Global Health Care: Implications for Nursing

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Abstract- **Nurses are responding to global health care crisis needs by providing care to diverse populations while expanding their understanding of cultural, economic, political, social, and environmental factors impacting healthcare. Educational institutions are placing emphasis on global health learning and providing international experiences for nursing students to view population health beyond borders increasing knowledge of health determinants alongside their global nursing counterparts.**

Keywords- global health, health diplomacy, nursing education

I. INTRODUCTION

Florence Nightingale inaugurated the tradition of nurses providing culturally appropriate health care in diverse global settings. The 21st century nurse carries on that tradition alongside global nursing counterparts in the under-resourced health care environments of developing countries. The interconnectiveness of our global profession positions nurses to participate in informal health diplomacy as role models of caring and competent practitioners. The response of university nursing programs to become players in improving global health care has led to the increase of global health perspectives in the curriculum. A new generation of nurses is being prepared by faculties who are well versed in evidence based practice and research sharing providing role models for practice in a global health care environment.

II. GLOBAL STAKEHOLDERS

Global health issues and priorities are increasingly being addressed by a number of entities and stakeholders worldwide. Stakeholders include, but are not limited to, the World Health Organization, the United Nations, the Pan American Health Organization, World Bank, governmental and nongovernmental agencies, private philanthropists, health professionals, professional organizations, and concerned world citizens just to name a few.

A. The World Health Organization (WHO)

The concept of an international public health authority within the United Nations was conceived in 1946. In 1948 the constitution of The World Health Organization laid the framework that established the direction of this organization to provide leadership to engage nations in partnerships on matters vital to health, structure research agendas with a means to disseminate and translate findings, set the norms and standards while providing technical support, present ethical and evidence-based policy options, and to assess health trends and monitor the health situation worldwide (WHO, 2015).

World Health Statistics is the comprehensive source of information on the health of the world's people and has been published every year since 2005. It contains data from 194 countries on a range of mortality, disease, and health system indicators including life expectancy, illnesses and deaths from key diseases, health services and treatments, financial investment in health as well as risk factors and behaviors that affect health. (WHO, 2015b) Table 1 lists a snapshot from the volumes of data contained within the WHO report on World Statistics 2014. Health related Millennium Development Goals (MDG) is included within this report.

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Table 1 Key facts from World Statistics 2015 (WHO)

- Life expectancy at birth has increased 6 years since 1990 (men & women).
- 2/3 of deaths worldwide are due to noncommunicable diseases.
- In low and middle-income countries, only 2/3 of pregnant women with HIV receive antiretrovirals.
- Over one-third of adult men smoke tobacco.
- Only 1 in 3 African children with suspected pneumonia receives antibiotics.
- 15% of women worldwide are obese.
- The median age of people living in low-income countries is 20 years, while it is 40 years in high-income countries.
- One quarter of men have raised blood pressure.
- In some countries, less than 5% of total government expenditure is on health.

Source: World Health Organization (2015b). *World Health Statistics report on global health goals for 194 countries.* http://www.who.int/mediacentre/nes/releases/2015/world-health-statistics-2015/en

B. Millennium Development Goals (MDG)

Any discussion concerning global health would be incomplete without mentioning the Millennium Development Goals (MDG) which is the United Nation's eight development goals to achieve improvements in the health and well being of all countries by 2015(UN, 2015a). These goals were established by 189 United Nations members following the Millennium Summit in 2000 and are included in the United Nations Millennium Declaration (Table 2).

Table 2 Millennium Development Goals (MDG)

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality rates
5. Improve maternal health
6. Combat HIV/AIDs, malaria, and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

Source: United Nations (2015a). *The millennium development goals* http://www.undp.org/content/undp/en/home/mdgoverview.html

C. Millennium Development Goals Met

The world has reduced the number of people living in extreme poverty by 700 million. Between 2000 and 2012 an estimated 3.3 million deaths from malaria were averted due to the substantial expansion of malaria interventions. The intensive efforts to fight tuberculosis have saved an estimated 22 million lives worldwide since 1995. Over 2.3 billion people gained access to an improved source of drinking water between 1990 and 2012. Substantial gains have been made toward reaching gender parity in school enrollment at all levels of education in all developing regions. In January 2014 there were 46 countries having more than 30% female members of parliament or in some government chamber. Official development assistance stood at $134.8 billion, the highest level ever recorded (UN, 2015 b).

