

Research Article

A Contemporary Comparison Between the Higher National and the State Registered Nursing Diploma Curricula in Cameroon

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Abstract

The expectation of competency for both local and international without further education increases the complexity of nursing curriculum design. Institutions must regularly compare their curricula with existing global standards to ensure alignment. In Cameroon, the existence of two professional entry diploma programmes – the Higher National Diploma (HND) and State Registered Nursing (SRN) diploma, supervised by the Ministry of Higher Education (MHE) and the Ministry of Health (MOH), respectively – has created tension and conflict within the profession. For example, the Ministry of Health-aligned professional association rejects graduates with the HND on grounds of competence even though there has been no scientific comparison of the two curricula. This study aimed to compare the HND and SRN curricula to provide an initial evidence base and inform the debate on both programmes. The study design employs a descriptive comparative design, based on Bereday's four-step process and the SPICES curriculum comparison models to compare the curricula of the 3-year SRN Diploma and the 3-year HND in Nursing in Cameroon. The results show that the curricula show evidence of an incomplete curriculum development process, with both lacking vision and mission statements, programme philosophy and curriculum framework. When programme aims are compared, the SRN programme emphasizes meeting health needs, using scientific methods and supervising training of allied professions, while the HND programme highlights job readiness, critical thinking and capacity for team and independent practice. The HND programme uses a credit system with 90% of courses being elective and total programme hours being 4140. The SRN programme uses a modular system with courses spread over 10 domains with total hours being 5100. However, both curricula are primarily subject-based. Both programmes are at stage 1 for student-based approaches and electives, and at stage 3 for problem-based approaches, integration, community-based learning outcomes and systematic content. The study reveals a truncated process of curriculum development for two national nursing programmes that leaves out key components of the curriculum. The curriculum documents also do not show any core differences that make one programme significantly better than the other.

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Keywords

Nursing Education, Nursing Curriculum, HND, SRN, Curriculum Comparison, Curriculum Development

1. Introduction

Education systems allow certain professional bodies to prepare and admit individuals into their corps. These systems vary across countries but always include collaboration between professional bodies and the government. In the health professions, individuals trained in any one country should be competent to work in the same capacity in any other country with no or minimal supplementary education. As such, training requirements should meet both national and international standards and curricular comparative studies become necessary.

Comparative studies assess curricula from different countries through scientific methods, contextualize findings and leverage them to develop new or improve existing curricula. [1, 2] Comparing curricula helps institutions and nations to improve their education content and quality, helping to identify the need for revision and alignment with the current needs of society [3]. Curricula comparison takes place at different levels. Governments compare their curricula with foreign models to enhance international competitiveness, parents compare to choose the best school for their children, and students compare curricula when considering the courses and electives offered by an institution [4]. Comparative studies are, therefore, an essential component of curriculum development and review. The common approaches to comparative studies include the CIPP (Context, Input, Process, and Product) model, Bereday's model and the SPICES (student-based, problem-based, integration, community-based, elective, and systematic) model.

The CIPP Evaluation Model is a comprehensive tool intended to support policy boards, programme and project managers, accreditation officials, academic administrators and evaluation specialists to conduct and report self-evaluations and contracted external evaluations [5]. A comprehensive assessment using the model considers multiple components of a programme and requires input from key stakeholders [6]. According to Stufflebeam, [5] context evaluations focus on needs, problems and opportunities, input evaluations focus on alternative approaches to meeting needs, process evaluations assess implementation plans, and product evaluations identify outcomes. A key characteristic of the model is its focus on evaluating the context of the teaching, learning and development process [7, 8]. The model's comprehensive format makes it very useful for educators and administrators even at a programme-specific scale [6]. It is now one of the most used curriculum evaluation models in education [9].

