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Transforming Our World Through Nursing Leadership and Global Health Outreach

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The World Health Organization (WHO) reports that 3-4 billion people in the world are at-risk for losses in and deaths that could be avoided if radiology were available (www.rad-aid.org). Radiology plays an essential role across all medical and surgical sub-specialties in global health, not only through the diagnosis and tracking of the progression of disease, but also through prevention and screening. “In fact, health technologies, including imaging, are one of the six building blocks identified by the WHO as essential for all health systems” (Mollura et al., 2014, p.13). Despite this, the WHO states that more than half of the world’s population lacks adequate access to basic imaging technology, such as x-ray and ultrasound and this figure continues to remain unchanged from WHO estimates from the late 1970’s to the early 1980’s (Mollura, et al., 2014).

In addition, with the world becoming more interconnected and people becoming more interdependent on each other, globalization has transformed the ever-changing horizon of emerging diseases, the rising mortality from non-communicable diseases such as cancer, cardiovascular disease and osteoporosis as well as advances in technology and science. Global health efforts in the past have placed an emphasis on infectious diseases such as malaria, tuberculosis and influenza, as well as emergency response and crisis management during disasters. However, now in the 21st century, “the projected doubling of cancer and cardiovascular deaths in developing countries in the next 15 years and the need for higher technology screening and diagnostic technologies in low-resource regions, as articulated by the United Nations’ new Sustainable Development Goals (SDGs) of 2016,” highlights the critical need for increasing radiology’s presence within global health (Mollura, et al., 2017, p. 841).

Moreover, all these stated factors, such as globalization, migration, poverty, and increasing rates of non-communicable and infectious diseases, are shaping the nursing profession’s role in global health as well. In order to address these global health disparities and encourage collaboration amongst key players that contribute to global goals, the United Nations in 2016 offered an all-encompassing perspective through stated objectives outlined in “*Transforming our World: The 2030 Agenda for Sustainable Development*, which contains 17 sustainable development goals and 169 global targets to help shift the world onto a more sustainable and resilient path” (Global Health, 2017, p. S26). This focus on an interdisciplinary approach towards global health will encourage governments and global health organizations, nursing and numerous other disciplines, including those beyond the health sciences, to move toward a cross-discipline problem-solving method in tackling the world’s healthcare disparities and improve health and achieve equity in healthcare access for all people worldwide (Jogerst, K., et al, 2015).

Given that the United Nations SDGs emphasize non-communicable diseases, including the prevention and treatment of chronic illnesses such as cancer and cardiovascular

disease, there will be an increasing global need to mobilize community resources utilizing radiology-based technologies. In addition, the SDG's focus on non-communicable diseases will encourage global communities to develop and advance radiology capabilities because most cardiovascular and oncology care requires imaging (Mollura, et al., 2017). This offers radiology and its related health disciplines, including nursing, an incredible opportunity to increase their participation in the next phase of global health through public health education, economic development, healthcare capacity building and investment in the infrastructure and development of low resource communities around the world. Radiology, as a high-technology specialty, interfaces with many nursing sub-specialties and nearly all medical, surgical disciplines, are woven into most components of healthcare involving advanced diagnosis and treatment that are essential for the long-term future health care capacity in underserved areas of the world (Mollura, et al., 2017). Therefore, there needs to be an investment of interdisciplinary and multidisciplinary partners and international alliances, to join forces in supporting the mentorship, training and education of our global nursing workforce which will enable enormous strides to be made in strengthening the world's health systems.

With nursing comprising over 80% of the health care work force globally, it is at the forefront in advancing global health efforts and is increasingly being called upon to deliver complex care in multicultural environments (Faan, S.D., 2012). Moreover, in low resource countries (as defined by the World Bank) where availability and access to healthcare is scarce, nursing's role takes on even greater dimensions, oftentimes with the nurse being the only trained healthcare worker to provide care to poor and rural populations. "Of the estimated 32.3 million nurses and midwives in 2030, 20% will be in the Americas, and 25% will be in Europe. Less than 5% of the world's nurses will be in Africa" (Global Health, 2017, p. S26). Addressing these critical issues demands the strengthening of the global nursing workforce, and supporting nursing's overall professional status worldwide through the advancement of education and training (NLN, 2017).

RAD-AID International, a non-profit organization, aims to confront these gaps in healthcare by pioneering radiologic and public health strategies to improve global health for low resource communities (as defined by the World Bank) around the world (www.rad-aid.org). The mission of RAD-AID's nursing program is to provide leadership in the advancement of nursing practice through the implementation of sustainable evidence-based educational nursing programs that advocate for health and wellness of populations in developing nations. With sustainable nursing programs currently in India, Tanzania, Haiti, and Guyana, nurses function in a variety of roles and settings ranging from maternal-fetal to geriatrics, from inpatient to outpatient, and from acute care to chronic care and oversee the management of patients before, during and after diagnostic and therapeutic imaging procedures. Through the support of multidisciplinary relationships with international health care partners, academic institutions and local communities, RAD-AID's nurses assess the gaps along the continuum of patient care and create specific multidisciplinary strategies to close those gaps through the development of public health education programs to address prevention at the community level; health policy, clinical and workflow strategies to improve training and patient care; technological innovations to increase learning capabilities and optimize

service quality; and nursing research to ponder questions addressing future nursing needs and goals.

Central to the success in the development of radiology-focused nursing education programs within global organizations such as RAD-AID, is the support of all members of the multi-disciplinary team. Investment of interdisciplinary and multidisciplinary partners and international alliances, to join forces in supporting the mentorship, training, and education of our global nursing workforce, will enable the delivery of complex care in multicultural environments. Tackling the urgent need to improve the world's comprehensive nursing education programs, training and research will advance nursing's role as a key proponent of world health (Wong, F., et al. 2015). Those of us who share this global vision of health realize that by working in partnership with our professional colleagues and international partners, we place nursing at the forefront in safeguarding those communities in greatest need regardless of national boundaries.

Title:

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Keywords:

Global Health, Nursing Leadership and Radiology and Public Health Outreach

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Abstract Summary:

With the increasing demands of global health continuing to transform our world, nursing will be at the forefront in leading change to support mentorship, training and education of our global nursing workforce to enable the delivery of complex care in multicultural environments and improve health outcomes.

Content Outline:

I. Introduction:

A. Radiology's Role in Global Health

1. Scarcity of radiology in the world
2. Globalization, radiology and the increase of non-communicable diseases

II. Body:

A. Nursing's role in global health

1. Largest percentage of healthcare workers in the world
2. WHO Millennium goals for global health and its' relationship to Nursing

B. RAD-AID's mission for advancing nursing education globally

1. Description of RAD-AID's nursing model
2. Description of RAD-AID's Readiness Assessment tool
3. Nursing Assessment Survey tool

C. Nursing's subspecialty roles in radiology

1. Examples of nursing roles in acute, primary and community health settings
2. RAD-AID's Global nursing programs in Africa, Asia, South America

III. Conclusion:

A. Sharing our global vision for nursing education and global health outreach

1. Fostering multidisciplinary partnership
2. Global impact through leadership, innovation and collaboration

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Author Summary: Patricia DuCharme is a Nurse Practitioner with extensive leadership experience in international health. She earned a BSN from Georgetown University and a MSN from Boston College. As Director of Nursing for RAD-AID International, Patricia collaborates with international multidisciplinary partners to advance nursing education in developing nations in support of global health outreach. Prior to joining RAD-AID, Patricia lived overseas for 17 years working for the U.S. State Department's medical offices in Singapore and Hong Kong.