Opinion Paper

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John Stuart Mill is relevant to COVID-19 vaccination in pregnancy today

Abstract: The scientific evidence about COVID-19 and pregnancy is conclusive: COVID-19 infections increase the risk of stillbirths and preterm births, and pregnant and postpartum patients are more likely to get severely ill with COVID-19 and die when compared with people who are not pregnant. Getting a COVID-19 vaccine protects from severe illness from COVID-19 and risk of death. COVID-19 vaccination is recommended for pregnant patients, those trying to conceive, and who are breastfeeding, or might become pregnant in the future. The justification for government involvement in public health measures that restrict personal liberty that we are so familiar with today emanated from a philosophical source at the same time as the progress in managing infectious disease. John Stuart Mill (1806–1873), an empiricist and a utilitarian, was not specifically addressing the ethics of public health in his classic On Liberty (1859), but his arguments have become the reference point for liberal democracies and public health measures. Mill was in search of a philosophical principle that could justify constraints on personal freedom. John Stuart Mill gives direct guidance to our approach supporting not only strong recommendations for pregnant patients to accept vaccinations against COVID-19 but also for those working in healthcare setting to be required to be vaccinated. This approach is respectful to our patient’s liberty while doing all that’s reasonable to protect them from harm. Based on our professional experience we recognize that some physicians and patients have fixed false beliefs. Physicians espousing fixed false beliefs against COVID-19 vaccines should be censured.

Keywords: COVID-19; liberty; pregnancy; vaccination.

Introduction

The current social strife associated with the COVID-19 pandemic which is now entering its third year, is not a new phenomenon. In 1721 a bomb crashed through the window of the distinguished Boston minister Cotton Mather’s home [1]. Mather had called for the inoculation of Bostonians during a smallpox epidemic, earning him the hatred of that era’s anti-vaccination movement. At that time, variolation for smallpox was itself a risky procedure with a substantial mortality rate. It wasn’t until the end of the eighteenth century that Edward Jenner made his lucky guess about the immunity conferred by cowpox [2]. Epidemic disease was a familiar part of human life anywhere there were dense habitations, especially those frequented by visitors, and among military commanders. Finally in the centuries after Jenner vaccinations became more of a routine.

The hundred years after Jenner recorded a dizzying series of turning points in public health and medicine. Since at least the Hippocratic textual fragment known as Epidemics, physicians had long been familiar with the scourge of infectious disease but also frustrated in their tools to address its victims. Hippocrates (c. 460–c. 370 BC) is notable for having attributed disease generally to environmental factors such as seasonal variation rather than supernatural causes. Yet it took another 2,200 years before the nascent germ theory in the late 1800s and early 1900s inspired improvements in public health.

Tools like germ theory and vaccination were not enough for large-scale, organized and systematic interventions. These and many other elements of the story of public health in the 1800s could not in themselves provide the philosophical basis for the exercise of the police power of the state
COVID-19 vaccines in pregnancy were first recommended in the United States in early 2021 by Chervenak et al. [14], and 6 months later by major organizations [4]. The vaccine acceptance rate among pregnant patients remains low. As of January 2022 more than one out of three pregnant patients in the United States have not been fully vaccinated for COVID-19 before or during pregnancy, and only 50% of non-Hispanic pregnant Blacks have been fully vaccinated [15].

The role of physician hesitancy in pregnant patients not accepting COVID-19 vaccines is manifested in the delay of major organizations’ recommending COVID-19 vaccines in pregnancy [16], continuing to recommend against COVID-19 vaccination in the first pregnancy trimester [8], or even excluding pregnant patients from vaccine mandates [9]. This is especially important as patients have identified that physicians’ recommendation are the single most important factor in this decision-making process [14].

Chervenak et al. identified how to reverse physician hesitancy by firmly recommending COVID-19 vaccines and not absolutizing therapeutic nihilism, shared decision making, and patient autonomy [16]. Disappointingly, there continues to be a proliferation of anti-vaccination proponents among physicians and other healthcare providers who actively discourage COVID-19 vaccinations (and often other vaccines). Some carry the mantle of healthcare providers, while others use the anti-vaccination movement for political purposes [18].

**Summary of scientific evidence for COVID-19 vaccination in pregnancy**

The scientific evidence about COVID-19 and pregnancy is conclusive:

COVID-19 infections increase the risk of stillbirths and preterm births, and pregnant and postpartum patients are more likely to get severely ill with COVID-19 and die when compared with people who are not pregnant [10–12]. Getting a COVID-19 vaccine protects from severe illness from COVID-19 and risk of death. COVID-19 vaccination is recommended for pregnant patients, those trying to conceive, and who are breastfeeding, or might become pregnant in the future [5]. Scientific data document that the benefits of receiving a COVID-19 vaccine outweigh any known or potential risks of vaccination before, during, and after pregnancy. The fetal and neonatal patient benefits from the pregnant patient receiving COVID-19 vaccination in that the risk of pregnancy complications is decreased, and that the fetus and neonate receives protective antibodies [13]. There are no documented adverse effects on the fetus and neonate from the mother who has received COVID-19 vaccine before pregnancy and during any trimester. There is no evidence that COVID-19 vaccines cause any fertility problems in women or men [10].

