

eCommons@AKU

School of Nursing & Midwifery, East Africa

Faculty of Health Sciences, East Africa

5-4-2023

Enhancing the education of paediatric nurses: A positive step towards achieving sustainable development goals

Aimable Nkurunziza

Godfrey Katende

Philomene Uwimana

Patricia J. Moreland

Follow this and additional works at: https://ecommons.aku.edu/eastafrica_fhs_sonam



DISCURSIVE PAPER

Enhancing the education of paediatric nurses: A positive step towards achieving sustainable development goals

Aimable Nkurunziza^{1,2} | Godfrey Katende¹ | Philomene Uwimana¹ | Patricia J. Moreland³ | William E. Rosa⁴ | Marie Louise Umwangange¹ | Dieudonne Kayiranga¹ | Joselyne Rugema¹ | Madeleine Mukeshimana¹

Correspondence

Aimable Nkurunziza, School of Nursing and Midwifery, University of Rwanda College of Medicine and Health Sciences, Kigali, Rwanda.

Email: ankurun@uwo.ca

Abstract

Aim: The aim of this discursive paper was to describe and expound on how paediatric nurses will be able to address the needs of children and adolescents through the lens of selected Sustainable Development Goals (SDGs) in Rwanda.

Design: A discursive analysis of SDGs relating to the roles of paediatric nurses in the context of Rwanda.

Methods: A discursive method using SDGs as a guiding framework is used in this paper. We drew on our own experiences and supported them with the available literature.

Results: A collection of contextually relevant examples of how paediatric nurses will be able to address the needs of children and adolescents through the lens of selected SDGs in Rwanda was discussed. The selected SDGs expounded on were: no poverty, good health and well-being, quality of education, decent work and economic growth, reduced inequalities, and partnerships for the goals.

Conclusions: There is no doubt that the paediatric nurses in Rwanda play undeniable key roles in attaining SDGs and their targets. Thus, there is a need to train more paediatric nurses with the support of the interdisciplinary partners. Collaboratively, this is possible in the bid to ensure equitable and accessible care to the current and future generations.

Public contribution: This discursive paper is intended to inform the different stake-holders in nursing practice, research, education and policy to support and invest in the advanced education of paediatric nurses for attainment of the SDGs.

KEYWORDS

nursing education, paediatric nurses, Paediatric nursing, sustainable development goals

1 | BACKGROUND

Worldwide, there are disparities in the global distribution and educational levels of nurses, which negatively impacts on the delivery of health care and population health outcomes (World Health Organization, 2016). For many years, countries have reported geographical disparities in access to nursing personnel (WHO, 2020). Certainly, inequalities have occurred with variations by country, with the poorest and those experiencing the greatest shortages of health workers facing the most significant challenges. The African

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2023 The Authors. *Nursing Open* published by John Wiley & Sons Ltd.

¹School of Nursing and Midwifery, University of Rwanda College of Medicine and Health Sciences, Kigali, Rwanda

²Arthur Labatt Family School of Nursing, Western University, London, Ontario, Canada

³Emory University, Nell Hodgson Woodruff School of Nursing, Atlanta, Georgia, USA

⁴Memorial Sloan Kettering Cancer Center, New York, New York, USA

Open Acc

region, where nurses are already in short supply compared to the population they serve has resulted in adverse consequences for rural and remote populations (Boniol et al., 2022). Yet, nurses and midwives constitute the largest population of health care providers, it is estimated that nurses and midwives account nearly 50% of the global health workforce (WHO, 2022b). In low-resource countries, the nurses and midwives are the predominant providers of health care services in the public sector. Therefore, they play a vital role of increasing access to care to the general population including the disadvantaged and vulnerable population (Crisp et al., 2018).

For healthy living of populations, nurses and midwives must be adequately trained, educated, regulated, and supported, with recognition but also, with a pay commensurate with their expertise (WHO, 2022b). However, the education and training in low-resource countries is often inadequate to meet the complex health needs of the countries (Crisp et al., 2018). Considering the existing and emerging challenges facing the healthcare system, nurses' education and practice require evidence-based solutions. Moreover, the fact that the nurses and midwives are the frontlines workers in many health care environments, particularly in resource-constrained nations, they should have appropriate training intended to foster quality care thereby contributing to universal health coverage (UHC; WHO, 2020).

