Education of health professionals over the years has been inadequate in prevention and public health, including the prevention of war and its public health consequences. Now, however, there is a growing movement to educate health professionals about mitigating the adverse consequences of war (and other forms of violence) and promoting peace and human rights.

Health professionals and students in the health professions have expressed the need for more knowledge and skills in promoting peace and human rights and in related subjects, such as global health and medical ethics.\textsuperscript{1-3} Many medical students believe that war—and issues such as poverty, infectious disease, environmental pollution, and forced migration—will have a great impact on global health and desire education on these topics.\textsuperscript{4-6} Major international organizations concur. For example, the United Nations General Assembly supports the teaching of peace in all types and at all levels of education.\textsuperscript{7} And the World Medical Association supports mandatory training for physicians in medical ethics and human rights.\textsuperscript{8} Nevertheless, teaching of these subjects has not been a high priority at medical, nursing, or public health schools.
Associations Among Violence, Social Determinants, and Ill Health

War and other forms of violence are risk factors for poor health. Poor health, however, can be a risk factor for war and other forms of violence. For example, a country that has an infant mortality rate greater than 100 per 1,000 live births is often at higher risk for war. High mortality rates from infectious disease and/or malnutrition can decrease gross national product, increase rural-to-urban migration, increase competition for resources, decrease confidence in government leadership, deplete skilled administrators, and decrease capital investment—each of which may make a society more vulnerable to war. At the societal level, the health consequences of war are linked with human rights violations, social injustice, and the destruction of ecosystems.

Addressing Deficits

In order to enable health professionals to promote peace and human rights—to understand complex issues and to help solve specific problems—deficits in their education in knowledge, skills, and values need to be addressed. Broader contextual issues also need to be addressed. For example, medical students and physicians, with their orientation to a pathophysiological basis for disease, often cannot see linkages between the health of their immigrant, refugee, or impoverished patients and macrodeterminants of health such as privatization of health care, criminalization of drug abuse, and promotion of the arms trade.

Knowledge deficits include concepts of peace, conflict, nonviolence, and, reconciliation; international human rights norms; and humanitarian law. Deficits in skills include the abilities to analyze conflicts, to use nonviolent communication, to act in a culturally sensitive manner, and to engage in conflict resolution, negotiation, and mediation. Deficits in values are obvious when health professionals become accomplices in inhuman acts ranging from human experimentation to torture of prisoners. Hierarchies among health workers may lead some to misuse their power and inadvertently cause violent acts against individuals or populations. Values that underlie medical ethics can help health professionals understand their responsibilities to not participate in, and to condemn, such violence.

Learning from other disciplines, such as anthropology, sociology, and psychology, may help health professionals design conflict sensitive and culturally appropriate interventions to prevent violence and to foster individual and societal empowerment and resilience (the capacity to do well in difficult circumstances). These interventions can address various forms of violence, such
as exploitative and repressive social structures, as well as domestic violence, child abuse, youth violence, and suicide.\textsuperscript{12,13}

Recognizing Assets

Health professionals can be especially qualified to promote peace and human rights, but to do so, they need to develop specific knowledge, skills, and values. In addition, health professionals must also be cautious that, in attempting to do good, they do not do harm (Box 27-1.).

There is much useful knowledge in the traditional curricula of health professional schools that can be adapted to reducing the health consequences of war and promoting peace and human rights. This knowledge includes concepts of public health, especially principles of epidemiology, which can be applied to documenting the health consequences of war and economic sanctions and minimizing the adverse health effects of weapons on civilians. Such knowledge may be used to promote social change. Psychology and mental health concepts can provide an understanding of cycles of violence and the roles of depersonalization and psychic numbing in group violence and even genocide.\textsuperscript{14} Systems analysis may enable health professionals to apply insights from health care to other sectors, such as international relations. These insights might include those derived from failures of medicine to develop ideal antibiotics; failures to understand and address social factors that contribute to causation of disease; and the tendency to focus much more on cure than on prevention.\textsuperscript{15} Skills education of health professionals can be strengthened to enable them to assist communities to heal through health care and reconciliation activities that strengthen the social fabric. Health professionals can communicate knowledge and factual information to help counter oppressive governments, can help to personify “the enemy,” and can engage in diplomacy. Values education of health professionals can also be strengthened to promote their altruism, empathy, compassion, and integrity—each of which increases their credibility and effectiveness.\textsuperscript{16}

Health professionals can also be taught to develop superordinate goals and activities that warring parties may share. These goals transcend opposing sides in conflict. They may include, for example, goals and activities that promote the welfare of children and humanitarian ceasefires that can promote peace.

