

Original Article

The Development of Concepts for a Concept-Based Advanced Practice Nursing (Child Health Nurse Practitioner) Curriculum for Sub-Saharan Africa

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Abstract

Background: The training of appropriate cadres of health workforce who are willing to be deployed to underserved communities is essential to the realization of Universal Health Coverage in sub-Saharan Africa. Attempts to introduce Advanced Practice Nursing programmes in sub-Saharan Africa were thwarted by limited resources, opposition from the medical profession, inefficient nursing regulation and regulatory bodies, and lack of context-specific APN benchmark. This study sought to develop concepts for the Child Health Nurse Practitioner (CHNP) programme to serve as guide institutions in developing a concept-based Advanced Practice Nursing curricula in sub-Saharan Africa.

Methods: A multimethod study comprising a scoping review, a Delphi and a curriculum committee was used to develop concepts for Child Health Nurse Practitioner curriculum development in this study.

Results: 14 concepts namely: transformational leadership, governance, systems thinking, quality of care, clinical assessment, clinical decision making, treatment selection, nursing case management, child mortality, medical record management, teaching, influencing curriculum, nursing research and research dissemination were developed and analysed in this study.

Conclusion: The concepts for the Child Health Nursing Practitioner curriculum are comprehensive, and provides a context-specific guide for Nursing Education Institutions in developing responsive concept-based Child Health Nurse Practitioner and other Advanced Practice Nursing curricula in sub-Saharan Africa.

Keywords: Concept-based Curriculum, Advanced Practice Nursing, Child Health Nurse Practitioner, Sub-Saharan Africa

Background and Introduction

Between 70 to 90% of sub-Saharan Africa (SSA) population, reside in rural areas that are mostly deprived of essential healthcare services and

medical doctors due to acute shortage and the refusal of physicians to be deployed to such rural and hard to reach communities. The training of appropriate cadres of health workforce who are willing to be deployed to underserved

communities is essential to the realization of Universal Health Coverage in SSA (Soucat, Scheffler & Ghebrey, 2013; Hiatt et al., 2017). The inaccessibility of quality health care services by the rural communities necessitated the introduction of Advanced Practice Nursing (APN) in the United Kingdom, Canada, America and other jurisdictions (Pirret, Neville & La Grow, 2015; Swan et al., 2015). The greater proportion of rural dwellers in SSA coupled with the poor access to essential health services in an era where the World Health Organization declared Universal Health Coverage is a stimulus for the introduction of APN in sub-Saharan Africa.

Nurses form the core of the health workforce globally and are in the absolute majority in SSA (International Council of Nurses, 2015a; Rispel, 2015). In SSA the notion of 'no health workforce without a nurses' is very evident because Universal Health Coverage cannot be realised without leveraging on the numbers and skills of nurse (Asuquo et al., 2013; Kunaviktikul, 2014; Rispel et al., 2014; International Council of Nurses, 2015b,a; Rispel, 2015). Many studies have shown that Advanced Practice Nurses are capable of extending quality healthcare to the underserved communities and accelerating Universal Health Coverage (Canadian Nurses Association, 2008; Sheer & Wong, 2008; Duffield et al., 2009; Currie, Chiarella & Currie, 2013; East et al., 2014; Swan et al., 2015). Attempts to introduce APN programmes in SSA were thwarted by limited resources, opposition from the medical profession, inefficient nursing regulation and regulatory bodies, and lack of context-specific APN benchmark. Sheer and Wong (2008) posited that the characteristics of the nurse trained at the APN level must be shaped by the context in which they are licensed to practice and that every country must recognize the need and practice of the APNs in their specific context of healthcare.

Why Concept-based Curriculum: Hall (2014) defined curriculum as an intentionally designed learning opportunity provided by an institution to students as an interactive event integrated with learning experiences throughout the programme of study. The changing demand in quality of care, advancement in technology and the need for higher education institutions to be internationally competitive as well as locally relevant resulted in a sustained increase in the content of nursing curricula (Joseph, 2015;

Higgins & Reid, 2017). Nursing Education Institutions and students are finding it difficult to cope with the huge content of the nursing curricula (Giddens et al., 2008; Caputi, 2014). The development of an innovative curriculum that responds to the increasing content became necessary (Institute of Medicine, 2011; Benner, 2012).