Bereday's model includes four steps: description, interpretation, juxtaposition, and comparison [3]. According to Houshmand et al. [10], the method assesses quality and identifies the similarities as well as the contradictory facts between different educational systems. The method is underpinned by the premise that education and social facts are closely associated, implying that the reality of each country under scrutiny is intertwined with its quality of education [11, 12]. In the description stage, the researcher collects data and presents them in a descriptive form for later analysis using scientific methods. At interpretation, the data is analysed and interpreted using applicable scientific methods. The stage of juxtaposition is where the initial comparison begins. At the fourth step – comparison, simultaneous data analysis occurs and the comparison results in evaluating the similarities and differences between them [11].

The SPICES model was introduced by Harden et al. [13] and includes student-based, problem-based, integrated, community-based, elective, and systematic components. It has become one of the most acclaimed in modern health professions education [1]. These elements provide a counter approach to the six features of the traditional curriculum, which are teacher-centred, information-gathering, discipline-based, hospital-based, standardized programme and opportunistic, apprenticeship-based learning [14, 15]. Health professions with reformed curricula have adopted various aspects of the SPICES approach [15]. The method thus helps educators to compare the education quality in curricula under study.

1.1. Background

The Royal College of Nursing RCN [16] defines nursing as a “safety-critical profession” built on four pillars: clinical practice, education, research and leadership. The role consists of many specialized and complex interventions. Nurses apply evidence-based practice to assess, plan, implement and evaluate high-quality person-centred care. The cognitive, physical, emotional and organizational labour inherent in Nursing creates complexity that cannot be simply defined by focusing on tasks [17]. Therefore, nursing programmes must systematically evaluate key components and maintain high-quality curricula that produce competent nurses [6]. The expectation of competency to practice internationally in a similar capacity without further education adds another layer of complexity here. As such, an innovative curricula review becomes a key requirement in contemporary health professions education [18]

even within nations.

The complex evolution of nurse education in Cameroon creates a critical need for curricula comparison. Historically, the Ministry of Health (MoH) was exclusively responsible for nurse education, issuing undergraduate diplomas. However, in 2001, the liberalization of higher education introduced nursing into the higher education system [19]. This also paved the way for bachelor's degree programmes in Nursing [20]. The Ministry of Higher Education (MHE) created 4-year bachelor's degree programmes and a 3-year Higher National Diploma programme (HND). The HND seemed to compete with the MoH's 3-year State Registered Diploma programme (SRN), with the key difference being a wider interdisciplinary focus in the former, and a hospital-based focus in the latter. The concurrent implementation of both programmes by their respective ministries has created turf wars within nursing [19], and despite recommendations from previous studies [19-21], harmonization is yet to occur. The conflict has resulted in the MoH-dominated National Association of Nurses, Midwives and Health Technicians (NANMHT) creating barriers to registration for MHE-educated nurses. Nurses educated in the MHE system have difficulties with international credential verification because NANMHT refuses to recognize them. In 2024, under immense pressure from NANMHT and the MoH, the MHE suspended new admissions into the HND programmes, creating a lot of uncertainty for institutions, students, and graduates. The MHE later lifted the suspension in a joint press release with the MOH [22] and NANMHT agreed to admit MHE nursing graduates if they pass an 'aptitude test.' This condition does not apply to MOH nursing graduates. Despite the significance of the problem and its potentially harmful impact on the nursing profession, an empirical curricula comparison of both programmes has never been published. This raises questions about the evidence base of the decisions being made by all stakeholders. This study aimed to compare the HND and SRN curricula to provide an initial evidence base and inform the debate on both programmes in Cameroon.

1.2. Research Questions

What are the differences and similarities of the HND Nursing and SRN curricula in Cameroon?

3. Results

Table 1 shows the study results.

Table 1. Comparison between the HND and SRN Programmes.

Feature	HND Programme	SRN Programme
Description	The HND is a national certificate of higher education that certifies an academic and technical qualification in two years and four semesters of study after the acquisition of the Baccalaureate Certificate or General Certificate of	The program aims to promote the emergence of a new skill profile, in relation to the new national health

What is the level of implementation of student-centred approaches in both curricula?

