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Yv. Shelast¹**L. P. Martynyuk²**ORCID <https://orcid.org/0000-0001-8098-0421>¹*MacEwan University, Canada*²*I. Horbachevsky Ternopil National Medical University***SUSTAINABLE DEVELOPMENT PRINCIPLES IN HEALTH PROMOTION
AND NURSING EDUCATION****Е. Баргес-Пінто¹, С. О. Ястремська², Л. Я. Федонюк², І. Шеласт¹,
Л. П. Мартинюк²**¹*Університет МакЮена, Канада*²*Тернопільський національний медичний університет імені І. Я. Горбачевського МОЗ України***ПРИНЦИПИ СТАЛОГО РОЗВИТКУ В ПРОПАГАНДІ ЗДОРОВОГО
СПОСОБУ ЖИТТЯ ТА В ОСВІТІ МЕДИЧНИХ СЕСТЕР**

Abstract. The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another.

The collaboration with I. Horbachevsky Ternopil National Medical University (TNMU) and the Faculty of Nursing MacEwan University students and teachers in the realization of the Sustainable Development goals proposes the possibilities to study and change the professional practice and nursing education. Co-creation involves strategy; nurses making a difference in the health of global communities. 25 students spent one week at TNMU, focusing on global/planetary health issues and SDGs. Participants include faculty members and Ukrainian students as well as International students from several countries (including Canada, Ghana, Nigeria, and India). Instruction focused on interactive learning and included flipped classroom format, seminars, team-based learning and field clinics coordinated by MacEwan faculty members in partnership with the TNMU members.

Through interactive learning in an international setting, students developed a shared understanding of how people relate to each other and to their environments, compared Canadian and Ukrainian approaches to the Sustainable Development Goals, and created space for understanding different ways of knowing and how these enhance health and wellbeing. The face-to-face format of the trip was invaluable in enhancing emotional and informal learning as well as developing capacity as global citizens. The course provides an excellent foundation for students who wish to pursue graduate studies in global health either in Nursing or in Public Health.

Key words: education; nursing; sustainable development; I. Horbachevsky Ternopil National Medical University; MacEwan University.

Анотація. Цілі сталого розвитку, інакше відомі як «Глобальні цілі», є універсальним заклик до дій, спрямованих на подолання бідності, захист планети та забезпечення всіх людей насолоджуватися миром і процвітанням.

Ці 17 цілей ґрунтуються на успіху Цілей розвитку тисячоліття, в той час як серед інших пріоритетів включаються нові сфери, такі, як зміна клімату, економічна нерівність, інновації, стале споживання, мир та справедливість. Цілі взаємопов'язані – часто ключ до успіху на одній стосується вирішення питань, частіше пов'язаних з іншим.

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Співпраця викладачів і студентів Тернопільського національного медичного університету імені І. Я. Горбачевського (ТНМУ) та медсестринського факультету Університету МакЮена у реалізації Цілей сталого розвитку пропонує можливості вивчити та змінити професійну практику й освіту медсестер. Співпраця передбачає наступну стратегію: медсестри, які можуть вплинути на здоров'я світової спільноти. 25 студентів провели один тиждень у ТНМУ, зосередившись на глобальних/планетарних проблемах сталого розвитку. Серед учасників були викладачі та студенти – представники України та декількох країн (включаючи Канаду, Гану, Нігерію та Індію). Робота була зосереджена на інтерактивному навчанні та включала перевернутий формат аудиторії, семінари, командне навчання та польові клініки, координовані членами медсестринського факультету Університету МакЮена у партнерстві з викладачами ТНМУ.

Завдяки інтерактивному навчанню в міжнародному середовищі студенти виробили спільне розуміння того, як люди ставляться один до одного й до свого оточення, порівняли канадський та український підходи до цілей сталого розвитку і створили простір для розуміння різних способів пізнання та як вони зміцнюють здоров'я й добробут. Формат поїздки віч-на-віч був неоціненним для підвищення емоційного та неформального навчання, а також для розвитку потенціалу особистості у світі. Курс є чудовою основою для студентів, які бажають продовжити навчання в університеті, вивчаючи основи глобального здоров'я або в галузі медсестринства, або в галузі охорони здоров'я.

Ключові слова: навчання; медсестринство; сталий розвиток; Тернопільський національний медичний університет імені І. Я. Горбачевського МОЗ України; Університет МакЮена.