Concept-based curriculum and conceptual learning were then developed by Giddens and Morton (2008). Conceptual learning centres on the acquisition of the big-ideas (concepts) and the application of those ideas to specific phenomena (Elsevier Evolve, 2017). Concept-based curriculum, therefore, is a student-centred andragogic curriculum in which concepts (big-ideas) form the framework of the learning programme and are learned through exemplars (Brady et al., 2008; Giddens & Morton, 2008; Giddens, Wright & Gray, 2012; Caputi, 2014; Brooks, 2015; Ignatavicius, 2017). The concept-based curricula as postulated by Giddens and Morton (2008) is rooted in constructivist and adult learning theories which makes it easier for conceptualisation and application (Giddens, Wright & Gray, 2012). It is against this backdrop that this study sought to develop concepts for the Child Health Nurse Practitioner (CHNP) programme to serve as a context-specific benchmark for developing concept-based APN curricula in sub-Saharan Africa.

The concept-based curriculum development process include: formulation of the curriculum committee, needs analysis, (literature review and broad-based stakeholder consultations), development of concepts, concept analysis, curriculum implementation and evaluation.

Why the Child Health Nurse Practitioner: Children are the majority of the population of SSA (Ahmed et al., 2011; World Bank Group, 2015; populationpyramid.net, 2016) and are the most vulnerable to the increasing disease burden. Children deserve special healthcare attention because not only do healthcare challenges during childhood have devastating effects on the developmental process of the children but also on their education and adult life (Garcia, Pence & Evans, 2008; Delaney & Smith, 2012; World Health Organization, 2014). The majority (about 55-64%) of child deaths in some SSA countries are preventable, 55% of children die before reaching hospitals, 31% die within 24 hours of hospitalization whereas healthcare professionals

are responsible for about 55% of the cause of child death (Nannan et al., 2012; Coetzee, 2014; Mulaudzi, 2015). Strengthening child health in SSA requires a critical look at the curriculum that produces the child health care nurses (Coetzee, in press). The development of a concept-based CHNP curriculum framework will guide institutions and governments in their quest to develop, review and maintain relevant and responsive curricula in SSA. Such curricula will help SSA in responding to the child health needs and achieving, in part, the United Nations Sustainable Development Goal 3 (United Nations, 2015).

Aim: This study sought to develop concepts for the child health nurse practitioner programme to guide institutions in developing context-specific and responsive concept-based Advanced Practice Nursing curricula in sub-Saharan Africa.

Materials and Methods

Design: A multi-method study (scoping review, Delphi study, and concept development by curriculum committee) was employed in this study. The scoping review was conducted to describe the concepts of child health, APN in SSA (Christmals & Armstrong, 2019). An international multidisciplinary health professional Delphi survey was conducted to review the findings of the scoping review and to prescribe the content of the CHNP programme based on their expertise, experience and the findings from the scoping review. An international curriculum committee was formed to develop and analyse the concepts for the CHNP programme (Sportsman & Pleasant, 2017).

Participants: Purposive and snowball techniques were used to select 49 experts (36 nurses, seven public health practitioners and six medical practitioners) for the Delphi study. Nurses were required to have a master's degree in nursing, work in SSA for at least five years post nursing registration and be abreast with child health nursing issues within SSA. All public health practitioners were required to have a master's degree and to have carried out at least one community project in SSA. The medical practitioners included in the study have practised for at least three years in a lower level of care

(District hospital and below) and are abreast with child health issues in SSA (Christmals & Armstrong, 2019).

A seven-member curriculum committee constituting three nursing curriculum experts, one nursing regulator, one paediatric nursing specialist, one administrator from the nursing employer and a paediatrician were purposively formed. The selection of the committee members was based on the qualification, experiences in curriculum development and the understanding of the SSA context.

Ethical approval has been obtained from the human research ethics committee, University of the Witwatersrand (number: M160632) and the Noguchi Memorial Institute of Medical Research Institutional Review Board, University of Ghana [CCI].

Data Collection

The Delphi was conducted using the Redcap survey platform (Project Redcap, 2018). The tools were self-administered and the results extracted from the platform. The results of the scoping review and the Delphi were given to the curriculum committee with instructions for concept development. The curriculum committee used developed the concepts (Ignatavicius, 2017). The developed concepts were uploaded onto the Redcap platform for concept analysis by all the seven members of the curriculum committee (Johnston, 2017). The committee was asked to choose whether the concept should be included, revised or excluded (Figures 1 and 3). They also ranked the proposed exemplars as shown in Figure 2 and Figure 4. They were further asked to state the interrelated concepts of each of the concepts they analyse.

