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ARTICLES

GLOBAL HEALTH ETHICS FOR STUDENTS

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ABSTRACT
As a result of increased interest in global health, more and more medical students and trainees from the 'developed world' are working and studying in the 'developing world'. However, while opportunities to do this important work increase, there has been insufficient development of ethical guidelines for students. It is often assumed that ethics training in developed world situations is applicable to health experiences globally. However, fundamental differences in both clinical and research settings necessitate an alternative paradigm of analysis. This article is intended for teachers who are responsible for preparing students prior to such experiences. A review of major ethical issues is presented, how they pertain to students, and a framework is outlined to help guide students in their work.

CASE

Lara is a first-year medical student who is interested in global health. She does not know much about the field or how she can become involved. She also has never traveled to a developing country but feels drawn to help if she can. She hopes to be exposed to such issues while in medical school, possibly through taking part in the research initiatives she has heard about. She attends a presentation by a public health researcher on youth in South African townships and is intrigued by an ongoing project to assess HIV/AIDS risk factors and preventative measures. Upon hearing that a student position is available that may involve both clinical and research experience, Lara wonders if this is her chance to become involved in global health.

INTRODUCTION

Global health, or the health of disadvantaged populations internationally, is an area of research, practice and activism that involves a growing number of students. More and more trainees in the health professions are pursuing experiences in developing countries or plan to work in such areas in the future.[1] An increasing number of diverse experiences are available and the level of funding for such work is growing steadily.[2]

[1] D.A. Shaywitz & D.A. Ausiello. Global Health: A Chance for Western Physicians to Give-and Receive. *Am J Med* 2002; 113: 354–357.
[2] D. James. Going Global. *New Physician* 1999; 48: Available at: http://www.amsa.org/tnp/articles/article.cfx?id=290 [Accessed 1 July 2007].

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This trend is paralleled and driven by an awareness of the importance of global health, both out of a sense of beneficence and self-interest.[3] In our globalized international community there is an increasing awareness of the suffering of others from preventable diseases, malnutrition and conflict, and more pressure by a concerned public to take action.[4] There is also the understanding that the health of the developed world is affected by previously exotic illnesses such as malaria, tuberculosis and leprosy.[5] Existing and impending pandemics such as HIV/AIDS and pandemic influenza are now seen as real threats to global security and economies.[6]

As interest in global health has grown, medical schools and schools of public health have begun to introduce curricula around these issues.[7] Such trends are encouraging, but in many ways this movement has proceeded without adequate discussion of the ethics of such work. Reviews of education addressing global health in Canada, the United States and Europe have revealed little discussion regarding ethics training, despite it being listed as part of a core set of topics.[8] Only a few specialized programs are in existence and are not targeted towards students from developed countries.[9] Without appropriate training students are unprepared to face ethical dilemmas in global health and risk causing harm to patients, research subjects and communities. Teachers and institutions have a responsibility to provide training in ethics as an essential precursor to global health work. This paper develops a framework to assist students in exploring these issues, building on the unique role of a trainee and the existing discourse on ethical issues.

STUDENTS AND GLOBAL HEALTH

Global health experiences are different in many respects from clinical or research work within typical developed world settings. It is important to examine these differences and how they may alter the ethical analysis of a situation. This will assist in creating a framework for students to use in global health experiences.

The same characteristics that drive global health work also create ethical dilemmas: vulnerable populations whose health is threatened, groups who are marginalized or oppressed in their local or global society, who have little control over their political or social future, and who exist in extreme poverty.[10] Such conditions create enormous disparities between developed world health professionals and the developing world patient.[11] Due to this power imbalance, patients are more vulnerable to exploitation by clinicians and researchers.[12] Patients may fear to question the authority of a physician, seek a second opinion or refuse an invasive procedure due to a lack of options or a lack of knowledge about alternatives.

Global health work often requires a different lens of analysis, relying more heavily on a deterministic approach to health due to the major influence of socioeconomic status and other upstream factors, and the primary role of public health initiatives.[13] This is not generally the focus of developed world

[3] M.L. Rekart et al. International Health: Five Reasons why Canadians Should Get Involved. *Can J Public Health* 2003; 94: 258–259.

[4] P. Jha, B. Stirling & A.S. Slutsky. Weapons of Mass Salvation: Canada's Role in Improving the Health of the Global Poor. *CMAJ* 2004; 94: 258–259.

[5] K.C. Kain et al. Imported Malaria: Prospective Analysis of Problems in Diagnosis and Management. *Clin Infect Dis* 1998; 27: 142–149; A.K. Boggild et al. Leprosy in Toronto: An Analysis of 184 Imported Cases. *CMAJ* 2004; 170: 55–59; T.K. Marras et al. Tuberculosis among Tibetan Refugee Claimants in Toronto: 1998 to 2000. *Chest* 2003; 124: 915–921.

