A qualitative study of fourteen African countries' nursing workforce and labour market

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Aim: The aim of this study was to describe factors affecting nursing education and labour markets in countries in East, Central, and Southern Africa, and critical areas for investment.

Background: An understanding about the relationship between the supply of nurses (determined by types of educational programmes, and the quantity and quality of nurse graduates), and workforce demand is critical to health policy development.

Methods: Six focus groups and 14 key informant interviews with nursing leaders and experts were conducted. Participants included government chief nursing officers, registrars of regulatory bodies, association leaders and heads of nursing education. The data were transcribed, coded and analysed using inductive techniques.

Findings: Participants discussed challenges and strengths of nursing education, school and regulatory infrastructure, financing mechanisms for the nursing workforce, the state of nursing jobs and scope of nursing practice.

Conclusion: Strengthened regulations and leadership are needed to improve investment in nursing, the quality of nursing education, and working conditions and to promote the achievement of better health outcomes.

Implications for Nursing Policy: Clarifying scope of practice for nurses in the health sector and creating competency-based requirements is important. Governments should establish positions that align with updated competencies and provide fair and safe working conditions. The current and ongoing investment case for nursing requires improved data systems and a commitment to use labour market data for decision-making.

Keywords: Advanced Practice, Health Policy, Nursing Competence, Nursing Education, Nursing Leadership, Nursing Regulation, Credentialing, Registration, Theory–Practice Gap, Workforce Issues

Introduction

In the World Health Organization (WHO) African region, nurses and midwives comprise 56% of health personnel and provide over 80% of essential health services (WHO, 2016a, 2019a, 2019b). In the East, Central and Southern African (ECSA) region, some countries exceed the recommended minimum standard of 2.3 nurses, midwives and physicians per 1000 population, such as South Africa (5.11) and Botswana (2.7), while others remain far below the target, such as Lesotho (0.59) (WHO, 2019a, 2019b, 2019c). To meet workforce demands, investments in nursing and nursing education have been a focus of governments and international development partners (Bvumbwe & Mtshali, 2018). While nursing is such a critical component of the health workforce in the

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ECSA region, a comprehensive analysis of the health labour market has not been conducted.

A health labour market is the structure that allows labour services to be bought and sold, where employers are the 'buyers' and those who are employed are the 'sellers'. A health labour market is affected by conditions of employment (e.g. adequate infrastructure, supportive management, opportunities for professional development and career progression) as well as wages (McPake et al. 2013). It is not well understood whether there is a balanced health labour market, or an appropriate match between the 'supply' of nurses – determined by the types, quality and quantity of educational programmes – and the workforce needs, or 'demand', determined by population needs. Evidence is needed to direct efficient use of limited resources that are available for investing in nursing education. The purpose of this study was to explore the question: which factors affect nursing education and labour markets in ECSA? Understanding these factors will help define the most critical areas for investment in the region's nursing workforce and education systems.

Background

Nurses are recognized as essential to achieving the Sustainable Development Goals (SDGs) of 2030 (WHO 2016a, 2016b). The third SDG ('to ensure healthy lives and well-being for all at all ages') includes sub-target 3.8 of achieving universal health coverage, with a focus on reaching under-served populations (SDG Report 2018; https://unstats.un.org/sdgs/files/report/2018/TheSustainableDevelopmentGoalsReport2018-EN.pdf). Steady employment empowers nurses to strengthen local economies and improve the health of their families and communities, particularly in vulnerable regions (Langer et al. 2015).

