

Navigating the BANI Era in Nursing Education Programs: Aligning Competencies with AUN-QA Criteria for Future-Ready Nursing Professionals

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Abstract: The shift from a VUCA (Volatile, Uncertain, Complex, Ambiguous) world to the BANI (Brittle, Anxious, Nonlinear, Incomprehensible) era brings unique challenges to healthcare, demanding a re-evaluation of essential competencies for nursing professionals. This article identifies five core competencies critical for nursing personnel in the BANI era: adaptability, emotional resilience, technological and digital literacy, interdisciplinary collaboration, and ethical decision-making. A comprehensive learning program is proposed to develop these competencies in nursing students, emphasizing alignment with ASEAN University Network-Quality Assurance (AUN-QA) criteria, specifically Criteria 1-8, to ensure educational quality and relevance. Detailed learning modules are outlined, each structured to support competency development through evidence-based teaching methods, while Criteria 5 (Academic Staff), 6 (Student Support Services), and 7 (Facilities and Infrastructure) reinforce the program's foundational support. Assessment strategies are integrated to focus on outcome-based education, evaluating graduates' readiness to meet the demands of the modern healthcare environment. Additionally, the potential for adapting this competency-based program to other health science disciplines is discussed, underscoring its wider applicability across the healthcare sector.

Keywords: Adaptability, AUN-QA criteria, BANI era, Competency development, Emotional resilience, Ethical decision-making, Healthcare professionalism, Interdisciplinary collaboration, Nursing education, Technological and digital literacy

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Introduction

This article serves as a roadmap for educators to design nursing programs that align with AUN-QA criteria, focusing on developing core competencies essential for thriving in the BANİ era. These include adaptability, emotional resilience, technological and digital literacy, interdisciplinary collaboration, and ethical decision-making. As the healthcare landscape evolves from VUCA (Volatile, Uncertain, Complex, Ambiguous) to BANİ (Brittle, Anxious, Nonlinear, Incomprehensible), new challenges necessitate reevaluating the skills required by healthcare professionals. To address these challenges, nursing education programs must align with frameworks like AUN-QA to develop these competencies.

Recognizing this need, numerous health science programs—including medicine, public health, and allied health—have begun aligning their educational frameworks with quality assurance standards, such as the ASEAN University Network-Quality Assurance (AUN-QA) criteria and the European Association for Quality Assurance in Higher Education (ENQA) standards.¹⁻² These frameworks emphasize competencies that align with the demands of the BANİ era, promoting resilience, adaptability, and interdisciplinary collaboration among future professionals.^{1,3}

The AUN-QA criteria provide a structured, outcome-based approach to ensure quality in education programs. Key concepts include Criterion 1: Expected Learning Outcomes, which emphasizes defining clear, measurable outcomes aligned with industry needs; Criterion 2: Program Structure and Content, focusing on designing relevant and up-to-date curricula; Criterion 3: Teaching and Learning Approach, promoting diverse, student-centered learning experiences; Criterion 4: Student Assessment, which ensures assessments accurately measure learning outcomes; and Criterion 5: Academic Staff, which emphasizes the importance of qualified, competent, and sufficient

academic staff to support high standards in education and research. Additionally, Criterion 6: Student Support Services highlights the need for adequate academic and non-academic support services to promote student success, while Criterion 7: Facilities and Infrastructure ensures that physical resources like libraries, laboratories, and information technology (IT) systems are available, accessible, and safe for all students. Criterion 8: Output and Outcomes, which evaluates the program's effectiveness in preparing graduates to meet professional demands.⁴ Together, these criteria guide curriculum design, support services, and continuous improvement, fostering competencies essential for healthcare professionals to meet the complexities of the BANİ era with a strong foundation in technical skills and ethical decision-making.

This article focuses on nursing education programs, yet the approach discussed here holds potential for adaptation across health science disciplines to ensure that all professionals are equipped to thrive in a complex, evolving healthcare environment. Building on this premise, the article sets forth four key objectives to advance nursing education programs in response to the BANİ era. First, it identifies the crucial competencies that nursing professionals need to meet the demands of the BANİ landscape. Second, it proposes a comprehensive learning program tailored to equip nursing students with these skills. Third, the article emphasizes the importance of aligning this program with AUN-QA criteria to uphold educational quality and relevance across Southeast Asia and beyond. Finally, to ground these recommendations in practical reality, it provides real-world examples and insights drawn from evidence-based research.

This article aims to contribute meaningfully to the evolving dialogue on health sciences education in the BANİ era by achieving these objectives. While centered on nursing, the proposed alignment framework can be adapted to other healthcare disciplines, ensuring that all future professionals are equipped to thrive amid the complexities of modern healthcare.