D. Millennium Development Goals Not Met

Global emissions of Carbon Dioxide continued their upward trend and were almost fifty per cent higher than their 1990 level. Forests continue to be lost and many species driven toward extinction. The proportion of undernourished people in developing regions has decreased from twenty-four per cent in the early 1990's to fourteen per cent in 2011-2013. However, progress has slowed. In 2012, twenty five per cent of all children under the age of 5 yrs were estimated to be stunted. This represents a significant decline since 1990 when forty per cent of young children were stunted. This data identifies that 162 million young children are still suffering from chronic undernutrition. In a modern world, this is truly an unacceptable statistic. Worldwide the mortality rate for children under age 5 has dropped almost 50%. Preventable diseases are the main causes of under 5 deaths. Maternal mortality dropped by forty five per cent globally. Providing pre-natal care to pregnant women would continue to decrease this preventable death statistic. Access to antiretrovival therapy for HIV-infected people has increased dramatically yet; expanding coverage can save more lives. One quarter of the world's population now has access to improved sanitation. Yet, a billion people still practice open defecation. Much greater effort and investment will be needed to address inadequate sanitation. The report identifies ninety per cent of school age children are attending school. This represents at first look a positive result until it is noted an estimated fifty per cent of out- of -school children primary school aged children live in conflict affected areas (UN, 2015b).

Efforts to continue to meet the MDG beyond 2015 will continue. In September, 2015 the UN General Assembly will decide on new and ambitious goals for 2030.

The draft post-2015 agenda proposes 17 goals to include the overarching health goal to "ensure healthy lives and promote well-being for all at all ages."(UN, 2015, c, pg. 1).

III. GLOBAL TECHNOLOGY

We are living in a world of growing technology. Mobile phone access and the growth of mobile phone networks has begun to transform the access, delivery, and management of health care even in many low and middle-income countries (WHO, 2011, a). In 2009, WHO conducted a survey of member states to evaluate the initiatives, barriers and an evaluation of mHealth. mHealth has been defined by WHO as "the use of mobile and wireless technologies to support the achievement of health objectives." (WHO, 2011a). The results demonstrated mHealth is on the rise with eight-three per cent of member nations reporting health call centers, emergency toll-free telephone services, emergency and disaster management, and mobile telemedicine. Higher-income nations reported higher mHealth activities than lower-income countries with countries in the European region most active and countries in the African region least active(WHO, 2011, c). The greatest barrier identified was the issue of competing health system priorities as worldwide countries are facing the similar concerns of limited budgets and staff shortages.

The global health study conducted by Pricewaterhousecoopers (2012) reports that patients in emerging mHealth markets are optimistic this technology will improve the costs, convenience, and quality of their care. Examples are given to demonstrate effectiveness of SMS technology to fight counterfeit drugs in Kenya, Cameroon, and Ghana. Sending a single SMS of the code on drug package that incorporates the batch code and expiration date can identify counterfeit drugs. The Apollo Hospital Group in India has entered into mHealth involving a triaged health information and advice call center staffed by paramedics, physiotherapists, nurses, doctors and health advisors, using an IT platform with a structured query database to give the appropriate advice. They have handled over 700,000 calls. The Apollo Hospital Group also sponsors a diabetes management program, named SUGAR, which allow diabetics to upload their blood sugar to their clinician through SMS and mobile applications. The clinicians text back advising whether further health care action is required (PWC, 2012).

With over 40,000 medical apps available (O'Connor, 2012) mHealth has exploded onto the health care delivery scene. Barriers identified by O'Connor (2012) include opposition by the medical community, lack of infrastructure to support the new technologies, governmental regulation, licensure, and control and the overarching need to find solutions to balance public interest with emerging innovation.