Validity and reliability: The Delphi questionnaire was developed by the researcher and reviewed by two experts for face and content validity (Johnson, 2013). The tool was also pretested by Master of Science in nursing students for applicability. The result of the first stage of the Delphi produced a reliability coefficient of 0.7349 upon a Cronbach alpha test. The researcher used the principle of bracketing and the confirmation of the results from the expert groups to avoid personal bias in data analysis and interpretation.

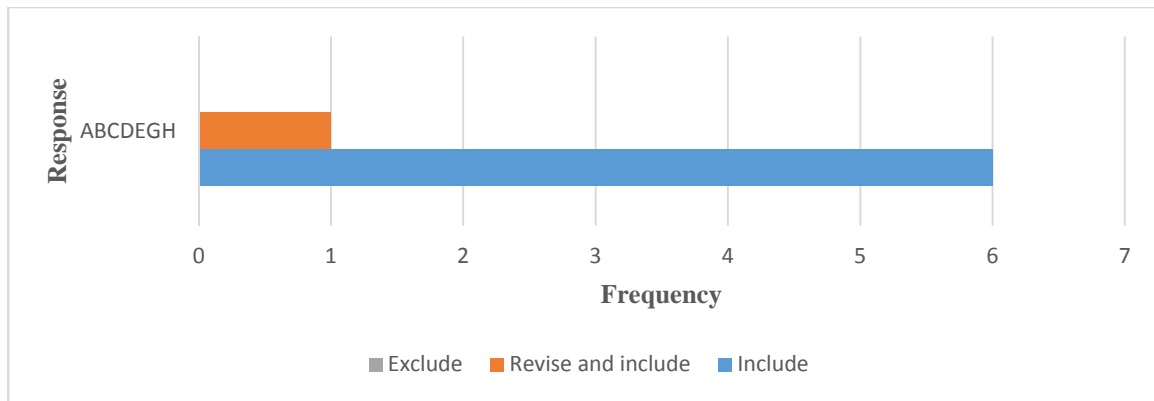


Figure 1: Should transformational leadership be included, revised or excluded?

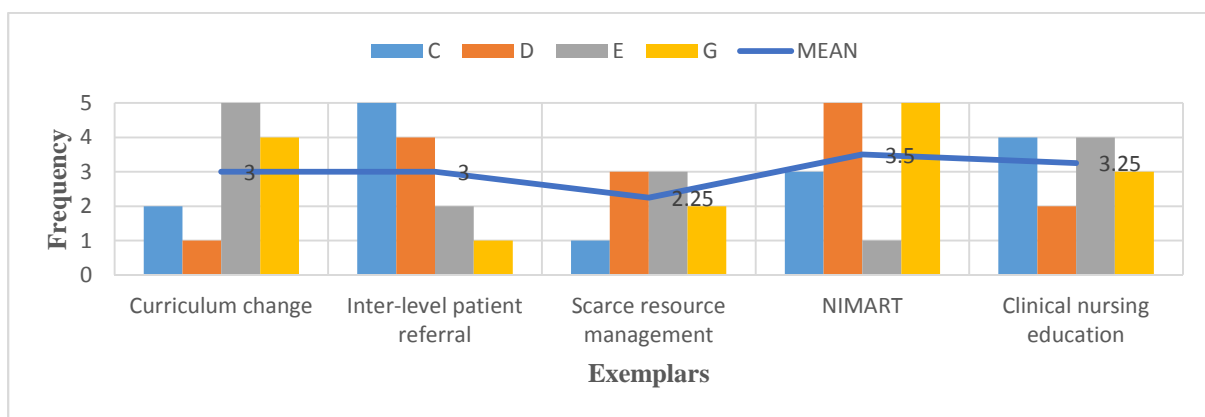


Figure 2: Exemplars for 'transformational leadership' [\bar{x} -->1, most important]

