BIOETHICS, VULNERABILITY, AND PROTECTION

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ABSTRACT

What makes individuals, groups, or even entire countries vulnerable? And why is vulnerability a concern in bioethics? A simple answer to both questions is that vulnerable individuals and groups are subject to exploitation, and exploitation is morally wrong. This analysis is limited to two areas. First is the context of multinational research, in which vulnerable people can be exploited even if they are not harmed, and harmed even if they are not exploited. The type of multinational research likely to raise the most ethical concerns is that in which the investigators or sponsors are from a powerful industrialised country or a giant pharmaceutical company and the research is conducted in a developing country. Second is the situation of women, who are made vulnerable in cultural settings or in entire countries in which they are oppressed and powerless. In the face of cultural values and practices, or governmental policies, these women suffer serious consequences for their health and even lives. Examples are provided, and it is suggested that in some cases vulnerable individuals can be harmed but not exploited. On the positive side, recent developments reveal a new awareness of exploitation and efforts to enhance the ability of developing countries to protect themselves and their citizens from exploitation at the hands of powerful sponsors of research. In addition, human rights principles are increasingly being used to monitor the actions (or inaction) of governments regarding women’s reproductive rights and vulnerability with respect to HIV/AIDS, and to take remedial actions.

What makes individuals, groups, or even entire countries vulnerable? And why is vulnerability a concern in bioethics? A simple answer to both questions is that vulnerable individuals and groups are subject to exploitation, and exploitation is morally wrong. But
this answer is too simple. It is too simple, in part, because although there is virtually universal agreement that exploitation is wrong, there are sharp disagreements on what constitutes exploitation. It is also too simple because not all wrongful actions can properly be considered exploitation. Some situations may be unjust without being exploitative, and some may involve harm inflicted on vulnerable people without having exploited them. Moreover, actions seeking to protect vulnerable individuals or groups might be construed as paternalistic, and therefore questioned by the very groups for whom protection is sought. In order to analyse this topic it is necessary to determine what criteria should be used to determine which individuals or groups are vulnerable, what properly counts as exploitation, and when well-intentioned efforts at protection may be paternalistic and therefore, ethically questionable.

The topic of vulnerability and protection is very broad, and covers a large number of areas in clinical ethics, research ethics, and ethics in health policy. I confine this analysis to two areas. First is the context of multinational research, in which vulnerable people can be exploited even if they are not harmed, and harmed even if they are not exploited. Second is the situation of women, who are made vulnerable in cultural settings or entire countries in which they are oppressed and powerless. In the face of cultural values and practices, or governmental policies, these women suffer serious consequences for their health and even lives.

VULNERABILITY AND PROTECTION IN RESEARCH

The following passage in the revised Declaration of Helsinki (2000) offers one description of vulnerable populations in research:

Some research populations are vulnerable and need special protection. The particular needs of the economically and medically disadvantaged must be recognized. Special attention is also required for those who cannot give or refuse consent for themselves, for those who may be subject to giving consent under duress, for those who will not benefit personally from the research and for those for whom the research is combined with care.¹

The type of multinational research likely to raise the most ethical concerns is that in which the investigators or sponsors are from a powerful industrialised country or a giant pharmaceutical company, and the research is conducted in a developing country (the ‘host’ country). Two main ethical concerns are prominent in this type of research. The first concern is that research subjects in the host country might be vulnerable by virtue of their low educational level or lack of familiarity with modern scientific concepts, their poverty or powerlessness, and therefore open to exploitation in some manner. The second concern is that large numbers of people in many developing countries lack access to good healthcare or even any medical services. Such individuals may be eager to enrol in biomedical research that holds the prospect of some benefit to them, despite the risks of experimental procedures. Because of their unfamiliarity with scientific research, they may also fall prey to the ‘therapeutic misconception’, the belief that the purpose of research is to benefit the research subjects rather than to gain new knowledge.

What makes individuals, groups, or countries vulnerable?