Efforts to improve and strengthen the nursing workforce in the WHO Africa region have often been ad hoc and not strategic (Klopper and Ulys 2013; Munjanja et al. 2005). The Lancet Commission and the Global Health Workforce Alliance have noted that professional education has generally not kept up with healthcare challenges (Frenk et al., 2010; Global Health Workforce Alliance 2013). 'Sub-Saharan Africa needs an effective and efficient nursing education system to build a competent and relevant nursing workforce', I particularly to meet the SDG targets (Bvumbwe & Mtshali, 2018 p. 3). This study examined trends specifically in the ECSA region. Countries in the ECSA region have a population of over 275 million people and an average annual gross domestic product growth rate of 2.1%, in comparison to 1.8% across Sub-Saharan Africa and 1.6% globally (World Bank Group 2016; UNDP 2020). Fourteen of these countries (Kenya, Uganda, Tanzania, Malawi, Mozambique, Zambia, Zimbabwe, Namibia, Lesotho, Seychelles, South Africa, Swaziland, Mauritius and Bostwana)

formally established the ECSA Health Community in 1974 to promote regional cooperation in health. Much of the quantitative comparison data collected for this study were obtained from the National Health Workforce Accounts (NHWA) data that were also used in the recently released State of the World's Nursing Report (WHO 2020). NHWA data indicate that there are over 320 000 nurses practising in the ECSA region, where human resource challenges constrain progress towards improving health outcomes (WHO 2018) (Table 1). The study was guided by a conceptual model drawn from a review of literature and consultations with World Bank economists. As seen in Fig. 1, the model addresses nursing education, deployment, employment, influencing factors, and health systems impacts and outcomes.

Methods

Research design

Our study to determine which factors affect nursing education and labour markets in ECSA was informed by the theoretical propositions of symbolic interactionism, that is, individuals develop their attitudes based upon the meanings that things propose informed by an interactive and interpretive process (Aksan et al. 2009). An unpublished literature review (Grunstra 2018) from the Johns Hopkins School of Nursing informed development of the qualitative study. In the literature review, major search engines were used to identify peer-reviewed articles that were in English, full text and published in 2008 or later and related to any of the ECSA Health Community member countries or regional summaries. In summary, there is a combination of public, private and faith-based nursing schools in the region, although data regarding private sector institutions are largely missing (McCarthy et al. 2017). The literature summary was organized around the factors described in a conceptual model of pre-service education (Fogarty et al. 2012) that describes six factors that contribute to quality nursing education: students, curriculum, teachers/tutors/preceptors, infrastructure and management, clinical practice sites and influencing factors, such as the regulatory environment. Those six factors informed the focus group discussion and key informant interview guides.

Qualitative descriptive data collection (focus groups and key informant interviews) leveraged the unique opportunity for government nurse leaders (chief nursing officers) and leaders of regulatory bodies (registrars), associations, and education institutions to join those in similar positions in other countries, to share perspectives, challenges and opportunities. Reporting of study findings is consistent with the COREQ guidelines for this type of research.

Table 1 ECSA countries and nursing stock

ECSA countries	Total nursing stock	Nurses per 10 000	Nursing health labour market snapshot[†]
Botswana	12 179	54.03	Minimum duration of training: 3 years Graduates per year: 342 Anticipated nurse shortage by 2030: No
Eswatini	4706	41.415	Minimum duration of training: 3 years Graduates per year: 289 Anticipated nurse shortage by 2030: No
Kenya	59 901	11.656	Minimum duration of training: 4 years Graduates per year: 7120 Anticipated nurse shortage by 2030: 80 000 to 90 000
Lesotho	6866	32.567	Minimum duration of training: 4 years Graduates per year: 304 Anticipated nurse shortage by 2030: No
Malawi	7957	4.386	Minimum duration of training: 4 years Graduates per year: 1886 Anticipated nurse shortage by 2030: 40 000 to 50 000
Mauritius	4445*	35.152	Minimum duration of training: NR Graduates per year: NR Anticipated nurse shortage by 2030: No
Mozambique	14 174	6.847	Minimum duration of training: 2 years Graduates per year: 714 Anticipated nurse shortage by 2030: 90 000 to 100 000
Namibia	4784	19.54	Minimum duration of training: 4 years Graduates per year: 269 Anticipated nurse shortage by 2030: 2000 to 3000
Rwanda	13 345	12.044	Minimum duration of training: 3 years Graduates per year: 947 Anticipated nurse shortage by 2030: 20 000 to 30 000