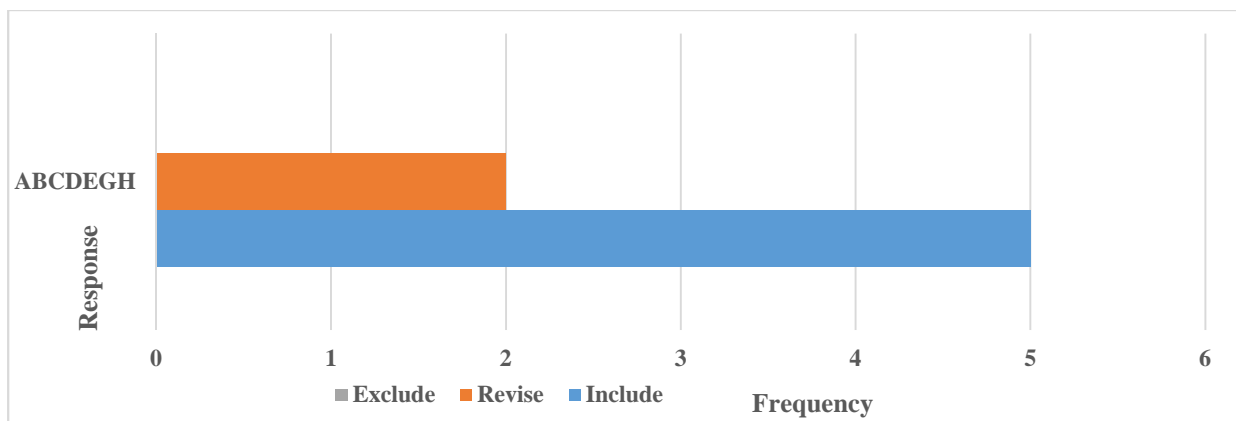


Figure 3: Should governance be included, revised or excluded?

