

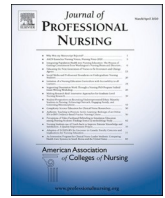


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## Global standards for professional nursing education: The time is now

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## ABSTRACT

A well-educated, professional nursing workforce is essential to good health care outcomes. Although nursing education is being strengthened globally, considerable diversity persists in the level and standards of nursing education both within and across countries. An international framework of guidelines for nursing education has, therefore, been developed to promote greater international consistency and high-quality nursing education globally.

The purpose of this paper is to discuss the multinational methodology used to develop a global framework for professional nursing education and the policy implications of this framework in guiding the harmonization of nursing education demanded by the State of the World's Nursing 2020 (WHO, 2020a) call to action. The framework includes the underpinning assumption that nurses be prepared at the baccalaureate level and three pillars of global expectations targeting: a) learning outcomes for graduating preservice nursing students; b) standards for nursing programs, and c) standards for educational institutions delivering nursing programs.

The Global Pillars Framework reflects international best practices, but the guidelines are adaptable across socio-cultural contexts facilitating the integration of locally relevant education. As 2020 has been declared the Year of the Nurse and Midwife globally, the ground has been laid for the next evolution in the education of the nursing workforce globally.

## Introduction

The proportion of professionally prepared, baccalaureate nurses is significantly correlated with better health outcomes (AACN, 2019; Aiken et al., 2017; Blegen et al., 2013). Globally 91% of countries report that standards for duration and content of nursing education exist and 89% of countries indicate they possess accreditation for education institutions (WHO, 2020a). However, considerable variation persists in the level and quality of education for registered nurses within the six World Health Organization (WHO) regions. Moreover, often variation exists within a single country (Shaffer, 2013; WHO, 2020a). The current complexity of health care demands that nursing education respond to a shift to higher levels of decision making, clinical judgement, team leadership, and political acumen enabling nurses to manage care in complex environments and across health care and social sector boundaries. In addition, nurses are an increasingly mobile workforce with one in eight not practicing in the country where they were born or educated (WHO, 2020b). Thus, there is an urgent international need for high

quality guidelines to direct nursing education and for greater harmonization of entry level nursing education globally.

The Global Alliance for Nursing Education and Sciences (GANES) undertook a multinational methodology to develop global educational guidelines for preservice baccalaureate nursing education. This methodological approach will be described, and the policy implications of the Global Pillars Framework that emerged will be discussed.

## Background

Despite advances in health care, the global disease burden has increased. There are more people over 60 than children under five worldwide, which has been associated with a global increase in the prevalence of non-communicable chronic illnesses (WHO, 2014). Communicable diseases however, including the current COVID-19 pandemic, once considered to have been vanquished by medical science, continue to take a devastating toll on communities. In addition, population mobility, armed conflict, and climate change are creating

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major health crises worldwide (WHO, 2016).

Because nurses fulfill multiple roles in diverse settings and care for all age groups, the quality of their education is crucial to ensure health systems respond effectively to current health challenges (All-Party Parliamentary Group on Global Health, 2016). Nurses are front line responders in health crises and disasters such as the COVID-19 pandemic, provide palliative and end-of-life care, educate and support individuals with chronic illness and their families, monitor patients who are acutely ill, and manage and respond to population health indicators and life threatening conditions in high acuity care settings. In addition, nurses promote population health, and prevent illness and injury among individuals, families, and communities (GANES, 2019).

### Level and quality of nursing education

Governments in several countries have undertaken measures to improve health services by enhancing the quality of nursing education. The global challenge facing nursing education programs resides in delivering transformed undergraduate curricula and practice learning opportunities to meet the new paradigms emerging in healthcare.

In response to these demands, an international trend in nursing education has been a shift from vocational training to professional education (Collins & Hewer, 2014). Although some countries continue to provide only vocational training for nurses, an increasing number have instituted the baccalaureate degree as an entry-to-practice requirement for registered nurses (WHO, 2020a). For example, China has three entry levels for registered nurses - diploma, advanced diploma, and baccalaureate degree. Chinese policy and regulations recognize that high standards of nursing education are essential to meet the health demands of the population and the numbers of baccalaureate prepared nurses and nurses with graduate degrees have therefore increased (Wang et al., 2016). While a number of countries in the European Union have considered a shift from vocational training to be unnecessary (Collins & Hewer, 2014), the Bologna Accord, prompted a harmonization of educational processes to facilitate the mobility of nurses (Shaffer, 2013), spurring a move to professional education as the requirement for nurses. Further, a national study of nursing education between 2011 and 2013 in South Africa, concluded that top-up, baccalaureate nursing degrees for diploma educated nurses needed to be developed to meet health care demands (Comiskey et al., 2015). A Nursing Qualifications Framework was, therefore, created (Blauw et al., 2014).