Table 1 Continued

ECSA countries	Total nursing stock	Nurses per 10 000	Nursing health labour market snapshot[†]
Seychelles	684**	80.773	Minimum duration of training: 3 years Graduates per year: 8 Anticipated nurse shortage by 2030: No
South Africa	74 556*	13.078	Minimum duration of training: 4 years Graduates per year: 10192 Anticipated nurse shortage by 2030: 50 000 to 60 000
South Sudan	–	–	Minimum duration of training: 3 years Graduates per year: NR Anticipated nurse shortage by 2030: No
Tanzania	31 940*	5.843	Minimum duration of training: NR Graduates per year: NR Anticipated nurse shortage by 2030: 100 000 to 200 000
Uganda	52 907	12.382	Minimum duration of training: 3 years Graduates per year: 10 353 Anticipated nurse shortage by 2030: 30 000 to 40 000
Zambia	22 722	13.376	Minimum duration of training: 3 years Graduates per year: 2558 Anticipated nurse shortage by 2030: 30 000 to 40 000
Zimbabwe	27 934	19.346	Minimum duration of training: 3 years Graduates per year: 796 Anticipated nurse shortage by 2030: 10 000 to 20 000
TOTAL	339 100		

Data represent the number of total nursing stock as reported to the National Health Workforce Accounts platform as of 2018 unless otherwise indicated. No available data for South Sudan. *, 2017 data; **, 2016 data; ECSA, East, Central and Southern Africa.

[†]Data taken from SoWN Country Profiles (WHO, 2020). Shortage based on SDG 3 recommendations for nurse-to-population density. NR = not reported
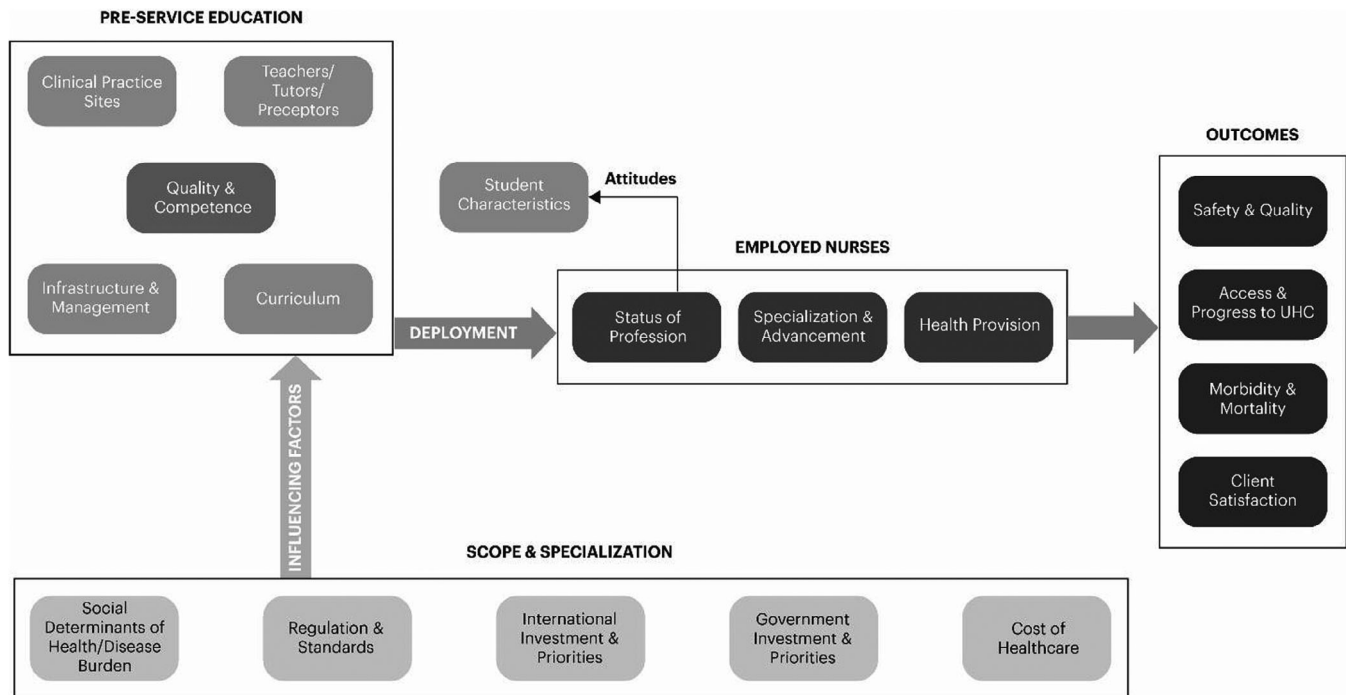
Fig. 1 Framework for nursing education and labour flow. Johnson et al. 2013 and McCarthy et al. 2014