[6] J. Gow. The HIV/AIDS Epidemic in Africa: Implications for U.S. Policy. *Health Aff* 2002; 21: 57–69; G. Rezza. Avian Influenza: A Human Pandemic Threat? *J Epidemiol Community Health* 2004; 58: 807–808.

[7] C. Bateman et al. Bringing Global Issues to Medical Training. *Lancet* 2001; 358: 1539–1542.

[8] J.E. Heck & R. Pust. A National Consensus on the Essential International-Health Curriculum for Medical Schools. *Acad Med* 1993; 68: 596–597.

[9] C. Haq et al. New World Views: Preparing Physicians in Training for Global Health Work. *Int Fam Med* 2000; 32: 566–572; R. Rivera et al. Many Worlds, One Ethic: Design and Development of a Global Research Ethics Training Curriculum. *Developing World Bioeth* 2005; 5: 169–175.

[10] S.R. Benatar. Avoiding Exploitation in Clinical Research. *Camb Q Healthc Ethics* 2000; 9: 562–565.

[11] P. Jha et al. Improving the Health of the Global Poor. *Science* 2002; 295: 2036–2039; S.R. Benatar, A.S. Daar & P.A. Singer. Global Health Ethics: The Rationale for Mutual Caring. *Int Aff* 2003; 79: 107–138.

[12] Benatar, *op. cit.* note 10; T. Edejer. North-South Research Partnerships: The Ethics of Carrying out Research in Developing Countries. *BMJ* 1999; 319: 438–441.

[13] G. Verma et al. Critical Reflection on Evidence, Ethics and Effectiveness in the Management of Tuberculosis: Public Health and Global Perspectives. *BMC Med Ethics* 2004; 5: 5.

medical training. The human and physical resources available may be quite different from those in the teaching hospitals where students receive most of their education. Cultural differences may also create the need for a different patient-physician relationship and a different ethics framework.

Why is a framework specific to students required? Students have an educational mandate in addition to service; hence there can be conflicting priorities when pursuing a learning experience at the patient's expense. Language barriers may necessitate the involvement of a translator, using local resources and possibly impeding the regular delivery of care. Students often have little previous experience in global health. They may have limited exposure to other cultures, languages and working in resource-poor locations. Students are also still developing the concept of 'professionalism' and what this role entails.[14]

Understanding the ethics of global health work can be key to grasping the underlying social justice issues within global health.[15] Ethics deals with the 'right thing to do', what the basis is for right and wrong, and provides some reasons for norms of behavior. This requires a detailed analysis of the situation, motives and an understanding of other people's positions. The framework illustrated below and the additional principles proposed will assist in this process and with answering the questions raised by these experiences.

FOUNDATIONS OF GLOBAL HEALTH ETHICS

Having explored the characteristics of global health work it is helpful to examine what will form the basis for an ethical framework. Students must go beyond classical principles of ethics and into what Benatar calls a 'global state of mind'.[16] He argues that ethics can be a mechanism for reframing the global health agenda, as well as the duties of wealthy nations and citizens within a universal social contract. Such an analysis draws on current ethical discourse within public health, human rights and theories of working with vulnerable populations.

Global health is intimately linked to public health work. Public health deals with population level interventions, examining upstream causes of poor health and primary prevention strategies such as vaccination campaigns, injury prevention and food security. Several ethical frameworks have been suggested to guide public health practitioners that are relevant for global health work. Roberts emphasizes the need for a communitarian approach to health interventions, where constructing a 'good society' should be a stated goal.[17] Childress et al. expand on this by suggesting five principles to judge public health interventions: effectiveness, proportionality, necessity, least infringement and public justification.[18] Finally, Kass suggests six major questions in the ethical analysis of public health interventions, including examining goals, questioning effectiveness, assessing burdens and who bears them, and judging fairness in implementation.[19] Global health ethics, by its connection to the similar goals and mechanisms of public health should draw on these conceptualizations.

Global health also draws on the philosophy of health and human rights, which is based on the inherent value of each person and the claims one has on the local and global community. Global health is concerned with fulfilling these claims and seeking a world where all enjoy a certain standard of health and healthcare. Specific issues that have come to the forefront recently have been access to treatment for people living with HIV/AIDS, the imprisonment and torture of refugees and prisoners of war, and the right to healthcare in the face of the privatization of

[14] H.M. Swick et al. Teaching Professionalism in Undergraduate Medical Education. *JAMA* 1999; 282: 830–832; ABIM Foundation. Medical Professionalism in the New Millennium: A Physician Charter. *Ann Intern Med* 2002; 136: 243–246; J. Coulehan et al. The Best Lack All Convictions: Biomedical Ethics, Professionalism, and Social Responsibility. *Camb Q Healthc Ethics* 2003; 12: 21–38; J. Shaw. Professionalism 101. *Update: The GHEC Newsletter* 2005; 1: Online. Available at: http://www.globalhealth-ec.org/GHEC/Resources/Newsletter/Vol1Issue1/Fea_Pro101.htm [Accessed 1 July 2007].