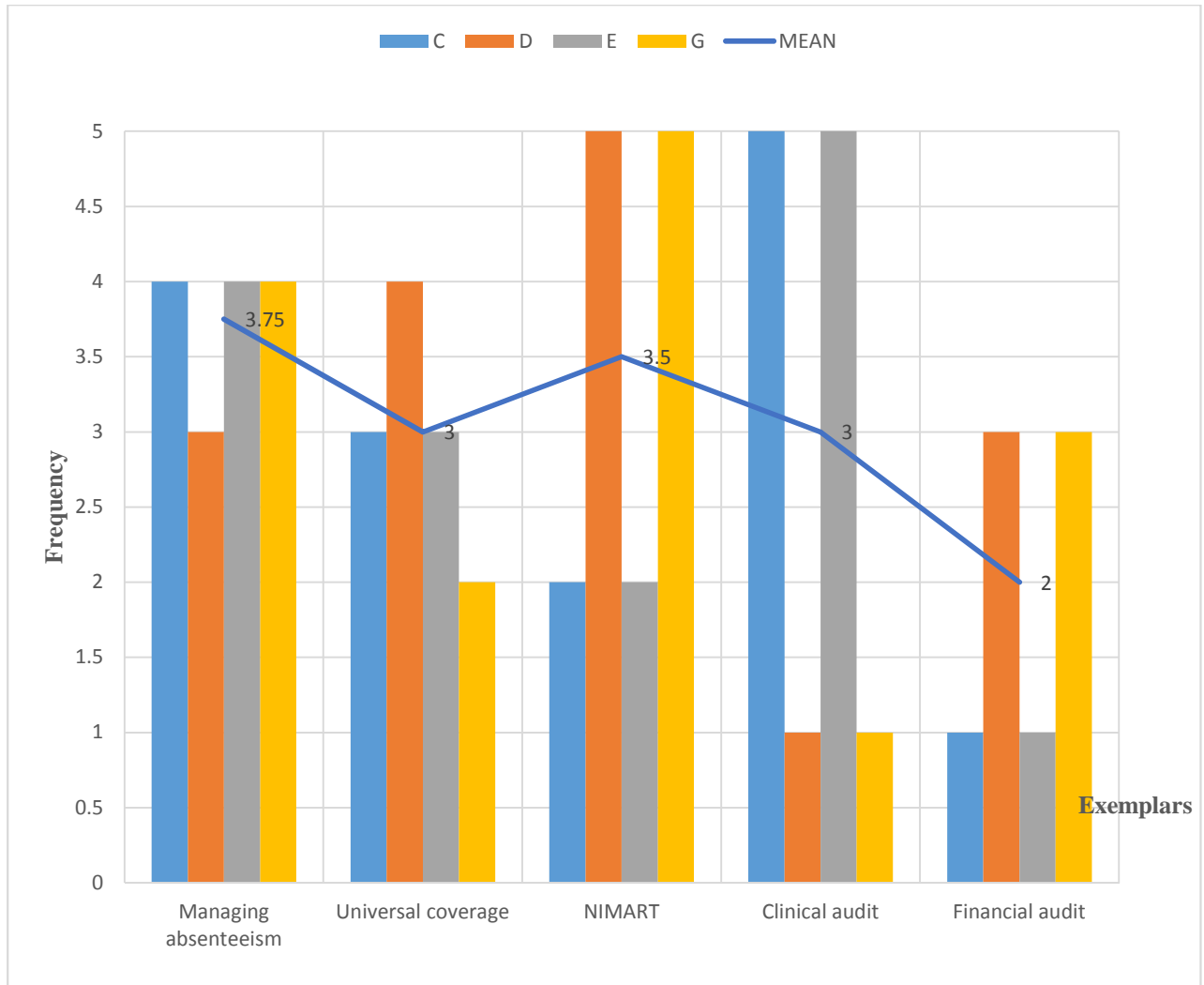


Figure 4: Exemplars for the concept “governance” [\bar{x} -->1, most important]

Table 1: the six domains of knowledge of the Child Health Nurse Practitioner programme.

ID.	Domain	Description
A	Nursing Leadership	The key responsibilities of the APN in their setting is healthcare governance, leadership, management, advocacy and resource management (Academy of Nursing of South Africa, 2015; Duma et al., 2012; East et al., 2014; SANC & South African Nursing Council, 2005; Sastre-Fullana, de Pedro-Gomez, Bennasar-Veny, Serrano-Gallardo, & Morales-Asencio, 2014).
B	Quality Practice	This domain covers issues of quality in healthcare delivery and continuous professional development. The Advanced Practice Nurse should be able to identify child healthcare indicators, conduct quality audits and implement quality improvement practices in order to improve access, safety and effectiveness of PHC for children in the community they serve (Reid, Hendricks, Groenewald, & Bradshaw, 2016; SANC & South African Nursing Council, 2005).
C	Ethico-legal Practice and Professionalism	This domain covers the ethos of professional practice. It refers to all the legal aspects of the Advanced Practice Nurse's practice. It is comprised of the boundaries, rules and regulations, and scope of practice and standards within which the Advanced Practice Nurse must operate. The APN training must make him or her capable of utilizing ethical theories and principles in paediatric services, adhere to and enforce staff adherence to all relevant ethical codes of conduct set by the nursing profession and regulatory body (Duma et al., 2012; INEPEA, 2008a; Lake, 2014; Madubuko, n.d.). She or he must contribute to the resolution of ethical issues in practice.
D	Education and Research	The CHNP should engage in teaching, mentoring, supervision and coaching, giving feedback into educational curriculum, provide school and community health education and screening (INEPEA, 2008b; Madubuko, n.d.; SANC & South African Nursing Council, 2005). He or she must be able to teach and mentor nursing students in clinical practice (Sastre-Fullana et al., 2014)
E	Advanced Child Health Nursing Practice	The CHNP is expected to conduct an assessment (history taking, physical examination, request and interpret laboratory and imaging studies), diagnose, prescribe treatment (pharmacological and non-pharmacological), admit, discharge or refer patients and manage cases comprehensively in their practice settings (Cheema, Stephen, & Westwood, 2013; Minette Coetzee, 2014; Duma et al., 2012; Essa, 2011; Fowler, Schmied, Psaila, Kruske, & Rossiter, 2015; INEPEA, 2008b; Kleinpell et al., 2014; Madubuko, n.d.; Mwangi, 2016; Sietio, 2000).
F	Attitudes and Values	The CHNP should engage the community with patient centred care principles. He or she must practice with the understanding that the final decision on care lies with the child and family and respect their decisions after counselling. The CHNP must be culturally competent and should learn to speak the language of the community served to facilitate communication and trust (Essa, 2011; Fowler et al., 2015; Madubuko, n.d.; Sietio, 2000)

Data analysis: The studies included in the scoping review were analysed using thematic content analysis (Christmals & Armstrong, 2019). Descriptive analysis was used to analyse the data from phase 1 of the Delphi. Phase 2 and 3 were analysed using thematic content analysis. Phase 4 was analysed using conventional content analysis. The curriculum committee used the results of the scoping review and Delphi to develop concepts. The concept development was guided by the 12-steps approach to concept-based curriculum development (Ignatavicius, 2017). Results from the concept analysis were analysed using a combination of descriptive statistics and thematic content analysis.