The WHO's (2016) Global Strategic Directions for Strengthening Nursing And Midwifery, 2016-2020 highlighted that nurses should practice to the fullest scope of their education and mobilize political will to develop health care systems through a nursing lens at local, regional, national, and global levels. However, various factors that contribute to the insufficient supply of midwives and nurses in the health system, including institutions' limited capacity to recruit and graduate enough students, inadequate government expenditure, admission restrictions, infrastructure, faculty, or clinical practice issues were also enumerated. Although midwives and nurses can provide primary health care safely and effectively, they are often unable to utilize their training skills and education to the fullest (WHO, 2016). Moreover, there is considerable evidence that supports advanced training of specialized nurses as very crucial in the provision of quality care and reducing the admission and readmissions to health care facilities (Mannino & Cotter, 2016; Schwendimann et al., 2019; Tian et al., 2014).

Several factors, such as a lack of training capacity, a growing population, international migration, poor leadership and governance, change in career aspirations, and low retention rates, cause the African health workforce shortage. Undeniably, approximately 6.1 million health workers will be needed in Africa by 2030, up 45% from 2013, when projections were last made (WHO, 2022a). It is becoming increasingly evident that shortages of healthcare workers pose a threat to many healthcare systems and have a negative impact on the achievement of Sustainable Development Goals (SDGs; Scheffler & Tulenko, 2016; Tangcharoensathien et al., 2015). Many different African countries have prioritized training of nurses with advanced education. Nursing specialty programs or advanced practice nurses (APNs) have continued to improve access to quality healthcare in 23 countries compared to that of general practitioners (Pirret et al., 2015;

Stanik-Hutt et al., 2013; Swan et al., 2015). Additionally, the current agenda of UHC puts the nursing and midwifery workforce development as the main health response (WHO, 2016). Some African countries have formally introduced APN in some form: Botswana, Ghana, the Kingdom of Eswatini, Nigeria, Malawi, Liberia, Tanzania and South Africa. Even though, it was difficult for these programs to sustain themselves because of lack of local ownership, insufficient or inadequate legislation to regulate and licence their programs, and the absence of context-specific (SSA-specific) benchmark curricula for developing APNs still pose a great challenge (Christmals & Armstrong, 2019; Parsons & Beauchamp, 2012). For example, Malawi and South Africa trained paediatric nurses for a long ago served as educators or clinical supervisors but used curriculums form North America and Europe (Coetzee et al., 2015), and South Africa continued to be on top of graduating many paediatric nurses with 75% of the SSAs (Ruthe & North, 2020). In Ghana, there was a pilot program for paediatric nurse training established in 2010 and its evaluation was conducted in 2013 (Stevens et al., 2014). Furthermore, graduates of that paediatric nursing program gained significant knowledge, confidence, and clinical skills through the program. In addition, they could apply the skills they learned to their jobs, such as leadership and gender-sensitive care (Salehi et al., 2021).

Contextually and in Rwanda, the first masters prepared nurses in critical care and trauma nursing program were opened at by then Kigali Health Institute in 2009 (Mukamana et al., 2015). In 2015, eight (8) Masters in Science of Nursing (MScN) programs were initiated at the University of Rwanda (UR) in collaboration with the Rwanda Ministry of Health and the Human Resource for Health Program (HRH). The first cohort of 111 MScN students were enrolled to specialize in the eight tracks (oncology, medical/surgical, nephrology, peri-operative, neonatal, critical care and trauma, paediatrics, education, leadership and management). Among these students, twenty (20) were paediatric nurses enrolled, a great achievement for Rwanda based on the 2013 special report entitled 'The Human Resources for Health Program in Rwanda' (Binagwaho et al., 2013; Uwizeye et al., 2018).