The most recent recommendations from the World Health Organization (WHO) and its partners assert that countries must modernize regulatory rules by harmonizing education requirements and standardizing nurses' credentials globally (WHO, 2020b). Undoubtedly, the preponderance of evidence demonstrates that the quality of nursing education affects health outcomes. Over the past decade international development aid to optimize health crises outcomes has been directed to nursing education. For example, in 2008 the US Congress made a commitment to enhance nursing education in Africa to achieve UNAIDS 90–90 goals that 90% of HIV positive people know their status, 90% diagnosed are on treatment and 90% on treatment are virally suppressed (Michaels-Strasser et al., 2018). As a result, schools of nursing in the Democratic Republic of the Congo, Ethiopia, Lesotho, Malawi, South Africa, and Zambia were supported with infrastructure improvement, curricular revisions, clinical skill development, in-service training, and faculty development. However, the ground-breaking international study by the Lancet Commission on health professional education for the 21st century, called for curricula that are locally relevant as well as reflective of international best practices (Frenk et al., 2010). Achieving successful implementation of high-quality standards internationally, therefore, is dependent upon ensuring that the standards not only represent best practices but are adaptable to local contexts and cultures.

The aim in creating the Global Pillars Framework was to provide guidelines for professional nursing education that are adaptable to differing sociocultural contexts while representing best practices

(GANES, 2019). It is important to recognize that 2020 has been declared by the WHO as the Year of the Nurse and Midwife; therefore the debut of the recommendations in the GANES document is a fitting tribute to enrich the quality of nursing education globally.

### International standards for nursing education

Given the diversity in the level and quality of nursing education globally and the importance of well-educated nurses for optimum health care outcomes, strengthened international guidelines for nursing education are essential. As a result, the Global Alliance for Leadership in Nursing Education and Sciences (GANES) developed a Global Framework for Nursing Education to promote high quality, entry-level education for registered nurses worldwide (GANES, 2019). This Global Framework offers guidance for executing recommendations in the State of the World's Nursing 2020 report (WHO, 2020a)

The global framework specifies expectations for three interrelated pillars (GANES, 2019).

- Pillar I: Competency expectations for new graduates that are formulated as learning outcomes
- Pillar II: Expectations for professional nursing education programs that are formulated as guidelines
- Pillar III: Expectations for educational institutions that provide nursing education programs formulated as guidelines (GANES, 2019).

### Methodology

The modified Delphi methodology for developing national, consensus-based guidelines, standards, and competencies (Schofield et al., 2018) was expanded to integrate multi-national engagement. This methodology involves a multi-step, iterative process of formulating and reformulating a knowledge product through input obtained from a wide variety of sources, including multiple stakeholders. This process is led by a panel of experts who come to a final consensus about the knowledge product.

In this initiative, the 12-member, doctoral prepared nursing education leaders of the GANES Board of Directors served as the international panel of experts guiding the development of the Global Pillars Framework. GANES members represented nursing education in South, Central, and North America, Spain, Portugal, and South Africa.

The development process involved 4 phases: 1) environmental scan and literature review; 2) stakeholder consultations; 3) validation survey; and 4) survey analysis and final revisions. The steps of the development process were carried out by a smaller working group of nurse educators in leadership positions from Canada, the United States, and Portugal (GANES, 2019). Each step is described in greater detail.

#### Phase 1: environmental scan/literature review

The process began with a review of the grey literature on international and national guidelines for nursing education. Grey literature refers to information produced outside dedicated publishing channels such as journals. It includes policy papers, reports, newsletters, government documents, conference proceedings and so on. The following search terms guided the process: nursing education guidelines, and nursing education standards. Documents were retained if they were published by a national or international organization involved in nursing, health care or nursing education. Eighteen documents were reviewed and were supplemented by peer reviewed articles on nursing competencies. This literature informed a first draft of the Global Pillars Framework.