Introduction. At the modern stage of development, the world experiences a socio-cultural catastrophe that relates to a loss of the only general perspective as a result of aggravation of economic, social and environmental problems in a global scale [1, 12]. Due to the conditions of globalization, the activities of people in those vitally important aspects, which are determined by the level of development of science and technology, should be systematically organized and the only one on the scale of all humanity [4, 15]. That is why the essence of the concept of sustainable development that is the basis for the formation of a general scientific paradigm of economical and material growing; it has an interest to a large range of professionals and promotes their collaboration to study the various aspects of their worldwide economical, political and cultural integration [2, 6].

The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity [3, 5]. These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another [7, 17].

I. Horbachevsky Ternopil National Medical University supports a platform for sustainable development. It is a member of Baltic University Programme, which is focused on the questions of sustainable development, environmental protection, natural resources, democracy and education to ensure sustainable development in the Baltic Sea region. We believe that the sustainable development of the country or region

is when economic growth, material production and consumption, as well as other activities of the society take place within the limits defined by the ability of ecosystems to recover, absorb pollution and support the livelihoods of present and future generations [8, 9].

The aim. The opportunity for analysis of perspectives that affect the global health community including social justice, health equity, gender, human rights, political agendas and ethical issues.

Theoretical framework. According to the 2030 Agenda for Sustainable Development, which calls on countries to begin efforts to achieve the 17 SDGs over the next 15 years, the goals address the needs of people in both developed and developing countries, emphasizing that no one should be left behind. Broad and ambitious in scope, the Agenda addresses the three dimensions of sustainable development: social, economic and environmental, as well as important aspects related to peace, justice and effective institutions [13]. We focus our attention on three of them as they all related to health issues.

One from the 17 goals of Sustainable Development is good health and well-being [10, 14]. Health is understood not only as the absence of disease and the availability of adequate nutrition and physical activity, it is a complex state, which is determined by housing, income, the avoidance of pollution and many others factors which can be successfully influenced by implementing of education [11, 16]. Therefore, based on the TNMU mission: training highly skilled specialists for the healthcare system of Ukraine and abroad through the provision of educational services of the proper quality, observance of high standards in teaching, scientific and professional activity; developing fundamental and applied sciences in the field of medicine and pharmacy; providing of the high-tech science-intensive medical care and developing new diagnostic and therapeutic

technologies for the needs of the Ukrainian health care system. Therefore, TNMU is fully capable of realizing the goal of Sustainable Development “Ensuring a healthy lifestyle and well-being of people of all ages.”

The Institute of Nursing, Department of Medical Biology, Department of Social Medicine, Organization and Economics of Health with Medical Statistics, and other departments of the TNMU are intended to translate into reality the program and the goals of sustainable development, primarily due to the availability of environmental issues in the work programs, in which the concepts and goals of sustainable development can be studied, as well as practically.

However, the subject of educational and work programs, approved by the standard of education for higher educational institutions of medical care, does not envisage the study of sustainable development as a separate course or discipline, therefore, our task is to introduce environmental and social components into the contents of the discipline.

MacEwan Nursing faculty works collaboratively with the TNMU faculty to create and deliver projects according to the SDGs. Also is supported the development of the HLST 400 programme, according to which the students of TNMU and MacUen University are provided with an opportunity to experience true immersion into Ukrainian, culture, language and professional contexts. HLST 400 program at TNMU incorporates visits to local health care facilities, as well as practical and personal interaction with Ukrainian and international medical and nursing students, health professionals, and clients. It is an opportunity for MacEwan students to understand their Canadian professional identity in a global context and come to appreciate Ukraine as a country that is joining the community of democratic nations.

During May 17–23, 2019, 23 students spent two weeks at TNMU, focusing on global/planetary health issues. The educational course was created in collaboration with Faculty of Nursing (MacEwan University, Canada). Participants include faculty members and Ukrainian students as well as International students from several countries (including Ghana, Nigeria, and India). Instruction focused on interactive learning and included flipped classroom format, seminars, team-based learning and field clinics coordinated by MacEwan faculty members in partnership with the TNMU faculty members. Visits to a variety of health care facilities were also take place including pediatric

clinics, mental health hospital, HIV clinic, perinatal centre, orphanages, and rehabilitation centres.

The course was organized to align with three essential components of planetary health: relationality, sustainability, and ways of knowing. Through interactive learning in an international setting, students developed a shared understanding of how people relate to each other and to their environments, compared Canadian and Ukrainian approaches to the Sustainable Development Goals, and created space for understanding different ways of knowing and how these enhance health and wellbeing.