1.1 | The role of paediatric nurses in near future based on the scope of practice in Rwanda

The recent Rwanda Demographic Health Survey (RDHS 2019–2020), has revealed that child mortality rate is at 13 deaths per 1000 live births, while under-5 mortality rate was 45 deaths per 1000 live births, which indicates that 1 in 22 children died before the fifth birthday. With regards to early childhood mortality, the RDHS reported an infant mortality rate of 33 deaths per 1000 live births whereas neonatal mortality rate was 19 deaths per 1000 live births. This calls upon the paediatric nurses to provide quality care during prevention, promotional, curative and rehabilitation.

The rate of stunting in Under five children was as high as 33% in 2019–2020 and 1% were wasted in Rwanda (National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda] and ICF, 2021). The efforts of paediatric nurses are needed in collaboration with other sectors to reduce all forms of malnutrition

particularly stunting. The paediatric nurses play a big role to address malnutrition but also extend their functional role in adolescent's health. This goes with teen pregnancies whereby in Rwanda 5% of women age 15–19 started childbearing, although they have declined since 2015 from 7% to 5% (National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda] and ICF, 2020). Paediatric nurses will work with adolescents in promotional, preventive and curative activities, being closer to them in communities and schools providing reproductive health education and behaviour change communication on safe sex, safe pregnancy and responsible fatherhood for boys.

1.2 | Paediatric nurses' outcomes

The WHO has recognized the role of nurses in the achievement of individual, families and community outcomes and the overall cost-effectiveness in health care sector (World Health Organization, 2010). It is also contended that nurses educated at masters level improve quality care in palliative care, continuity care, mental health, transition care, post-transplant care and central venous catheter to mention but a few (Ge et al., 2015). In SSA, graduates from child health nurse programs were often assigned to top-tier public hospitals (specialists). There were 9% of known alumni in the education field, with 54% being employed by centers offering or planning to provide children's nursing education (Ruthe & North, 2020). Children from deprived and vulnerable backgrounds can benefit from child health nurse programs by receiving quality, timely and cost-effective healthcare. Despite existing constraints, finding ways to implement the program is critical. As a result, there are also opportunities for the nursing profession to overcome such challenges. These opportunities are nursing workforce quality and quantity in SSA, consistent growth in advanced practice programs across SSA, resource sharing among health institutions, and evidence of successful advanced practice programs in other parts of the world indicate that Africa can get a hold of advanced practice nurse (Christmals & Armstrong, 2019).

Paediatric nurses' attitudes towards the families of hospitalized children affect the quality of paediatric nursing care. Children's families are important to paediatric nurses, so their attitude towards them is a factor to consider while trying to improve paediatric nursing care based on family-centred care approach (Yoo & Cho, 2020). Paediatric nurses in excellent professional roles can care for children with special health care needs and their families. In addition to providing medical care and training to the children, the main responsibility will be to ensure that they lead healthy, happy lives (Ashraf & Choudhary, 2022). Paediatric nurses may work with children's maltreatments and show the improvement not only in clinical care but also for the advocacy, didactic education to other professionals, parents, and the public. Paediatric nursing was less likely to receive priority attention as the emphasis was placed on acute care. Thus, paediatric nurses conduct research and publish to improve children's health (Mörelius et al., 2020).

1.3 | Significance of the study

Despite a growing body of knowledge of how SDGs are linked to patient care; global health crises; and other aspects of nursing, such as leadership, collaborative governance, and advocacy (Hassmiller & Kuehnert, 2020; Sensor et al., 2021), nurses feel disconnected to SDGs, and some need help finding relevance outside SDG 3 (Griggs et al., 2017; Richardson et al., 2019). A recent review has shown how research, education, and practice prioritizations in nursing have been influenced by how global goals have been translated into local and national actionable steps (Osingada & Porta, 2020). This review highlights that nursing and midwifery publications on the SDGs have steadily increased, but more work is needed to document progress, challenges, and opportunities in meeting them. Moreover, it highlights different key findings of how nurses have been involved in various activities to achieve SDGs. However, in those scholarships, no single study highlights paediatric nurses' role in achieving SDGs, especially in low and middle-income counties. Therefore, this paper aims at describing and exploring of how paediatric nurses will be able to address the needs of children and adolescents through the lens of selected SDGs.