Following draft revisions, peer reviewed literature was retrieved using Medline and CINAHL to examine the research question: "How does the quality of nursing education affect health?" The key words guiding

the search strategy were nursing education, global health, and, nursing education standards. The search was restricted to articles published between 2014 and 2019, which yielded 110 articles. We focused on the national and international literature written in English to gain insights. If a review of the abstract indicated a publication was concerned with voluntourism (a form of tourism in which students participate in voluntary work, typically for a charity), graduate level nursing education, or student exchange it was excluded. As a result, 31 articles were retained for analysis.

Drafts of the Global Pillars Framework were created based on the environmental scan and literature review and an initial consensus was reached by the panel of experts on the expectations of the three pillars.

## Phase 2: stakeholder consultations

A series of face-to-face consultations with nursing educators were conducted by members of the working group at three international nursing conferences: the first in Miami, United States, the second in Barcelona, Spain, and the third in Lima, Peru (GANES, 2019). At each of these sessions, from 35 to 50 educators who were present reviewed drafts of the pillars and provided feedback. The session in Lima Peru was conducted in Spanish and translated into English by a bilingual research assistant. Each consultation led to further revisions by the working group which were reviewed and, in some cases, modified by the panel of experts. Following the last consultation, a second draft version was adopted by the GANES panel of experts to be validated by an international sample of stakeholders (GANES, 2019).

## Phase 3: validation survey

Each of the GANES member organizations sent out a survey electronically to their respective networks in English, French, Spanish, and Portuguese, and a snowball sampling approach was used to reach a wide base of stakeholders (GANES, 2019).

Survey respondents were asked to indicate their level of agreement with:

- the two assumptions underpinning the framework (entry-level nursing education must be at the baccalaureate level; and expectations of the framework must be adaptable to local contexts and support local population needs).
- each expectation stated in each of the global pillars.

Respondents were also invited to provide input on each of these as well as on the framework in general.

### Survey sample

There were 357 respondents of the validation survey from Africa, Asia, Europe, the Middle East, and South, Central, and North America. As displayed in Table 1, respondents self-identified as educators ( $n = 278$ ), employed in not-for-profit nursing roles ( $n = 15$ ), engaged in public sector employment ( $n = 27$ ) or other types of nursing employment ( $n = 37$ ) (GANES, 2019).

**Table 1**  
Respondents by region and type of employment.

	Nursing education employment	Other nursing employment	Total respondents
Africa	20	3	23
Asia	69	17	86
Middle East	1		1
Americas	163	57	220
Europe	25	2	27

## Phase 4: survey analysis and final revisions

It was predetermined that if there was less than 75% agreement with any assumption or expectation it would be removed. A descriptive statistical analysis was conducted of the level of agreement with each assumption and each expectation in the framework, and a content analysis of the written, open-ended feedback was carried out. Any further modifications of the framework were to be based on a systematic content analysis of stakeholders' comments.

### Level of agreement

There was a very high level of agreement with all components of the framework with none reaching the <75% threshold for removal. More than 90% of respondents indicated that they either strongly agreed or agreed with 39 out of the 42 expectations, and with 1 of the 2 assumptions. Over 80% strongly agreed or agreed with the remaining three expectations in the pillars, and 77% agreed or strongly agreed with the second assumption (GANES, 2019).

### Content analysis of feedback

Ninety-nine (28%) of the respondents provided detailed open-ended feedback. All feedback was provided in English despite the diverse sample with native speakers of Spanish, Portuguese, and French who could select to respond to the survey in these languages.

The first step in analyzing their input was to extract all recommendations and categorize them into the following three groups (GANES, 2019):

- Convergent*: recommendations from more than one person (20)
- Single participant*: recommendations from one person only (25)
- Divergent*: contradictory recommendations (5).

The next step was to further sub-categorize comments into the following 4 types of recommendation (GANES, 2019):

- clarify* or specify an expectation;
- add* an expectation or add to an existing expectation;
- remove* a concept/assumption;
- change* an expectation.

For *convergent* and *single participant* recommendations, 9 recommended clarification, 28 recommended additions, 3 recommended removal, and 5 recommended modifications. Three of the *divergent* recommendations were about changing an expectation albeit in opposing directions. Two were about removing or retaining a concept or assumption (GANES, 2019).

