HUMAN VACCINES & IMMUNOTHERAPEUTICS
2022, VOL. 18, NO. 5, e2082793 (2 pages)
https://doi.org/10.1080/21645515.2022.2082793

Taylor & Francis
Taylor & Francis Group

LETTERS

An ethics of HPV vaccination: beyond principlism

Henri-Corto Stoeklé[a], Sakina Sekkate[b], Jean-Marc Ayoubi[c], Philippe Beuzeboc[b], and Christian Hervé[a,d,e,f,g]

[a]Department of Ethics and Scientific Integrity, Foch Hospital, Suresnes, France; [b]Oncology and Supportive Care Department, Foch Hospital, Suresnes, France; [c]Department of Obstetrics, Gynecology and Reproductive Medicine, Hôpital Foch, Faculté de Médecine Paris Ouest (UVSQ), Suresnes, France; [d]Medical School, University of Paris, Paris, France; [e]Medical School, Versailles-Saint-Quentin-en-Yvelines University, Montigny le Bretonneux, France; [f]International Academy of Medical Ethics and Public Health, University of Paris, Paris, France; [g]Veterinary Academy of France, Paris, France

ARTICLE HISTORY Received 13 May 2022; Accepted 24 May 2022

Healy et al. rightly raise the question of the role of medical ethics in the face of an absence of vaccination or insufficient vaccination coverage against human papillomavirus (HPV), as such vaccination can prevent almost 90% of infection-related cancers.[1] Given this high percentage, and its significance in terms of public health, an ethical responsibility could be evoked in terms of lost time, but also in terms of the resulting human and economic costs of this disease and its treatment.[2] According to the authors, the recommendations in force may bear the major responsibility for this failure, as they have resulted in parents being insufficiently well informed of the need to get their children vaccinated against this virus. Our analysis of the problem converges with that of the authors on this point, but diverges clearly on the subject of satisfaction, based on the four principles of autonomy, beneficence, non-malevolence and justice, better known as "principlism" in bioethics,[3] at least outside of the English-speaking world.

Let us first clarify several empiric elements. In the United States, the most recent epidemiological data indicate that vaccination can decrease the incidence of cervical cancer by 9% in women aged 20 to 24 years, whereas screening alone yielded a decrease of only 2.29%.[4] However, this decrease in incidence is limited to cervical cancer. An increase in oropharyngeal cancers and cancers of the anal canal has been observed in both sexes, but with a difference between the sexes, the incidence of oropharyngeal cancers being five times higher in men than in women. The follow-up period is currently too short to draw any firm conclusions, given that the median age at onset of other tumors linked to HPV is beyond 60 years. This information is little publicized, if at all, revealing the major effect of certain taboos linked to sexuality, probably with multifactorial causes. However, the fact remains that vaccination has led to a decrease in the number of cervical cancers diagnosed in American women, following a non-sexual early vaccination strategy against HPV. Similar results have been obtained in Europe,[5] notably in Sweden,[6] and the United Kingdom.[7]

Conversely, in Japan, the risk of cervical cancer is predicted to increase in the next few years. This is an interesting story, echoing perfectly the elements discussed above. In 2010, Japan issued a recommendation that all girls aged 13 to 16 years should be vaccinated against HPV. As a result, by 2013, the rate of vaccination was close to 70%. However, following scare stories in the press, the Japanese authorities decided to suspend this recommendation, leading to a decrease in vaccination rates to less than 1%. Almost none of the girls and young women born after 2000 have, thus, been vaccinated. As a result, the reported rates of cytological abnormalities in this generation is proving significantly higher than that in the previous generation, which was largely vaccinated. Other countries around the world are also concerned by this phenomenon, which, at the end of the day, constitutes a real, relatively complex global health problem.[8–10] In our view, it is because of this that principlism is intrinsically inappropriate for dealing with ethical issues at the global scale.

Principlism is an ethical theory mostly developed by the American philosophers and bioethicists Tom Beauchamp and James Childress. It is based on moral duties associated with modern western semantics and focusing on "freedom of conscience" or "universalism", and a contemporary conceptualization originating from the English-speaking world guided by the "right to life" or "particularism", revealing attempts to resolve problems exclusively at individual level.[11] Here lies one of the causes of the inadequacy of principlism: an "ethnocentricity" applicable to only a few countries. Another ethical theory may, therefore, be more pertinent: the "global bioethics" of the American biochemist and bioethicist Van Rensselaer Potter.[12] In this theory, moral duties, which are ethnocentric and abstract, are replaced by non-ethnocentric concrete ethical goals: improvements in the quality of life and survival of individuals and of society, through major public health programs taking environmental impacts and cultural differences into account.[13]

It may, nevertheless, be necessary to rework this theory, to distinguish between the collective and individual levels, and to construct sets of criteria no longer restricted to the medical or biological domain. Indeed, in the case of HPV, given the available scientific results, the need for a collective obligation for vaccination appears evident, for both girls and boys, associated with early detection no longer limited to the cervix, but also including the otorhinolaryngological, urological and proctological spheres, in relation to real, existing sexual practices. Such an obligation would not, of course, prevent individual refusals, and it is here that healthcare professionals and education could have a crucial role to play.[14] However, the sorts of educational

CONTACT Christian Hervé christian.herve@parisdescartes.fr

programs concerning sexuality and the disease that could be envisaged in modern secular societies would not be possible in traditional and religious societies or communities. Heterogeneous and variable criteria must, therefore, be developed, going beyond the utopic universalism of some, whilst refusing the lethal "contextualism" of others.[15]

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The author(s) reported there is no funding associated with the work featured in this article.