The recently revised CIOMS International Ethical Guidelines for Biomedical Research include a guideline entitled Research Involving Vulnerable Persons: ‘Special justification is required for inviting vulnerable individuals to serve as research subjects and, if they are selected, the means of protecting their rights and welfare must be strictly applied.’ The individuals or groups addressed in the guideline are identified as follows: ‘Vulnerable persons are those who are relatively (or absolutely) incapable of protecting their own interests. More formally, they may have insufficient power, intelligence, education, resources, strength, or other needed attributes to protect their own interests.’ The chief characteristic of vulnerability that this guideline identifies is a limited capacity or freedom to consent or to decline to participate in research. The commentary following the guideline lists numerous specific groups that may be considered vulnerable in the context of research. These include subordinate members of hierarchical groups, such as the military or students; elderly persons with dementia and residents of nursing homes; people receiving welfare benefits or social assistance, other poor people,

Another set of guidelines specific to HIV/AIDS preventive vaccine research also identifies a list of factors that make a population vulnerable to exploitation. Unlike the CIOMS guideline, which focuses exclusively on the characteristics of the individuals or groups, the UNAIDS guideline includes background conditions in the community or country where the research is conducted. Examples are inadequate experience or capacity for conducting ethical and scientific review of proposed research; poor local infrastructure; untrained personnel; limited technical capacity for conducting the proposed research; and limited availability, accessibility, and sustainability of healthcare and treatment options outside the research setting. The greater the number of these features, the more vulnerable a community or country will be to exploitation in the conduct of research.

An additional factor is the absence of an effective mechanism for oversight of research. If a country lacks mechanisms for identifying and sanctioning researchers who violate laws, regulations, or fundamental ethical standards in carrying out the research, then all research subjects are potentially vulnerable.

**What is exploitation in research?**

We may begin with a tentative definition of exploitation: exploitation occurs when wealthy or powerful individuals or agencies take advantage of the poverty, powerlessness, or dependency of others by using the latter to serve their own ends (those of the wealthy or powerful) without adequate compensating benefits for the less powerful or disadvantaged individuals or groups. An illustrative case study is a clinical trial sponsored by the huge pharmaceutical company, Pfizer, in Nigeria during an epidemic of meningitis in children. The company was testing trovafloxacin (under the trade name Trovan), a drug that had not yet been approved for use in the United States. Critics charged that it was unethical to use the circumstances of an epidemic to test a new drug. A US meningitis specialist, who had co-authored industry guidelines for

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conducting meningitis experiments, expressed surprise that Pfizer embarked on this experiment, since the guidelines did not envision tests conducted under such conditions – ‘testing an antibiotic amid a terrible epidemic in a squalid, short-staffed medical camp lacking basic diagnostic equipment.’

Unlike a number of other examples of international research criticised as unethical but in which subjects were not actually harmed, the Nigerian meningitis experiments did result in significant harm to participants. Eleven children who received the experimental drug died, and several others became deaf, blind, or lame. When news of the experiment and its serious consequences was reported, the company defended the study. Pfizer claimed that the aim was to study the safety and effectiveness of the product and at the same time to pioneer ‘a breakthrough treatment for the Third World.’ One defence of the study was the number of children who showed improvement and a rate of death of about 6%, a rate comparable to patients with the same condition who are treated at US hospitals. Despite these claims, investigation revealed that most of the Nigerian children were given Trovan orally, whereas children treated for meningitis in the US are normally given medicine intravenously, a faster-acting method of administration. Pfizer acknowledged that the oral form of its product had never been tested before in children.

Even without specifying a set of criteria for determining when exploitation occurs, we can judge the Nigerian experiment as one that looks, feels, and smells like a case of exploitation. There was an epidemic raging in a very poor part of a developing country. Children were desperately ill and no other treatment was readily available for them. The trial was in apparent violation of industry guidelines for studies of meningitis, not only because it was carried out during an epidemic, but also because the guidelines say that a follow-up spinal tap should be done a day or so after the drug is administered to see if it is working. Those follow-up tests were optional in the study in Nigeria. In addition, the children were supposed to have blood tests on two separate occasions, but the requirement for the second blood test was abandoned because of a shortage of staff, according to the company’s report.