Students from TNMU and MacEwan were randomly assigned to teams of 5 to 7 students who were working interdependently throughout the course “Planetary Health, Migration and Sustainable Development Goals Assignment Guidelines” to work together to create a presentation. The teams were interprofessional, comprised, of medical, pharmacy, nursing, and public health students. The MacEwan and TNMU faculty members were act as facilitators in the process. In addition, the students worked as a team to develop and carry out a community engagement learning experience in the Ternopil city square. The purpose of this assignment was to provide students with the opportunity to integrate course core concepts. These included but was not limited to planetary health, sustainable development goals, population health, structural and geographical determinants of health, health inequity and inequalities, public policy, and public health policy and advocacy. Students utilized high-order thinking and research skills: critical thinking, team process, information literacy including evaluation, analysis and synthesis of knowledge and presentation skills.

During the realization of the projects all participants evaluated evidence-informed knowledge specific to global health interventions that aim to improve health outcomes such as the Sustainable Development Goals, the Global Burden of Disease Project. They analyzed the key issues and emerging challenges that influence global health priorities, policy, research, and practice agendas. Students had possibility to describe how beliefs, norms, behaviours, and practices influence perceptions of health and wellbeing. All of them enhanced critical thinking skills in relation to international global health and strengthen their analytical foundations as global citizens. Participants developed abilities for collaborative team work, that was, worked together to research issues, conducted

evaluations, analyzed situations, and proposed potential solutions, demonstrated awareness of ethical considerations in global health partnerships.

The Department of Nursing Strategic Plan (2016–2020) highlights nursing education and practice competencies specific to global health priorities and the Sustainable Development Goals. MacEwan’s internationalization plan intends to create environments in which students and faculty can succeed in diverse contexts, that they should “actively engage in diversity” in “an integrated, long term approach”. The TNMU-MacEwan partnership offers opportunities for collaboration on research and publications between faculty and students which addresses Goal #2 of the strategic plan: Commitment Research and Scholarly Excellence. An indicator for this goal includes faculty/student dissemination at international levels. HLST 400 in Ukraine correlates well with these strategic directions and provides students with experiences of “life-changing personal meaning and professional preparation”. Inclusion of the Sustainable Development Goals along with the concept of global citizenship and collaborating with TNMU faculty, relates directly to the strategic direction “to expand the scholarly network within which every faculty and school works internationally with colleagues in universities in other countries” and to “inspire students to be engaged as global citizens”.

As a result of the investigations students prepare different 20-minute presentations, during which participants articulated and communicated the findings of their projects in class time. In randomly assigned groups, students explored the emerging planetary or global health issue of migration with a focus on a priority population - national, regional, or global one, it was not necessarily limited to Ukraine or Canada. Participants thought about the impact of this issue on the health and well-being of the target population as well as the dimensions of sustainable development (economic, social and environmental). Questions, to which students should give the questions: What are the underlying conditions and driving ecological factors that pace this group or population at risk or can lead them to experience health and social inequity and inequality? Participants should link their chosen topic to one (primary) sustainable development goal along with its relevant targets and indicators, as deemed appropriate.

Attention was paid to the SDGs and their scope, sustainable future of Canada, Ukraine and SDGs, problem of migration, transitions in global health.

Students focused on the effects of population displacement on health and wellbeing. While the Sustainable Development Goals and concepts of global citizenship frame discussions, the focus of the course for May 2019 was on the global health effects of population displacement. Currently more than 65.8 million are either internally or externally displaced from their homes, the largest number in the history of United Nations record keeping. Ukrainians are experiencing internal displacement due to Russian annexation of Crimea and the situation in the east of the country. In addition, Ukraine has become an asylum country for over 5,000 refugees and asylum seekers, mostly from Syria and Afghanistan.

Each group of participants created three solid, innovative and evidence-informed interventions or recommendations that could be implemented to combat the priority emerging issue and that aim to promote health equity and equality in the priority population which had been chosen by students. They linked their suggested interventions and or recommendations to the primary SDG and to one or more of the other SDGs, as deemed appropriate. The purpose here was to show how the SDGs are interlinked and interrelated.

Another interesting part of preparing course was formation of a country profile of Ukraine.

Country Profile Worksheet - Ukraine

Adapted from: Brown, L.D. (2018). *Foundations for Global Health Practice*. Hoboken, NJ: John Wiley and Sons, Inc.