Sample and setting

A convenience sample was recruited during the 13th East, Central and Southern Africa College of Nursing scientific meeting held in Nairobi, Kenya, in September 2018. The sample (38 nurse leaders) was selected to represent the perspectives of regulators, educators, governments and associations (Table 2). Two-thirds of participants were female and over 90% resided and worked in urban areas. Cumulatively, the focus group participants held over 1000 years of nursing experience, with an average of 29.1 years in the profession, and 9.5 years in their current role. All ECSA Health Community countries were represented in these focus groups, except Mozambique.

Procedure

Two different interview guides (one for key informant interviews, and one for focus group discussions) were developed by the researchers to guide the data collection. The questions pertained to perceptions of financing for nursing education, cost of attending nursing school, the status of nursing education in the country, and the strengths and challenges experienced by employed nurses. A combination of audio recording and note-taking was used to document the respondents' contributions to the discussion.

The ECSA nursing leaders who participated in the focus group discussions were introduced to the key informant

Table 2 Focus group discussion participants

Perspective*	Number (percentage)
Regulator	12 (22)
Government	8 (15)
Association	11 (20)
Educator	11 (21)
Clinician	7 (13)
Other	5 (9)
Total	54

*Participants' self-reported primary background or experience could select more than one (54 total participants, reported perspectives from 38 participants).

guide, and provided with audio-recording devices, with a request to conduct interviews in their home countries with other nursing experts, and to upload data via a secured shared file system. Interviewers were trained in research and study ethics prior to conducting the interviews and focus group discussions. Fourteen key informant interviews were conducted, and audio files were shared from Kenya, Lesotho, Mauritius, Uganda, Zambia and Zimbabwe. Respondents included nurse clinicians, educators, association leaders, government officials and regulators.

The Johns Hopkins University Institutional Review Board provided review and approval of the research for application number 00008959 on August 2, 2018. An oral informed consent approach, with standardized scripts, was used with participants of the focus groups and key informant interviews, according to the approved research protocol. The study was fully explained, including assuring confidentiality, and consent obtained.

Data analysis

Data from both interviews and focus groups were pooled and transcribed verbatim by a study team member. The transcribed interviews were coded and thematically analysed using an inductive technique (Lofland & Lofland, 1984). Data were deidentified and analysed with the qualitative analysis software, F4Analyse. The data were coded once, cross analysed by another researcher to ensure quality and consensus on interpretation of the coding themes, then coded a second time.

The data were compared and coded into categories of participant viewpoints. Two types of codes were used: (1) *in vivo* codes, terms used by the participants in the study, and (2) imported codes, codes derived from nursing and/or social science conceptualizations. Codes were compared and clustered to form categories. Emerging themes were identified, producing a multifaceted description of the context, policy environment, and market forces related to the education and deployment of nurses. Draft copies of the written report were shared with each member of the research team for verification, review and comment.