6 Stephens, op. cit. note 4.
Questions were also raised about whether the research subjects – the children – or their parents were fully aware that they were part of a clinical trial. One laboratory technician was reported as saying they did not know they were involved in research, they knew only that they were sick. The company claimed that local nurses had explained the research to the families, a procedure that could have been valid if it met the conditions governing informed consent. It is impossible to know what the nurses told the families, and whether they made it clear that they were being asked to participate in research, rather than being given a ‘new treatment’ for the terrible disease the children were suffering. In any case, the company could produce no signed consent forms to document the consent process. Undisputed factors that constitute exploitation in research are the failure to inform potential subjects that they are being invited to participate in research; lack of an adequate explanation of the risks, potential benefits, and procedures to be performed; and failure to ensure that potential subjects understand what they have been told and agree voluntarily to participate. To the extent that these elements were lacking in the Nigerian study, it counts as a case of exploitation.

It also emerged that there were shortcomings in the process of ethical review by a properly constituted committee – if such review took place at all. Once an investigation into the study was begun, the Nigerian physician who was in charge of local aspects of the study admitted that his office had created a backdated document stating ethical approval of the study by an ethics review board. The medical director of the hospital confirmed that the hospital did not have an ethics review committee at the time the research was initiated. When the sponsoring company, Pfizer, requested evidence that the study had been approved by a properly constituted ethics committee – a procedure that is required by the US Food and Drug Administration in its review of the data and conduct of clinical trials – that was apparently when a false document was created and backdated to include a date six days before the experiment began. An official was reported as saying that a knowing submission of false documents to a US government agency is a violation of federal law.7

Although this example appears to be a clear case of exploitation, being vulnerable to exploitation need not result in being exploited. Safeguards and protections can be put in place, specific to each factor that can lead to exploitation. But what if a

community or country is vulnerable in most or all of the above respects? Does that mean that research should not be conducted in such places? On the one hand, the critical importance of protecting the vulnerable would argue for a ‘yes’ answer: research should be conducted only in those places where conditions of severe vulnerability do not exist. On the other hand, it is argued, failure to carry out biomedical research in resource-poor countries or among populations that do not have access to medical benefits will further deprive those groups of gains in health status that they could enjoy if research is conducted in their population. Of course, those benefits will accrue only if there is a commitment to provide them in resource-poor settings when research yields successful products.

Inducing vulnerable subjects as exploitation

A quite different set of circumstances from those discussed so far is research conducted on healthy individuals who are vulnerable in other ways. One rather unique episode involved healthy people who were recruited in Estonia and flown to Basel, Switzerland, for a variety of experiments. Estonia, a part of the former Soviet Empire, is a poor country in which the population is not well informed about human subjects research and informed consent is not a well-established requirement in the practice of clinical medicine or research. The article that reported this episode describes a clinic in Basel, operated by Van Tx Research Ltd., a research company that has since gone bankrupt. Many of the beds in the Swiss clinic were filled with refugees from Estonia who were seeking political asylum in Switzerland. Other occupants of the research beds were drug addicts. Both groups were otherwise healthy individuals recruited for experiments. The refugees and the drug addicts could both be considered vulnerable groups. Some of the refugees did not receive adequate information in advance of the trip about the purpose they were to serve in Switzerland. They were flown to Basel by the company and, in addition, paid several hundred dollars.

Lacking a sufficient number of potential subjects from Switzerland for clinical trials that were already planned, the company had decided to seek subjects from Estonia. In addition to the refugees seeking asylum and the drug addicts, Estonian students were also recruited for the study. The company enlisted

Estonian doctors in the search for potential subjects, paying the doctors well for the individuals they succeeded in bringing. Estonian students were also paid for their assistance in finding other students willing to be subjects. Some of these Estonians were apparently told something about the purpose of their trip to Switzerland; others simply received plane tickets and were told when to arrive at the airport.

As in the case of the Nigerian meningitis study and numerous others that have been charged with ethical violations, the Swiss company’s study in Basel had seriously flawed procedures for obtaining informed consent. But it is not that feature alone that makes the research open to the charge of exploitation. The recruitment plan and procedures preyed on the vulnerability of at least two groups – the Estonian refugees seeking asylum and the drug addicts – and possibly a third group, the students who, like students everywhere, lack money and have a subordinate status during the time they are dependent on continuing their studies before completing their education. An offer to be flown free of charge to rich, beautiful Switzerland when one is poor and lives in Estonia, in addition to a cash payment, begins to look suspiciously like a case of exploitation.