Understanding the BANI Era

The transition from VUCA to BANI marks a significant shift in how we perceive and respond to global complexity, particularly within the healthcare sector. The BANI era—an acronym for Brittle, Anxious, Nonlinear, and Incomprehensible—introduces distinct challenges that necessitate a profound re-evaluation of the competencies required by nursing professionals.⁵⁻⁷

Firstly, the “brittle” nature of systems and structures in the BANI framework reflects the fragility of systems once considered stable. This fragility became evident in healthcare during the COVID-19 pandemic, where the rapid collapse of medical supply chains and the sudden strain on healthcare infrastructure underscored the system’s vulnerabilities.⁸ As healthcare increasingly relies on technology, these vulnerabilities are further amplified, making the need for robust, adaptable systems more critical than ever.⁹

In addition to system fragility, the BANI era also brings heightened anxiety, driven by the uncertainty and unpredictability that now permeates the healthcare environment. Healthcare professionals, particularly nurses, face the dual pressures of adapting to constantly evolving technologies and protocols while managing complex patient care needs. This constant state of flux has contributed to significant increases in burnout rates, with anxiety playing a major role.^{5,10} The psychological toll of working in such high-stress environments cannot be underestimated, as it directly impacts job satisfaction, retention rates, and overall mental health among nursing staff.¹¹

The nonlinearity of outcomes in the BANI era further complicates the landscape. Traditional, linear approaches to problem-solving are increasingly inadequate in addressing the complex interactions within healthcare systems. Minor issues can rapidly escalate into major crises, as the delayed responses to early COVID-19 outbreaks resulted in disproportionately severe outcomes.¹² This nonlinearity demands that

nursing professionals develop technical skills and the ability to anticipate and manage unpredictable challenges.

Finally, the incomprehensibility of the BANI era highlights the difficulty in understanding and managing the rapid shifts in healthcare driven by technological and systemic complexities. For healthcare professionals, incomprehensibility refers to the unpredictability and lack of clarity in navigating the advancements of medical technologies, such as artificial intelligence, telemedicine, and genomic medicine. This constant influx of new technologies often lacks standardized guidelines for their application, making it difficult for healthcare providers to integrate these tools into clinical practice effectively. Furthermore, as healthcare systems become increasingly digitized and interconnected, professionals are inundated with massive amounts of data, often difficult to interpret or utilize meaningfully. This results in decision fatigue and an increased risk of errors in patient care.^{5,13}

The incomprehensibility of these developments can manifest in several ways, such as the inability to fully grasp the implications of AI-driven diagnoses or the challenges in maintaining the privacy of patient data across digital platforms. This knowledge gap may widen if left unaddressed, leading to suboptimal care delivery and a lack of trust in technological innovations. Therefore, it becomes critical for healthcare professionals to continuously engage in education and training to keep pace with these developments, ultimately safeguarding the quality and safety of patient care.¹⁴

In light of these challenges, the BANI era underscores nursing professionals’ need to develop competencies that extend beyond traditional clinical skills.⁶ To effectively navigate this complex landscape, they must be emotionally resilient,⁶ technologically proficient,^{5,15} and capable of adapting to rapidly changing environments. Additionally, interdisciplinary collaboration and ethical decision-making have emerged as crucial competencies in this era. The ability to work cohesively with professionals from various fields—such as physicians, IT specialists,

and social workers—enhances patient outcomes by ensuring a holistic and coordinated approach to care.¹⁶ Furthermore, as nurses increasingly face ethical dilemmas due to advances in medical technology and resource limitations, sound ethical decision-making frameworks are vital. These competencies call for an evolution in nursing education to ensure that graduates are prepared to survive and thrive in this demanding era.¹⁴

Crucial Competencies for Nursing Personnel

Central to the program's alignment with AUN-QA standards is the recognition that the five competencies serve as essential learning outcomes for nursing students. Programs must align their structure, teaching methods, and assessments to ensure these competencies are effectively developed, as emphasized by AUN-QA standards. This alignment not only supports student achievement but also ensures institutional compliance. Moreover, as the complexities of the BANİ era reshape healthcare, nursing professionals must cultivate these core competencies—adaptability, emotional resilience, technological and digital literacy, interdisciplinary collaboration, and ethical decision-making—to meet emerging demands, with complementary skills enhancing their application in practice.