### Method to address recommendations

Although the application of a given rationale was subjective, an audit trail was kept that included the initial categorizations of the recommendation, whether and how it was addressed, and the specific rationale for the decision. This was submitted to the panel of experts to review along with the proposed modifications made by the working group.

A predetermined set of rationales provided the guidelines for the recommendations. Once the classification and sub-classification of respondents' feedback was completed, the recommendations to either add, clarify, remove, or change an expectation in each of the three categories (*convergent*, *single participant*, *divergent*) were reviewed and a decision made as to whether or not the input should be addressed. These were as follows: a) all *convergent* recommendations to clarify should be addressed; b) recommendations to add an expectation should be addressed if it refers to a broad area of nursing and is supported in current nursing education literature –it should not be addressed if the

scope is narrow, the expectation is context dependent, or it applies to medicine rather than nursing; c) recommendations to remove a concept/assumption should be addressed if broadly supported in current nursing education literature; d) recommendations to make a change should be addressed if broadly supported in current nursing education literature (GANES, 2019).

#### Revisions of convergent recommendations

Based on the guidelines, all *convergent* comments to clarify were addressed. All but one of the recommendations to add an expectation were addressed. This recommendation was not integrated into the framework because it was judged to be context dependent. In contrast, however, although several respondents recommended that simulation be removed from one expectation because not all countries have the technological capabilities to provide this, it was retained. The group rationalized that the retention of simulation includes non-computerized low fidelity simulation and globally available role-play and therefore, is not context dependent. There was only one *convergent* recommendation of a minor change: It was to replace *knowledge, skills and abilities* with *knowledge, skills, and attitudes* and this modification was made (GANES, 2019).

#### Single participant recommendations

There were 20 *single participant* recommendations to add an expectation to standards or learning outcomes. Of these, 11 (55%) were addressed as broad areas of nursing supported by current nursing literature. The remaining 45% were either judged to be a) a narrow and specific concept/theme, b) focused on medicine rather than nursing, or c) not typically found in current nursing literature (GANES, 2019).

#### Divergent recommendations

Finally, there were five *divergent* recommendations with contradictory recommendations about changing or removing an assumption or expectation (GANES, 2019):

- 1) Increase level of research expectations/Reduce level of research expectations “Participating” in research was reduced to “using” research to inform practice. The rationale was based on current literature on nursing research and evidence-based practice (GANES, 2019).
- 2) More on nursing theory/remove nursing theory

The term nursing theory was changed to nursing knowledge and the rationale based on current literature related to the discipline of nursing (GANES, 2019).

- 3) Increase level of leadership expectations/reduce level of leadership expectations of students

The expectations related to nursing leadership skills were lowered and the rationale was based on current nursing literature regarding leadership (GANES, 2019).

- 4) Baccalaureate Nursing (BN) unrealistic/BN should be the entry-to-practice qualification (an assumption of the pillars).

With over 75% agreement, the BN as entry-to-practice was retained. In addition, it was specifically supported by all stakeholders at each of the earlier face-to-face consultations (GANES, 2019).

- 5) Internet and library use necessary and important/internet and library access unrealistic

– remove.

Internet and library access were retained despite the influence of context because evidence-informed practice is a key international best practice in nursing education (GANES, 2019).

#### Rigor, trustworthiness, and limitations

The multilingual and multinational composition of the expert panel and stakeholders who provided input, the expertise and leadership roles of panel members, and the triangulation of data and methods represented integral components of the methodology supporting the credibility and trustworthiness of the findings. Adding to its confirmability and dependability, an audit trail was maintained detailing each step in the process and each revision of the Global Pillars Framework. The audit trail included the documentation of all coding steps, coding decisions, and the rationale for revisions. However, transferability, would have been strengthened if representatives of more linguistic and national groups had been members of the expert panel, and if the validation survey had involved a purposeful sample rather than a snowball sample of respondents. Despite the national diversity of the input obtained, some parts of the world were overrepresented, and others underrepresented or not represented. Similarly, while anglophones, francophones, Spanish and Portuguese speakers contributed to the development of the framework, major linguistic groups such as Mandarin and Arabic were unrepresented.