The research company was certainly powerful, if not rich; the Estonians were poor, powerless, or dependent; and the ends served were solely those of the company since the subjects were healthy and therefore could receive no direct benefits from participating in the study. The question that remains to be answered is whether they received ‘adequate compensating benefits’, in this case, in the form of monetary payments. Considerable debate continues to surround the question of paying money to research subjects, and this example perfectly illustrates the dilemma.

If the recruitment of these Estonians into the Swiss study is to count as exploitation, it probably requires a judgement that the subjects were sufficiently vulnerable to stand in need of safeguards or additional protection, along with evidence that they lacked sufficient advance information to know what they were getting into in their trip to Switzerland. Absence of adequate informed consent at the time of entry into the research is an uncontroversial condition of exploitation. Lack of sufficient information provided during the recruitment process – which took place in Estonia – is a first step down the path of exploitation, but the subjects could still have refrained from participating in the research once they arrived at the clinic. However, one of the Estonians, who said he knew almost nothing about the drug he took, before or after the trial, was reported as saying: ‘I didn’t
like it, but when we were already there, it was too late to change our minds.’

When protection becomes paternalistic

The 1993 version of the CIOMS international guidelines for research contained the following recommendation: ‘Phase I drug studies and Phase I and II vaccine studies should be conducted only in developed communities of the country of the sponsor.’ When the Joint United Nations Programme on HIV/AIDS conducted a series of consultations in regions where preventive HIV vaccine trials were being planned, participants from developing countries objected strongly to this recommendation.

First, they argued, it is paternalistic and demeaning to developing country researchers and subjects alike, as it presumes an inability either to conduct the research properly or to ensure that subjects are adequately informed and not coerced or deceived into enrolling. Moreover, they said, the Phase I and II vaccine trials would have to be done anyway using the native populations and that would delay the move to Phase III and eventual introduction of a preventive HIV vaccine. This recommendation – designed to protect vulnerable populations from harm in biomedical research – was resented by developing country researchers and health advocates in these regional consultations. A similar provision does not appear in the revised 2002 CIOMS guidelines, in recognition of the fact that ethical guidelines can be overly paternalistic when they lump all developing countries together as ‘underdeveloped’ (a term that was already passé in 1993) and incapable of scientific and ethical capacity to conduct research.

HARMS AND WRONGS TO WOMEN

Although it is surely a mistake to construe women in general as a class of human beings who are vulnerable, it remains sadly true that women in many parts of the world not only lack power and self-determination within the family and in the culture in which they reside, but they are also subjected to the grossest forms of

9 Ibid.
11 I was one of the organisers and participated as faculty in the consultations that took place in Uganda and Brazil.
physical harm and psychological degradation. Some practices, such as female genital mutilation (FGM), are cultural rituals that do not emanate from religious dictates or teachings. Often mistakenly thought to be dictated by Islam – even by some of its adherents – FGM is not prescribed in the Koran or any official teachings of the religion. The ritual is not found in Islamic countries outside of Africa. In other cases of physical harm to or oppression of women, however, religion is often the source of their subordination in general, and violation of their reproductive rights, in particular.

*Harming women by mutilating them*

Girls and women continue to be subjected to genital mutilation, not only in African countries where the ritual remains common, but also in countries where families have migrated. In recent years, health officials in African countries have condemned the practice and it has been prohibited by law in several countries (including Burkina Faso, Ghana, Central African Republic, and Guinea). But neither the condemnation by health authorities nor laws banning the practice have eliminated it. A report in January 2002 revealed that in Kenya, despite a presidential decree banning genital mutilation, the practice flourishes in parts of the country. In Kenya, the cutting occurs around the time of puberty.12