2. Method

2.1. Study Design

The study design is a descriptive comparative design based on the Bereday and SPICES models, to compare the curricula of the 3-year SRN Diploma of the MoH and the 3-year HND in Nursing of the MHE in Cameroon. Bereday's model is simple and relatable, while the SPICES model provides an easy evaluation of student-centered approaches in both curricula.

2.2. Study Participants and Sampling

The study focused on the current curricula of the SRN and HND programmes as approved by the MoH and MHE respectively. Curricula of similar programmes not authorized by any of these two ministries were excluded.

2.3. Data Collection and Analysis

This was greatly influenced by similar comparative studies conducted by Zeydan et al., [1, 3, 23]. Textual data, was collected and paraphrased from both curricula documents using Bereday's four-step process of description, interpretation, juxtaposition, and comparison. In the description stage, both programmes were described as captured in their curriculum documents. Data was collected on the programme definition, history, philosophy, mission and vision, general objectives, educational models, characteristics and course structure, admission criteria, assessment methods, and expected outcomes. In the interpretation stage, the data was interpreted and analysed using the SPICES model. In the juxtaposition stage, information from description and interpretation was placed in a framework to isolate their differences and similarities, as well as the level of implementation of the SPICES model. These were presented in a table format. The comparison stage was characterized by analysis of the data from the juxtaposition stage, guided by the research questions.

Feature	HND Programme	SRN Programme
	<p>Education, Advanced Level.</p> <p>However, some training programmes may require a preparatory year or upgrading without any modification of the academic base.</p> <p>It certifies that the individual can hold a position of senior technician and can use their knowledge and skills to improve themselves or pursue university studies.</p> <p>It is defined by the standards of the profession and the cross-disciplinary skills required to achieve it</p>	<p>strategies of the Country, within the limits of its professional responsibilities.</p>
Philosophy	Not mentioned	Not mentioned
Vision	Not Mentioned	<p>Not Mentioned</p> <p>Meet the health needs of individuals or groups through promotional, preventive, curative, rehabilitative, and holistic approaches, taking into account their bio-psycho-socio-cultural-spiritual dimensions and personality.</p> <p>Implement a scientific approach to Nursing based on a conceptual model of the profession in both hospital and community settings.</p> <p>Affirm the professionalization of real professionals in the main directions of the country's health policy.</p> <p>Train and supervise staff under their responsibility.</p> <p>Promote teamwork.</p> <p>Design and conduct a Nursing research project.</p> <p>To gradually acquire the knowledge, attitudes, and skills that shape the profession.</p> <p>To assume each of their roles while taking into account the ethical and legal aspects of their professional commitment.</p> <p>To practice the profession in hospital, community and liberal settings.</p> <p>To develop professional projects to ensure nursing cultural heritage for better overall care of populations.</p> <p>Developing the student's creativity and adaptability in line with the diversity of activity levels, the evolution of science, techniques, and health needs.</p>
Aims/Objectives	<p>This training aims to prepare professionals for the job market who can analyze a health situation, make decisions within their competence, and conduct interventions alone or as part of a multidisciplinary team.</p>	<p>Empowering students to develop their professional project.</p> <p>Coherence between training objectives, educational principles, and professional practices.</p> <p>Pedagogic monitoring based on support and personal development</p>
Purpose	Not mentioned	
Core Principles	Not mentioned	