Existing Approaches to Education

There are a variety of approaches for teaching health professionals and students in the health professions about peace and human rights.
Health and development work, especially in the context of armed conflict, is often more complex than initially perceived. As a result, work that is initially perceived as beneficial to health can actually worsen the health and safety of the people it is meant to serve.1

Resource transfer in humanitarian and development assistance, such as after natural disasters, may distort local economic activities, lead to centralization of power and authority, and increase competition and suspicion, thereby worsening divisions among conflicting parties. Working with oppressive governments to provide medical assistance can strengthen and legitimize these regimes. By allying with groups fighting for their legitimate rights, health professionals can inadvertently support violence and prolong armed conflict. And health professionals’ reliance on security personnel may imply that arms are necessary.

Bringing health professionals together in conflict zones, as in the Middle East and in the Balkans, has not always promoted peacebuilding.2 Humanitarian ceasefires, in which health workers engage in activities to promote peace, can have the negative consequence of allowing parties to re-arm, as occurred in Sudan.3,4 In the wake of the Rwandan genocide, Médecins Sans Frontières (MSF) withdrew from refugee camps in Goma, Zaire, when it learned that food distribution and medical aid had been commandeered by Hutu leaders who had participated in the genocide.

In weighing the pros and cons of health and development work in the context of armed conflict, health professionals must balance their responsibilities to their patients, to the institutions with which they are affiliated, and to society at large.5

References

One approach is to teach these subjects in the context of international health. However, many schools do not teach international health. For example, in 1993, although 61 percent of 70 medical schools in developed countries reported teaching international health, only 26 percent listed it as a separate curriculum entity.17–19 Another approach is to use a Medicine and Human Rights framework to address subjects such as torture and other violations of civil and political rights. A broader framework of Health and Human Rights—not limited to individual patients—is used to teach about human rights violations from a public, or population-based, health perspective.20 Subjects that can be studied in this framework include access to AIDS medications and the Health for All initiative of the World Health Organization (WHO). Medical ethics courses represent another approach to address these issues at both the macro and micro levels.

A Global Health framework focuses on socioeconomic and political factors that influence health.21 A Social Medicine framework focuses on social determinants of health. An Ecosystem Health framework focuses on the relationship between human health and the biophysical, socioeconomic, and political environments. These three approaches are similar and complementary, but in a given context a particular approach may be more feasible or more popular.

Current Courses of Study

A broad range of courses of study based on these principles cover many of the topics mentioned. For example, the Netherlands affiliate (NVMP) of the International Physicians for the Prevention of Nuclear War (IPPNW) has organized a course at the Universities of Amsterdam and the Free University since 1992, which is now entitled, “Health and Issues of Peace and Conflict.” Recently partnering with the International Federation of Medical Students’ Associations (IFMSA), an umbrella group of more than 100 national medical students organizations with a deep interest in addressing medical education and global and public health issues, it plans to expand this course to all medical schools in the Netherlands. The course uses and adapts curricular materials such as those of “Medicine and Nuclear War,” which was developed by IPPNW in the 1980s, and “Medicine and Peace,” which was developed by the U. N. Commission on Disarmament Education, in cooperation with IPPNW and its U.S. affiliate, Physicians for Social Responsibility (PSR). At the University for the Basque region in Spain, where there has been a long history of violent conflict, a similar course is taught at a preclinical level.

The University College London has an Intercalated Bachelor of Science in International Health program. Students who are enrolled in an educational
institution, such as a medical school, can earn a Bachelor of Science degree within 1 year. Many students in this program are enrolled in medical schools outside the United Kingdom. The program consists of modules inspired by the text *Global Health Studies* (now available free on the Internet), 21 which addresses the health effects of globalization, national debt, poverty, environmental degradation, armed conflict, and forced migration as well as concepts of human rights and humanitarian assistance. The Karolinska Institute in Sweden offers a course in International Health with components in both theory and practice, the latter of which must be taken in a low- or middle-income country.

Numerous U.S. institutions of higher education, including Harvard University, Johns Hopkins University, the University of California at Berkeley (UCB), and Emory University, use the Health and Human Rights framework, often as part of their master of public health programs or certificate courses. The first such course in the United States was developed in 1992 at Harvard. Both Harvard and Johns Hopkins offer week-long certificate courses in Health and Human Rights, the former of which has a public policy orientation. The UCB course focuses on all types of human rights—political and civil rights as well as economic, social, and cultural rights.