#### Global pillars

The collective experience and wisdom of the panel of experts and international stakeholders are reflected in the three pillars with quality expectations for nursing education that emerged from this process (See appendix A). Before discussing policy implications of the framework an overview of each pillar is presented,

#### Pillar 1: learning outcomes for graduates

The learning outcomes for graduates specified in Pillar I are classified under the following areas: 1) Knowledge and Practice Skills; 2) Communication and Collaboration; 3) Critical Thinking, Clinical Reasoning and Clinical Judgement; and 4) Professionalism and Leadership.

The specific learning outcomes encompassing Knowledge and Practice Skills target cognitive understanding of health sciences, mastery of locally relevant competencies, care of individuals across the life span, care of families and communities, care of clients in stable and unstable conditions, comfort care, pain and symptom management, end-of-life care, psycho-social and spiritual care; social determinants of health; culturally sensitive and culturally safe care; human rights, health equity, social justice and global awareness (GANES, 2019).

The specific learning outcomes focused on Communication and Collaboration incorporate relational skills including empathy and reflection, effective interaction with individuals and families, accurate and timely care documentation, counseling and health education, and interprofessional and intersectoral collaboration (GANES, 2019).

The Clinical Reasoning and Judgement learning outcomes address cognitive skills related to the use of evidence in practice, abilities to identify and interpret observations, and to recognize and respond to rapidly changing situations. Finally, the expectations under Professionalism and Leadership emphasize advocacy, ethical and professional behaviors, leadership, and the ability to influence public policy (GANES, 2019).

#### Pillar II: guidelines for educational programs

The guidelines of pillar II are directed at the educational program under the auspices of 1) Curriculum; 2) Admissions; and 3) Learning Experiences. Standards targeting the Curriculum include responsiveness

to the local context and to the particular health needs of the population. They also include that key stakeholders provide input into the curriculum and that the curriculum is monitored and updated on a regular basis.

The Admissions construct directs attention to the alignment of student admission standards with resources as well as with academic and practice demands. In addition, it includes that admission policies be reviewed on a regular basis (GANES, 2019).

Learning Experience guidelines include providing nursing students with increasingly complex learning opportunities, interprofessional education, practice through simulation and clinical placements in a variety of settings. They also include that gender and cultural influences be considered.

### **Pillar III: guidelines for educational institutions**

The guidelines for educational institutions that deliver nursing education programs are classified as: 1) Faculty, Instructors and Preceptors; 2) Resources; 3) Leadership and Administration; and 4) Outcomes.

The guidelines for Faculty, Instructors and Preceptors specify that faculty possess a graduate degree and expertise in the areas in which they teach. Similarly, they also specify that clinical instructors and preceptors possess expertise and experience in the area in which they are teaching and/or mentoring students. In addition, these guidelines specify that the number of students a faculty member, clinical instructor or preceptor is teaching in each classroom or online course, a laboratory course, or a clinical placement fosters optimum learning in accordance with evidence-based quality educational activities (GANES, 2019).

Guidelines targeting the Resources of the educational institution include the need for library and internet resources for students to learn to use evidence to inform their practice and develop critical thinking skills. The institutional expectation necessitating possession of resources (material, pedagogical, and andragogical) needed to support optimum learning is explicit. In addition, the guidelines specify that the institution must have the financial resources to cover both the human and material expenses needed to sustain the educational program (GANES, 2019).

In terms of the Leadership and Administration of the institution, the guidelines specify that the governance and administrative structure must be clearly defined and support a high-quality nursing education program. They also specify that the person responsible for the program must be a registered nurse who has a graduate degree. Guidelines also include that the leadership and administration collaborate effectively with health services to ensure optimum practice opportunities for student learning (GANES, 2019).

The guidelines related to Outcomes focus on the implementation of an ongoing evaluation of the education program, the analysis of evaluation data, and the use of this data analysis to improve the institution, the program, and the student outcomes (GANES, 2019).