Feature	HND Programme	SRN Programme
Entry Requirements	Baccalaureat Certificate or General Certificate of Education, Advanced Level or any diploma or certificate deemed equivalent.	to improve learning. Emphasis on active pedagogy based on questioning and content
Academic Year	The academic year is divided into two semesters. A semester lasts from 14 to 16 weeks, dedicated to teaching and assessments	Not Mentioned The academic year runs from November through August. It is divided into two semesters, called sequences. The entire training lasts three years (132 weeks). Holidays: two weeks in March and four weeks in October.
Assessment Plan	<p>Courses are scored from 0 to 100</p> <p>A course is validated if the student has a minimum score of 50.</p> <p>Assessment is carried out per course. The test may consist of several sections of the course.</p> <p>Except for the professional internship course, each course is assessed as follows per level: continuous assessment (30% of the points) and Written examination (70% of the points).</p> <p>The continuous assessment marks include marks for participating in tutorials and practical work, written tests, oral questions, presentations, and projects.</p> <p>The professional internship course includes at least two elements, one dedicated to clinical skills and the other to the end-of-course internship report and its defense.</p> <p>Continuous assessment marks are the responsibility of each teacher teaching the course. At least one continuous assessment mark is required per course.</p> <p>The written examinations and all related activities per level are the responsibility of the higher institute, and under the supervision of the mentoring institution, according to regulations in force.</p> <p>The transition from one level to the next is conditioned on passing all the courses.</p> <p>National examination taking place in a single annual session shall approve the completion of studies carried out per the provisions in force.</p> <p>The general regulations guiding the national examination to obtain the HND diploma are set by the Minister of Higher Education on the recommendations of the National Commission for the Organization of National Examinations.</p> <p>Each semester ends with an examination session comprising a regular session and a resit session for students who fail in the regular session under conditions set by regulatory texts.</p>	<p>The student must meet the following conditions to be eligible for continuous assessments, sequential and end-of-year examinations:</p> <p>Have an attendance rate of at least 80% (Course, Sequence, Year).</p> <p>Have not missed a continuous assessment.</p> <p>Have paid all tuition fees (Sequence, Year).</p> <p>All modules must be validated to obtain the diploma.</p> <p>Modules spread over several years are validated independently from one year to the next;</p> <p>The multi-Teaching Unit module test must include questions proportionate to the allocated hours for each unit.</p> <p>A module is validated if the student obtains a minimum score of twelve out of twenty (12/20).</p> <p>All modules for each academic year must be validated for progression to the next year of studies.</p> <p>The student in the final year must validate 100% of the modules/domains to qualify for the certification exam.</p> <p>There are no elimination scores.</p>
Courses and Course Structure	<p>A course is an identifiable group of objectives and outcomes called constituent elements that are scientifically coherent and specific. Each course has an adjustable credit value based on the importance of the constituent elements.</p> <p>The number of credits assigned to each semester is 30. The total number of hours in a credit is 15 hours. The credits are only acquired after the work has been carried out, after an appropriate assessment either during a semester or at the end of the course.</p> <p>Clinical Internship courses have one credit equivalent to 40 hours.</p> <p>Courses are structured into compulsory and elective courses. Compulsory courses are the set of courses that the student must take. They constitute 90%</p>	<p>A course is referred to as a module.</p> <p>Each Domain (area) is broken down into modules.</p> <p>Each Module is divided into Teaching Units.</p> <p>Each Teaching Unit is divided into Theoretical Courses, Practical Work/Tutorials, Personal Work for the Student and Evaluation Time.</p>