2 | METHODS

A discursive method using SDGs as a guiding framework is used in this paper. Durnova and Zittoun (2013) stated that discursive approaches pay close attention to how actors produce their practical knowledge, how it is applied, and how knowledge is generally contested, considering that it is important to define both the problem and the solution. Wiggins and Potter (2016) described discursive approach as being guided by three principles that include being both constructed and constructive, being action-oriented, and being always situated in an institutional setting or in a particular framework for argumentation. This paper includes discussing SDGs and selecting those for which paediatric nurse could contribute significantly to their achievement. We draw on our own experiences as paediatric nurses and support them with the available literature. This paper aims to stimulate and expound on the discussion and action among policymakers and program developers.

3 | RESULTS AND DISCUSSION

3.1 | Paediatric nurses' roles in the attainment of SDGs

The United Nations (UN) 2030 Sustainable Development Agenda is arguably the most significant call for interprofessional collaboration towards health and social equity the world has ever known. It officially went into force on January 1, 2016, after unanimous adoption by all Member States of the UN General Assembly (United Nations, n.d.). To this end, all Member States worldwide made an ethical

commitment to align local initiatives and policies with the greater goals of the Agenda. There is no doubt that paediatric the nurses play undeniable key roles in each of the Agenda's 17 SDGs with 169 targets. The focus of the agenda remains on the advancement of People, Partnerships, Prosperity, Peace, and the Planet (Rosa, 2017). Whereas many of the SDGs mention the welfare of children, specifically in regards to social, environmental, economic, or biological determinants of health (United Nations, n.d.). Below is a list of contextually relevant examples of how paediatric nurses in Rwanda will be able to address the needs of paediatric population through the lens of selected SDGs:

GOAL #1: No poverty: Through community work and health promotion, the paediatric nurses' role will contribute to this goal by accessing people in the remote areas and the city to provide care in terms of promotion and prevention. Communities will be encouraged to utilize the resources available to them to improve nutrition and diets as an example for economic growth of individuals and societies but also, increasing house-hold productivity through disease prevention and health promotion Thus, there will be increased access to care and decreased health disparities in the poor and they will be paid.

GOAL #3: Good health and well-being: The fact that paediatric nurses are equipped with advanced knowledge of managing physical illnesses through knowledge and skills transfer from advanced pathophysiology of various diseases processes together with advanced therapeutics and physical assessment, it is envisaged that the paediatric nurses will access the people in the inner city and remote areas for those in difficult to access healthcare services. To this end, paediatric nurses in Rwanda will be playing a major role in the treatment of illnesses and injuries for improved quality of life.

GOAL # 4: Quality of education: Through the initiation of health promotion course within the curriculum, paediatric nurses are reminded of being responsive to the health care needs of the population by providing education tailored to individual needs. Similarly, the paediatric nurses will contribute to the provision of quality education as clinicians, clinical faculty or preceptors of students. Paediatric nurses will also teach their fellows and also mentoring other nurses on the sites. Furthermore, paediatric nurses will work as school health nurses and provide health education on different health related conditions that might have impact on school

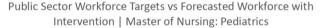
performance, and provide interventions that need mass coverage of children such as immunization, vitamins and mineral salts supplementation; these interventions should be given at school and would reduce school absenteeism.

GOAL # 8: Descent work and economic growth: Professionalism is key to paediatric nursing care provision and as such, the paediatric nurses will be required to practice with high level professionalism during the execution of their work to the paediatric population and their caregivers. In this regard, the paediatric nurses are required to transfer their skills they are able to apply to the different challenging healthcare settings. This also translates that the paediatric nurses may work in different public and private sectors for institutional and individual economic growth. Without doubt, paediatric nurses will serve both wealthy and poor people for the provision of quality care. Providing quality care will mean that the individuals can have a self-sustainable life that will in fact increase their productivity, thereby increasing the economic growth of the country and society at large.

GOAL #10: Reduce inequalities: Health inequalities are related to access of quality but also access to basic needs of individual for health promotion. Paediatric nurses will reach the vulnerable populations who are not able to afford the healthcare cost leading to inaccessibility of health care services. Paediatric nurses while executing their functions in the society will reach the children who are abused and with chronic diseases to provide the appropriate care for health promotion and disease prevention. It is envisaged that the paediatric nurses will prepare the next generation of youth who are also responsive to their health through youth health education and promotion. Paediatric nurses in Rwanda will identify at-risk youth and plan and evaluate strategies to prevent youth violence. In this way, they will provide routine check-ups and address the biopsychosocial needs of youth.

