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COMMENTARY

Rethinking medical education: introducing peace curricula in medical schools

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Introduction

War and violence have long been recognized for having major negative effects on population well-being. Since Murray and Lopez's landmark paper (Murray and Lopez 1997) declaring that war and violence would be the eighth leading cause of death and disability around the world in 2020, and a UN General Assembly recommending that peace education be included in all disciplines, medical students have led efforts to insert the issue of peace in the medical curriculum, developing publications to explain the merits and through direct advocacy (Arya, Buhmann, Melf 2007). Over the past few decades, a movement has developed toward teaching peace to students in health sciences. At the end of the 1980s, International Physicians for the Prevention of Nuclear War developed a curriculum on nuclear war for medical schools and later more generally for peace (IPPNW 1988, 1993). After the first university course on Peace through Health began at McMaster University in Canada 15 years ago, courses on Global Health and Health and Human Rights incorporating the study of peace and war issues have been designed for public health schools throughout the United States of America and Europe; however there has been little movement in that direction within medical schools (Arya 2004a).

This commentary describes general developments in medical education including those towards social accountability and human values, transformative learning and competency-based frameworks. It explains how peace is already reflected in topics such as mental health, communication and public health. It further describes how, with proper curriculum design and teaching strategies, peace through health education can be incorporated to enhance physician competencies, both in the Global North and South. The addition of explicit topics and – even more important – changes in orientation and approach to reflect peace studies and principles will mean more

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skilled physicians with the desired behaviours and attitudes, regardless of which discipline they might practice, and whether or not they work in zones of violent conflict.

Competency-based framework

A competency is an observable skill of a physician or another health professional which grows as that person progresses through phases of development from a novice student to a master clinician. A competency-based approach for designing medical education concentrates on outcomes, i.e., the capabilities of medical graduates. The International Competency-Based Medical Education Collaborators began in 2009, to improve understanding of competency-based medical education worldwide. Competency-Based Medical Education frameworks are employed around the world and include the Scottish Doctor Outcomes, CanMEDS, the Australian Curriculum Framework for Junior Doctors, and the Accreditation Council for Graduate Medical Education Competencies (ACGME) (Carraccio et al. 2016).

The CanMEDS competency-based framework for medical training was developed by the Royal College of Physicians and Surgeons of Canada in the 1990s to improve essential skills building for medical students. This framework, updated in 2005 and in 2015, reflects the changing pattern of modern medical practice, delineates Canadian physician roles as medical expert, communicator, collaborator, manager, health advocate, scholar and professional. It has been incorporated internationally in medical studies including in Denmark and the Netherlands, and for specialist education in other countries such as Australia and New Zealand (Ringsted et al. 2006). While this commentary offers tips regarding the design of a peace curriculum for undergraduate medical students through the CanMEDS 2015 framework, these suggestions might equally be applied to other frameworks and to postgraduate education (Frank and Danoff 2007). Some peace-related items are included below, categorized by the CanMEDS framework classification.

Scholar Particular knowledge components that are becoming increasingly relevant include the epidemiology of war and ways of preventing or mitigating it at primary, secondary or tertiary stages (as in a disease prevention model), but also dealing with mental health issues of refugees such as managing Post Traumatic Stress Disorders (PTSD). Peace education offers a chance for medical students to accelerate the journey of adjustment from novice to expert physician (C2LEO IMG Project).

Communicator A physician must be able to consult effectively with other healthcare professionals to perform necessary investigations, provide appropriate treatment, give necessary preventive recommendations, and design continuing care for individual patients and communities. Communication is

important in any team. Cross-cultural communication is defined as the understanding of how people from diverse and different cultures speak, connect and identify the world. These skills, which might be considered peacebuilding skills, are especially relevant in today's globalized world with ethnic, religious and cultural differences.