Adaptability: In an environment where constant change is often unpredictable, adaptability is critical. Nursing professionals must be able to adjust quickly to new situations, technologies, and patient needs. This competency benefits from complementary skills like lifelong learning and self-reflection. Lifelong learning encourages a mindset of continuous growth, helping nurses stay current with advances in healthcare and refine their practices. Self-reflection supports personal growth, enabling nurses to assess their responses to challenges and learn from experiences.²⁻³

Emotional Resilience: The ability to manage stress and maintain mental well-being in high-pressure

environments is vital, especially as anxiety and burnout become more prevalent in the BANİ era. Emotional resilience training and a complementary growth mindset equip nursing professionals to face uncertainty with optimism and adaptability. A growth mindset—a perspective that views challenges as opportunities for development—fosters resilience by encouraging proactive responses to obstacles. Together, emotional resilience and a growth mindset help nurses navigate the complexities of modern healthcare with composure and confidence.¹⁸⁻¹⁹

Technological and Digital Literacy: As healthcare becomes increasingly digitized, technological literacy is no longer a supplementary skill but a core competency. Nurses must be proficient in using various healthcare technologies, including AI, telehealth tools, and electronic health records (EHRs). Digital literacy further enhances this competency by encompassing critical evaluation, content creation, and data analysis skills. This broader skill set allows nurses to make informed clinical decisions, contribute to health research, and ethically manage digital information, ensuring responsible integration of technology into practice.^{13,17} Program infrastructure, aligned with AUN-QA Criterion 7, supports these skills through advanced labs, healthcare software, and IT systems. These resources prepare students to integrate technology effectively into patient care.

Interdisciplinary Collaboration: Effective collaboration with professionals from diverse fields, such as medicine, IT, and social work, is essential in the BANİ era, where healthcare is increasingly team-based and patient-centered.¹³ This competency is strengthened by soft skills, such as communication and teamwork, foundational to successful interdisciplinary collaboration.¹⁶ Soft skills enable nurses to foster patient trust, coordinate care effectively, and adapt to diverse cultural perspectives within healthcare settings. By embedding soft skills training into nursing education, future nurses are better prepared to work cohesively across disciplines, enhancing patient outcomes through comprehensive, holistic care.

Finally, ethical decision-making remains a foundational competency for nursing professionals,

closely linked to each of the core competencies above.²⁰ Navigating complex moral dilemmas with integrity and professionalism is critical in the BANI era, and ethical decision-making frameworks within nursing education help prepare students to handle the difficult situations they will inevitably encounter. This competency reinforces the integrity of the nursing profession and supports improved patient care by emphasizing accountability, transparency, and respect for diverse perspectives.²⁰⁻²²

The Imperative for Aligning with AUN-QA Criteria

To ensure that nursing education programs are equipped to meet the challenges of the BANI era, it is crucial to align these programs with the ASEAN University Network-Quality Assurance (AUN-QA) criteria. This alignment not only enhances the quality and relevance of nursing education but also ensures that graduates are fully prepared to meet the demands of the global healthcare environment.^{2,4}

Firstly, aligning nursing education programs with AUN-QA criteria is essential for maintaining international standards.^{2,4} The AUN-QA criteria are designed to ensure that educational programs across Southeast Asia meet globally recognized standards, which is particularly important in an increasingly interconnected world. For nursing programs, aligning with these criteria ensures that graduates are equipped with competencies applicable in diverse healthcare settings worldwide (AUN-QA, 2020). Recent analyses have demonstrated that programs aligned with international quality assurance frameworks produce graduates who are better prepared for global healthcare challenges, leading to higher employability and mobility.²

Additionally, outcome-based education, as emphasized by the AUN-QA criteria, is increasingly recognized as crucial in preparing students for the workforce, especially in the unpredictable BANI era. AUN-QA's emphasis on outcome-based learning

ensures that nursing programs are designed with clear, measurable outcomes that align with the needs of the healthcare industry. Recent studies have shown that outcome-based approaches in nursing education led to improved critical thinking, problem-solving skills, and adaptability among graduates, essential for navigating modern healthcare's complexities.²³⁻²⁴

Moreover, the AUN-QA framework promotes continual improvement, vital in the rapidly evolving BANI era. This approach ensures that nursing programs are regularly reviewed and updated in response to new developments in healthcare, including technological advancements and changing patient care models.²¹ Evidence from recent studies indicates that programs adhering to a continual improvement model are more successful in integrating emerging healthcare trends, thereby better-preparing students for future challenges.²⁴

Enhancing graduate employability is another significant benefit of aligning nursing programs with AUN-QA criteria. Graduates from AUN-QA accredited programs are highly sought after in the global job market, as employers value the rigorous training and comprehensive education these programs provide.²⁵ This alignment ensures that nursing graduates are well-equipped to handle complex and dynamic healthcare environments. A recent survey found that employers in both public and private healthcare sectors prefer candidates from accredited programs, citing their superior readiness to meet the job demands.^{3,25}

Finally, aligning nursing programs with AUN-QA criteria strengthens ethical and professional standards. Ethical decision-making is a cornerstone of nursing practice, especially in the morally complex BANI era. AUN-QA's criteria ensure that ethics and professionalism are integral components of the nursing curriculum, preparing students to navigate the ethical challenges they will face in their careers. Recent research highlights the importance of strong ethical foundations in nursing education, linking it to improved patient outcomes and higher levels of trust in healthcare providers.²⁰⁻²²

In conclusion, aligning nursing programs with AUN-QA criteria is beneficial—it is essential to ensure that nursing education remains relevant, rigorous, and capable of producing professionals who can meet the demands of the BANi era. This alignment guarantees that nursing graduates are technically skilled, ethically grounded, globally competitive, and fully prepared for the complexities of modern healthcare.