Feature	HND Programme	SRN Programme
	<p>of all the courses and 100% of credits of the official programme of the MHE and are required for the national examination.</p> <p>Courses are in three categories: Compulsory credits that are linked to the discipline and represent 30% of the overall hours taught, and credits allocated to the courses. Professional courses organized around technical and professional contents, representing 60%; Cross-disciplinary courses linked to complementary training in different domains, representing 10%, and elective courses organized by each institution per its specificity, to allow students to deepen their specialization or explore other fields of knowledge.</p> <p>The teaching of French and English is compulsory throughout the programme following the national decision on bilingualism.</p> <p>First Year First Semester</p> <p>Fundamental Courses constitute 30%, 9 Credits and 135 hours</p> <p>Professional Courses constitute 60%. 18 Credits and 270 hours</p> <p>Transversal Courses constitute 10%, 3 Credits and 45 hours</p> <p>First Year Second Semester</p> <p>Fundamental Courses constitute 30%, 9 Credits and 135 hours</p> <p>Professional Courses constitute 60%, 18 Credits and 270 hours</p> <p>Transversal Courses constitute 10%, 3 Credits and 45 hours</p> <p>Clinical internship</p> <p>One month during the academic year, 240 hours and 6 Credits (1 Credit = 40 hours)</p> <p>One month during holidays, 240 hours and 6 Credits (Maternal and child-care)</p> <p>Second Year First Semester</p> <p>Fundamental Courses constitute 30%, 9 Credits and 135 hours</p> <p>Professional Courses constitute 60%. 18 Credits and 270 hours</p> <p>Transversal Courses constitute 10%, 3 Credits and 45 hours</p> <p>Second Year Second Semester</p> <p>Fundamental Courses constitute 30%, 9 Credits and 135 hours</p> <p>Professional Courses constitute 70%. 18 Credits and 270 hours [It's unclear if there is an error in the percentage]</p> <p>Transversal Courses constitute 10%, 3 Credits and 45 hours</p> <p>Third Year First Semester</p> <p>Fundamental Courses constitute 30%, 9 Credits and 135 hours</p> <p>Professional Courses constitute 60%. 18 Credits and 270 hours</p> <p>Transversal Courses constitute 10%, 3 Credits and 45 hours</p> <p>Third Year Second Semester</p> <p>Fundamental Courses constitute 30%, 9 Credits and 135 hours</p> <p>Professional Courses constitute 60%. 18 Credits and 270 hours</p> <p>Transversal Courses constitute 10%, 3 Credits and 45 hours</p> <p>Total Credits is 180</p> <p>Total Hours 2700</p>	<p>Basic Sciences; Nursing; Social science; Medical-Health Techniques; Pathologies/Traumatology; Reproductive Health; Public health; Nursing Research; General knowledge; Internships.</p> <p>The hours within the programme are organized as follows:</p> <p>Year 1:</p> <p>Total theoretical hours: 980 hours</p> <p>Total practical internships: 720 hours</p> <p>Cumulative totals: 1700 hours</p> <p>Year 2:</p> <p>Total theoretical hours: 930 hours</p> <p>Total practical internships: 770 hours</p> <p>Cumulative totals: 1700 hours</p> <p>Year 3:</p> <p>Total theoretical hours: 630 hours</p> <p>Total practical internships: 1070 hours</p> <p>Cumulative totals: 1700 hours</p> <p>Overall</p> <p>Total theoretical hours: 2540 hours</p> <p>Total practical internships: 2560 hours</p> <p>Cumulative totals 5100 hours</p>
Teaching	Each course has different forms of teaching hours: lectures (L), Practical work (P), Tutorials (T), students' Personal Work (SPW) activities applied in the form of internships, projects, or end-of-course projects.	Each course has different forms of teaching hours: CT (Theoretical Courses), TP (Practical Work), TD (Directed Work), TPE (Time for the Student)
Internships	All students must complete internships in professional settings in one or	The total distribution of internships is 2560 hours.