Collaborator Many of the duties of physicians require collaboration with a range of other organizations and individuals. To be a collaborator within an interprofessional healthcare team and in the community at large, it is necessary to understand the workings of other institutions, their organization and interrelationships. Collaboration is central to peacebuilding. Montville and Diamond described the importance of various sectors of society (religious and business, but might also include legal, media, etc.) in papers on multi-track diplomacy in the 1990s. Health practitioners in war zones and engaging in humanitarian assistance recognize the importance of outsiders – anthropologists, sociologists and others with peace skills – to effectively conduct their activities (Nester 2006).

Manager Physicians are recognized as bright, with education and often with the privilege of upper socioeconomic status, so become leaders in healthcare settings. Leadership is also an important part of professional identity formation. Further, physicians may be considered suited for leadership in zones of conflict, where diplomacy skills need to be employed, for example to allow health delivery across lines of battle as they are considered less partial and more altruistic.

Peace leadership skills involving negotiation and conflict management must begin from the initial stages of a medical school. Activities managing group dynamics will facilitate leadership development (Till, McKimm, and Swanwick. 2017).

Socially Responsible Advocacy Medical schools around the world are increasingly recognizing the need to be socially accountable as they experience different populations, communities and cultures (Strasser et al. 2009). The twenty-first century offers a different set of challenges for medical schools such as ensuring the quality, equity and efficiency of healthcare systems, redefining roles of health professionals and providing evidence of the impact on people's health status. To overcome those challenges, organizations from different countries participated in a Delphi process for eight months leading to an international consensus on Social Accountability of Medical Schools. The consensus contains some strategic guidance for medical schools to be socially accountable: anticipating health needs in society; reorienting education, research and service priorities accordingly; empowering responsible governance and global coordination are emphasized (Global Consensus for Social Accountability of Medical Schools 2010).

Health promotion and advocacy activities to improve the wellbeing of individuals or populations need to incorporate peace studies on structural

violence and social justice, including socio-economic issues such as guaranteed income and access to universal health care, or at a micro level the housing situation or prevention of domestic violence (Gruen, Pearson, and Brennan 2004). Physicians also have additional societal obligations to advocate against torture, genocide and the risk of war, the health effects of sanctions and threats to planetary health such as climate change.

Reforms for a twenty-first century

Julio Frenk et al. developed Health Professionals for the twenty-first Century on the 100th anniversary of the Flexner report. At the beginning of the twentieth century, medical education reforms involved development of science-based curricula. These included informative learning, defined as acquiring appropriate knowledge and skills with the goal of producing experts. It would be classroom-based with an active teacher and passive students and was meant to address gaps in knowledge by rote learning and drills. Half a century later medical education theorists moved towards formative learning, socializing students about their values with the goal of creating a slightly different professional. It was in this context that problem-based learning was introduced. Finally, another half-century later, at the beginning of the twenty-first century, a third generation of educational reform is meant to result in transformative learning with graduates engaging in self-examination, critically assessing their assumptions and demonstrating options for new ways of acting, thereby acquiring knowledge and skills for new roles. This critical reasoning can be applied to ethical issues and its ultimate purpose is to produce progressive change with the teacher acting as facilitator (Frenk et al. 2010).

Designing a curriculum using a stepwise approach

When designing a curriculum, a stakeholder needs assessment is foundational and the context critical. Countries in situations of peace and stability will differ from countries in war zones such as Afghanistan, or with internal insurgency such as Nigeria. Other contexts include countries that have withstood sanctions such as Iraq in the 1990s, countries with major disparities between rich and poor, and those with issues related to gender, human rights, ethnic conflict or vilification of certain sectors. Each may require different approaches and content. In all contexts, students should be taught to empower patients, to treat people without prejudice, to be aware of their moral and ethical responsibilities to provide the highest quality of patient care, particularly in situations of armed conflicts and violence, and to do so with respect, patience and creativity.

Examples of frameworks and strategies to improve medical education

Bloom's Taxonomy was introduced by Benjamin Bloom in 1956 in order to improve levels of thinking in education. Bloom's committee defined three categories for educational activities: cognitive (knowledge), affective (attitude) and psychomotor (skill) (Adams 2015). Important peace-associated topics in the cognitive domain might include, but are not limited to, international health, population rights, social determinants of health, physical wellbeing, psychological health, types of violence, causes and complexities of conflicts (Melf 2004).