Proposed Learning Program for Nursing Students (Aligned with AUN-QA Criteria)

Building on the identified competencies and the importance of alignment with AUN-QA criteria, the following learning program is proposed for nursing students. This program aims to equip students with the skills and knowledge necessary to thrive in the BANi era while ensuring that their education is of the highest quality.

The curriculum is set to be structured around the core competencies essential for nursing personnel in the BANi era: adaptability, emotional resilience, technological and digital literacy, interdisciplinary collaboration, and ethical decision-making. These competencies will be translated into specific learning outcomes, ensuring that students develop practical skills that are both measurable and applicable in real-world settings. This approach directly aligns with **AUN-QA Criterion 1**, which emphasizes that programs need clear, well-defined learning outcomes.⁴

To ensure Outputs and Outcomes (**AUN-QA Criterion 8**), the program is designed to include rigorous assessment strategies to evaluate the extent to which students achieve the intended learning outcomes. By focusing on outcome-based education, the program seeks to ensure that graduates possess the competencies to succeed in the BANi era, enhancing their employability and readiness for professional practice. This emphasis on producing high-quality graduates who are well-prepared for the challenges of the modern healthcare environment

is a key component of the program's alignment with AUN-QA standards.²

Learning Modules Aligned with Core Competencies and AUN-QA Criteria

To strengthen alignment with AUN-QA standards, this section highlights how the program structure, teaching approaches, and assessment methods foster the development of all five core competencies—adaptability, emotional resilience, technological and digital literacy, interdisciplinary collaboration, and ethical decision-making—in students. Criterion 1 ensures that these competencies are explicitly defined as clear, measurable learning outcomes, forming the program's foundation. Criterion 3 supports teaching these competencies through innovative, student-centered approaches such as simulation-based and problem-based learning activities. For instance, adaptability is taught through high-pressure simulations that encourage flexibility, while technological literacy is fostered through hands-on training with advanced healthcare tools. Assessment methods under Criterion 4, such as reflective journals and competency-based evaluations, ensure that each competency is measured effectively, while Criterion 7 reinforces access to cutting-edge facilities and technologies that enhance digital literacy. These modules are designed to meet current and emerging healthcare needs, equipping students with adaptable, practical skills essential for thriving in the BANi era.

Adaptability: Adaptability training is integrated into courses and simulations that place students in unpredictable, high-pressure scenarios. These exercises are intended to help students develop flexibility and quick thinking, preparing them to handle the uncertainties of the BANi era. This approach is consistent with **AUN-QA Criterion 2**, which stresses the importance of ensuring that the content and structure of programs respond to the current and future demands of the profession.²³ Additionally, adaptability is reinforced through **AUN-QA Criterion 5 (Academic Staff)**, as faculty members play

a crucial role in guiding students through challenging scenarios and offering feedback for continuous improvement.

Emotional resilience: Emotional resilience workshops help students build the mental and emotional fortitude to cope with anxiety and burnout.²⁶ Focusing on stress management, mindfulness, and emotional intelligence, these workshops align with **AUN-QA Criterion 3**, which requires programs to develop students' personal qualities and professional ethics.²⁷ **Growth mindset principles** are incorporated into these workshops, helping students view challenges as opportunities for growth and resilience.²⁶ Additionally, **AUN-QA Criterion 6 (Student Support Services)** is met by providing mental health resources and guidance to support students' emotional well-being.²⁶

Technological and Digital Literacy: Students receive comprehensive training on healthcare technologies, including AI, telehealth tools, and electronic health records (EHRs). This hands-on learning approach ensures that students become proficient in using these technologies, essential for maintaining high standards of care in the BANI era. This focus on **technological and digital literacy** supports **AUN-QA Criterion 2** and **Criterion 3**, emphasizing integrating relevant educational technologies and innovative teaching methods.^{1,12,16} **AUN-QA Criterion 7 (Facilities and Infrastructure)** is also addressed by ensuring students access up-to-date technology, labs, and resources needed for digital learning and practical training. These facilities play a pivotal role in fostering technological and digital literacy, ensuring students are well-equipped to integrate technology into patient care and meet global healthcare demands.

Interdisciplinary Collaboration: Interdisciplinary collaboration is cultivated through group projects that involve students from various healthcare disciplines, such as medicine, social work, and IT. These projects emphasize teamwork and communication—crucial soft skills that enhance collaboration in diverse healthcare settings. This aligns with **AUN-QA Criterion 3**, which

highlights the need for interdisciplinary and collaborative learning experiences,¹⁶ and is reinforced by **AUN-QA Criterion 5** by including academic staff who model effective interdisciplinary teamwork and support collaborative learning.

