
Nurses International Open Educational Resources for Global Impact

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The Nurses International Open Educational Resources (NI-OER) directly addresses the global shortage of nurse educators by providing an open-access English-language curriculum for a Bachelor of Science in Nursing program. The aim of the program is to provide educators in low- and middle-income countries with international standard content suitable for low-resource settings. The NI-OER include classroom lectures, references and learning resources, evaluation materials, and checklists for clinical practice. In order to meet local requirements, users can adapt the material according to the Creative Commons license. The development of evidence-based educator materials is a volunteer effort by two sponsoring organizations, Nurses International and the Bangladesh Health Project. Over time, additional resources and translations will be developed using communities of practice.

Keywords: nursing education; nurse educators; global health education; open educational resources; digital educational resources

The Nurses International Open Educational Resources (NI-OER) is an English-language curriculum for a Bachelor of Science in Nursing (BSN) program that crosswalks to a framework developed by the World Health Organization (WHO) for the eight key nurse educator core competencies developed by an expert panel to address a global shortage of highly skilled nurses (WHO, 2016). In a world of rapidly changing scientific knowledge and best health-care practices, low- and middle-income countries (LMICs) have fewer financial resources to buy current textbooks and journals to educate their nurses. NI-OER provides one way to fill the gap created by the lack of nurse educator training and resources evident in LMICs. NI-OER has a cadre of expert nurse educators and nurse clinicians (mostly from North America at this point, although international colleagues are desired and sought) who have concentrated their efforts on building a BSN curriculum to offer the world free of charge and with the flexibility to adapt it to distinct cultures and regions. By providing materials to support the development of high-quality nurse educators with access

to robust state-of-the-science educational materials, NI-OER is an avenue to scale up nursing education worldwide. Table 1 lists and describes the WHO Nurse Educator Core Competencies linked to the NI-OER.

For a full description of this crosswalk of the NI-OER to the WHO Nurse Educator Core Competencies, see Berland et al. (2020). The NI-OER has also been crosswalked to nurse educator competencies published by the National League for Nursing (Christianson & Simmons, 2019); this crosswalk is presented in Keating, Berland, Capone, and Chickering (2020).

COURSE MATERIALS TO SUPPORT BACCALAUREATE NURSING EDUCATION

NI-OER, a 4-year BSN curriculum taught in English (Keating, Berland, Capone & Chickering, 2019), provides nurse educators in low- and middle-income countries (LMICs) with international standard content adapted to low resource settings and proven in the

TABLE 1. WHO Nurse Educator Core Competencies Linked to the NI-OER

Competency	Description
Core Competency 1	Nurse educators possess a sound understanding of contemporary educational theories, principles and models underlying the design of curricula and the value of adult learning.
Core Competency 2	Nurse educators demonstrate the skills and abilities to design, implement, monitor and manage curricula based on sound, contemporary educational models, principles, and best evidence.
Core Competency 3	Nurse educators maintain current knowledge and skills in theory and practice, based on the best available evidence.
Core Competency 4	Nurse educators develop their critical inquiry and the ability to conduct research and utilize findings to identify and solve educational and practice-based problems.
Core Competency 5	Nurse educators demonstrate effective communication skills that promote collaborative teamwork and enhance partnership among health profession educational and clinical practice.
Core Competency 6	Nurse educators demonstrate professionalism including legal, ethical, and professional values as a basis for developing nursing education policies, procedures, and decision-making.
Core Competency 7	Nurse educators utilize a variety of strategies to monitor and evaluate nursing programs, the curricula and mastery of student learning.
Core Competency 8	Nurse educators demonstrate the skills of system management and leadership to create, maintain, and develop desired nursing programs and shape the future of education institutions.

field (Berland, 2014). NI-OER is a complete curriculum including classroom lectures, teacher references, student learning resources, evaluation materials such as assignments and exams, checklists for clinical practice, and administrative policies. Recognizing that secondary education in many LMICs is not robust, the NI-OER courses follow a “spiral learning” approach (Dyson, 2018) to support the attainment of core nursing concepts. This approach involves introducing and discussing topics more than once during the course of the program. Each time a student encounters the topic, a more in-depth understanding of the material can be attained. All are invited to register on the Nurses International website (<https://nursesinternational.org>) to download state-of-the-science course materials in the core BSN content areas free of charge.