IV. GLOBAL HEALTH EMPLOYMENT OPPORTUNITIES

Working with the premise that the characteristics of the global workforce and jobs available are largely unknown, a pilot study on the current employment landscape of the global health environment was conducted by Eichbaum, et al. (2015). This pilot study looked at 178 global health employment opportunities available on website employment postings between November 2013 and January 2014. Data included within the study results indicated sixty- seven per cent of positions were with NGOs in both developed countries and low and middle-income countries (LMIC), Fourteen per cent involved clinical jobs in the medical field, fifty-one per cent required Master's or Doctoral level degrees and eighty-four per cent of the positions were program related with fifty-eight per cent at the senior program management and direction level. Salaries were posted on only eighteen per cent of the sites and those listed were in the US dollar range of 61,000-90,000.

Eichbaum, et al. (2015) shine light on the necessity for educational programs training nurses and other health care providers to include global health master's and doctoral level tracks with inclusion of public health and leadership training. As global health needs increasing complex the need for highly educated managers is expanding.

A. Implications for Nursing

Improving health care on a global level is daunting task. 20 million nurses worldwide are practicing as clinicians, researchers, educators and policy advocate**s.** Across the globe in poor countries and communities,

where health needs are the greatest and physicians are scarce, nurses are performing an even greater role in health care delivery. Nurses serve often as the sole providers in rural villages or urban slums. Internationally nurses are recognizing their role as global citizens providing care to diverse populations while expanding knowledge and understanding of cultural, economic, political, social, and environmental factors impacting healthcare.

B. Education

Our educational institutions are placing emphasis on global health learning by developing and integrating global health course work into the curricula and providing international experiences for nursing students. These same student nurses and faculty are well versed in evidence based practice and research sharing and role modeling alongside their global nursing counterparts in the under-resourced healthcare environments of developing countries. International collaborative medical missions between nursing schools are an expanding reality. Health care, agriculture, technology, life sciences – all need to be part of interdisciplinary global learning at the university level to train our young and approach global health from a system level. The opportunity exists for interdisciplinary collaboration to begin in the classroom setting and continue into the international clinical experience. Educational expansion in the realm of global health is preparing the future generation of nurses to enter the global health care marketplace.

C. Use of Technology

In today's world educated nurses are well versed in the use of social media and networking tools to advance nursing activism and advocacy by displaying their worldwide contributions to care (Beck, Dosey & Rushton, 2015**).** Technology has helped to lessen the barriers of geographical borders and political viewpoints. Communication has moved from face to face encounters to a device to device encounter environment. Best innovative practice in nursing demonstrated by evidence based research can now be shared via cell phone application. We are a globally interconnected profession.

V. GLOBAL HEALTH DIPLOMACY

Global health diplomacy is the result of the interconnectiveness of our world and the resulting health care practices that include the evolving nations of that world. Hunter, et al. (2013) emphasize that as nurses practicing in this global environment we need awareness of this concept. Adams, Novotny and Leslie (2008) define global health diplomacy as that emerging field that address the dual goals of improving global health and bettering international relations particularly in conflict areas and resource poor environments. Katz, et al (2011) break up global health diplomacy into three categories: 1. Core diplomacy or formal negations that occur between nations; 2. Multi-stakeholder diplomacy that would be negotiations that do not always lead to formal and binding agreements; and 3. Informal diplomacy which is where nursing and other medical missions fall. This references the interactions between the public health providers and their counterparts in the field that could include NGOs, private-sector companies, and the public. Nurses working side by side with global counterparts through their nursing practice are also informal health diplomats. Our nurse educators are playing a key role in preparing our next generation of professional nurses for this informal diplomacy.

VI. SUPPORT OF THE INTERNATIONAL NURSING AGENDA

Global health organizations such as the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), the International Council of Nurses (ICN), and Sigma Theta Tau are supportive of the work of nurses in a global health care arena. A guide to global nurse resources can be found in Table 3.