Ethical Decision-Making: Ethical decision-making frameworks are planned to be embedded into the curriculum through case-based learning. This approach will help students navigate complex moral dilemmas with integrity and professionalism, aligning with **AUN-QA Criterion 2** and **Criterion 3**, which focus on developing students' ethical competencies and ensuring that the program content remains relevant and comprehensive.^{20,22} The ethical component of the curriculum is also supported by **AUN-QA Criterion 8 (Outputs and Outcomes)**, as assessments in this area ensure that graduates meet high ethical and professional standards.

Diverse teaching methods are employed to support competency development further to ensure comprehensive learning experiences. The teaching methods employed in this program will combine traditional and innovative approaches to facilitate comprehensive learning. Blended learning is expected to combine online lectures with in-person practical sessions, providing flexibility while ensuring students have ample opportunities to apply theoretical knowledge.²⁸ This method aligns with **AUN-QA Criterion 3**, which encourages using diverse teaching and learning strategies appropriate to the intended learning outcomes.²⁴

Problem-based learning (PBL) is another key teaching method that needs to be implemented. Students will work on real-world problems in small groups, encouraging them to research, discuss, and develop solutions collaboratively.²⁹ This method supports **AUN-QA Criterion 3**, which emphasizes student-centered learning approaches that encourage active learning and critical thinking.

Simulated clinical environments will be utilized to replicate complex clinical situations, allowing students to practice skills in a controlled, safe environment. This

approach corresponds to **AUN-QA Criterion 3** by providing practical, experiential learning opportunities that prepare students for real-world clinical settings.

Regular reflective journals and discussions are anticipated to be integrated into the curriculum to foster self-awareness and critical thinking, which are crucial for emotional resilience and ethical practice.²² Reflective practice aligns with **AUN-QA Criterion 3** by encouraging personal and professional development through self-reflection.

In tandem with innovative teaching methods, a comprehensive assessment strategy evaluates the mastery of these competencies, ensuring graduates are ready to meet real-world challenges. The assessment strategy employed in this program will be comprehensive and aligned with outcome-based education principles. Competency-based assessments are planned to evaluate students' mastery of the core competencies through practical applications, such as OSCEs (Objective Structured Clinical Examinations). These assessments will ensure that students not only absorb knowledge but can also apply it effectively in real-world situations.³⁰ This approach aligns with **AUN-QA Criterion 1** and **Criterion 4**, ensuring that assessments are directly linked to the intended learning outcomes and are

appropriate for measuring the competencies required for professional practice.

Formative assessments, including quizzes, peer assessments, and feedback sessions, are intended to monitor student progress and identify areas for improvement throughout the program. These assessments will support **AUN-QA Criterion 4**, which stresses the importance of using assessments to continuously improve the quality of education and student learning outcomes.²

Summative assessments, such as end-of-term exams, capstone projects, and final clinical evaluations, will assess students' overall competence concerning the program's learning outcomes. These assessments ensure compliance with **AUN-QA Criterion 1**, ensuring the final evaluations are comprehensive and reflect the program's goals.⁴

Continuous feedback from students and faculty will refine the program, ensuring it remains responsive to the evolving needs of healthcare education. This process will support **AUN-QA Criterion 4**, which requires programs to include continual improvement mechanisms based on regular feedback and evaluation.³¹ The table below summarizes how each core competency aligns with specific AUN-QA criteria, enhancing nursing education's relevance in the BANl era.

Table 1. Alignment of core competencies with AUN-QA criteria, learning activities, and assessment methods for nursing education in the BANl era

Core competency	Aligned AUN-QA criteria	Learning activities	Assessment methods
Adaptability	Criterion 1 (Learning Outcomes), Criterion 2 (Program Content), Criterion 5 (Academic Staff), Criterion 4 (Assessment)	Simulations in unpredictable scenarios; case studies focusing on flexibility; self-reflection exercises	OSCEs; competency-based assessments in simulations; reflective journals; competency-based simulations, self-reflection exercises
Emotional resilience	Criterion 1 (Learning Outcomes), Criterion 3 (Teaching Approach), Criterion 6 (Student Support Services), Criterion 4 (Assessment)	Workshops on stress management, mindfulness, and emotional intelligence; growth mindset discussions	Formative quizzes on resilience strategies; peer and instructor feedback on workshops; reflective journals; Formative assessments (e.g., reflective journals, peer feedback)

Table 1. Alignment of core competencies with AUN-QA criteria, learning activities, and assessment methods for nursing education in the BANI era (Cont.)