However, when teaching peace concepts more emphasis needs to be placed on the affective and psychomotor domains. The attitude of a physician has direct influence on the doctor–patient relationship and ultimately on the quality of care (Brophy 2012). A seminal meta-analysis from the early 1990s revealed a correlation coefficient of 0.49 between attitudes and behaviours, implying that attitude plays an essential role in developing behaviour (Batenburg 1996). A more recent meta-analysis, designed to demonstrate the degree to which developing attitudes influences behaviour, showed that attitudes will predict future behaviour more strongly when learners have frequent and direct experience with the subject (Glasman, Albarracín 2006).

Achieving such attitudes in a peace-oriented curriculum are particularly important for medical students. Compassion and a sense of responsibility for people's lives, respect for other population's cultures, supporting equity, and a commitment to help people impartially or with optimism, lead to sustainable behaviour or conduct, characterized by honesty, patience, tolerance, modesty, being inquisitive and acting in solidarity (Melf 2004).

Teachers should help students to acquire these competencies in the psychomotor domain in relation to communication, cultural sensitivity, obtaining self-confidence, stress management, developing capacity for self-healing, enabling work in healthcare teams and community mobilization (Melf 2004).

SPICES-Teaching our Peace To develop innovative teaching programs appropriate to local contexts, Harden in 1984 introduced the SPICES teaching strategy (Student-centered, Problem-based, Integrated, Community-based, Electives, Systematic) as an instrument for improving the medical curriculum (Harden, Sowden and William 1984). Using student-centred approaches such as cooperative learning and small group teaching and tutor discussion in peace education will enable students to obtain collaborator skills in this field (Edmunds and Brown 2010). Problem-based learning (PBL) was introduced by McMaster University as a student-centred educational strategy in the mid-1960s (Norman and Schmidt 1993). PBL

techniques are designed to teach students using real-life problems. Though medical schools may wish to move beyond a traditional curriculum to more PBL strategies, these may require greater resources such as the internet, library and enough staff and faculty (Davis and Harden 1999). Peace education, as other health sciences teaching, should be on real cases to allow students to learn more effectively (Arya 2004b).

The teaching of peace concepts ideally would be through engagement activities dispersed in community settings, as well as being integrated throughout the curricula. Though peace education should be part of the core curriculum, different electives in this field can also be designed, including systematic, practical, real-life encounters integrated into students' basic and clinical sciences courses.

How can medical schools be encouraged to introduce peace curricula?

Resources in public health work such as Global Health Sim: Innovative Education by Simulation (ghsim.org) can be used for medical students. Such exercises would more often be designed to be formative.

Examples of potentially transformative training include direct clinical experience through voluntary internships in the field, supervised practice or community service with under-served or at-risk populations such as refugees, work in conflict-mediation promoting intercultural dialogue on values between those in dispute, supporting victims of violence, together with reflection-based exercises and portfolios. Exchange programs for medical students or research possibilities might also be used for more advanced students. This training, when geared to the level of the student, can hopefully be more transformative.

Some combination of the above approaches can be developed depending on different conflict and institutional contexts.

Teachers must ensure sufficient attention is given to the required range of core learning objectives in the peace education domain and think creatively as to what type of activities they can use to ensure this. Structured logbooks can be key to a systematic approach (Schuttpelz et al. 2016).

Resources include online materials for teaching cases such as those produced by the Medical Peace Work partnership (Teaching cases in medical peace work n.d.). In person, didactic methods might include seminars, workshops, briefing sessions and conferences such as the Lancet McMaster Challenge Conferences (Bush K. 2001) and more recently the Health through Peace (Health Through Peace 2017) and PEGASUS conferences (Pegasus conference 2018). Critical case studies can be used in the classroom such as the WHO Health as a Bridge to Peace cases on humanitarian ceasefires (Santa Barbara 2004). These would be more informative.