### **Implications for nursing and health policy**

Because the quality of nursing education is a critical determinant of the quality of nursing practice, the guidelines for nursing education in the Global Pillars Framework have the potential to execute the call to action to enhance nursing education, nursing care, and nursing services as illustrated in the State of the World's Nursing 2020 report (WHO, 2020a). At the policy level, the Global Pillars Framework offers direction to Ministries of Education, Labor, Health and Finance; educational institutions, accreditors, private sector and other funders who have been called to action by the WHO, International Council of Nurses, and Nursing Now to invest in nursing education that produces modernized graduates. The complexity of medicine, science, culture, and delivery systems needed to address population health undergird the tremendous responsibility of nursing education to graduate a well-prepared workforce globally. Policy makers across the globe can be responsive to their

constituent and country values by incorporating the voices of nurses and place nurses in policy positions to support the application of this educational standards framework. It is well documented that nurses migrate across regions; therefore, the use of the Global Pillars and research-informed standards can harmonize the education and ultimately practice standards to recognize nurses' credentials globally.

Countries that seek to utilize nurses in specialties, advanced practice, as faculty, and as policy influencers and policy makers will benefit from focusing entry level nursing at the baccalaureate level using the Global Pillars as the initial direction. These Global Pillars ground the preparation of a baccalaureate prepared global workforce- a workforce that has been shown to reduce mortality and length of stay and lower health care costs in countries, predominately in acute care settings where the most expensive resource consumption exists. The science of nursing and nursing care demands clarity in the vision of nurses for the advocacy and policy influence expectations for their roles as they create, educate and influence legislative agenda for health in a country. Well educated nurses reflecting the Global Pillars competency outcomes will play pivotal roles in systems delivery improvements for nursing education globally.

### **Conclusions**

The Global Pillars Framework provides guidelines to strengthen nursing education internationally and is in concert with the WHO State of the World's Nursing 2020 report. "Significant investment in education and training is required to match current and anticipated needs of health systems and meet national and subnational standards" (WHO, 2020a, recommendation 101). These Pillars are based on a systematic, multinational methodology, reflect an international consensus among national leaders in nursing education, and build on the evidence in support of baccalaureate prepared nurses. They represent, therefore, a first step towards greater harmonization in nursing education internationally through generating discussion and execution among policy makers, nurses, and funders. The State of the World's Nursing 2020 report (WHO, 2020a) asserts the imminent challenge to the discipline of professional nursing: we must start now to create a harmonized and modernized nursing education approach to optimize nursing outcomes globally.

### **CRedit authorship contribution statement**

Project design: CB., AC., MdaCB.  
 Data collection: CB., AC/. MdaCB.  
 Data analysis: CB.  
 Manuscript writing: CB., AC.  
 Critical revisions for important intellectual content: AC., MdaCB.

### **Declaration of competing interest**

None.

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### **Appendix A**

- **Pillar 1** Competency expectations for new graduates that are formulated as learning outcomes (GANES, 2019, p. 7–8)
  - 1.1. Knowledge and Practice Skills

