The COVID-19 pandemic has taught us that we are one world, one global health community. Cooperation and collaboration, promoted by the World Health Organisation (WHO) during the pandemic, are crucial to drive through implementation of in-country cancer control strategies, worldwide. Nurses make up the majority of the global health workforce and are a critical part of the solution to reduce the incidence, morbidity and mortality due to cancer and to enhance the wellbeing of people with cancer. However, other factors play into global health, influencing global oncology. The quality of education (e.g. graduates in nursing and oncology nursing specialisation), economic growth, gender equality, and the globalisation of healthcare worker migration are all relevant to the global power of oncology nurses in low- and middle-income countries (LMICs), the focus of this article.

Cancer is a major cause of mortality and morbidity in every region of the world, irrespective of the level of human development; the majority of global cancer deaths occur in LMICs (7 million compared with 2.9 million in HICs).\textsuperscript{2} Mortality from cancer is unacceptably high, rising globally, with the greatest increases in LMICs.\textsuperscript{2} Late-stage presentation, socio-political determinants of health, poor health infrastructure and the significant lack of trained cancer care professionals all contribute to cancer mortality.\textsuperscript{2} Additional pressures such as conflict and displacement contribute to very different cancer ecosystems than found in high income countries (HICs), as articulated by Manochehr Samadi below.

Nurses caring for people at risk of or with cancer are indispensable. With a focus on lessons learned from the pandemic, we highlight the remarkable work of nurses in LMICs who care for people at risk of or with cancer, despite the challenges they face.

### The strength of oncology nurses in LMICs

Although the effect of the pandemic on cancer control efforts has been profound with the most damaging effects likely to be LMICs,\textsuperscript{3} nurses caring for people with cancer in LMICs have been amazingly adroit. The vast majority of those nurses have not received specialist training in oncology and often care for both children and adults. Oncology nurses are attentive and had the ability to re-evaluate and take a new approach during COVID-19. These attributes can be seen through insightful personal stories of their experiences at the start of the pandemic, powerfully documented in a collection of narratives which is compulsory reading.\textsuperscript{5}

### During conflict

Oncology nurses in Afghanistan’s only cancer centre in Kabul, Jamhuriat Hospital, are faced with a Herculean and gruelling task on a daily basis, with their greatest anguish around the security of their families. Patients and nurses are currently suffering extreme hardship; many female nurses have left the profession and the country; the nurses left are exhausted, sometimes working 24-h shifts and taking on additional tasks of prescribing medication and preparing and delivering chemotherapy for inpatients and outpatients. The ‘safe’ handling of hazardous drugs is non-compliant by any standard; there are no oncology specialist-trained nurses or pharmacists and personal protective equipment is lacking or of poor quality. Despite no pay for several months, their unstinting nursing care is carried out with a special warmth and passion, amidst the most formidable conditions, sometimes with no water.

### Where have all the nurses gone?

The State of the World’s Nursing Report (2020) estimated a shortage of 5.9 million nurses with the gaps mostly (89%) concentrated in low- and lower middle-income countries.\textsuperscript{6} The stark reality of this global nursing workforce crisis was particularly brought to the fore during the pandemic; this included worsening nurse migration.\textsuperscript{7} An example of this migration was the UK launch of a healthcare worker migration incentive during the pandemic; astonishingly at the same time, the UK drastically reduced its foreign aid budget from 0.7% to 0.5% of national income, placing LMIC health systems at risk. Nurses in fragile systems face a vicious circle: poor pay and working conditions drive migration and thus the workload and stress increase for the nurses remaining. Oncology nurses remaining in LMICs were stretched to their limit by the pandemic, many suffering from burnout and yet they were saving lives with the few resources they had at their disposal.\textsuperscript{5}

### Partnership working in education

A central tenet of the genuine reciprocity of partnership working is that partners value different knowledge systems and give space for exchange of technical knowledge; individual oncology nurses and their global organisations should reflect on this approach. Organisations such as the International Society of Nurses in Cancer Care...
(ISNCC), the Global Power of Oncology Nursing [GPON] (which focusses on nurses in LMICs), the Multinational Association of Supportive Care in Cancer [MASCOC] and the international Society of Paediatric Oncology [SIOP] not only offer support and friendship networks for nurses caring for people with cancer but also give a voice to the astounding work that nurses in LMICs who care for people with cancer, are doing. These organisations help build the next generation of oncology nurse leaders, so eagerly awaited by the WHO and the International Council of Nurses (ICN).

Nurses in LMICs are often the least educated in their oncological team. So et al. recommended six strategies to enhance oncology nurse education in LMICs emphasising that specialisation in oncology is key to delivering high-quality care for cancer patients and their families. Five years later, a scoping review of oncology training in LMICs still found a paucity of non-medical initiatives. Publication of educational projects is all important to share and optimise educational strategies and minimise duplication in effort. The pandemic has galvanised oncology nurses into virtual networking, opening up to new audiences in LMICs where internet is available. Many organisations have capitalised on virtual knowledge sharing and transfer across countries, in addition to mentoring opportunities and the development of global stratified guidelines. In addition to long-term educational partnerships between LMIC and HIC organisations, it is key that organisations within LMICs foster collaborative relationships within their country or from other LMICs to better address local needs and strive for long-term sustainability of their educational initiatives.

Research

A recent scoping review of trials of interventions led or delivered by cancer nurses showed out of 214 studies, only one was conducted in an LMIC, in a middle-income country (China). Nevertheless, this excellent work enabled oncology nurse leaders to reach the European Parliament campaigning for the recognition of oncology specialisation, an influential approach to be employed further in LMICs. On a broader scale, HICs have been found to do little to support global cancer research in LMICs; the UK, for example, only publishes 4% of its global research work with authors from LMIC settings; these findings reflect an outdated control tactic, easily reversed; oncology nurses must strive for joint publications.

Demanding gender equality

Women account for about 90% of nurses and midwives and make up 70% of all health and care workers worldwide. The WHO Director General stated, “This reliance demands that we ask ourselves tough questions on workplace conditions and equity, including how we value and reward women in the health and care workforce and how we guarantee that workplaces are free from discrimination, violence, sexual exploitation and abuse.” It is therefore good practice for oncology nursing projects worldwide, to include a gender equality and social inclusion assessment, action plan and evaluation.

Oncology nurses are therefore a major part of the solution to how we tackle cancer care and build stronger systems. Making an investment in the oncology nursing profession is investing in a strong, resilient, people-centred cancer strategy.

There have been many recent “calls to action” for governments, policymakers in LMICs - to listen to oncology nurse leaders and include them at the decision-making table. Taking many learnings from the COVID-19 pandemic, it is time for nurses from LMICs and HICs not to call but to listen, hear and act together on promoting the worth of oncology nurses, on strengthening the oncology nursing workforce, on partnership working and education (oncology nursing specialisation), on research and on demanding gender equality, in LMICs. Expanding the connectivity between oncology nurses in this disconnected world will ultimately achieve better care and outcomes for people with cancer throughout the world.

Declaration of competing interest

None declared.

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