**John Stuart Mill and COVID-19 vaccination**

The justification for government involvement in public health measures that restrict personal liberty that we are so familiar with today emanated from a philosophical source at the same time as the progress in managing infectious disease. John Stuart Mill (1806–1873), an empiricist and a utilitarian, was not specifically addressing the ethics of public health in his classic *On Liberty* (1859), but his arguments have become the reference point for liberal democracies and public health measures [17]. Mill was in search of a philosophical principle that could justify constraints on personal freedom. There is no better summary of Mill’s basic idea, generally known as the “harm principle”, than these passages from his introduction:

That principle is, that the sole end for which mankind are warranted, individually or collectively in interfering with the liberty of action of any of their number, is self-protection. That the only
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The harm principle is breathtaking in its apparent simplicity, generality, and scope. It prohibits actions that harm others and justifies state involvement. It does not in itself justify government intrusion in “self-regarding” harms like smoking or drinking, unless they take place in circumstances that could present harm to others such as smoking in public waiting rooms or operating a motor vehicle under the influence of alcohol. Unhealthy behaviors are unfortunate for the individual but the harm principle does not apply to them. This is because, according to Mill, people should be allowed to make their own self-regarding decisions in the course of developing their own moral character.

Like any general philosophical principle, the idea of justified self-protection requires interpretation when applied in the real world. One problem is determining what counts as a harm to others rather than an inconvenience or an offense to cultural or personal norms. Put another way, how are my interests so compromised by the actions of another that their actions should be constrained without undue compromise of the other person’s interests? Vaccination has come to be a classic case for the application of the harm principle: When a highly infectious, life-threatening disease is epidemic or pandemic vaccination is regarded as justifying state intervention. The state’s interest in preserving the lives of its citizens has been recognized since Plato’s writings in “The Republic”, ca. 375 BCE.

It would of course be preferable to avoid using the police power of the state to impose vaccination requirements. That is why the organized medical profession should clearly align itself with vaccination policies.

Clinical recommendations for COVID-19 vaccination in pregnancy

The authors, not dissimilar from John Stuart Mill, are strong supporters of liberty. Similar to Mill, we believe that liberty must be constrained by the harm principle when the medical evidence is clear. This is why, in this case, shared decision-making and nondirective counseling of pregnant patients are ethically inappropriate and disrespectful of a pregnant woman’s safety. A pregnant patient’s refusal of COVID-19 vaccination should not be simply accepted as determinative. Of course respect for the patient’s autonomy requires carefully listening to their reservations about vaccination for them and their baby. Those concerns must be addressed [14]. But in the final analysis a clear physician’s recommendation to accept vaccination against COVID-19 is ethically mandatory and should be repeated if necessary. Opposition to COVID-19 vaccination for pregnant patients in any form is unprofessional, whether in public or in the physician-patient relationship.

Healthcare workers caring for pregnant patients and others should also be required to be vaccinated against COVID-19. They are important role models for their patients. Indeed, COVID-19 vaccination should be regarded as a public duty of all those able to receive it, in order to protect those who cannot receive it (e.g., due to age and allergies). The principle of restricting individual freedom to safeguard population health is included in the Declaration of Human Rights, accepted by the Council of Europe [18].

Throughout the COVID-19 pandemic, some health care professionals have irresponsibly made false claims about COVID-19 vaccines, how the virus is transmitted, peddled untested treatments and cures, and openly disregarded public health efforts such as masking and vaccinations, thus posing serious health risks to patients and significantly damaging vaccine confidence across the country.

According to the American Medical Association (AMA) the COVID-19 pandemic continues to spawn falsehoods that are spread by a whole host of people such as political leaders, media figures and internet influencers.

The words and actions of licensed physicians may well be the most egregious of all because they undermine the trust at the center of the patient-physician relationship, and because they are directly responsible for people’s health. A handful of doctors and scientists including Senator Rand Paul, Florida’s Surgeon General Joseph Ladapo, and ex-Pfizer scientist Michael Yeadon have spread disinformation that has fostered belief in scientifically unvalidated and potentially dangerous “cures” for COVID-19 while increasing vaccine hesitancy and driving the politicization of the pandemic to new heights, threatening the public health countermeasures taken to end it [19–24].

A new AMA policy calls for a collaboration with relevant health professional societies and other stakeholders to combat public health disinformation disseminated by health professionals in all forms of media and address disinformation that undermines public health initiatives.
Under the new policy, the AMA will also study disinformation disseminated by health professionals and its impact on public health and develop a comprehensive strategy to address it [20, 21]. That a physician has the opportunity to speak publicly about health does not make that physician automatically an expert on any medical subject. The professional responsibility model prohibits physicians from stating publicly that they have refused vaccinations themselves because such statements lack professional integrity. Any physician who makes such public statements should be disciplined. In addition, the authors support hospital required mandates of physicians and other healthcare workers to be vaccinated against COVID-19 and the refusal to get vaccinated meets John Stuart Mill’s harm principle and implementing disciplinary measures including dismissal should be considered [25].

In summary, the evidence concerning COVID-19 vaccination in pregnancy is conclusive. John Stuart Mill gives direct guidance to our approach supporting not only vaccination in pregnancy is conclusive. John Stuart Mill’s harm principle and implementing disciplinary measures including dismissal should be considered [25].

In our professional experience we recognize that some physicians and patients have fixed false beliefs. Physicians espousing fixed false beliefs against COVID-19 vaccines should be censured. Pregnant patients refusing COVID-19 vaccinations despite strong recommendations should be treated with compassion and repeated efforts of directive counseling to accept COVID-19 vaccinations.

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