ADDRESSING INCREASED NEED FOR SKILLED NURSES

Globally, nurses are in extremely high demand. This has become acutely evident due to the current pandemic and the global destruction that the SARS-CoV-2 virus and COVID19 illness has exacted on nations around the world (Araujo & Garcia-Meza, 2020; United Nations News, 2020). Without adequately trained nurses in the health-care workforce (and skilled educators to train those nurses), a pandemic like COVID19 takes a huge toll not only on the health and quality of life of our global citizens, but on the economies of all persons around the world,

especially those most vulnerable and at the margins of society.

Moreover, beyond the sheer numbers of nurses needed, the role of nurses is evolving, meaning that educators must prepare graduates with competencies and leadership skills for their future workplaces (Dohrn et al., 2018; Institute of Medicine [IOM], 2010). Unfortunately, nurse education in LMICs is often hampered by inadequate instructional capacity (Berland, 2014). Capable nurse educators are in short supply, and many posts are filled by novices with limited experience as teachers. Many educators in LMICs struggle with heavy workloads, insufficient or outdated teaching resources, and weak supervisory support (Middleton et al., 2014). At the same time, new health challenges, increasing public expectations, and advances in nursing science are creating opportunities for nurses to have a greater impact on population health (Crisp, 2018).

INNOVATIVE SUPPORT FOR SUSTAINABLE DEVELOPMENT

Two things about NI-OER are innovative: the product and the producers.

An Innovative Product

The aim of the NI-OER is to promote a strong nursing workforce through quality education and training. This can only be done by supporting nurse educators

in higher education institutes as they prepare nurses for modern practice. Acknowledging the immense amount of material already freely available online, it is important to note that this may be an excess of riches: for novices especially, the potential can be overwhelming. And, not all freely available resources are of sound quality; there are a number of dubious sources evident in the literature. Without proper guidance and training, novice nurse educators may use materials of questionable validity. The NI-OER approach is to provide a basic, integrated framework, to which materials can be added as educators become more familiar with their topic and with students' learning needs. In addition, Nurses International is in the final stages of completing a novice nurse educator guidebook to help with educator development in the field.

The NI-OER nurse educator resources are freely accessible teaching materials that can be adapted under the conditions of the Creative Commons licensing system. Adaptation by novice nurse educators is important and welcome by Nurses International. In fact, NI is interested in any and all feedback from their users about how the materials were customized to meet the needs of the local nursing program. Recognizing that Internet connectivity may be a problem in some LMICs, the long-term plan is to develop other modes of digital sharing. But because the materials are freely downloadable, when connectivity is available, educators can access the materials and save to their own devices or thumb drives to be used when needed. The materials are meant to be used asynchronously within nursing programs around the globe.

An Innovative Group Process

The group producing this OER is itself an innovation, because it is a dispersed, self-organizing network that relies mostly on volunteer effort using modern digital tools to build community. Our process is crowdsourc-

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ing of nursing expertise and generosity at its most extreme. The core team comes from two organizations. Since 2004, Canadian volunteers from the Bangladesh Health Project working at the International University of Business Agriculture and Technology in Bangladesh have developed a BSN curriculum approved by the Bangladesh Nursing Council. This curriculum meets the requirements of the India Nursing Council and is also comparable to BSN programs offered at American universities (Ewing, 2013). The second organization is U.S.-based Nurses International (NI), a nonprofit organization whose mission is to provide high-quality, evidence-based resources to support nurses as change agents in their communities. NI draws upon the volunteer efforts of a large network of educators, administrators, and advanced practice clinicians. The two organizations communicate regularly through web-based applications, and used the Zoom video conferencing platform long before most people had ever heard of this product. More uniquely, NI has brought volunteers together in intensive course design sessions where individuals work remotely at the same time, collaborating through the Zoom online video link. The volunteers work individually on specific course components but collaboratively to develop learning outcomes and to select assessment methods and learning activities. In this supportive atmosphere, experienced course coordinators can coach volunteers about end-user needs while also ensuring consistency within and across courses.