- 1.1.1 Apply nursing knowledge, health sciences including genetics, genomics and epigenetics, behavioral and social sciences, across the continuum of care.
- 1.1.2 Master locally relevant entry-to-practice competencies that reflect evidence-based international best practices.
- 1.1.3 Care for individuals across the lifespan, families, communities, and populations.
- 1.1.4 Manage and monitor complex care of clients in stable and unstable contexts to improve health outcomes.
- 1.1.5 Provide comfort care that addresses pain, symptom management, and psycho-social and spiritual needs throughout the illness trajectory including end-of-life.
- 1.1.6 Provide culturally sensitive, culturally safe, holistic, and person-centered care that integrates the social determinants of health.
- 1.1.7 Apply a global education perspective of human rights, health equity, social justice, global awareness, and the interconnectedness of systems.
- 1.2 Communication and Collaboration
  - 1.2.1 Implement relational skills including listening, questioning, empathy, reflection, and sensitivity to emotional contexts when providing care.
  - 1.2.2 Provide clear, accurate, timely, and appropriate documentation of care.
  - 1.2.3 Communicate with empathy and respect in interactions with clients, families, members of the health care team, and others.
  - 1.2.4 Counsel and provide information and health teaching to the client, family, and community.
  - 1.2.5 Communicate effectively with members of the health care team.
  - 1.2.6 Collaborate interprofessionally and intersectorally in the best interest of the client.
- 1.3 Critical Thinking, Clinical Reasoning, and Clinical Judgement
  - 1.3.1 Systematically seek, interpret, and critically evaluate information, evidence, and practice observations.
  - 1.3.2 Use research evidence in providing care.
  - 1.3.3 Use clinical reasoning and problem solving to inform decision-making and caregiving in diverse practice settings.
  - 1.3.4 Recognize and respond to rapidly changing client conditions and contexts including disasters.
- 1.4 Professionalism and Leadership
  - 1.4.1 Demonstrate a reflective understanding of ethical codes and ethical principles in providing care.
  - 1.4.2 Practice within regulatory, legal, and ethical standards and contribute to a culture of patient safety.
  - 1.4.3 Demonstrate the ability to analyze and influence public policy related to health.
  - 1.4.4 Respond professionally to the needs of the individual, family, and community.
  - 1.4.5 Demonstrate leadership skills in promoting health and influencing change.
  - 1.4.6 Advocate for clients and their family to optimize health and well-being.
    - **Pillar II** Expectations for professional nursing education programs (GANES, 2019, p. 9–10)
- 2.1 Curriculum
  - 2.1.1 Faculty teaching and student learning are guided by a curriculum that is systematically developed and reviewed.
  - 2.1.2 The curriculum is responsive to the changing health care needs of the local population and the health care system.
  - 2.1.3 Key stakeholders including employers, faculty, students, and alumni are consulted and provide input into curriculum development and review.
  - 2.1.4 There is a systematic process for ongoing monitoring and improvement of the quality and relevance of the curriculum.
  - 2.1.5 There is a systematic process for updating the curriculum as health needs, knowledge, and technology change.
- 2.2 Admissions
  - 2.2.1 Student enrollments are aligned with faculty resources to ensure high-quality education and responsiveness to the health care needs of the community.
  - 2.2.2 Admission standards are set in relation to academic and practice demands, communicated clearly to applicants, and are respected.
  - 2.2.3 Admission standards are reviewed regularly to ensure they meet current needs.
- 2.3 Learning Experiences
  - 2.3.1 The education program includes practice experience through simulation and placements in a variety of clinical settings and with diverse populations.
  - 2.3.2 Practice experiences are organized to provide students with increasingly complex learning opportunities.
  - 2.3.3 Gender and cultural influences that may have an impact on learning are considered.
  - 2.3.4 Interprofessional education is integrated into the curriculum.
    - **Pillar III:** Expectations for educational institutions that provide nursing education programs (GANES, 2019, p. 11–12)
- 3.1 Faculty/Instructors/Preceptors
  - 3.1.1 Nursing faculty with graduate-level education and expertise in the areas in which they teach, ensure optimum delivery of the program in classroom, distance, laboratory, and clinical courses.
  - 3.1.2 Nursing instructors and/or preceptors in practice settings possess clinical experience and expertise in the area in which they are instructing or mentoring students.
  - 3.1.3 The number of students, in classroom, online/distance, laboratory, and clinical courses fosters optimum learning outcomes.
- 3.2 Resources
  - 3.2.1 Library and internet resources support the development of evidence-informed practice and critical thinking among students.
  - 3.2.2 Material, pedagogical, and andragogical resources support optimum learning outcomes.
  - 3.2.3 Financial resources covering the human and material resources needed to deliver the program are sufficient to allow for the continuity of the program.
- 3.3 Leadership and Administration
  - 3.3.1 The governance structure is clearly defined and the administration actively supports the delivery of high-quality nursing education.
  - 3.3.2 A registered nurse with a graduate degree is responsible for the nursing education program.
  - 3.3.3 The leadership and administration of the nursing education program collaborate effectively with health service agencies to provide students with optimum practice learning opportunities.
- 3.4 Outcomes
  - 3.4.1 An evaluation plan guides the assessment of the program, the educational institution, and the program outcomes.
  - 3.4.2 There is ongoing implementation of the evaluation process and analysis of the evaluation data collected.
  - 3.4.3 Evaluation data are used to improve the educational institution, the nursing education program, and student outcomes.