Core competency	Aligned AUN-QA criteria	Learning activities	Assessment methods
Technological & digital literacy	Criterion 1 (Learning Outcomes), Criterion 2 (Program Content), Criterion 3 (Teaching Approach), Criterion 7 (Facilities and Infrastructure), Criterion 4 (Assessment)	Hands-on training with EHRs, AI tools, and telehealth systems; case-based digital literacy discussions on ethical data handling	Practical exams in digital competencies; case-based assessments on digital decision-making; skills lab evaluations; Practical exams in digital competencies, formative feedback on case-based tasks
Interdisciplinary collaboration	Criterion 1 (Learning Outcomes), Criterion 3 (Teaching Approach), Criterion 5 (Academic Staff), Criterion 4 (Assessment)	Group projects with students from other disciplines; teamwork exercises; simulations in multidisciplinary scenarios	Peer assessments; group project evaluations; feedback on teamwork and communication from interdisciplinary instructors
Ethical decision-making	Criterion 1 (Learning Outcomes), Criterion 2 (Program Content), Criterion 3 (Teaching Approach), Criterion 8 (Outputs and Outcomes)	Case-based learning on ethical dilemmas; discussions on professional standards; role-playing exercises	Case study analysis; end-of-course summative assessments; evaluations of ethical decision-making skills
Overall program quality	Criterion 4 (Assessment), Criterion 8 (Outputs and Outcomes)	Continuous student and faculty feedback sessions; curriculum evaluations; outcome-based program adjustments	Comprehensive final exams; capstone projects; employment and alumni surveys to evaluate program effectiveness

Ethical Considerations

Although this article presents a conceptual proposal for a future nursing education program, ethical considerations remain paramount. Cultural sensitivity will be prioritized during implementation, with workshops featuring case studies tailored to diverse cultural contexts. Any research or data collection related to the program will adhere to ethical standards outlined in the Declaration of Helsinki. Approval from an institutional review board (IRB) will be sought, ensuring confidentiality, informed consent, and transparency.

Conclusion

The transition to the BANI era presents unique challenges for nursing professionals, necessitating an evolution in nursing education. This article proposes a comprehensive learning program aligned with AUN-QA criteria to develop five key competencies: adaptability, emotional resilience, technological and digital literacy, interdisciplinary collaboration, and ethical decision-making. AUN-QA Criteria 1–4 support these competencies, with additional reinforcement from

Criteria 5–7 through qualified staff, robust support services, and advanced facilities.

By aligning with AUN–QA standards, including Criterion 8 (Outputs and Outcomes), this program ensures graduates are well–prepared to navigate the complexities of modern healthcare. The proposed framework also holds potential for adaptation in other health science disciplines, emphasizing the importance of resilience, adaptability, and ethical practice in diverse healthcare contexts.

Future Directions

While this proposed program aligns nursing education with essential competencies, extending these efforts beyond academic settings is vital. Hospitals and healthcare institutions should implement dedicated training courses for newly graduated nurses. For example, artificial intelligence (AI) literacy boot camps and interdisciplinary collaboration workshops can bridge the gap between theoretical education and practical application, enhancing preparedness for real–world challenges.

References

1. European Association for Quality Assurance in Higher Education (ENQA). Annual report 2020 [Internet]. 2021 [cited 2020 Sept 21]. Brussels: ENQA; 2021. Available from: <https://www.enqa.eu/wp-content/uploads/Annual-Report-2020.pdf>
2. Johnson OCB. The impact of ASEAN university network–quality assurance (AUN–QA) assessment on the quality of educational programmes. In: Tan C, Goh T, editors. *Theory and practice of quality and reliability engineering in Asia industry*; Springer, Singapore; 2017. pp. 87–97. doi: 10.1007/978-981-10-3290-5_8.
3. Tran LT, Ngo NTH, Nguyen HTM, Le TTT. Employers' approaches to assessing graduate employability. In: *Employability in context: labour market needs, skills gaps and graduate employability development in regional Vietnam*; Springer International Publishing; 2022. pp. 117–44. doi: 10.1007/978-3-031-04144-0_5.
4. ASEAN university network. ASEAN university network–quality assurance manual: guide to AUN–QA assessment at programme level version 4.0 [Internet]. 2020 Aug [cited 2020 Sept 21]. Bangkok: ASEAN University Network; 2020. Available from: <https://qm.kku.ac.th/downloads/GuideAUNQAv4.pdf>
5. Usha S. Editor. *Convergence of business and technology*. Bangalore: Beyond Line Publisher; 2023.
6. Podolchak N, Dziurakh Y, Karkovska V, Tsygulyk N, Bilous N. Improvement of professional competencies and personnel competences in the BANI world on the example of civil servants through the development of their emotional intelligence. *Multidiscip Sci J*. 2023;5:e2023ss0513. doi: 10.31893/multiscience.2023ss0513.
7. Bushuyev S, Bushuyeva N, Murzabekova S, Khussainova M. Innovative development of educational systems in the BANI environment. *Sci j Astana IT Univ*. 2023;14(14): 104–15. doi: 10.37943/14YNSZ2227.
8. Singh S, Bartos M, Abdalla S, Legido–Quigley H, Nordström A, Sirleaf EJ, et al. Resetting international systems for pandemic preparedness and response. *BMJ*. 2021;375:e067518. doi: 10.1136/bmj-2021-067518.
9. Tosh PK, Schafer JM, Harvieux TP, & Hall BL. Medical supply shortages—we are part of the problem ... and solution. *Mayo Clin Proc*. 2023;98(12):1763–6. doi: 10.1016/j.mayocp.2023.09.008.
10. Ahmed FR, Bani-Issa W, Timmins F, Dias JM, Al-Yateem N, Subu MA, et al. Managing during the COVID-19 pandemic: a cross-sectional study of health care workers' perceived organizational support and its consequences on their compassion, resilience and turnover intention. *J Nurs Manag*. 2022;30(7):2642–52. doi: 10.1111/jonm.13824.
11. Wells SK. The impact of nurses' work environment on mental health and suicide. *Crit Care Nurse*. 2024;44(3):6–8. doi: 10.4037/ccn2024726.
12. Rosenbaum L. Facing Covid-19 in Italy—ethics, logistics, and therapeutics on the epidemic's front line. *N Engl J Med*. 2020;382(20):1873–5. doi: 10.1056/NEJMp2005492.
13. Johnson KB, Wei WQ, Weeraratne D, Frisse ME, Misulis K, Rhee K, et al. Precision medicine, AI, and the future of personalized health care. *Clin Transl Sci*. 2021;14(1): 86–93. doi: 10.1111/cts.12884.14.