Feature	HND Programme	SRN Programme
	<p>more companies in the sector corresponding to the training [in this case, hospitals and clinics].</p> <p>No special provisions may exempt students from the obligation of carrying out internships.</p> <p>The student and the staff of the school carry out the search for institutions for internships and the negotiation of the content of the internship jointly.</p> <p>The school is responsible for the organization, monitoring, and educational content of the internship</p> <p>Candidates must produce internship reports at the end of their internships</p> <p>The school must take all steps to find an internship site for students if they present evidence that their search has been unsuccessful.</p> <p>Internship is a professional course whose objectives and outcomes are considered in the assessments.</p>	<p>Internships must be validated by:</p> <p>Discipline at the internship site</p> <p>Supervision of the internship</p> <p>Regulation of the internship</p> <p>The internship referent</p>
Programme Content	<p>The general content description is presented on tables per semester, showing the course code and title, credit value, and hours distribution.</p> <p>The content for each course shows the course code and title, course objectives, credit value and course hours, different sections of the course and the list of topics to be covered.</p>	<p>The general content description is presented on tables per semester, showing the course code and title, credit value, and hours distribution.</p> <p>The content for each course shows the area (domain) under which the course falls, the course code and title, course objectives, different sections of the course (Teaching Units) and the list of topics to be covered.</p>
Required Skills	<p>Generic Skills</p> <p>Be responsible, reflexive and relational</p> <p>Have adequate gestures and capacities</p> <p>Develop adequate interpersonal and intrapersonal skills to be able to interact effectively with patients and their families, and the health team</p> <p>Should be trustworthy and reliable;</p> <p>Have the capacity for critical thinking, analysis and questioning</p> <p>Develop ethical values of a normal professional</p> <p>Make thoughtful and informed decisions</p> <p>Be able to act with autonomy and responsibility in their area of competence.</p> <p>Master the computer tool and ICT</p> <p>Specific skills</p> <p>Evaluate a clinical situation and establish a diagnosis in the Nursing field</p> <p>Design and lead a Nursing project</p> <p>Accompany a person in the performance of daily health care activities</p> <p>Implement the actions for diagnostic and therapeutic purposes</p> <p>Initiate and implement educational, preventive, curative and rehabilitative care</p> <p>Communicate and manage relationships with patients in a context of care</p> <p>Analyze the quality of care and improve his professional practice</p> <p>Be able to work with health information systems and related teams</p> <p>Organize and coordinate interventions among health caregivers</p> <p>Be able to share knowledge and skills with other health professionals.</p>	Not Mentioned
Teacher Profile	Not Mentioned	<p>Doctorate or Master's degree in Nursing, Public Health, and other related specialties</p> <p>Doctor of Medicine, pharmacy or</p>

Feature	HND Programme	SRN Programme
Career Opportunities	Public Service	odontostomatology
	Private hospitals and clinics	Senior Specialized Nurse
	NGO (Non-Governmental Organizations)	Bachelor's degree in Nursing with at least five years of experience
	Self-employment	TSSI (Senior Technician in Nursing Care) with at least five years of experience
	The Agri-food sector	Health Administrator
		Medical health engineer/technician (laboratory, physiotherapy)
		Nutritionist/Dietitian with higher education qualifications
		Computer scientists
		Not Mentioned

Table 2. SPICES Results.

Programme	Student Based	Problem-Based	Integration	Community-Based	Elective	Systematic
HND	Students receive a prescribed programme in which they have no input and their preferences are not considered. Stage 1 Student-Based	Courses include a focus on diseases, diagnosis and treatment but do not include well developed problem-based scenarios. Stage 3	There is coordination between courses seen in subjects like Anatomy and Physiology, Biochemistry, Medical Parasitology etc. Learners taking joint assessment tasks. Internships are also coordinated to match courses taught. Stage 4	There are courses in the programme that focus on community health and include students interacting with the local communities Stage 3	Courses are compulsory and learners don't get to choose. Stage 1	Course objectives and content are described to students and assessment is generally related to the course objectives Stage 3
SRN	Students receive a prescribed programme in which they have no input and their preferences are not considered. Stage 1 Student-Based	Courses include focus on diseases, diagnosis and treatment but do not include well developed problem-based scenarios. Stage 3	There is coordination between courses seen in subjects like Anatomy, Physiology and pathaology of different body systems. Learners take joint assessment tasks in these courses. Internships are also coordinated to match courses taught. Stage 3	Courses on community health are included in the programme. Students have multiple opportunities to conduct community-based interventions Stage 4	All courses are compulsory. Stage 1	Course objectives and content are described to students and assessment is generally related to the course objectives Stage 3

4. Discussion

DeBoor and Keating [24] describe the curriculum as a formal plan of study that outlines the goals, guidelines and delivery for a specific academic programme, including the philosophy underpinning it. In this light, the curriculum development process must be succinct and methodical to generate a study plan that can achieve the stated goals. The curriculum typically contains the vision and mission, philosophy, purpose or overall goal, conceptual framework, student learning outcomes, and the general implementation plan [24].