## References

- Aiken, L. H., Sloane, D. M., McHugh, M. D., Griffiths, P., Rafferty, A. M., Bruyneel, L. M., ... Sermeus, W. (2017). Nursing skill mix in European hospitals: Association with mortality, patient ratings, and quality of care. *BMJ Quality & Safety*, 26(7), 559–568. <https://doi.org/10.1136/bmjqs-2016-005567>.
- All-Party Parliamentary Group on Global Health. (2016, October). Triple impact: How developing nursing will improve health, promote gender equality, and support economic growth. Retrieved from [https://www.who.int/hrh/com-heeg/digital-APPG\\_triple-impact.pdf?ua=1&ua=1](https://www.who.int/hrh/com-heeg/digital-APPG_triple-impact.pdf?ua=1&ua=1).
- American Association of Colleges of Nursing. (2019). Academic progression in nursing: Moving together toward a highly educated nursing workforce. Retrieved from <https://www.aacnnursing.org/News-Information/Position-Statements-White-Papers/Academic-Progression-in-Nursing>.
- Blauw, W., Ditlopo, P., & Rispel, L. (2014). Nursing education reform in South Africa: Lessons from a policy analysis study. *Global Health Action*, 7(1). <https://doi.org/10.3402/gha.v7.26401>.
- Blegen, M. A., Hyde Park, S., Goode, C. J., Vaughn, T. E., & Spetz, J. (2013). Baccalaureate education in nursing and patient outcomes. *The Journal of Nursing Administration*, 43(2), 89–94. <https://doi.org/10.1097/NNA.0b013e31827f2028>.
- Collins, S., & Hewer, I. (2014). The impact of the Bologna process on nursing higher education in Europe: A review. *International Journal of Nursing Studies*, 51(1), 150–156. <https://doi.org/10.1016/j.nurstu.2013.07.005>.
- Comiskey, C., Mathews, A., Williamson, C., Bruce, J., Mulaiudzi, M., & Klopper, H. (2015). Scaling up nurse education: An evaluation of a national PhD capacity development programme in South Africa in the context of the global shortage of nursing graduates. *Nursing Education Today*, 35(5), 647–652. <https://doi.org/10.1016/j.nedt.2015.01.003>.
- Frenk, J., Chen, L., Bhutta, Z., Chen, J., Crisp, N., Evans, T., ... Serwadda, D. (2010). Education of health professionals for the 21st century. *The Lancet*, 375. Retrieved from [https://www.thelancet.com/article/S0140-6736\(10\)61854-5/fulltext](https://www.thelancet.com/article/S0140-6736(10)61854-5/fulltext).
- Global Alliance for Leadership in Nursing Education and Science. (2019, June). Global pillars for nursing education. Retrieved from <https://ganes.info/>.
- Michaels-Strasser, S., Smith, J., Khanyola, J., Sutton, R., Price, T., & El Sadr, W. (2018). Strengthening the quality and quantity of the nursing and midwifery workforce: Report on eight years of the NEPI Project. *Annals of Global Health*, 84(1), 31–35. <https://doi.org/10.29024/aogh.6>.
- Schofield, R., Chircop, A., Baker, C., Dietrich, L., Duncan, M. S., & Wotton, D. (2018). Entry-to-practice public health nursing competencies: A Delphi method and knowledge translation strategy. *Nursing Education Today*, 65, 102–107. <https://doi.org/10.1016/j.nedt.2018.030001>.
- Shaffer, F. (2013). Ensuring a global workforce: A challenge and opportunity. *Nursing Outlook*, 62(1), 1–4. <https://doi.org/10.1016/j.outlook.2013.08.001>.
- Wang, C., Whitehead, L., & Byers, S. (2016). Nursing education in China: Meeting the global demand for quality healthcare. *International Journal of Nursing Sciences*, 1(3), 131–136. Retrieved from 10.1016.ijmess.2016.02.009.
- World Health Organization. (2014). “Ageing well” must be a global priority. Retrieved from <http://www.who.int/mediacentre/news/releases/2014/lancet-ageing-series/en/>.
- World Health Organization. (2016). *Global strategy of human resources for health: Workforce, 2030*. Retrieved from <http://www.who.int/hrh/resources/globstrathrh-203-/en/>.
- World Health Organization. (2020a). *State of the world’s nursing 2020: Investing in education, jobs, and leadership*. Geneva, Switzerland: Author.
- World Health Organization. (2020b). WHO and partners call for urgent investment in nurses. Retrieved from <https://www.who.int/news-room/detail/07/04/2020-wh-o-and-partners-call-for-urgent-investment-in-nurses> June 26, 2020.