[15] J.C. Thomas. Teaching Ethics in Schools of Public Health. *Public Health Rep* 2003; 118: 279–286.

[16] Benatar et al., *op. cit.* note 11.

[17] M.J. Roberts & M.R. Reich. Ethical Analysis in Public Health. *Lancet* 2002; 359: 1055–1059.

[18] J.F. Childress et al. Public Health Ethics: Mapping the Terrain. *J Law Med Ethics* 2002; 30: 170–178.

[19] N.E. Kass. An Ethics Framework for Public Health. *Am J Public Health* 2001; 91: 1776–1782.

social services in many countries around the world.[20] While the direct protection of social, political and economic human rights may not be seen as the responsibility of many health professionals, the understanding of these issues in the global health context is important in both clinical work and research.[21] It helps connect law, ethics, healthcare and the role of the physician in speaking out when rights violations occur. This philosophy is deeply rooted in a sense of social justice similarly to public health work.[22] Farmer frames violations of human rights as products of 'structural violence', or historically given processes and forces that constrain agency.[23] The discourse of human rights is critical of constraints on the development of these capabilities, such as those imposed by international financial institutions, the 'modern slavery' of debt in the developing world[24] and intellectual property laws that limit access to pharmaceuticals.[25] Students should not take a narrow view of rights but rather look at their obligations and seek answers to who should do what for whom.[26]

It is also useful to consider recent discussions of the ethics of working with vulnerable groups in developed countries, such as refugees, immigrants, Aboriginal populations and the inner city poor. While all patients are at risk of exploitation, these groups are especially vulnerable due to poverty and social and cultural factors. Leaning outlines several guidelines for research involving immigrants and refugees. These include the importance of obtaining appropriate consent from participants who may misunderstand the voluntary nature of the research, protecting them from any harm or discrimination and ensuring the research actually serves the needs of the studied community.[27] These themes are repeated in discussions of working with the homeless where establishing trust is an even more crucial issue.[28] Within many societies, clinical and research work can represent a continuation of racist, imperial or colonial relationships. A great deal can be learned from frameworks for working with Aboriginal communities, who often represent the 'developing world within the developed world'.[29] Students should also be aware that their writing may be used to provide the intellectual arguments for systematic human rights violations.[30]

These fields form the basis to move forward in exploring global health ethics and formulating principles for students to use in clinical and research work.

GLOBAL HEALTH ETHICAL DILEMMAS IN CLINICAL MEDICINE

Clinical settings can introduce students to ethical dilemmas that they are ill prepared to deal with. Exploring several examples will assist with constructing the proposed global health ethical framework.

The physician-patient relationship is centered on trust. However, power imbalances may challenge true patient autonomy and can exist to a greater extent within global health settings. This is twofold, as students may be trusted simply due to their assumed membership in the medical community (e.g. wearing a lab coat and carrying a stethoscope can indicate a professional status) as well as due to their developed world background.[31] Obtaining informed consent for procedures and diagnostic

[20] J. Mann et al., eds. 1999. *Health and Human Rights*. New York, NY: Routledge; S. Gruskin et al. 2005. *Perspectives on Health and Human Rights*. New York, NY: Taylor & Francis Group.

[21] C. Beyrer & N.E. Kass. Human Rights, Politics, and Reviews of Research Ethics. *Lancet* 2002; 360: 246–251.

[22] Childress et al., *op. cit.* note 18.

[23] P. Farmer. 2003. *Pathologies of Power: Health, Human Rights and the New War on the Poor*. Berkeley: University of California Press.

[24] Benatar et al., *op. cit.* note 11.

[25] S.R. Benatar. South Africa's Transition in a Globalising World: HIV/AIDS as a Window and a Mirror. *Int Aff* 2001; 77: 347–375; J.C. Cohen & P. Illingworth. The Dilemma of Intellectual Property Rights for Pharmaceuticals: The Tension between Ensuring Access of the Poor to Medicines and Committing to International Agreements. *Developing World Bioethic* 2003; 3: 27–48.

[26] O. O'Neill. Public Health or Clinical Ethics: Thinking beyond Borders. *Ethics Int Aff* 2002; 16: 35–45.