The programme description for the HND programme is generic and not specific to nursing because the HND portfolio includes other specialties apart from Nursing. The description highlights easy transition to bachelor degree programmes. HND Nursing holders can complete a one-year top-up to obtain a bachelor's degree in Nursing. The SRN programme description on the other hand, emphasizes a skill profile aligned to the national health strategy, but lacks a pathway to the bachelor's degree.

The curricula documents for both programmes lack vision and mission statements, programme philosophy and curriculum framework. The absence of vision and mission statements prevents educators from establishing a connection between the programmes and the mission of the respective ministries. It also limits their ability to connect the programmes to the general teaching, practice, and scholarship of nursing. Programme philosophy is the core of the curriculum development process, setting the values guiding the decision-making, and answering the fundamental questions (about the subjects to be included, how learning will occur and the type of materials and methods) during the process [25]. It reflects the entire human socio-economic needs that inspire the curriculum content [26]. So, the lack of a programme philosophy leaves a key question unanswered: what statements in the philosophy relate to the institution's beliefs and values about teaching and learning, critical thinking, health care systems, disease prevention, health promotion, research and evidence-based practice, information systems and technology, patient safety, etc [24]. Kridel [27] asserted that the curriculum framework is the subject-specific guidelines that assist curriculum development, set out learning outcomes, and provide the basis for teaching, learning, and assessment. Through it, the teacher gets to understand the teaching and assessment content focus. Its absence in both programmes pose significant risks to the quality of education.

The aim or general objectives of each programme is defined in the curriculum document. Meeting the health needs of individuals, implementing scientific methods, professionalization and training and supervision of allied professions is the primary focus of the SRN programme. The HND programme, on its part, emphasizes readiness for the job market, analytical approach to practice, competent decision making, and the ability to practice independently and as part of a multidisciplinary team. Keating [28] advocates that the overall aim should tie with the mission, philosophy and organizing framework of the

programme and be stated in a manner that facilitates outcome measurements. Both programmes lack mission statements, philosophy and organizing frameworks so the aims cannot be assessed in this light. The SRN curriculum document also describes a purpose and core principles. The purpose highlights skills acquisition, ethical and legal practice, practice across different settings and development of nursing projects. The core principles are developing learner creativity and adaptability, ensuring coherence across training objectives and encouraging inquiry. Purpose and core principles are not included in the HND curriculum.

End-of-programme objectives or student learning outcomes is the next important curriculum component compared. Keating [28] insists that these should align with the mission, philosophy, overall goal and organizing framework and focus on the learner. It should include a content, the learner behavior and the level at which it is expected, feasibility and time frame for achievement. The HND programme outcomes are spread over four years presented in nine "generic skills" (including, interpersonal/intrapersonal, trustworthiness, ethical, critical thinking, information and communication technology skills, etc.) and 10 "specific skills" (including, clinical evaluation and diagnosis, initiating and implementing care, analyzing quality of care, etc.). Though not written in the standard format, the outcomes summarise expected abilities of an HND graduate. Programme outcome objectives are not clearly stated in the SRN curriculum document. The SRN programme does not include programme outcomes. However, the purpose of the SRN programme provides a glimpse of the programme expectations.

Curriculum documents should also include implementation plans. This includes course descriptions, credits, pre- and co-requisites, objectives, and content outlines [28]. Each curricula provides an implementation plan with unique characteristics.