14. Alowais SA, Alghamdi SS, Alsuhebany N, Alqahtani T, Alshaya AI, Almohareb SN, et al. Revolutionizing healthcare: the role of artificial intelligence in clinical practice. *BMC Med Educ.* 2023;23(1):689. doi: 10.1186/s12909-023-04698-z.
15. McDonald T. Do generative artificial intelligence company strategies of 'Moving Fast and Breaking Things' in civil society cancel their social licence to operate? A nurse's evaluation of chatbot impacts. *Pacific Rim Int J Nurs Res.* 2024;28(4): 689–706. doi: 10.60099/prijnr.2024. 268964.
16. Zajac S, Woods A, Tannenbaum S, Salas E, Holladay CL. Overcoming challenges to teamwork in healthcare: a team effectiveness framework and evidence-based guidance. *Front Commun.* 2021;6:606445. doi: 10.3389/fcomm. 2021.606445.
17. Kusuma PG, Sarma KSR. Skill... Skill... Which skill do I acquire?---skills requirement for the BANI environment---. *Shanlax Int J Manag.* 2023;11(2):53–8. doi: 10.34293/management.v11i2.6685.
18. Kim EY, Chang SO. Exploring nurse perceptions and experiences of resilience: a meta-synthesis study. *BMC Nurs.* 2022;21(1):26. doi: 10.1186/s12912-021-00803-z.
19. Turner M, Scott-Young C, Holdsworth S. Developing the resilient project professional: examining the student experience. *Int J Manag Proj Bus.* 2019;12(3):716–29. doi: 10.1108/IJMPB-01-2018-0001.
20. Black BP. Professional nursing: concepts and challenges. Missouri: Elsevier; 2017.
21. Hosseini Choupani SS, Ghaffari S, Jafari H, Bazarafshan M, Gholampour MH. Professional ethics and ethical challenges related to nurses and patients: a narrative review. *J Nurs Rep Clin Pract.* 2024;3(4):383–9. doi: 10.32598/JNRCP. 2403.1055.
22. Haahr A, Norlyk A, Martinsen B, Dreyer P. Nurses experiences of ethical dilemmas: a review. *Nurs Ethics.* 2020;27(1): 258–72. doi: 10.1177/0969733019832941.
23. Ming GK, Mansor M. Leadership styles and roles in navigating current creativity: a systematic literature review from 2019–2023. *IJ-ARBSS.* 2024;14(1):2895–909. doi: 10.6007/IJARBS/v14-i1/19974.
24. Bhatarasakoon P, Chiaranai C. Bridging the gap from theory to practice: teaching evidence-based nursing strategies for developing critical thinkers and lifelong learners. *Pacific Rim Int J Nurs Res.* 2024;28(3):469–78. doi: 10.60099/prijnr.2024.268645.
25. Yusuf NK. A phenomenological exploration on three skill area for employment: industry practitioners' insights. *Int J Soc Sci Res.* 2024;12(1):83–94. doi: 10.5296/ijssr.v12i1.21427.
26. Xiao F, Zhang Z, Zhou J, Wu H, Zhang L, Lin M, et al. The relationship between a growth mindset and the learning engagement of nursing students: a structural equation modeling approach. *Nurse Educ Pract.* 2023;73:103796. doi: 10.1016/j.nepr.2023.103796.
27. Wongtienlai K. Learning strategies for enhancing growth mindset of nursing students, the Royal Thai Navy College of Nursing. *RTN Med J.* 2021;48(3):759–70 (in Thai).
28. Leidl DM, Ritchie L, Moslemi N. Blended learning in undergraduate nursing education – a scoping review. *Nurse Educ Today.* 2020;86:104318. doi: 10.1016/j.nedt. 2019.104318.
29. Zhang W. Problem based learning in nursing education. *AdvNurs.* 2014;2014(1):125707. doi:10.1155/2014/125707.
30. Ha EH, Lim E. The effect of objective structured clinical examinations for nursing students. *PLoS One.* 2023;18(6): e0286787. doi: 10.1371/journal.pone.0286787.
31. Institute of Medicine (US) Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. The future of nursing: leading change, advancing health. Washington (DC): National Academies Press (US); 2011.