ACCOMPLISHMENTS OF THE NI-OER

Together, the Bangladesh Health Project and Nurses International have pooled resources to develop the NI-OER. The focus in the initial phase has been on developing the clinical courses. Building on the courses developed and tested in Bangladesh, we have now completed the first clinical courses, namely basic nursing skills, physical assessment, medical-surgical nursing, community/public health nursing, and nursing leadership and management. Work is underway on two more clinical courses, in mental health nursing and midwifery/obstetric nursing. Currently, materials have been downloaded from Nurses International's website by students and educators in over 95 countries.

In addition to core BSN curriculum development, Nurses International is also poised to activate its volunteer organization to develop relevant materials on an as-needed-basis. For example, a state-of-the-science COVID19 course was recently developed to address the current need of nurses and

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other front-line health-care workers to understand the assessment, triage, and treatment of COVID19 illness. NI-OER has just published this course, titled *Orientation for Frontline Healthcare Workers in the Acute Care Setting*, in collaboration with NextGenU.org, an NI partner organization focused on making medical and public health courses readily available around the world. The published course is available at <https://nextgenu.org/course/view.php?id=251/>

Quality assurance for NI-OER products involves clarifying course objectives and aligning the associated content with international competencies, using content experts to review all materials for each course. In addition, a Teacher Guide also available as an NI-OER emphasizes the use of digital content. Because initiation to critical thinking and professional values are universal challenges, volunteers working on the NI-OER have developed case studies and other exercises that can be adapted for local practice and cultural norms.

Over time, we will complete additional nonclinical courses that comprise a traditional BSN curriculum, including professional issues and research methods. These topics tend to be more specific to social and practice issues in particular jurisdictions or cultures; therefore, we will enlist user input to ensure that the basic materials are easily adaptable.

As updating will always be required, we will enlist members from the volunteer networks of the sponsoring organizations as expert reference groups or “communities of practice” for each topic area (e.g., mental health nursing). Additionally, as resources permit, we have ambitious plans including providing support to educators through online mentoring and training; enhancing materials with open access multimedia resources; and evaluating the use of the curriculum in various settings. Nurse educators around the globe are encouraged to visit our website and freely use and adapt the resources to meet their specific local program needs. The core team at

Nurses International is heading into a data science phase focusing on evaluation of our years of work in the global scale-up of nursing education equity.

CONCLUSION

The goal of NI-OER is to provide state-of-the-science resources to the world’s health-care and learning institutions so that nurses everywhere have the resources needed to support their professional development and clinical practice. There has never been a more urgent time to ensure that nurses are well educated and highly skilled to address the needs of the global population. Nurses encompass the largest number of health-care providers, and are currently called upon to engage in acute care assessments, triage, and treatments on a massive scale. When the COVID19 pandemic subsides, the nursing profession needs to be poised to step up and take on critical thinking and innovative leadership roles to ensure that health can be achieved by all, even those most vulnerable. Nurses will be needed even more in all realms of health care including clinical practice, education, research, policy, and health system innovation. In order to have an expertly prepared workforce, nursing educators must possess the knowledge and competencies to meet the learning needs of their students. When nurses have the knowledge they need, patients, communities, and populations around the globe will get the care they deserve. Volunteers are always needed in this global effort to prepare excellent nurses and relieve needless suffering. Contact NursesInternational.org to learn more.

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