Students in the graduate certificate program of the Institute of Human Rights at Emory may focus on health. All students take a core course, which is cross-listed in several disciplines, including law, political science, and public health. Students may then take elective courses in such fields as “Health and Social Justice” and “Health and Human Rights.” The Emory University School of Medicine offers second-year medical students a course entitled, “Human Rights, Social Medicine, and the Physician.” This course, like other Social Medicine courses in the United States, focuses on individual responsibility and professional ethics.

As part of its Health as a Bridge for Peace (HBP) program, WHO organizes training sessions for health professionals and field workers that address peace-building, conflict resolution, and human rights. This training is designed to increase knowledge and to change attitudes and practice in zones of violent conflict. It is intended to encourage field workers to promote peace-building.22

The International Committee of the Red Cross (ICRC) has trained field workers, since 1986, in International Humanitarian Law and Human Rights as part of its Health Emergencies in Large Populations (HELP) program. Over time, these courses have been decentralized to several countries.

Médecins Sans Frontières (MSF) has begun to brief its delegates in the prevention of gender-based violence before sending them to work in refugee camps. The World Medical Association disseminates the international online course entitled “Doctors Working in Prison: Human Rights and Ethical Dilemmas,” which was produced by the Norwegian Medical Association. 23
Roles of Students

Students throughout the world continue to play a vital role in education for peace and human rights, arranging workshops, trainings, and guest lectures. They also exchange experiences and ideas for future educational programs in forums sponsored by IPPNW, IFMSA, and other organizations. In recent years, students have led IFMSA workshops on children and war, health and human rights, and refugee health and IPPNW workshops on Peace through Health, small-arms violence, and nuclear abolition. Both IFMSA and IPPNW arrange training in refugee camps on human rights combined with clinical rotations in hospitals and clinics in the same region. Students have also arranged for exchange opportunities to learn about and engage in peace-related activities, through McMaster University and other educational institutions.

In 2001, a group of medical students established the IPPNW Nuclear Weapons Inheritance Project, which combines training and advocacy work on nuclear disarmament. It offers traditional training as well as role-playing exercises, practical experience, and apprenticeships. Training modules address nuclear disarmament, alternatives to nuclear weapons, dialogue technique, and health and human security.

Unifying the Discipline

The frameworks of Peace through Health and Medical Peace Work attempt to unify this training at the micro and macro levels, linking theory and understanding to action, advocacy, research, and field work. Peace through Health was designed to address how health workers could contribute to peace in actual or potential war zones. Scholars, viewing war and other forms of violence as a social disease, have looked at a public health model of prevention for limiting the effects of violence. They attempt to incorporate all levels and types of peace work into a single framework, ranging from prevention of nuclear war to the impacts of globalization that limit human potential. Thus, they see violence as being cyclical, with opportunities to reduce the risk of future violence.

Primary prevention reduces risk factors for war and strengthens factors that promote peace. Examples of primary prevention include peacekeeping, arms control, preventive diplomacy, and addressing root causes of violent conflict, such as poor governance and political corruption, human rights violations, economic and social inequalities, and community and cultural disintegration. Some people differentiate primary prevention (reducing risk factors for war) from primordial prevention (preventing these risk factors from developing).
Both “top-down” and “bottom-up” approaches attempt to reduce these risk factors. The United Nations Development Program (UNDP) is responsible for coordinating global and national activities to promote the Millennium Development Goals, which include reducing extreme poverty and hunger, increasing debt relief, ensuring that all children complete primary education, promoting gender equality, reducing childhood mortality, improving maternal health, reducing infectious diseases, ensuring environmental sustainability, providing safe drinking water, developing a global partnership for development, and promoting good governance. The People’s Health Charter, a “bottom-up” approach endorsed by many health organizations, considers health to be a fundamental human right, and inequality, poverty, exploitation, violence, and injustice to be the root causes of much morbidity and mortality among poor and marginalized people.

Secondary prevention, which can be implemented when war or violence is occurring, aims to stop further escalation of violence and to promote peaceful resolution of the conflict—termed by some as “peacemaking.” Tertiary prevention, analogous to rehabilitation in medicine and ecological restoration in environmental work, consists of “peace-building,” or reconciliation and reconstruction, after a war ends.