[27] J. Leaning. Ethics of Research in Refugee Populations. *Lancet* 2001; 357: 1432–1433.

[28] S.W. Hwang. Homelessness and Health. *CMAJ* 2005; 164: 229–233; T.L. Zakrison, P.A. Hamel & S.W. Hwang. Homeless People's Trust and Interactions with Police and Paramedics. *J Urban Health* 2004; 81: 596–605.

[29] K. Ten Fingers. Rejecting, Revitalizing, and Reclaiming: First Nations Work to Set the Direction of Research and Policy Development. *Can J Public Health* 2005; 96: S60–S64.

[30] Beyrer & Kass, *op. cit.* note 21.

[31] B. Maina-Ahlberg, E. Nordberg & G. Tomson. North-South Health Research Collaboration: Challenges in Institutional Interaction. *Soc Sci Med* 1997; 44: 1229–1238.

tests can be hampered by ignorance of the language and the difficulty in explaining complex tasks or their ramifications.[32] Testing for certain diseases, such as HIV, when no treatment may be available or affordable, is another major ethical challenge.[33] Students must work with local practitioners and community members to understand what the standard of care is, and how to approach these issues. Trainees may be given opportunities to function at a level well above their current skill level; for example, in assisting with complex surgery.

In their clinical work, students may want to recommend certain things to patients that are not culturally appropriate or which would be problematic to suggest, such as condoms or birth control. Conversely, students may observe traditional or local health practices that they perceive to be harmful. Due to the role families play in treatment decisions, there is often a lack of confidentiality as measured by Western standards. This can also be affected by the physical organization of many clinics and hospitals in developing countries, where consultations can occur in open settings. Finally, students should always be aware of using already scant resources, such as a clinician's time, in fulfilling their educational objectives.

As in other settings, students must balance their learning needs with the right of the patient to appropriate care. In global health work this can be a serious issue, with vulnerable patients, a lack of oversight, and a low likelihood of negative ramifications for students who abuse their position. Students must reflect on what they are doing and refrain from certain actions, even if they could proceed without much risk to themselves. Although in some situations every 'extra set of hands' can be useful, students must be aware of their current skill level and limitations. This is difficult, as students are naturally challenging the limits of their abilities. Wear offers a different paradigm for students, shifting from mere 'cultural competence' in clinical work to 'insurgent multiculturalism'.[34] This philosophy challenges students to ask tough questions about the roots of inequality and racism and involves examining power structures. The framework developed below provides some concrete steps students can take.

GLOBAL HEALTH ETHICAL DILEMMAS IN RESEARCH

In addition to clinical work, students may act as research assistants in global health settings or carry out their own studies. The basic requirements for ethical research include value, validity, fair subject selection, favorable risk to benefit ratio, independent review, informed consent, and respect for enrolled participants.[35] However, students should be aware of the additional requirements of research in developing countries, such as the benchmarks established by Emanuel et al.,[36] and especially focus on how the research addresses inequality and who will ultimately benefit from the work. This also entails asking whether the research is truly necessary, or if the implementation of existing knowledge would be a better use of resources.[37]

Global health research can be 'equity-linked' if it is focused on addressing social inequality and closing the '10/90 gap' (over 90% of global research dollars are spent on health problems that affect only 10% of the world).[38] However, there is a risk that research can reinforce disparities rather than diminish them. An example is a drug trial that tests a medication in patients who will ultimately be unable to afford the drug. Ironically, much of the research done in developing countries is ultimately published in journals that are not accessible to host country researchers, let alone the general public.

[32] C. Ijsselmuiden & R. Faden. 1999. Research and Informed Consent in Africa – Another Look. In *Health and Human Rights*. J. Mann et al., eds. New York, NY: Routledge: 363–372.

[33] Benatar, *op. cit.* note 25.

[34] D. Wear. Insurgent Multiculturalism: Rethinking How and Why We Teach Culture in Medical Education. *Acad Med* 2003; 78: 549–554.

[35] E.J. Emanuel, D. Wendler & C. Grady. What Makes Clinical Research Ethical? *JAMA* 2000; 283: 2701–2711.

[36] E.J. Emanuel et al. What Makes Clinical Research in Developing Countries Ethical? The Benchmarks of Ethical Research. *J Infect Dis* 2004; 189: 930–937.

[37] S.R. Benatar. Moral Imagination: The Missing Component in Global Health. *PLoS Medicine* 2005; 2: e400.

[38] P. Ostlin, G. Sen & A. George. Paying Attention to Gender and Poverty in Health Research: Content and Process Issues. *Bull World Health Organ* 2004; 82: 740–745; Z.A. Bhutta. Ethics in International Health Research: A Perspective from the Developing World. *Bull World Health Organ* 2002; 80: 114–120; V. Neufeld et al. The Rich-Poor Gap in Global Health Research: Challenges for Canada. *CMAJ* 2001; 164: 1158–1159.