Although the practice is prohibited by law in the United States, it is carried out by African immigrants within their own communities, either by the immigrants themselves or by foreign practitioners who perform the cutting in the US, or in the country of origin, to which girls are sent by their families for the procedure.13 In France in 1999 an African woman was sentenced to eight years in prison for cutting the genitals of 48 girls between the ages of one month and 20 years. The parents of the girls were also convicted and received suspended sentences.14 These and other reports demonstrate how difficult it is to eradicate harmful cultural practices, even when prohibited by law and condemned by public health authorities. It may be that only when criminal sanctions are imposed will such gruesome rituals begin to die out. A

move in that direction is the arrest of 10 women in Sierra Leone after a 14-year-old girl died during the ritual cutting. Six other women were suspected of involvement in the death of another girl from the procedure.\textsuperscript{15}

Clearly, the girls and young women who undergo genital mutilation are powerless and vulnerable. Alone, they have no recourse since it is their own parents who subject them to the procedure. Genital mutilation cannot, however, be classified as exploitation of the powerless since it is not a case in which more powerful persons or agents are benefiting from actions performed on the less powerful. Unlike the cases of exploitation of research subjects, where the more powerful parties (pharmaceutical companies and researchers) reaped benefits by inducing ill-informed or deceived individuals into the research, no one benefits from the harms inflicted on the girls and young women who undergo genital mutilation. True, the cutting is performed by women – often midwives or traditional healers – who get paid for their services. But these women can hardly be considered among the powerful or wealthy individuals in the traditional societies where they reside.

The ongoing practice of genital mutilation is perhaps the most striking example of a harmful and degrading practice, performed on vulnerable individuals, which neither public health authorities nor legal prohibition has been able to eradicate. Those who would defend or show tolerance for this ritual on grounds of ‘respect for culture’ owe an explanation of why ‘respect for culture’ is a higher value than the obligation to protect the vulnerable from injury that is often long-lasting and sometimes results in death.

Religion and oppression of women

Genital mutilation is only one of numerous practices sanctioned by cultural groups that subordinate women to the dominant male society and also stigmatise those who are already victimised. This is the situation, in some countries, of women who have been raped. In Morocco, as in some other Islamic countries, women who have been raped are viewed as the guilty party, are often rejected by their own families, and if they are single when the rape occurs, they remain unmarried and become social outcasts.\textsuperscript{16}

Even very young girls who become pregnant as a result of rape

\textsuperscript{15} Sierra Leone: 10 Arrested in Genital Cutting. \textit{New York Times} August 1, 2002: A10. (No author listed.)

are thrown out by their own families. Sometimes the women’s own brothers threaten to kill them. Being pregnant out of wedlock – even if it results from rape – brings dishonour to the family. The men who commit rape are virtually never held accountable.

Here again, the young women who endure this plight are doubly or triply vulnerable. They start out being poor, often in a rural setting, and some are sent by their families to work as maids for wealthier families in the city. In the case of one young Moroccan woman, the son of the family she worked for committed the rape. The family threw her out and her own family told her not to return to their home.17 So now she was poor, jobless, homeless, and pregnant. Women in this situation must often resort to begging and prostitution to sustain their lives. Having been victims of rape – an aggressive and degrading act – they are then stigmatised, ostracised, and abandoned.

There is ample documentation of the role traditional religion plays in limiting women’s reproductive rights. According to one recent article, ‘Religions have always sought to control reproduction by means of controlling women. Today we see the global growth of authoritarian religious groups and movements that are often described as “fundamentalist”. Though originating in different religions, all seem to have as a major focus the control of women’s fertility.’18

In post-communist Poland, a surge of Roman Catholic fundamentalism has resulted in the abandonment of an array of reproductive rights previously accorded women under the secular communist regime. A restrictive anti-abortion law was passed in 1993, fundamentalists in Parliament further limited access to contraception, and many medical doctors do not provide women with adequate family planning information.19 In the US, Protestant as well as Roman Catholic religious fundamentalists have used terrorist tactics to prevent women from having abortions – their Constitutionally protected right – and have threatened and even murdered doctors who perform abortion services. Clinics that provide abortion services have been bombed and packages allegedly claimed to contain anthrax have been sent to advocacy groups and abortion providers.20

