured against the environmental costs of prolonged life. Leaving aside the problem of increasing complexity of the medical decision, introducing environmental concerns when making a medical decision undermines not only the trust of the patient in her physician, but also her sense of worth. "Our hope is that a more modest package of services will be attractive to most people, who may be willing to trade off less involvement in health care, less risky courses of therapy, and less elaborate rescues in order to spend more of their lives free of involvement in health care and free of the burdens of working to pay for it." (ibid, 69) Pierce and Jameton seem to understand healthcare as a matter of choice, something that one could leave without much consequence or suffering. It is certainly the case that some diagnostic tests as well as some procedures are often enough performed without good reason, and it is the case that some people may choose lifesaving procedures that may seem futile to those who hold different values. However, the reason why patient's values matter is that we are guided by the belief that the patient is a being of intrinsic worth (this does not mean that there aren't non-human beings intrinsic worth) and that her choices should be respected. Incorporating environment in beneficence and non-maleficence principles, undermines both the Hippocratic oath as well as patient's autonomy to make medical decisions for herself.

Pierce and Jameton's call for reduction of healthcare is nothing new. Naess (1995) has argued in the similar vein that healthcare services should be reduced. Carrick (1999) argued that such approaches implicitly encourage people to die sooner in order to conserve resources. Pierce and Jameton respond such concerns are unfounded. They acknowledge the criticism that envisions healthcare centers with an aggressive campaign for euthanasia with End it fast flyers in the waiting rooms. However, they claim that a more modest healthcare

system would be more robust in terms of humane care and attention, and that this would lead fewer people to pursue euthanasia or PAS. This response, however, is unsatisfactory as it fails to acknowledge the burden that the patients may feel. Pierce and Jameton think that feelings of being a burden are unreasonable. This is mistaken. The family may be emotionally if not financially burdened by the patient's condition. Moreover, it may be expected by the society, or a community, that it is proper for the person to request it. Consider the following example. Stoics are famous for having defended suicide. Now, Cleanthes, himself a Stoic, reached old age and was asked to explain why he didn't commit suicide. It was expected that, given his old age, and the inevitability of death, he should have done so, since suicide was allowed. Cleanthes justified himself by claiming that he was still capable of reading and writing so he chose to stay alive. Of course, Cleanthes was not terminally ill, he was just old. But, his case illustrates a worry for the justification of euthanasia. If active euthanasia was legalized, such scenarios would likely happen and even more so, once we add environmental concerns to the physician patient relationship. The patient could feel as a burden to her family, society as well as an environmental burden. Feeling to be a burden would not be unreasonable in these circumstances.

Consider the following argument by Velleman in his discussion of euthanasia and PAS. Velleman argues that often having an option can make people worse off than if they hadn't had an option. Velleman believes that legalization may eliminate the conditions that make some people's life worth living and in doing so create more candidates for euthanasia. The problem is that, if euthanasia and PAS are not permitted, the patient is alive by default. Once these are legalized, living with illness becomes a choice. Once something is seen as a choice, people are expected to explain their choice to others. Velleman believes that this would be difficult to people who are already suffering from an illness. Their pain and suffering might

make their choice to keep living seem unreasonable to their family and friends which in turn, would affect their relationship to them. One's relationship to friends and family is rather important, especially in the time of suffering and stress, and being seen as someone who clings to life, without being able to provide an explanation would undermine these relationships as people do not have good relationships with those they think are unreasonable. Thus, even if one believes that euthanasia and PAS should be legalized, some people may be pushed into choosing premature deaths as they would feel as a burden to their family. Adding environmental concerns would only exacerbate the problem. Moreover, environmental concerns would create even more candidates for premature deaths, given the issues with the aging populations and the environmental concerns this issue would create. People reaching a certain age would feel as a burden to society and as those who waste resources needed for young people. At present, in countries where euthanasia is legal, problems exist with involuntary euthanasia where 431 individuals have been euthanized without consent in the Netherlands in 2015 (CBS Statistics Netherlands, 2017).

The problem with euthanasia and PAS in an environment-physician-patient context concerns not only the harm, but also the lack of respect for the patient's autonomy. Autonomy has been a central principle in bioethics. Integrating environmental issues in physician patient relationship would certainly undermine it. Pierce and Jameton, while acknowledging that there may be coercion in such a framework, claim that the healthcare system already involves coercion. They think that the availability of life-prolonging treatment coerces the patient to choose such treatments. This is mistaken. Even supposing that the patients are coerced, this would be a problem to be addressed and resolved, rather than an incentive to replace one type of coercion with another, as Pierce and Jameton would like to do. Namely, they claim that it is possible that the level of coercion in GHC might not

increase from current levels of what they see as coercion for life-prolonging treatments. I have argued that, even accepting that there is coercion on patients to choose life-prolonging treatments at any cost, merely substituting one type of coercion with another is morally problematic.

So, I have analyzed the expanded bioethical principles which include environment, and argued that such expanded principles undermine patient autonomy because they fail to protect the patient, and fail to respect her autonomy.

If this particular way of integrating environmental ethics with bioethics fails, what other option is there? My contention is that, rather than integrating environmental issues in medical ethics, we should integrate these issues in public health ethics. Of course, healthcare should involve recyclable materials, sustainable waste disposal, sustainable architecture, green spaces etc. However, in order to ethically reduce the amount of waste, prevention is the way forward. And prevention is one of the issues addressed by public health ethics. Public health ethics balances individual rights with promoting social good, while also being committed to secure a sufficient level of health for all and to narrow unjust inequalities (Faden, Shebaya, 2016). This understanding of public health ethics underlines its deep moral connections to broader issues of social justice, poverty and systematic disadvantage, as well as makes it uniquely positioned to include environmental concerns. While medical ethics is concerned with the individual, public health ethics is concerned with populations, much like environmental ethics. Public health ethics deals with populations, it is concerned with outcomes and already has to justify coercive or paternalistic measure and balance these against respect for autonomy. This makes public health ethics particularly capable of addressing environmental issue in healthcare on a country and global scale. Focusing on prevention, public health ethics would reduce the number of interventions

needed, and thus indirectly reduce the amount of waste generated by the hospitals. Coupled with green architecture and green waste disposal, public health ethics would significantly reduce the healthcare's impact on the environment while respecting people's autonomy and the right to choose medical procedures they wish to undergo.

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