Open-access journals, or journals that provide access to the developing world without fee, are a more ethical choice. Overall, students involved in research must ensure that their work serves the health, social, political and economic goals of the community.[39] This 'responsive research' is highlighted in the drive for an AIDS vaccine where the communities who contribute to these global public goods are being guaranteed access.[40]

Research is also equity-linked when the benefits and burdens of the project are shared by all partners.[41] Unfortunately, usually the developed world partner conceives the project and acts as coordinator,[42] while the developing world researcher is seen as the trainee with nothing to contribute.[43] This form of neo-colonialism can extend to a disregard for the ethics review boards of developing countries[44] and is part of a broader problem of a lack of representation by researchers from developing countries on editorial boards and as journal or grant reviewers.[45] Students should be cognizant of this issue and work to be part of the solution.[46] Funding bodies, both public and private, may also practice such 'ethical imperialism',[47] and students should be critical of all funding sources. This includes exploring the motives behind the funding and what the donors receive in return, for example, positive publicity for the pharmaceutical industry or governmental agencies. As with other areas of medical research, there is a 'publish or perish' attitude in global health. Edejer argues instead that success should be judged not merely on publication or even the acquiring of new knowledge, but rather on how well the priorities of the Southern community are met, the sustainability of the work and the investment in local research capacity.[48] Ultimately the goal should be to move from a semi-colonial relationship to true partnership, with the knowledge created being held communally.[49]

In relation to research subjects, as with clinical work, obtaining informed consent is especially of concern. While cultural differences may require obtaining the permission of other parties, such as village councils or the head of the family, this cannot take the place of individual consent. In some settings, signing documents is associated with distrust and oral consent may be more appropriate.[50] Benatar uses a story to illustrate the imbalance between the trial subject and the researcher from a developed country. 'Ntombi' is a young, pregnant woman living in poverty in South Africa who is approached to be tested for HIV, and possibly enrolled in a study of a drug for the prevention of vertical transmission of HIV. A number of questions go through her mind: Who are these people and what are their intentions? What will happen to her and her baby if she is HIV positive? Can she rely on the researchers for answers, or should she consult her local leaders who she respects?[51] Often enrollment in a clinical trial is the only means of access to treatment and hence becomes a matter of life and death, thus contributing to a coercive environment.

A related debate that students should be aware of is the concept of standard of care. Guidelines have

[39] Council for International Organizations of Medical Sciences (CIOMS). 2002. *International Ethical Guidelines for Biomedical Research Involving Human Subjects.* Geneva: CIOMS; M. Warren. HIV Research and Access to Treatment. *Science* 2006; 311: 175–176; S. Basu, J. Andrews & D. Smith-Rohrberg. Populations Who Test Drugs should Benefit from Them. *Nature* 2006; 440: 605.

[40] S. Berkley. Thorny Issues in the Ethics of AIDS Vaccine Trials. *Lancet* 2003; 362: 992.

[41] S.R. Benatar. Distributive Justice and Clinical Trials in the Third World. *Theor Med* 2001; 22: 169–176.

[42] Maina-Ahlberg et al., *op. cit.* note 31; J.B. Eastwood et al. Medical Collaborations between Developed and Developing Countries. *Q J Med* 2001; 94: 637–641.

[43] B. Chilisa. Educational Research within Postcolonial Africa: A Critique of HIV/AIDS Research in Botswana. *Int J Qual Studies Edu* 2005; 18: 659–684.

[44] P. Wilmhurst. Scientific Imperialism. *BMJ* 1997; 314: 840; Bhutta, *op. cit.* note 38; Gambia Government/Medical Research Council Joint Ethical Committee. Ethical Issues Facing Medical Research in Developing Countries. *Lancet* 1998; 351: 286–287.

[45] R. Horton. Medical Journals: Evidence of Bias against the Diseases of Poverty. *Lancet* 2003; 361: 712–713; Ostlin et al., *op. cit.* note 38.

[46] A. Langer et al. Why is Research from Developing Countries Underrepresented in International Health Literature, and What can be Done about It? *Bull World Health Organ* 2004; 82: 802–803.

[47] M. Angell. Ethical imperialism? Ethics in International Collaborative Clinical Research. *NEJM* 1988; 319: 1081–1083; Gambia Government/Medical Research Council Joint Ethical Committee, *op. cit.* note 44.

[48] Edejer, *op. cit.* note 12.

[49] A. Costello & A. Zumla. Moving to Research Partnerships in Developing Countries. *BMJ* 2000; 321: 827–829; Chilisa, *op. cit.* note 43.