Results

The experts reached consensus on the six domains of knowledge described from the scoping review in the Delphi as described in Table 1.

Concept Development and Analysis

Twenty-two concepts were (22) proposed by the curriculum committee in this study. Being the first postgraduate level concept-based curriculum framework to be developed, it was laborious trying to determine how many concepts are enough and which ones to include. The committee was divided into two groups, the first group agreed on merging some of the 22 concepts and excluding duplicates, resulting in 14 concepts included in this study. The 14 concepts were loaded onto the redcap platform for final review and approval by the members of the curriculum committee. Two results from the analysis of 14 concepts are shown below.

Transformational Leadership

From Figure 1, it can be seen that 85.7% of the curriculum committee members agreed that the concept should be included. One member (E) asked that the concept should be revised for inclusion. She stated that:

“This section is excessively detailed and wordy making it difficult to fully understand its relevance and applicability to the APN. The section on context to practice is therefore relevant but doesn't really address how the APN will overcome the identified challenges to the introduction of the curriculum”.

Another member (G) stated that:

“I think this concept is appropriate for the setting that the curriculum is being created for”. The section on context to Advanced Practice Nursing was revised and included.

Figure 2 **Error! Reference source not found.** is a graphical representation of the ranking of the proposed exemplars for the concept ‘transformational leadership’ ranked from 1 to 5, with one (1) being the most important and five (5) being the least important, therefore the more the mean (\bar{x}) of an exemplar approaches (\rightarrow) 1, the more important the exemplar is for the concepts. It can be deduced from the mean ranking that the most important exemplar is scarce resource management ($\bar{x}=2.25$), followed by curriculum change ($\bar{x}=3$), inter-level patient referral ($\bar{x}=3$), clinical nursing education ($\bar{x}=3.25$) and then Nurse Initiated Management of Antiretroviral Treatment (NIMART) ($\bar{x}=3.5$).

Interrelated concepts stated by the experts include nurse case management, systems thinking and governance.

Governance

From Figure 3, 71.4% of the curriculum community members agreed that the concept should be included. Two members (E and G) asked that the concept should be revised. They stated that:

G: *“I think that the aim of the new nursing training is focused on intervention, not politics. Transformational leadership has already been included which I think is essential. Maybe the other components human resource managing and clinical audit can be included.”*

E: *“This section appears to be incomplete and Good Governance will be a key to the success of this program.”*

The concept was revised and included. The name governance was kept instead of good governance based on the endorsement from the majority of the committee members.

Figure 4 shows the graphical representation of the ranking of the proposed exemplars for the concept ‘governance’ ranked from 1 to 5, with one (1) being the most important and five (5) being the least important. It can be deduced from the mean ranking that the most important exemplar is financial audit ($\bar{x}=2$), followed by clinical audit ($\bar{x}=3$) and universal coverage ($\bar{x}=3$), then NIMART ($\bar{x}=3.5$) and managing absenteeism ($\bar{x}=3.75$).

Systems thinking and transformational leadership were stated by the committee as interrelated concepts. As presented in Table 2, the concept development process involved the description of the scope of the concept, characteristic attributes, definition and exemplars.

Discussion

The variability among the committee members regarding the concept-based curriculum was important in the selection of the concepts but also created difficulty in deciding on how many concepts to include. The difficulty in determining how many concepts to include in the curriculum framework was also reported by Jean Foret Giddens et al (2012) in their state-wide undergraduate concept-based curriculum development.

Fifty percent of the concepts constituted the Advance Nursing Practice specialty area. The rest of the concepts cover research, education and health systems which harbour vital knowledge, skills and attitudes needed by the Advanced Practice Nurse to function effectively. The APN is expected to provide expanded roles that involve comprehensive assessment and diagnosing, managing of illness and diseases which require extensive knowledge and skills in the disease process to function effectively. The concepts for Advanced Nursing Practice were carefully selected to equip the APN with the needed skills in clinical management.

For the APNs to be competent in evidence-based practice, they need to understand how evidence is generated, be able to generate evidence themselves and competent in utilizing such evidence. A comparative study conducted by Cook et al., (2018) found that Advanced Practice Nurses rated their trust in research very high (Cook et al., 2018). The APN is expected to do clinical teaching for nursing programmes and to educate the patient in the clinical setting. To do that, the concepts on nursing education are necessary. The APN will acquire enough knowledge, skills and attitudes to do clinical teaching effectively. The health system is the larger context within which the practice of the APN is located. To be able to function within legal confines and improve practice, the APN needs to understand the health system, the players in it and their expectations. Three (21.4%) concepts were included under health systems. He or she is envisaged as the leader at the community health care, therefore, gaining leadership and governance skills is essential.