Findings

Three key themes emerged from the data regarding trends in the nursing labour market and opportunities and threats to maximizing the role of nurses in ECSA: (1) nursing education and the need to align student intake with resources and infrastructure, (2) post-deployment nursing experience, underscoring the importance of job satisfaction, regulated scope of practice and support through regulatory bodies; and (3) means to advance nursing through specialty and advanced practice nursing, elevating nurses to leadership positions and positions to improve the health system overall.

Standardization of nursing education

Respondents discussed strengths and weaknesses of the pre-service nursing education in their respective country and in the region, more broadly. Countries' efforts to standardize schools within their country come in the form of maintaining a pre-determined curriculum, providing standardized assessment tools (examinations and clinical logs), and

oversight by a nursing regulatory body that conducts quality control investigations and reports. While this process has been largely effective in ensuring that disparities between the institutions do not strongly affect the quality of a nurse graduate, there was concern from multiple respondents from various countries that conflicts of interest were posed when the regulatory body was governed or supported by the government.

> Perception of the private [facilities] can be very negative. And in some countries, you find that they don't even inspect public facilities. And sometimes they even have really bad community services in some public facilities and there's nothing done. At least in the private, you can close them, you can investigate (Respondent from Regulation focus group).

Review and approval of curricula were also discussed at length by respondents from different countries. Generally, the curriculum and plan of a school need to be approved by a regulatory body before the school opens, in an effort to standardize the competencies and quality of nurses. When institutions do not submit to such a review the schools are referred to as "illegal."

> I will say that the number of schools which are mushrooming are illegal schools… they are not registered with us, so we depend on whistleblowers and agency inspectors to tell us about them (Respondent from Zambia).

Respondents acknowledged that the process of reviewing and updating a national curriculum was difficult but essential, yet they felt it should be done more frequently. While there is often a set schedule for how frequently the curriculum should be reviewed by stakeholders (including government), the schedule is not always adhered to. The systems to monitor standards in ECSA countries can suffer as a result of lack of resources, nursing regulator autonomy and in the face of private sector interests.

> Ideally, in the case of Uganda, every 5 years, we are supposed to be reviewing and updating our curricula to meet the contemporary regulatory body. But again, because of lack of resources, commitment, some of this takes over 10 years, and the material, the syllabi, curricula become a bit behind (Respondent from Uganda).

Aligning student intake with resources and infrastructure

International and country-specific priorities have created significant pressure around educating nurses to meet health system demands and achieve SDG targets in ECSA countries. Schools have largely responded to this pressure by accepting more students. A lack of commensurate increases in infrastructure and human resources was noted by almost all key

informants, and viewed as negatively affecting student quality and competence with far-reaching effects into health systems.

> Without the proper infrastructure and the appropriate human resources, then we may have a challenge in producing the type of nurses or the category of nurses that we hope to have (Respondent from Lesotho).

Differences in the rigour of entry requirements and incentives to attend the nursing programme meant that the motivation of applicants to become nurses varied greatly among ECSA countries. Positive motivating factors included a genuine desire to become a nurse. Other motivations included using nursing as a bridge to medical school, or being incentivized by government subsidies that made nursing a lucrative path with free education and a guaranteed job upon completion.

> There's nothing that makes people proud of the nurse...- very few students apply to nursing as their first choice. They will want to apply for medicine and then they wait to get [into] medicine...the last [choice] is nursing (Respondent from Education focus group).

Financing nursing education

International, government and private sector investments were discussed by respondents as potential solutions to remedy the threat of insufficient resources and infrastructure. However, investment seems to be conducted in silos, with no comprehensive public–private strategy for financing nursing education. Donors and nongovernmental organizations often provide resources to support individual schools rather than educational systems, which raises sustainability concerns. Their donations are often in the interests of serving their priorities.

> Investment is relative, there are those who put the resources in the training of nurses in the hopes that there is a multiplying effect in terms of service. That is the private sector. There are those who put the investment because they have an obligation, like the government. It is an obligation...in terms of self-actualization and competitiveness. It is varied. The government perceives in its own way, the private sector perceives in its own way, and the individuals perceive in its own way (Respondent from Uganda).