GOAL #17: Partnerships for the goals: There is collaboration between paediatric nurses around the world to make solutions with regard to the health issues. Inside the country they work together to make intersectoral partnership to achieve health, education and economic growth. Paediatric nurses will help to develop and implement policies that aim at improving children's health.

Figure 1 demonstrates that the government of Rwanda through the Ministry of Health (MoH) National Strategy for health professions development (NSHPD) 2020–2030 is investing in the



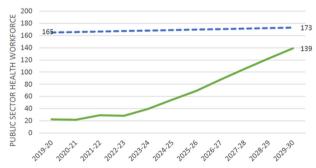




FIGURE 1 Public sector health workforce targets vs. forecasted health workforce targets|Master of Nursing: Paediatrics (Ministry of Health (MOH) [Rwanda], 2020).

development of nursing workforce and aims to increase Paediatric Nurses working in the public sector health workforce from 10 in the year 2020 to 173 Paediatric Nurses in the public sector in 2030 (Ministry of Health (MOH) [Rwanda], 2020).

3.2 | Challenges

Nursing is a cornerstone profession that requires standardized education and the freedom to practice to their full potential to deliver high-quality services at a reasonable cost. However, the nursing scope of practice remains unclear in various nations, and nurses worldwide deal with uneven educational standards for training (Christmals & Armstrong, 2019). In SSA, there are difficulties in delivering advanced child healthcare related to a shortage of skilled healthcare professionals leading to avoidable infant and childhood mortality (Hilliard, 2016). In a study conducted in Kenva, there was an issue that was identified that nurses did not need to pursue master's degree in nursing as they are not recognized or valued. The study states that the nurses rather they choose to join public health to work with NGOs for recognition and better remunerations. The study also added that nurses who advanced their education were regarded as nurse teachers (East et al., 2014). On the other hand, practicing in Kenya through their regulatory body allowed the prescription of limited medicines, which did not expand their scope of practice. The limited market demand was another challenge to some paediatric nurses around the world (Waldrop, 2015). Other challenges include limited resources, poor nursing governance, opposition from the medical profession, and the need for benchmark programs specific to the context (Christmals & Armstrong, 2019).

4 | RELEVANCY TO NURSING PRACTICE, RESEARCH, EDUCATION AND POLICY

Post-2015 sustainability agendas and the push towards UHC recognize health equity and social determinants (SDHs) as critical components to health care service provision. A systematic and integrated approach is necessary to reduce health inequities associated with SDH and UHC. The paediatric nurse's role is to translate the SDGs into the context and to make explicit links to the government's published policies based on each country's national priorities. Paediatric nurses can lead policy initiatives and policy changes in several ways. Participating in activities that advance the SDGs is part of their responsibilities by engaging and influencing policy. In nursing practice, this paper will inform the nursing profession on how paediatric nurses are relevant in achieving SDGs by elaborating on nursing care plans that recognizes the importance of client safety, advocacy, and well-being of the communities they serve. Nurse educators involved in educating paediatric nurses can use this paper to inform their curriculum development processes by incorporating a broader lens of the SDGs as guiding framework

to the required competencies, but also integrating them in their clinical placements for improved clinical practice and better outcomes. Specialized paediatric nurses are also tasked to participate in research studies designed to enhance children's health through exploring the interconnectedness of wildlife, humans, and the environments by embracing the 'One Health' concept. Therefore, this discursive paper continues to advocate for advanced education of paediatric nurses through stakeholders' support but also, investing in the strategies that support training of paediatric nurses for the attainment of the SDGs.

5 | CONCLUSION

The graduates of the MScN paediatric track at the University of Rwanda are the first graduate prepared, Rwandan-trained nursing cohort in the country. They represent an innovative cadre of experts in paediatric nursing trained through the marriage of Western oriented empirically rooted evidence and a local context that is relevant to the people of this nation. Continuing to emphasize the professional development and leadership opportunities of this group of nurse leaders is the only way to ensure sustainable development for all Rwandans and for the African continent. In fact, nursing profession is the only profession with the numerical power to make the difference at the community and public health levels where physicians may not be available.