More interactive are practical peace-related exercises such as the Power Walk exercise on human rights and capacity, and a game used by NA related to people's agency, or capacity, to do well in life (see underserved.ca).

NA has also used a social determinants of health board game called The Last Straw (Reeve, Rossiter, Risdon 2008). A role-play on conflict developed by Joanna Santa Barbara takes a direct, micro-level conflict to get students to analyze an underlying low grade, meso-level violent conflict between two conflicting ethnic groups of different educational levels, socioeconomic disparities and urban/rural splits. This is designed to engage the class to understand the importance of conflict analysis in day to day clinical life (see underserved.ca). Exercises in cross-cultural education (Intercultural Training Exercise Pack) including intercultural simulations and exercises have also been used in global health work and group simulation.

The potential benefits of integrating peace studies into medical curricula around the world are vast and we hope that we can engage both peace professionals and health professionals to work together on this to mitigate the effects of violence in today's world.

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References

Adams, N. E. 2015. "Bloom's Taxonomy of Cognitive Learning Objectives." *Journal of the Medical Library Association : JMLA* 103 (3): 152–153. doi:10.3163/1536-5050.103.3.010.

Arya, N. 2004a. "Peace through Health II: A Framework for Medical Student Education." *Medicine, Conflict and Survival* 20 (3): 258–262. doi:10.1080/1362369042000248848.

Arya, N. 2004b. "Peace through Health I: Development and Use of a Working Model." *Medicine Conflict and Survival* 20 (3): 242–257. doi:10.1080/1362369042000248839.

Arya, N., C. B. Buhmann, and K. Melf. 2007. "Educating and Training Health Professionals for Peace and Human Rights." In *War and Public Health*, edited by V. S. Sidel and B. Levy, 440–451. 2nd ed. New York: Oxford University Press.

Batenburg, V. 1996. "Do Professional Attitudes Change during Medical Education?" *Advances in Health Sciences Education* 1: 153–164. doi:10.1023/A:1018363129382.

Brophy, S. A. 2012. "Exploring Physicians' Attitudes about and Behavior in Communicating with Patients." *American Medical Association Journal of Ethics* 14 (7): 557–559. doi:10.1001/virtualmentor.2012.14.7.jdsc1-1207.

Bush, K. 2001. "Peace through Health. Peace and Conflict Impact Assessment of Development Projects in Conflict Zones." The McMaster Lancet Challenge Conference. https://www.humanities.mcmaster.ca

C2LEO. "IMG Project for Health Canada Developing Objectives for the Cultural-Communication, Legal, Ethical and Organizational Aspects of Practice." https://mcc.ca/media/C2LEO.pdf

Carraccio, C., R. Englander, E. Van Melle, T. Cate Olle, J. Lockyer, M. K. Chan, J. Frank, and L. Snell. 2016. "Advancing Competency-Based Medical Education: A Charter of