[50] A.A. Hyder & S.A. Wali. Informed Consent and Collaborative Research: Perspectives from the Developing World. *Developing World Bioeth* 2006; 6: 33–40.

[51] Benatar, *op. cit.* note 41; S.R. Benatar. Reflections and Recommendations on Research Ethics in Developing Countries. *Soc Sci Med* 2002; 54: 1131–1141.

consistently held that research should compare the experimental arm against the best current treatment. This has been challenged by trials that have used placebo, on the basis that this was what was available to the people in the community and should make the results more applicable.[52] Others have labeled this a new and insidious form of exploitation,[53] arguing against such a 'double standard'.[54] Benatar, Childress and others[55] have called for a more complex approach, wherein the political, economic and social conditions in which the research takes place are taken into account. Hyder and Dawson take this further by suggesting researchers should consider the overall health system of the country.[56] Students must be wary of 'ethical relativism', or changing their ethical values or priorities simply due to the situation, or to accommodate lesser values, such as efficiency or cost-effectiveness.[57]

PRINCIPLES FOR GLOBAL HEALTH ETHICS FOR STUDENTS

Having reviewed the characteristics of global health work, the foundations of ethical theory and examples of clinical and research dilemmas, it is possible to develop a framework for students. In teaching ethics, medical schools in developed countries have focused on the four principles of justice, beneficence, nonmaleficence and autonomy. However, global health introduces students to situations that have different challenges and involve individuals from different cultures, with different concepts of health. The four classic principles have their origins in Western philosophies and do not represent the summation of a global moral language. What constitutes 'justice' is different in different societies, as it deals with expected duties, rights and the process of decision making. 'Beneficence' and 'nonmaleficence' should be interpreted in light of a different cultural context from the student, and where different perspectives and roles (e.g. family member, citizen) are assumed. Finally, 'autonomy' relates to rationale decision making and a lack of interference in this process. Global health introduces students to situations where autonomy is defined differently depending on cultural differences in rationality and resource limitations relating to interference.[58] Ethics teaching has also focused on the individual patient-physician relationship within the context of clinical decision making. A global health ethical framework needs to be applicable to work involving communities and populations, which is the level of many global health interventions.

Students may find the following four additional concepts useful in global health work. These values are not only applicable to students, but can be helpful to global health practice throughout one's career. While no global field of bioethics exists,[59] this may be a starting point for a broader and more applicable ethical framework.

Humility

Students must recognize their own limitations within the setting of global health work. Medical training in a developed world context does not translate to competence in all settings. Rather one should recognize that being in a different setting puts one at a disadvantage, especially in clinical medicine. 'Medical tourism' can undermine existing health care and cause great harm, especially in emergency situations or humanitarian disasters.[60] This recognition forms the basis of future learning and

[52] B.A. Brody. Philosophical Reflections on Clinical Trials in Developing Countries. 2002; 197–205; H. Varmus & D. Satcher. Ethical Complexities of Conducting Research in Developing Countries. *NEJM* 1997; 337: 1003–1005; J. Killen et al. Ethics of Clinical Research in the Developing World. *Nature Reviews* 2002; 2: 210–215.

[53] M. Angell. The Ethics of Clinical Research in the Third World. *NEJM* 1997; 337: 847–849; Bhutta, *op. cit.* note 38.

[54] Editorial. One Standard, not Two: Declaration of Helsinki Amendment on the Ethics of Human Medical Research. *Lancet* 2003; 362: 1005; Editor. Dismantling the Helsinki Declaration. *CMAJ* 2003; 169: 997; J.A. Singh. Standards of Care in the Antiretroviral Rollout World. *Lancet* 2004; 364: 920–922.

[55] S.R. Benatar & P.A. Singer. A New Look at International Research Ethics. *BMJ* 2000; 321: 824–826; Childress et al., *op. cit.* note 18.

[56] A.A. Hyder & L. Dawson. Defining Standard of Care in the Developing World: The Intersection of International Research Ethics and Health Systems Analysis. *Developing World Bioeth* 2005; 5: 142–152.

[57] Angell, *op. cit.* note 53.

[58] T. Takala. What is Wrong with Global Bioethics? On the Limitations of the Four Principles Approach. *Camb Q Healthc Ethics* 2001; 10: 72–77.

[59] S. Holm & B. Williams-Jones. Global Bioethics – Myth or Reality? *BMC Med Ethics* 2006; 7: 10.