การจัดการศึกษาพยาบาลในยุค BANI : การพัฒนาสมรรถนะตามเกณฑ์ AUN-QA เพื่อเตรียมบุคลากรพยาบาลสู่อนาคต

เพ็ญศิริ ดำรงภาคการ เนตรฤทัย ภูนากลม* ณัฏฐา พรหมสาขา ณ สกลนคร

บทคัดย่อ: การเปลี่ยนผ่านของโลกจากยุค VUCA (ผันผวน ไม่แน่นอน ซับซ้อน คลุมเครือ) ไปสู่ยุค BANI (เปราะบาง วิตกกังวล ไม่เป็นเส้นตรง และไม่อาจเข้าใจได้) นำมาซึ่งความท้าทายที่มีลักษณะเฉพาะอย่างที่ไม่เคยมีมาก่อนต่อระบบการดูแลสุขภาพ อันก่อให้เกิดความจำเป็นยิ่งในการทบทวนและประเมินสมรรถนะของผู้ประกอบวิชาชีพพยาบาลใหม่ บทความนี้นำเสนอสมรรถนะหลักสำคัญ 5 ประการสำหรับพยาบาลวิชาชีพในยุค BANI ได้แก่ ความสามารถในการปรับตัว ความยืดหยุ่นทางอารมณ์ ความรอบรู้ด้านเทคโนโลยีและดิจิทัล ความร่วมมือกับสหวิชาชีพ และการตัดสินใจอย่างมีจริยธรรม ซึ่งนอกเหนือจากการนำเสนอแนวทางการจัดการศึกษาเพื่อพัฒนานักศึกษาพยาบาลให้มีสมรรถนะที่จำเป็นในยุค BANI ผ่านหลักสูตรที่มีเนื้อหาครอบคลุมและสอดคล้องกับเกณฑ์คุณภาพของการประกันคุณภาพเครือข่ายมหาวิทยาลัยอาเซียน (AUN-QA) ทั้ง 8 เกณฑ์เพื่อให้เกิดความเชื่อมั่นว่าจะสามารถจัดการศึกษาได้เหมาะสมและมีคุณภาพแล้ว บทความยังได้นำเสนอรายละเอียดการจัดการเรียนรู้ที่สอดคล้องกับการพัฒนาสมรรถนะของพยาบาลวิชาชีพในยุค BANI ภายใต้หลักฐานเชิงประจักษ์ ตลอดจนแสดงให้เห็นถึงการนำเกณฑ์คุณภาพทั้ง 5, 6, และ 7 ได้แก่ บุคลากรสายวิชาการ บริการสนับสนุนนักศึกษา และ สิ่งอำนวยความสะดวกและโครงสร้างพื้นฐาน มาสร้างความเข้มแข็งให้กับหลักสูตร เช่นเดียวกับกลยุทธ์การประเมินที่ถูกระดมการไว้ในการจัดหลักสูตรเพื่อให้สอดคล้องกับจัดการศึกษาที่มุ่งผลลัพธ์คือ บัณฑิตพยาบาลที่มีความพร้อมในการทำงานสอดคล้องกับบริบทการดูแลสุขภาพยุคใหม่ อนึ่ง บทความนี้ยังชี้ให้เห็นถึงความเป็นไปได้ในการนำหลักสูตรที่มุ่งเน้นการพัฒนาสมรรถนะของพยาบาลวิชาชีพในยุค BANI นี้ ไปปรับใช้ในการจัดการศึกษาสำหรับวิชาชีพด้านสุขภาพอื่น ๆ ในวงกว้างต่อไปได้อีกด้วย

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คำสำคัญ: ความสามารถในการปรับตัว เกณฑ์ AUN-QA ยุค BANI การพัฒนาความสามารถ ความยืดหยุ่นทางอารมณ์ การตัดสินใจอย่างมีจริยธรรม ความเป็นมืออาชีพด้านการดูแลสุขภาพ ความร่วมมือกับสหวิชาชีพ หลักสูตรการศึกษายาบาล ความรอบรู้ด้านเทคโนโลยีและดิจิทัล

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