Table 3 Global Health Resources

Brigham -Young Women's Hospital, Boston, MA	nursing@ghdonline.org
Global Healthcare Information Network	http://www.ghi-net.org
International Council of Nurses (ICN)	http://www.icn.com
Open Resources 4 Nurse Educators	http://www.or4ned.com
Sigma ThetaTau International	http://www.nursingsociety.org
United Nations (MDG)	http://www.un.org/millenniumgoals/reports.shtml
World Health Organization	http://www.who.int/en/

A. World Health Organization (WHO)

In 2011, the WHO published a 5 year updated strategic plan for strengthening nursing and midwifery

services. The strategic plan is directed to policymakers, practitioners, and other stakeholders to provide a framework collaborative practice which enhances the nursing capacity in the areas of universal coverage, people-centered care, workplace policies, and national health system growth to meet global goals and targets (WHO, 2011b).

B. The Centers for Disease Control and Prevention (CDC)

This U.S. federally funded center is a founding member of the International Association of National Public Health Institutes and is involved in global health care through the Center for Global Health (HHS, 2015). Nurses hold high level positions within the CDC and contribute to the ongoing global environment tracking.

*C. International Council of Nurses (ILC***)**

Founded in 1899, the ICN operates as a federation of over 130 national nurses associations represents than 16 million nurses worldwide (ICN, 2015). This organization with a worldwide networking presence works to "ensure nursing care for all, sound health policies globally, the advancement of nursing knowledge, and the presence worldwide of a respected nursing professional and a competent and satisfied nursing workforce" (http://www.icn.ch/who-we-are/who-we-are/)

D. Sigma Theta Tau International

Sigma Teta Tau is the international nurses' honor society. A global advisory panel on the future of nursing and global health (GAPFON) was created in 2013 to add the "voice and vision" of nursing to the global health care discussion. This panel seeks "to stimulate partnerships and serve as a vehicle for thought leaders to share information, develop and influence policy, and advance interprofessional efforts toward those goals" (Klopper, H. , 2015, p.3)

VII. CONCLUDING THOUGHTS

It is without question that nurses are playing an integral role in the delivery of global health care to patients. This role of professional global nurse citizen is evolving in the backdrop of emerging technologies, expanding educational preparation, and the policy development of worldwide stakeholders and individual countries. The caring and competent nursing practice shared globally is a living testament to the legacy of Florence Nightingale.

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Dr. Joyce A Hahn APRN-CNS, NEA-BC, FNAP, is an Associate Professor in the School of Nursing, in George Washington University, USA. Dr. Joyce Hahn, has held clinical and administrative positions in a variety of health care arenas, including acute care and community settings. Prior to her appointment at GWU, Dr. Hahn was the Assistant Dean for the Master's Division in the School of Nursing at George Mason University. Dr. Hahn has extensive experience bringing together nurses to work in an effective and collaborative manner demonstrated by her leadership roles in the Virginia Nurses Association serving as the Commissioner on Government Affairs, as cochair of the Legislative Coalition of Virginia Nurses, and as the first Executive Director of the Nursing Alliance for Quality Care, a RWJ funded initiative. She is currently active in the Virginia Action Coalition, a state wide nursing response to implement the IOM report, The Future of Nursing: Leading Change, Advancing Health, serving on both the Education and Leadership committees. Dr. Hahn has published several articles in peer reviewed journals including JONA, Nursing Economics, Nursing Management, MEDSURG Nursing, Outcomes Management for Nursing Practice and The Journal for Healthcare Quality. She currently serves as a peer reviewer for scholarly nursing publications to include Nursing Economics, Nursing Forum and the Journal of Nursing Management. She has received two gubernatorial appointments to the Virginia Board of Nursing where she is currently serving as the Vice President of the Board of Nursing. Dr. Hahn additionally serves on the Joint Board of Medicine and Nursing for the Commonwealth of Virginia. She holds an appointment to the Fauquier Hospital Board of Directors Patient Safety and Quality Oversight Committee. Dr. Hahn, as GWU SON Founding Faculty, brings extensive knowledge and expertise in nursing education, nursing administration, management, policy and health care delivery issues to the classroom setting.