Clinician-Educators." *Academic Medicine* 91: 645–649. doi:10.1097/ACM.0000000000001048.
Davis, M. H., and R. M. Harden. 1999. "AMEE Medical Education Guide No. 15: Problem-Based Learning: A Practical Guide." *Medical Teacher* 21 (2): 130–140. doi:10.1080/01421599979743.
Edmunds, S., and G. Brown. 2010. "Effective Small Group Learning: AMEE Guide No. 48." *Medical Teacher* 32: 715–726.
Frank, J. R., and D. Danoff. 2007. "The CanMEDS Initiative: Implementing and Outcomes-Based Framework of Physician Competencies." *Medical Teacher* 29 (7): 642–647. doi:10.1080/01421590701266693.
Frenk L., Z. A. Bhutta, J. Cohen, N. Crisp, T. Evans, et al. 2010. "Health Professionals for a New Century: Transforming Education to Strengthen Health Systems in an Interdependent World." *The Lancet* 376: 1923–1958. doi:10.1016/S0140-6736(10)61854-5.
Glasman, L. R., and D. Albarracín. 2006. "Forming Attitudes that Predict Future Behavior: A Meta-Analysis of the Attitude–Behavior Relation." *Psychological Bulletin* 132: 778–822. doi:10.1037/0033-2909.132.5.778.
Global Consensus for Social Accountability of Medical Schools. 2010. http://healthsocialaccountability.sites.olt.ubc.ca/files/2011/06/11-06-07-GCSA-English-pdf-style.pdf
Gruen, R. L., S. D. Pearson, and T. A. Brennan. 2004. "Physician-Citizens, Public Roles and Intercultural Simulations & Exercises." *JAMA* 291: 94–98. http://clearlycultural.com/games-simulations/Professionalobligations
Harden, R. M., S. D. Sowden, and R. William. 1984. "Educational Strategies in Curriculum Development: The SPICES Model." *Medical Education* 18 (4): 284–297.
Health Through Peace.. 2017.https://www.medact.org/project/forum-2017/
Intercultural Training Exercise Pack. http://www.culturewise.net/wp-content/uploads/2013/05/Cultural-awareness-training-exercise-pack.pdf
IPPNW. 1988. *Medicine and Nuclear War: A Medical Curriculum*. Boston.
IPPNW. 1993. *Medicine and Peace: A Model Curriculum for Medical Students (Draft)*. Boston.
Melf, K. 2004. *Exploring Medical Peace Education and a Call for Peace Medicine. Thesis for Obtaining Master's Degree Program in Peace and Conflict Transformation*. Center for peace studies, faculty of social sciences. University of Tromso. https://munin.uit.no/handle/10037/146
Murray, C. J., and A. D. Lopez. 1997. "Alternative Projections of Mortality and Disability by Cause 1990–2020: Global Burden of Disease Study." *The Lancet* 349 (9064): 1498–1504. doi:10.1016/S0140-6736(96)07492-2.
Nester, A. 2006. "Multi-Track Diplomacy and the International Criminal Court." Occasional Paper 17. http://imtd.org/about/what-is-multi-track-diplomacy
Norman, G., and H. Schmidt. 1993. "The Psychological Basis of Problem-Based Learning: A Review of Evidence." *Academic Medicine* 67: 557–565. doi:10.1097/00001888-199209000-00002.
Pegasus conference. 2018. "Peace Global Health and Sustainability Conference 2020." www.pegasusconference.ca
Reeve, K., K. Rossiter, and C. Risdon. 2008. "The Last Straw! A Board Game on the Social Determinants of Health." *Medical Education* 42: 1125–1126. doi:10.1111/med.2008.42.issue-11.
Ringsted, C., L. Hansen Torben, D. Davis, and A. Scherpbier. 2006. "Are Some of the Challenging Aspects of the CanMEDS Roles Valid outside Canada?" *Medical Education* 40: 807–815. doi:10.1111/j.1365-2929.2006.02511.x.

Santa Barbara, J. 2004. "Medicine as a Bridge to Peace." *Croatian Medical Journal* 45 (1): 109–110.

Schuttpelz-Brauns K, Narciss E, Schneyinck C, Böhme, K., Brüstle, P., Mau-Holzmann, U., Lammerding-Koeppel, M. and Obertacke, U. 2016. "Twelve Tips for Successfully Implementing Logbooks in Clinical Training." *Medical Teacher* 38: 564–569. doi:10.3109/0142159X.2015.1035054.

Strasser, R. P., J. H. Lanphear, W. G. McCready, M. H. Topps, D. Hunt, and M. C. Matte. 2009. "Canada's New Medical School: The Northern Ontario School of Medicine: Social Accountability through Distributed Community Engaged Learning." *Academic Medicine : Journal of the Association of American Medical Colleges* 84: 1459–1464. doi:10.1097/ACM.0b013e3181b6c5d7.

Teaching cases in medical peace work. n.d. http://avcases.medicalpeacework.org/

Till, A., J. McKimm, and T. Swanwick. 2017. "Twelve Tips for Integrating Leadership Development into Undergraduate Medical Education." *Medical Teacher* 40 (12): 1214–1220.