A. Basic Information

Capital city: _____

Locate on a map the capital city and the two cities (Lviv and Ternopil) where this course is taking place (list adjacent countries, main rivers, and bodies of water):

Head of State: _____

Head of Government: _____

Currency & exchange rate: _____

Language(s) spoken: _____

Word for “Hello”: _____

Word for “Please”: _____

Word for “Thank you”: _____

B. Comparative Population Characteristics

Complete the following chart for the indicators named to create a comparative perspective on Ukraine and Canada. Add two additional indicators that you find interesting.

	Ukraine	Canada
Population		
Area of Country (sq km)		
Birth rate		
Death rate		
Fertility rate		
Infant mortality rate		
Child mortality rate		
Literacy rate		
Per capita income		
Social development index		

Two additional indicators	Ukraine	Canada

C. Food and Nutrition

1. What are the staple foods in Ukraine?
2. What kinds of foods are grown locally?
3. What is the Global Hunger Index (2018) for Ukraine?
4. Describe the local cuisine/or national dish that you hope to try.

D. Economy

1. What are the most important resources and sources of income in Ukraine?
2. What percentage of the population lives in poverty?
3. What is the Gini Index for Ukraine?
4. What is the World Bank classification for Ukraine?

E. The Health System

1. Who is the current Minister of Healthcare?
2. What information can you find out about the health care system?

F. Environment

List at least two environment challenges that Ukraine faces (e.g. water access and quality, air quality, vulnerability to the impacts of climate change, deforestation, biodiversity, soil erosion, depletion of other natural resources).

G. Infrastructure

What can you discover about the infrastructure of western Ukraine, especially for Lviv and Ternopil?

1. Consider transportation, communication systems, sewage and water systems, electric systems.
2. Describe the Ukrainian educational system.

H. Works of Literature and Films

Identify at least one work of literature from Ukraine. Include the author, title, and a brief description.

Identify at least one film from or about Ukraine. Include the title, director, and a brief description.

I. Famous People

List and briefly describe three famous people from this country. These can be people who are well known within Ukraine and/or internationally. Who was the famous opera singer from the Ternopil area?

J. Sports

What sports are popular in Ukraine? What are the names of some teams? Are there any important competitions that will occur during your visit?

K. Music

Describe traditional and contemporary music traditions in Ukraine. Is Ukraine known for a special musical style or type of instrument? Provide a link to a traditional or contemporary song.

So, the program balanced formal educational activities with social opportunities through formal and informal learning about community settings, workplaces, study, and leisure in Ukrainian contexts. In all locations, students are partnered with local students and in Ternopil worked on course content in teams that mix MacEwan and TNMU students. The MacEwan students were housed in the university residences with local students. The language and culture studies experience emphasized socio-cultural, political, and historical influences and was a catalyst for interacting with Ukrainian students and facilitates community engagement. The formal tours of health facilities provided informal learning about the working lives and health experiences of Ukrainians. The semi-formal cultural excursions and activities of the trip included making perogies, embroidered shirt workshop, chocolate factory experience, visiting churches, and provides insight into the lives and perspectives of Ukrainians. Students had considerable free time to explore their surroundings with their Ukrainian hosts and shared perspectives on life in their respective countries. Students visited Internet cafés, restaurants, went skating, shopping, swimming with the Ukrainian students in their own time. The informal conversations and interactions among students provided valuable experiential learning about student and family life in Ukraine. MacEwan students were often invited into Ukrainian homes which provides understanding of family contexts. The face-to-face experiences and personal exchanges of ideas added an emotional and intuitive element to learning.

Conclusions and Prospects for Research. The course provides an excellent foundation for students who wish to pursue graduate studies in global health either in Nursing or in Public Health. Close cooperation with universities have the opportunity to

provide educational services, where teachers receive special skills and effective teaching methods for theoretical material on the foundations of sustainable development. It is envisaged to develop and implement a discipline “Sustainable Development” in the educational process at the TNMU. The face-to-face format of the trip was invaluable in enhancing emotional and informal learning as well as developing capacity as global citizens.

The realization of project will create a new strong international cooperation between experienced research groups from Canada and Ukraine; the integration and interdisciplinary of scientific collaboration will provide the best possible result that is directed first of all on improving the quality of environmental education, and also on strengthening and expanding the boundaries of academic cooperation and the development of international scientific and technical cooperation.

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