AUTHOR CONTRIBUTIONS

Aimable Nkurunziza, Marie Louise Umwangange, Joselyne Rugema, Dieudonne Kayiranga, William E. Rosa, Philomene Uwimana, Madeleine Mukeshimana, Godfrey Katende and Patricia J. Moreland involved in conceptualization, writing the original draft, and review. Aimable Nkurunziza, William E. Rosa, Godfrey Katende and Patricia J. Moreland participated in reviewing and editing the final manuscript.

ACKNOWLEDGEMENTS

 $\label{thm:equiv} \mbox{Each member of the research team is acknowledged for their efforts.}$

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

ORCID

Aimable Nkurunziza https://orcid.org/0000-0001-5052-6172

REFERENCES

Ashraf, M. U., & Choudhary, P. (2022). Role of pediatric nurse in management of child with special needs. *IP Journal of Paediatrics and Nursing Science*, 4(4), 146–148. https://doi.org/10.18231/j.ijpns.2021.030

- -WILEY_NursingOpen
- Binagwaho, A., Kyamanywa, P., Farmer, P. E., Nuthulaganti, T., Umubyeyi, B., Nyemazi, J. P., Mugeni, S. D., Asiimwe, A., Ndagijimana, U., Lamphere McPherson, H., Ngirabega, J. D., Sliney, A., Uwayezu, A., Rusanganwa, V., Wagner, C. M., Nutt, C. T., Eldon-Edington, M., Cancedda, C., Magaziner, I. C., & Goosby, E. (2013). The human resources for health program in Rwanda-A new partnership. New England Journal of Medicine, 369(21), 2054-2059. https://doi. org/10.1056/neimsr1302176
- Boniol, M., McCarthy, C., Lawani, D., Guillot, G., McIsaac, M., & Diallo, K. (2022). Inequal distribution of nursing personnel: A subnational analysis of the distribution of nurses across 58 countries. Human Resources for Health, 20(1), 1-10. https://doi.org/10.1186/s12960-022-00720-5
- Christmals, C., & Armstrong, S. J. (2019). The essence, opportunities and threats to advanced practice nursing in sub-Saharan Africa: A scoping review. Heliyon, 5(10), e02531. https://doi.org/10.1016/j.heliy on.2019.e02531
- Coetzee, M., McKerrow, N. H., Chimwaza, A., Molyneux, E., North, N., & Sieberhagen, S. (2015). Building paediatric nurse training capacity for Africa, in Africa. The Lancet Global Health, 4(7), e449-e450. https://doi.org/10.1016/S2214-109X(16)30063-8
- Crisp, N., Brownie, S., & Refsum, C. (2018). Nursing and Midwifery: The key to the rapid and cost effective expansion of high quality universal healthcare. Doha, Qatar.
- Durnova, A., & Zittoun, P. (2013). Discursive approaches to public policy. Revue française de science politique, 63(3-4), 569-577.
- East, L. A., Arudo, J., Loefler, M., & Evans, C. M. (2014). Exploring the potential for advanced nursing practice role development in Kenya: A qualitative study. BMC Nursing, 13(33), 1-11.
- Ge, S., Xi, X., & Guo, G. (2015). A systematic review of the impact of master' s-educated nurses on inpatient care. International Journal of Nursing Sciences, 2(4), 414-421. https://doi.org/10.1016/j. ijnss.2015.10.003
- Griggs, C., Fernandez, A., & Callanan, M. (2017). Nursing and the barriers to sustainable health care: A literature review. British Journal of Nursing, 26(22), 1230-1237.
- Hassmiller, S. B., & Kuehnert, P. (2020). Building a culture of health to attain the sustainable development goals. Nursing Outlook, 68(2), 129-133. https://doi.org/10.1016/j.outlook.2019.12.005
- Hilliard, R. (2016). Paediatric challenges in sub-Saharan Africa. Journal of Health Specialties, 4, 12–16. https://doi.org/10.4103/1658-600X.
- Mannino, J., & Cotter, E. (2016). Educating nursing students for practice in the 21st century. International Archives of Nursing and Health Care, 2(1), 1-4.
- Ministry of Health (MOH) [Rwanda]. (2020). National Strategy for Health Professionals Development 2020-2030.
- Mörelius, E., Foster, M., & Gill, F. J. (2020). A scoping review of nursing research priorities in pediatric care. Journal of Pediatric Nursing, 52, 57-69. https://doi.org/10.1016/j.pedn.2020.01.006
- Mukamana, D., Uwiyeze, G., & Sliney, A. (2015). Nursing and midwifery education in Rwanda: Telling our story. Rwanda Journal Series F: Medicine and Health Sciences, 2(2), 9-12. https://doi.org/10.4314/rj.v2i2.1F
- National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda] and ICF. (2020). Rwanda demographic and health survey 2019-20 final report. Kigali, Rwanda and Rockville, Marvland, USA.
- Osingada, C. P., & Porta, C. M. (2020). Nursing and sustainable development goals (SDGs) in a COVID-19 world: The state of the science and a call for nursing to lead. Public Health Nursing, 37, 799-805. https://doi.org/10.1111/phn.12776
- Parsons, J., & Beauchamp, L. (2012). From knowledge to action: Shaping the future of curriculum development in Alberta. Government of Alberta, 1(1), 1689–1699.
- Pirret, A. M., Neville, S. J., & La Grow, S. J. (2015). Nurse practitioners versus doctors diagnostic reasoning in a complex case presentation