[60] R.A. Bishop & J.A. Litch. Medical Tourism can do Harm. *BMJ* 2000; 320: 1017; Editoral. Emergency Medical Aid is Not for Amateurs. *Lancet* 1996; 348: 23.

being open to education from all sources. It is also important in forming research questions, where humility is necessary in seeking direction from the host community as to their needs, their experience with disease and their perspective on the etiology and solutions.[61] This principle is connected to beneficence, but is more specific to students in a different setting than where they have been trained. As Benatar et al. note, humility involves one's general attitude to one's place in the world and whether one feels subject to the same moral constraints as others. Unfortunately, the world is characterized by actions that reflect a value system where some lives are considered infinitely more valuable than others.[62] In global health settings, humility is crucial and helps undermine neo-colonial trends that often permeate relationships between the North and South.

Introspection

A rigorous examination of one's motives is challenging but ultimately of great importance. A desire merely to explore an exotic part of the world is obviously not sufficient and contributes to wasting limited resources for global health work. Students should consider honestly whether the expense of transporting them to the research site is truly money well spent, as opposed to creating an opportunity for students and researchers in the developing world. It is also important to be very aware of one's own privilege, whether based on class, ethnicity, gender or education, and understand how this affects one's motives. Such an 'anti-discriminatory' analysis has been developed within fields such as social work and equity studies and offers a great deal to global health practitioners. Students are led to understand the basis for their privilege, how to identify multiple forms of oppression and how to create a worldview that considers issues such as colonialism, imperialism and systemic social inequality.[63] A set of questions for students is suggested as an aid in this process of reflection (see Figure 1). This introspection is related to the questions posed in public health ethics.[64] In clinical medicine, these questions will assist the student in beginning to understand the reality of their patients and the difference in values that may exist in vulnerable populations. Within research, such a questioning of motives is becoming ever more important. Will the research actually address the gap between knowledge and practice, the 'know-do gap', or is it just for the sake of publishing? Overall, it is essential to understand how the developing world is subjugated by the developed world, historically and today, and how poverty can be reinforced through one's day-to-day actions.[65]

1. Why do you hope to do this work?
2. What are your objectives, both personal and structural, short and long-term?
3. What are the benefits and who will receive them, and what are the costs, and who will bear them?
4. In the context of very limited resources for global health needs, is your elective justified? What exists close-by?
5. What do you need to do to prepare for your elective, both practical and personal?
6. Where are the weaknesses in your plan, specifically?
7. Is the work feasible, cost-effective, necessary, focused, and justified?
8. Will it work to undermine disparity, or actually contribute to it? Will there be a net benefit to the community?
9. What do you hope to bring back to your community, and whom will you share it with?
10. Is your work sustainable, and if not, will this leave a negative impact?

Figure 1. Questions for Students Prior to Global Health Work.

Solidarity

Solidarity is a powerful value to bring to global health work, and 'without it, we ignore distant indignities, violations of human rights, inequities, deprivation of freedom, undemocratic regimes and damage to the environment.'[66] Students should work to ensure that their goals and values are aligned with those of the community in which they hope to work, in both clinical and research settings.

[61] Chilisa, *op. cit.* note 43.
[62] Benatar et al., *op. cit.* note 11.
[63] N. Razack. Anti-discriminatory Practice: Pedagogical Struggles and Challenges. *Br J Soc Work* 1999; 29: 231–250.
[64] Kass, *op. cit.* note 19.
[65] Benatar, *op. cit.* note 37.
[66] S.R. Benatar, A.S. Daar & P.A. Singer. Global Health Challenges: The Need for an Expanded Discourse on Bioethics. *PLoS Medicine* 2005; 2: e143.

This active process includes developing a sensitivity to the suffering of others and working to prevent their marginalization.[67] This can be difficult when different parties have conflicting views of health.[68] Unfortunately, indigenous views of health are often seen as a 'barrier' to a research project rather than an opportunity to see a problem from the viewpoint of those studied.[69] Establishing on-going relationships and exchanges between the developed and developing world can counter such marginalization. As the People's Heath Movement urges, true solidarity exists when citizens of the community are mobilized, when capacity building of local organizations and strengthened links within civil society occurs, and when attempts are made to bridge power imbalances between the wealthy and the poor.[70] This is especially necessary in research, which should embody a partnership between equals. Importantly, students should recognize challenges that exist to solidarity, such as economic disparity that grows due to unfair trade policies, the privatization of social services and the burden of debt repayment. Within clinical work, different cultures provide different ideas of solidarity that students can learn from and incorporate into their own belief system. The concept of a global commons and the production of global health goods is another way of conceptualizing solidarity in global health.[71] It is based on the belief that the health of all people is connected and interdependent. Fundamentally, a sense of solidarity can counter social discrimination that creates multiple barriers to good health.[72]