A Delphi was used to collect data from the respondents. The online platform used in the Delphi could have excluded some experts who could have provided some key information or recommendations for this study due to the resource-poor nature of SSA. Delphi only permits a selected group of people to be included. This does not allow for the inclusion of a vast majority of stakeholders of the nursing education and practice in sub-Saharan Africa. Even

though all the four sub-regions of the SSA were fairly represented, involving participants from all countries would have been better.

The concepts developed were evaluated by 17 faculties from 15 different departments of nursing in 10 sub-Saharan African countries. Even though it was evaluated, the researcher could not confirm that there would not be limitations during the implementation of the concepts in SSA.

Conclusion

The SSA environment is conducive for the implementation of APN programmes. The population dynamics, inequality, inaccessible healthcare systems, and a higher proportion of rural dwellers compared to that of urban creates an opportunity for the APN programme to be implemented. CHNP programme will be very important in responding to the large and increasing population of children with poor access to timely and quality healthcare in SSA (Soucat et al., 2013).

The concepts are comprehensive and provide a context-specific guide for Nursing Education Institutions to develop responsive concept-based CHNP and other APN curricula in SSA.

Declarations

Ethical approval was sought from the Faculty of Health Sciences Human Research Ethics Committee (Certificate No: M160632), University of the Witwatersrand and the Noguchi Memorial Institute of Medical Research Institutional Review Board, the University of Ghana (Study Number: 009/16-17) to conduct this study.

Informed consent was sought from all the experts in the Delphi and curriculum committee who participated voluntarily with the knowledge that their responses are confidential, their privacy and anonymity will be kept.

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Table 2: Concepts for Child Health Nurse Practitioner Curriculum

Mega concepts	Concepts	Characteristic features	Definition	Proposed Exemplars	Interrelated concepts
HEALTH SYSTEM	Transformational leadership	Execution, partnership, others (people), communication, self (to set a personal example, Ideal impact, strong motivation, intellectual stimulation, and personal consideration).	Transformational leadership is the process in which a leader inspires the followers in developing higher order goals and motivating them to reach such goals through the refinement of the followers' worldview and attitudes	Curriculum; inter-level patient referral; scarce resources management; NIMART; clinical nursing education	Nursing case management; systems thinking; governance
	Governance	Accountable, transparent, responsive, rule of law, equity, empowerment, inclusive, consensus orientation, effective and efficient.	Governance refers to the legally recognised structures and procedures that are created to guarantee “accountability, transparency, responsiveness, rule of law, stability, equity and inclusiveness, empowerment, and broad-based participation” in an organization, institution or society	Managing absenteeism; universal coverage; NIMART; Clinical audit; Financial audit.	Systems thinking; transformational leadership
	Systems thinking	Leadership and governance, service delivery, health system financing, health workforce, medical products, vaccines and technologies, health information systems, systems organization, systems network, systems dynamics, systems knowledge	Systems thinking is a quality improvement process in which the understanding of the relationships and interaction between the components of a system is engineered to generate synergy in the system	Vaccination; memorandum of understanding; quality improvement project; managing adverse events; development of community outreach	Influencing curriculum; clinical assessment; quality of care
	Quality of care	Effective, efficient, accessible, acceptable and equitable	Quality is defined as conforming to specified standards of a product or service, i.e. meeting or exceeding the expectations of the population served	Managing adverse events; universal coverage; NIMART; clinical audit; financial audit	Research dissemination; teaching; influencing curriculum
	Clinical assessment	History taking, Physical assessment (Biopsychosocial, spiritual, emergency) laboratory examination, imaging studies	Clinical assessment is the process of gathering patient information through patient history taking, physical assessment, laboratory examination and imaging studies to guide the clinician's and patient	Assessment for diarrhoeal diseases; assessing for pneumonia; assessing for malaria; assessing critically ill children; assessing for child abuse	Teaching; quality of care; clinical decision making