- to an acute tertiary hospital: A comparative study. International Journal of Nursing Studies, 52(3), 716-726. https://doi.org/10.1016/ j.ijnurstu.2014.08.009
- Richardson, J., Clarke, D., Grose, J., & Warwick, P. (2019). A cohort study of sustainability education in nursing nursing. International Journal of Sustainability in Higher Education, 20(4), 747-760. https://doi. org/10.1108/JJSHE-02-2019-0064
- Rosa, W. E. (2017). In W. E. Rosa (Ed.), A new era in global health: Nursing and the United Nations 2030 agenda for sustainable development. Springer Publishing Company. https://ebookcentral.proquest.com/ lib/west/detail.action?docID=4874729
- Ruthe, J., & North, N. (2020). Developing a specialist children's nursing workforce in sub-Saharan Africa: A descriptive programme evaluation. BMC Nursing, 19(113), 1-12.
- Salehi, R., Asamoah, A., de Young, S., Acquah, H., Agarwal, N., Aryee, S. E., Stevens, B., & Zlotkin, S. (2021). Scaling up pediatric nurse specialist education in Ghana-A longitudinal, mixed methods evaluation. BMC Nursing, 20(32), 1-12.
- Scheffler, R. M., & Tulenko, K. (2016). The deepening global health workforce crisis: Forecasting needs, shortages, and costs for the global strategy on human resources for health (2013-2030). Annals of Global Health, 82(3), 510. https://doi.org/10.1016/j.aogh.2016.04.386
- Schwendimann, R., Fierz, K., Spichiger, E., Marcus, B., & de Geest, S. (2019). A master of nursing science curriculum revision for the 21st century-A progress report. BMC Medical Education, 19(1), 1-11. https://doi.org/10.1186/s12909-019-1588-9
- Sensor, C. S., Branden, P. S., Clary-Muronda, V., Hawkins, J. E., Fitzgerald, D., Shimek, A. M., Al-Itani, D., Madigan, E. A., & Rosa, W. E. (2021). Nurses achieving the sustainable development goals: The United Nations and sigma. The American Journal of Nursing, 121(4), 65-68. https://doi.org/10.1097/01.NAJ.0000742544.07615.db
- Stanik-Hutt, J., Newhouse, R. P., White, K. M., Johantgen, M., Bass, E. B., Zangaro, G., Wilson, R., Fountain, L., Steinwachs, D. M., Heindel, L., & Weiner, J. P. (2013). 'The quality and effectiveness of care provided by nurse practitioners. Journal for Nurse Practitioners, 9(8), 492-500.e13. https://doi.org/10.1016/j.nurpra.2013.07.004
- Stevens, B., Donkor, E. S., Goka, B. Q., Odame, I., Langins, M., Riahi, S., de Young, S., Walters, D., Eliason, C., Fleming-Carroll, B., Barnes, G., Ekey, F. V., Hubley, P., Nyanteh, F., Mensah, E., & Sackey, I. (2014). Impact and sustainability of an accredited paediatric nursing training programme in Ghana. Journal of Nursing Education and Practice, 4(12), 142-154. https://doi.org/10.5430/jnep.v4n12p142
- Swan, M., Ferguson, S., Chang, A., Larson, E., & Smaldone, A. (2015). Quality of primary care by advanced practice nurses: A systematic review. International Journal for Quality in Health Care, 27(5), 396-404. https://doi.org/10.1093/intqhc/mzv054
- Tangcharoensathien, V., Mills, A., & Palu, T. (2015). Accelerating health equity: The key role of universal health coverage in the sustainable development goals. BMC Medicine, 13(1), 1-5. https://doi. org/10.1186/s12916-015-0342-3
- Tian, X., Lian, J. X., Yi, L. J., Ma, L., Wang, Y., Cao, H., & Song, G. M. (2014). Current status of clinical nursing specialists and the demands of osteoporosis specialized nurses in mainland China. International Journal of Nursing Sciences, 1, 306-313. https://doi.org/10.1016/j. ijnss.2014.07.007
- United Nations. (n.d.). The 17 goals, UN. Available at: https://sdgs.un. org/goals (Accessed: 12 May 2023).
- Uwizeye, G., Mukamana, D., Relf, M., Rosa, W., Kim, M. J., Uwimana, P., Ewing, H., Munyiginya, P., Pyburn, R., Lubimbi, N., Collins, A., Soulé, I., Burke, K., Niyokindi, J., & Moreland, P. (2018). Building nursing and midwifery capacity through Rwanda's human resources for health program. Journal of Transcultural Nursing, 29(2), 192-201. https://doi.org/10.1177/1043659617705436
- Waldrop, J. B. (2015). Facing the challenge for more pediatric nurse practitioners. The Journal for Nurse Practitioners, 11(8), A17-A18. https://doi.org/10.1016/j.nurpra.2015.07.007