17 Ibid.
While fundamentalist religious leaders and their followers alone may not have the power to control the reproductive lives of women the world over, by acting in concert and exerting great influence on policy making in numerous countries, they have succeeded in eroding the reproductive rights of women in those places. As one report notes: ‘In countries with predominantly Catholic populations, such as Mexico and Poland, the Catholic church asserts its view on women by lobbying successfully for highly restrictive abortion laws and limited access to contraception.’ The official position of the Catholic Church prohibits the use of condoms for the prevention of HIV/AIDS and other sexually transmitted infections. Governments are powerful, and when fundamentalist politicians and religious leaders seek to impose their beliefs on the entire society, women are rendered vulnerable even in the most democratic societies in the world.

Women in a world of HIV/AIDS

This account of vulnerability and protection would not be complete without mention of HIV/AIDS. All persons living with HIV/AIDS are potentially vulnerable because they have an incurable disease, and moreover, one that is stigmatised. The situation is even worse for women, both those who are HIV-infected and those who are not. Despite the good news that drugs to prevent transmission of HIV from pregnant women to their infants are beginning to be available in some developing countries, effective triple therapy for the infected women themselves remains unavailable.

The factors that make women especially vulnerable to becoming HIV-infected are noted in the most recent report on the global epidemic:

Around the world, women’s enhanced physiological risk of HIV infection is compounded by economic deprivation, lack of employment opportunities, poor access to education, training and information, and sociocultural norms and practices . . . Women’s low economic and social status limits their power to negotiate the use of a condom, discuss fidelity with their partners, or leave risky relationships. Such disempowerment increases their vulnerability to HIV; the socioeconomic and

21 Ibid. p. 12.
sexual discrimination thus experienced by women can ultimately become life-threatening.22

In parts of the world where HIV prevalence is already high, women’s vulnerability renders them helpless to take steps to avoid this fatal disease. The HIV/AIDS epidemic has given rise to new forms of harm and exploitation of vulnerable women.

What sorts of protection are appropriate for women rendered vulnerable by the customs, laws, policies, or religious institutions in the societies in which they live? Adult women do not need the paternalistic protection of their husbands or fathers when custom or law subordinates their autonomy to decisions made by those men. Women’s reproductive rights should not be curtailed by religious authorities for which protection of the foetus is a higher value than prevention of women’s death as a result of illegal, unsafe abortions. Women are entitled to protection of their human rights by their governments in all countries that have ratified the Convention on the Elimination of All Forms of Discrimination against Women – 170 member countries of the United Nations, including Argentina and Brazil, Bangladesh and Bahrain, Cameroon and Cambodia, Mexico and Morocco, Senegal and Saudi Arabia – but not the United States of America.23

CONCLUSIONS

The news is not all bad. Increasing attention to multinational research conducted in developing countries has prompted revisions of international ethical guidelines and attempts to build capacity for scientific and ethical review of research in countries with little or no prior experience. The World Health Organisation sponsors and conducts such workshops, and the Fogarty International Center – part of the National Institutes of Health in the United States – has provided funds for training programmes in research ethics for people from developing countries. A growing number of developing countries has issued research ethics guidelines and regulations, including Brazil, South Africa, Uganda, India, and the Philippines. These developments, taken together, increase awareness and the ability of developing countries to protect themselves and their citizens from exploitation at the hands of powerful sponsors of research.

Gains are slow but visible in protecting vulnerable women from harm and exploitation. At the international level, human rights principles are increasingly being used to monitor the actions (or inaction) of governments regarding women’s reproductive rights and vulnerability with respect to HIV/AIDS, and to take remedial actions. Nationally, and even locally, court actions and laws have increased protections for women. Examples include a new reproductive health law passed in the city of Buenos Aires in June 2000, and reforms liberalising the severe legal restrictions on abortion in several states in Mexico. Throughout the developing world, women’s health advocacy groups and other non-governmental organisations have been working hard to improve service delivery for women’s health problems and to educate and sensitise physicians, other health workers, and policymakers. Although there is a great deal more to be done, there are hopeful signs that both the public and private sectors have awakened to the health-related needs of vulnerable women in their societies.

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