Social justice

Ultimately global health work should be concerned with diminishing the gross inequity seen in the world.[73] This is to go beyond the classic ethical interpretation of 'justice' in relation to the allocation of healthcare resources. Similar to public health work[74] and the discourse within health and human rights,[75] students who hope to work towards a just society must go further 'upstream' from what they see and consider the underlying causes of ill health. Within clinical work in developing countries, it is important to understand power relationships and the networks that exist in society. Western medicine often reinforces myopia around these issues, labeling such an analysis as being 'politically biased'. There is usually little critical examination of society or communities and the patient is seen in isolation. As students have little contact with policy change, their training can emphasize a learned helplessness around social justice.[76] However, students should not make the same mistake in global health work, where taking action on broader issues is essential. Many initiatives are concerned with societal level change, especially in health promotion interventions. Strengthening and rebuilding health systems and the provision of basic necessities are often crucial.[77] Within research, students should consider equity and why funding is structured the way it is, examining the broad forces of globalization and what prevents progress on issues such as debt cancellation and funding for neglected diseases. Community consultation must be taken seriously, with research being directed at creating solutions that will actually benefit the studied population.[78] Beyrer and Kass urge researchers to learn about the political and human rights conditions in the community, and consider the impact of the work on human rights violations, including those by the host country government.[79] Overall, as Farmer notes, this analysis must be historically deep and geographically broad, being based in a preferential option for the disadvantaged.[80]

[67] Benatar et al., *op. cit.* note 11.
[68] J.P. Ruger. Health and Social Justice. *Lancet* 2004; 364: 1075–1080.
[69] L.T. Smith. 1999. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books.
[70] D. McCoy et al. Pushing the International Health Research Agenda towards Equity and Effectiveness. *Lancet* 2004; 364: 1630–1631.
[71] Benatar et al., *op. cit.* note 11.
[72] Ostlin et al., *op. cit.* note 38.
[73] P. Farmer. 2006. Challenging Orthodoxies in Health and Human Rights. Address to the 134th Annual Meeting and Exposition of the American Public Health Association. Boston, MA: 5 November. Available at: http://www.pih.org/inforesources/essays/APHA_2006_keynote-Paul_Farmer.pdf [Accessed 1 July 2007].
[74] Childress et al., *op. cit.* note 18.
[75] Gruskin et al., *op. cit.* note 20.
[76] Razack, *op. cit.* note 63; Coulehan et al., *op. cit.* note 14.
[77] J.Y. Kim & P. Farmer. AIDS in 2006 – Moving toward One World, One Hope? *NEJM* 2006; 355: 645–647.
[78] N. Dickert & J. Sugarman. Ethical Goals of Community Consultation in Research. *Am J Public Health* 2005; 95: 1123–1127.
[79] Beyrer & Kass, *op. cit.* note 21.
[80] Farmer, *op. cit.* note 23.

CONCLUSION

Students are increasingly involved in global health. These situations have unique ethical dimensions that most medical students from the developed world are not appropriately trained to address. Medical schools and other institutions that send students on such experiences have a responsibility to prepare students before they go. Not only can this potentially prevent students from causing harm, it can greatly enhance the student experience and foster improved relationships between North and South. With training in ethical analysis, such experiences can also be integrated into a broader understanding of work with marginalized communities at home.

A framework has been suggested here based on four key principles: humility, introspection, solidarity and social justice. More work needs to be done to address larger questions about development and ethics and what it means to be a citizen in an increasingly interdependent world, including a renewed idea of solidarity and a deeper insight into complex systems. Further consideration must be given to the connection between the problems of the developing world, the inner city poor and Aboriginal populations. Students can contribute to the production of global public goods for health,[81] and prevent global health research from becoming a microcosm of larger inequities.[82] Finally, Edejer succinctly proposes three 'guideposts' for all global health work, both clinical and research: think action, think local, think long term.[83]

CASE RESOLUTION

Lara decides she needs to learn more about global health work before making a decision about the project in South Africa. She realizes how little she knows about the history, people, culture and unique political problems of the country. She finds the expatriate community in Canada to be a great resource. In her research around HIV/AIDS, she learns a great deal about the struggle for treatment, both in the North and South. She decides to postpone taking part in this project for at least one year, and chooses to spend her summer working with local groups working with HIV/AIDS patients and helping with a research project focused on prevention. Next year, with this experience under her belt, and with the more advanced clinical skills of a senior medical student, she may try to pursue the opportunity in South Africa.

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[81] Benatar, *op. cit.* note 25.

[82] K. Shapiro & S.R. Benatar. HIV Prevention Research and Global Inequality: Steps towards Improved Standards of Care. *J Med Ethics* 2005; 31: 39–47.

[83] Edejer, *op. cit.* note 12.