References

1. Healy CM, Savas LS, Shegog R, Lunstroth R, Vernon SW. Medical ethics principles underscore advocating for human papillomavirus vaccine. Hum Vaccin Immunother. 2022;18 (1):1989926. doi:10.1080/21645515.2021.1989926.
2. Yabroff KR, Mariotto A, Tangka F, Zhao J, Islami F, Sung H, Sherman RL, Henley SJ, Jemal A, Ward EM. Annual report to the nation on the status of cancer, part 2: patient economic burden associated with cancer care. JNCI. 2021;113(12):1670–1682. doi:10.1093/jnci/djab192.
3. Azetsop J, Rennie S. Principlism, medical individualism, and health promotion in resource-poor countries: can autonomy-based bioethics promote social justice and population health? Philos Ethics Humanit Med. 2010;5(1):1. doi:10.1186/1747-5341-5-1.
4. Liao CI, Francoeur AA, Kapp DS, Caesar MAP, Huh WK, Chan JK. Trends in human papillomavirus-associated cancers, demographic characteristics, and vaccinations in the us, 2001-2017. JAMA Netw Open. 2022;5(3):e222530. doi:10.1001/jamanetworkopen.2022.2530.
5. Ritchie D, Arbyn M, Basu P, Corbex M, Fidarova E, Ivanuš U, Papi G, Torode J, Zacharopoulou C. Europe's path to eliminating cervical cancer as a public health problem. Lancet Reg Health – Eur. 2022;12:100276. doi:10.1016/j.lanepe.2021.100276.
6. Lei J, Ploner A, Elfström KM, Wang J, Roth A, Fang F, Sundström K, Dillner J, Sparén P. HPV vaccination and the risk of invasive cervical cancer. N Engl J Med. 2020;383(14):1340–1348. doi:10.1056/NEJMoa1917338.
7. Falcaro M, Castañon A, Ndlela B, Checchi M, Soldan K, Lopez-Bernal J, Elliss-Brookes L, Sasieni P. The effects of the national HPV vaccination programme in England, UK, on cervical cancer and grade 3 cervical intraepithelial neoplasia incidence: a register-based observational study. Lancet. 2021;398(10316):2084–2092. doi:10.1016/S0140-6736(21)02178-4.
8. Ortiz AP, Ortiz-Ortiz KJ, Colón-López V, Tortolero-Luna G, Torres-Cintrón CR, Wu CF, Deshmukh AA. Incidence of cervical cancer in Puerto Rico, 2001-2017. JAMA Oncol. 2021;7 (3):456–458. doi:10.1001/jamaoncol.2020.7488.
9. Arbyn M, Weiderpass E, Bruni L, de Sanjosé S, Saraiya M, Ferlay J, Bray F. Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. Lancet Glob Health. 2020;8(2):e191–e203. doi:10.1016/S2214-109X(19)30482-6.
10. Simms KT, Steinberg J, Caruana M, Smith MA, Lew JB, Soerjomataram I, Castle PE, Bray F, Canfell K. Impact of scaled up human papillomavirus vaccination and cervical screening and the potential for global elimination of cervical cancer in 181 countries, 2020-99: a modelling study. Lancet Oncol. 2019;20 (3):394–407. doi:10.1016/S1470-2045(18)30836-2.
11. Beauchamp TL, Childress JF . Principles of biomedical ethics. Oxford University Press ed; 1979.
12. Potter VR. Global bioethics. Building on the Leopold legacy. Michigan State University Press ed; 1988.
13. Stoekle HC, Ivasilevitch A, Marignac G, Hervé C. Ethical issues of brain organoids: well beyond "consciousness"? AJOB Neurosci. 2022;13(2):109–111. doi:10.1080/21507740.2022.2048726.
14. Stoeklé H-C, Hervé C. [Medicine "for" and "with" the patient: what can be learned from the Covid-19 pandemic]. Med Sci (Paris). 2021;37(10):831–832. [In French]. doi:10.1051/medsci/2021151.
15. Stoeklé H-C, Hervé C. Ownership of genetic data: between universalism and contextualism? Am J Bioethics. 2021;21(12):75–77. doi:10.1080/15265161.2021.1991033.