Some people envision and promote a health-based model of global security, with the primary responsibility of governments being to ensure the health and well-being of their nations’ citizens. When governments fail to do this, the international community may be obliged to intervene.

Courses in Peace through Health and Medical Peace Work

At McMaster University, a Peace through Health course was first offered in 2004 as an elective to third-year undergraduate students. It aims to enhance peace-building and reconciliation skills. Students bring experience from various disciplines, such as Peace Studies, Health Studies, Drama, Language and Literature, and Engineering. The course involves group work and a group presentation of Peace through Health materials, some didactic teaching, and frequent guest lectures. Medical students at McMaster have developed their own problem-based elective course and an interactive online introduction to Peace through Health.

The University of Tromsø in Norway first offered a graduate course on “Peace, Health, and Medical Work” in 2005, for students in medicine, other health professions, and social sciences. The course builds knowledge about human rights, global health, and disarmament as well as skills in nonviolent communication, intercultural understanding, advocacy, and media work. In addition, the Health Studies and the Peace and Conflict Studies programs at
the University of Waterloo have together developed a full-credit undergraduate course in Peace through Health.34 The course has now been made more modular and Web-based with videos, Power Points, articles, and links fully available on the Web in preparation for offering the course online and for distance education.

**Course Design and Implementation**

Course design and content vary for a number of reasons. Groups of students vary, from undergraduates in health sciences and humanities to students seeking a master’s degree in public health, field workers, and medical specialists. Often, classes comprise students in a diverse mixture of disciplines. Some have experience with violent situations, poverty, or discrimination, and some have no such experience. Time available for courses varies, too. Some courses are elective, and others are core parts of the curriculum. Some are free, others are not. Some are for credit, others are not. Even the rigor expected of students and the requirements they must fulfill differs. And finally, the local context of courses varies. Therefore, it is impossible to develop a prototype course.

Getting these courses adopted by health professional schools, especially medical schools, requires an explanation of the health consequences of war and violence, enthusiastic support of students, dedicated faculty members, and relevant teaching materials.

Although didactic courses are popular, students seem to have greater appreciation for interactive courses and other educational experiences in which they are challenged to make decisions, learn practical skills, and participate in group activities and supervised field work. Students focus on a broad range of topics, including determinants of health, social justice, human rights norms, international law, and ethics.

It has often proved more effective to begin a course with a small group of students and allow for the subsequent evolution of demand and interest. New technologies may allow students who are geographically and culturally distant to obtain instruction in core ideas and some training more specific to their setting.

If education and training are designed to make professionals more knowledgeable, sensitive, and effective in promoting peace and human rights, courses should be evaluated in terms of both effectiveness and efficiency. Unfortunately, long-term and short-term outcomes are difficult to assess and to attribute to specific education. We are therefore left to assess such measures as students’ career choices, social activism, and human rights knowledge or attitudes.
The Future

In order to continuously develop, the field of Peace through Health has a great need to build a community of researchers, academics, practitioners, and students and establish common points of reference among them. Both Waterloo University and McMaster University are compiling Peace through Health resources, including course materials, case studies, evaluation tools, implementation strategies, and lists of reference materials on field work, research, and education.

Through the Medical Peace Work project, several European medical peace organizations and educational institutions are strengthening the peace-health field by development and collection of teaching materials. They are producing an online multimedia course, teaching films, publishing a handbook, and developing a Web-based resource center that will include databases on courses, curricula, syllabi, presentations, film archives, educational research, and resource personnel.

In countries such as Bosnia, El Salvador, and Ecuador, there are movements within family medicine departments, medical schools, other university faculties, and communities to develop Peace through Health training, not just to study the impact of violence but also to reduce its impact and to strengthen mechanisms for social reconstruction. In Sri Lanka, the Faculty of Health Care Sciences in Batticaloa (Eastern University) has integrated a module in Peace Medicine into the mandatory training of nurses and physicians.

Education for health professionals worldwide in Peace and Human Rights is continuing to expand. We expect that mainstream medical curricula will increasingly incorporate these subjects. Use of new technology, new methods of teaching, and cross-disciplinary expertise will be important.

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References

8. World Medical Association. Adopted by the 51st World Medical Assembly, Tel Aviv, Israel, October 1999.
32. Arya N. Peace through Health II: A Framework for Medical Student Education. Med Conflict Surv 2004;3:258–262.