ADVANCED NURSING PRACTICE			decision-making processes especially in the selection of treatment or referral for an appropriate treatment		
	Clinical decision making	Pathophysiology, clinical judgement, diagnosis, current-evidence, clinical expertise and patient preferences and characteristics (uniqueness, criticalness, urgency, stability, risks), variables (certainty, similarity, congruence/conflict).	Clinical decision making, synonymous with clinical diagnosis, is the process of deciding on the health status of the client in order to select the best treatment that responds to the client's condition with the primary purpose of improving the health of the client and community	Managing adverse event; critically ill child; NIMART; clinical audit; use of clinical guidelines	Quality of care; teaching
	Treatment selection	Pharmacological, non-pharmacological (complementary and alternative medicine), pharmacovigilance, cost-effectiveness	Treatment selection is the selection of appropriate and cost-effective treatment that responds to patients' needs for a requisite period of time	Managing adverse event; diarrhoeal diseases; critically ill child; pneumonia; Clinical pathways	Quality of care; clinical assessment; clinical decision making; nursing case management
	Nursing case management	Assessment, clinical decision making, treatment selection, referral services, follow-up care and costing of services, Primary healthcare, Family centred care, referral system, Clinical progress, safe, timely, effective, efficient, cost-effective, equitable and patient-centered, payer, level of care, benefits.	Case management refers to the actions taking by the Advanced Practice Nurse in coordinating an ongoing comprehensive medical service (assessment, clinical decision making, treatment selection, referral services, follow-up care and costing of healthcare) that responds to the needs of the patient, family or community	Managing adverse event; use of clinical guidelines; patient referral; universal coverage; clinical audit	Quality of care; clinical assessment; clinical decision making; treatment selection
	Child mortality	Pneumonia, Diarrhoeal disease, malaria, HIV, severe malnutrition and contributing factors (country of birth, preterm birth, poverty, gender, neonate, rural settlement, urban slum settlement, small for age, child abuse)	Child morbidity is the percentage of children who contracted a disease, fell ill or was injured within a specific period of time in a defined population. Child mortality is the number of child deaths per 1000 live births in a specified geographical or political location	Managing diarrhoeal diseases; managing pneumonia; managing HIV/AIDS; managing critically ill children; child abuse	Quality of care; clinical assessment; clinical decision making
		Principles (Evidence, legal, confidential, safety, critical	Medical record management refers to the organizational policies and	Managing adverse events; inter-level patient referral; patient	Nursing research; quality of care

	Medical record management	information, retention period) Uses (continuity of care, quality improvement, research, medicolegal) Types (paper-based, electronic), Content (demographic, consent, admission, management, discharge, financial).	regulations and procedures governing the collating, handling, storage and use of patient medical records	Kardex; clinical audit; financial audit	
EDUCATION	Teaching	Health promotion, Health education, Clinical teaching, patient education, curriculum, andragogy, learning, assessment, knowledge brokering.	Teaching is, therefore, the process by which the teacher (lecturer, facilitator etc.) guides the student to acquire certain knowledge, skills and attitudes that are intentionally planned through an institutional curriculum	Curriculum change; patient education; clinical nursing education; OBSCE; health promotion	Influencing curriculum; quality of care; transformational leadership
	Influencing curriculum	Advocacy, professional organization, needs analysis, Programme development, Programme evaluation, feedback.	Influencing curriculum, therefore, refers to advocating and positively determining the course of teaching and learning in nursing.	Curriculum change; clinical nursing education; OBSCE; child health advocacy; writing journal articles.	Nursing research; teaching; transformational leadership
RESEARCH	Nursing Research	Research proposal, data collection, Data analysis, Interpretation, dissemination, principles (Privacy, anonymity and confidentiality, ethical approval, institutional approval).	It is defined as a “ diligent and systematic enquiry to validate and refine existing knowledge and generate new knowledge”	Qualitative research; quantitative research; research proposal; development; literature review; writing research report	Teaching; influencing curriculum; research dissemination
	Research dissemination	Institutional factors (Dissemination strategy, organizational culture, incentives), Values and skills (academic integrity, plagiarism, academic writing), types (research report, journal papers, conferences presentation, research brief)	Dissemination is a well-planned process in which research findings are exposed to a wider audience through written and verbal means for appropriate evaluation and inclusion into policy and healthcare practice to facilitate evidence-based practice	Managing plagiarism; research protocol development; evidence-base poster development; writing a research report; writing a journal article	Nursing research; transformational leadership; influencing curriculum