The HND curriculum has a credit system that assigns credits to courses based on their importance to the programme. A credit is 15 hours (including noncontact hours) for theoretical courses and 40 hours for clinical courses. The courses are divided into elective (at the discretion of individual institutions) and mandatory (constituting 90% of the courses) courses. The mandatory courses include core Nursing courses (constituting 30% of credit hours), professional courses built around the technical components of Nursing (60%) and interdisciplinary courses (10%). A typical semester has nine credits for core courses, 18 credits for the professional courses and three credits for the interdisciplinary courses. For clinical courses, each academic year has 480 hours and 12 credits. The total hours for programme is 4140 (1440 clinical and 2700 theory) and 216 credits (36 clinical and 180 theoretical). In other countries this number of hours will be about equal to a full bachelor's programme. For example, the University of Suffolk offers a bachelor's programme of 4600 hours (50% theory and 50% practice) [29] In the course content section, each course has a title, code, credit value, hour allocation (lecture, tutorials,

practicals and student personal work time) and content outlines. Course descriptions, objectives, learning outcomes and pre- and co-requisites are not provided. This creates significant challenges to standardizing teaching, learning and assessments.

In the SRN curriculum, courses are called modules and divided into theoretical and practical courses. The courses are organised under 10 'domains' (see Table 1), but without credit values. Each academic year has 1700 hours spread over two semesters. This comes to a total of 5100 hours (2560 for clinical and 2540 for theoretical courses). For a diploma programme, the number of hours is quite huge and raises questions about the rationale for such hours. For comparison the WHO [30] integrated nursing and midwifery prototype curriculum for Africa has a total of 2904 hours spread over four years. The course content section shows that for each course, the domain is indicated, the course code, course objectives and course outlines are stated. However, pre- and co-requisites and credit values are not included.

In the area of assessment, the HND plan emphasizes continuous assessments and end-of-semester written examinations with a scoring system on 100. The minimum passing score is 50%. Semester examinations are supervised by state universities serving as mentor institutions, while the end-of-course examination is supervised by the MHE. The SRN plan also highlights continuous assessments and end-of-semester examinations, and an end of year examination session supervised by the MoH. The scoring system is on 20 with the minimum passing score being 12/20. Both programmes fail to describe the types of assessment and related tasks in the respective programmes. The assessment plan is also not linked to any core beliefs, mission or vision. It is therefore impossible to say if there is a perfect alignment between programme philosophy, content and assessment.

Student Centred Approaches

The curricula were also assessed for the level of adoption of student-centred approaches using Asgari et al. [1] SPICES stages. Both programmes are classified at Stage 1 for student-based approaches with students receiving a prescribed programme (without any input from them), which they follow strictly. The Problem-based approaches are at stage three in both curricula. This means that some examples of problems with applied rules are implemented. This is seen in the focus on the diagnosis and treatment of diseases. In both curricula, the level of Integration is at stage 3. This means that there is greater coordination between the courses, with learners also receiving content from nursing-related fields and they are also assessed on this content. Community-based learning occurs when teaching focuses on real problems [30]. Both curricula at Stage 3 indicating that some objectives and content focus on sociology. The programmes also include courses that focus on community health nursing but the entire programme are not community-based. For Elective, both programmes are at Stage 1. That is, all courses are compulsory and students do not get

to make any choices. The last component is Systematic content, where both programmes are at Stage 3. The course content and assessments are related but assessment needs do not influence course objectives. There is therefore need to consider strategies that will make the programmes more student-centred in both design and delivery.

5. Conclusion

This study showed that while there are few differences in the description aims, purpose, outcome skills, and programme hours, there are no core differences in the curriculum documents that can be used to classify one programme as significantly better than the other. The curricula documents also reveal limitations in the curriculum development process indicated by absence of key components like mission, vision, curriculum frameworks and detail assessment plans. These limitations indicate the need for broad revision and modernization of the basic nursing education programmes in the country. The curricula are still subject-based and teacher-centred and lack any of the more recent competency-based curriculum models. Future studies should compare actual programme implementation and levels of supervisory oversight and explore capacity of nurse leaders and institution to lead evidence-based change in the organization of nurse education in the country. Other studies can focus on harmonization models built around a set of competence for nurses at this level of practice.

Abbreviations

HND	Higher National Diploma
SRN	State Registered Nursing
MHE	Ministry of Higher Education
MOH	Ministry of Health
NANMHT	National Association of Nurses, Midwives and Health Technicians

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Conflicts of Interest

The authors declare no conflicts of interest.

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