are governed by the applicable Creative Commons

- WHO. (2016). Health workforce: Nursing and midwifery—WHO global strategic directions for strengthening nursing and midwifery 2016–2020.
- WHO. (2020). State of the world's nursing 2020: investing in education, jobs and leadership. WHO. Available from: https://apps.who.int/iris/handle/10665/331677 (Accessed: 3 August 2022)
- WHO. (2022a). Chronic staff shortfalls stifle Africa's health systems: WHO study. WHO. Available from: https://www.afro.who.int/news/chronic-staff-shortfalls-stifle-africas-health-systems-who-study (Accessed: 19 December 2022)
- WHO. (2022b). Nursing and midwifery: Key facts. WHO. Available at: https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery (Accessed: 19 December 2022)
- Wiggins, S., & Potter, J. (2008). Discursive psychology. In C. Willig & W. Stainton-Rogers (Eds.), The SAGE handbook of qualitative research in psychology (p. 631). Sage publications Ltd. https://doi.org/10.4135/9781848607927
- World Health Organization. (2010). Nursing midwifery services: Strategic directions 2011–2015.

- World Health Organization. (2016). Global strategic directions for strengthening nursing and midwifery 2016–2020.
- Yoo, S. Y., & Cho, H. (2020). Exploring the influences of nurses' partnership with parents, attitude to families' importance in nursing care, and professional self-efficacy on quality of pediatric nursing care:

 A path model. *International Journal of Environmental Research and Public Health*, 17(15), 1–13. https://doi.org/10.3390/ijerph17155452

How to cite this article: Nkurunziza, A., Katende, G., Uwimana, P., Moreland, P. J., Rosa, W. E., Umwangange, M. L., Kayiranga, D., Rugema, J., & Mukeshimana, M. (2023). Enhancing the education of paediatric nurses: A positive step towards achieving sustainable development goals. *Nursing Open*, 10, 5017–5023. https://doi.org/10.1002/nop2.1816