The private sector has invested significantly in the region in nursing schools and hospitals. Respondents raised questions regarding the balance of business-oriented motivations versus the mutual good of educating more nurses. Private schools were reported to be generally more expensive than public schools for students and the quality of nursing education varied.

Some countries reported that the government invests according to the country's priorities, for example, funding

certain specialties or adjusting the curriculum according to their population's disease burden. Others mentioned that there seems to be a 'mismatch' due to lack of data and a system that is not as reactive as it needs to be.

> The other challenge is that, as a country we should have adequate data...how many jobs have we produced in the last five years, how many have we gained? Because there is a mismatch again between what we have trained and passed (Respondent from Regulation focus group).

Post-deployment: nursing job satisfaction

Many students are enticed by the promise of a secure job upon graduation. Some respondents mentioned the need for accountability mechanisms like bonding programmes – where a student must work a number of years equal to the length of their nursing education. Additionally, nursing schools are producing sufficient numbers of nurses, yet there is a discrepancy between the number of graduates and the gaps in the health workforce.

> As far as the products that are produced by the training institutions, we are producing enough for the country, but there are challenges with employment of such candidates such that the majority are not employed in our government (Respondent from Zimbabwe).

Respondents mentioned that for the most part, jobs are available, they are not desirable because of their geographic location, duties or remuneration. These jobs are often where nurses are needed the most. However, country-specific analyses of labour needs seem to be inappropriately influenced by active positions, rather than overall needs (including vacancies).

> You find that they [nurses] decline being placed in rural areas where there is most need. Therefore, we find that such positions...tend to be [funded]...without being filled. The ministry of public service, being the ministry that is responsible for hiring all public servants, tends to freeze such positions if they have never been used throughout the financial year.... It has been identified that around more than 50% of the vacant positions that have been identified as vacant positions belong to nursing (Respondent from Lesotho).

When nurses are dissatisfied with remuneration, working conditions, professional status, or find they cannot get a job that meets their specifications, they move into other positions or they pursue further education. While this speaks to the flexible and ever-changing role of nurses, it underscores the need for nurses who provide direct patient care. Most respondents reported that working conditions are poor, mostly

because of a lack of health resources, which inhibits nurses' ability to perform their job and provide quality and safe care.

Scope and regulation of nursing practice

While nursing scopes of practice can vary significantly between countries in the ECSA region, all respondents consistently reported that nurses frequently practised above and below the scope for which they were educated and prepared. Reactions of national governments in the region to the changing scope of nurses have varied.

> We do have the scope of practice well established and known to the employees and employers as well. But we still have the challenge of the employers who take the employee and diverts them from the nursing activities to do activities which are non-nursing.... You only see it happening when you go to the clinical setting—you see the nurses practicing as a radiologist.... So, I would say there is lack of communication between the clinical setting, when the employees are trained to do other non-nursing activities, and the regulatory body that can still say you are working within the scope of practice as a nurse (Respondent from Mauritius).

Specialty and advanced practice nursing

Nursing roles are largely misunderstood within the health system and by the public at all levels; 'a nurse is a nurse' was said verbatim by many respondents and demonstrates the public's lack of understanding of different cadres, like nursing assistants, registered nurses, specialty nurses and advanced practice nurses. For the purposes of this discussion, specialty nurse will be defined as someone who has completed continuing education preparing a nurse for intense application of core competencies for a specific area of health care (e.g. diabetes care, surgical nursing). Advanced practice nursing is defined as a nurse who has completed a formal post-basic education programme preparing a nurse for a role that extends beyond core competencies and requires an expanded scope of practice (e.g. midwives, nurse anaesthetists).

Specialization and advancement were cited as a key to diversifying the nursing workforce to meet a changing population with unique health needs. However, there is significant confusion within the government and among employers around how specialties fit into the current health system. The government incentivizes some specialties based on their country's need. Advanced practice nursing is viewed as a profitable professional pathway. However, opportunities for advancement in nursing often pull nurses away from the bedside or do not exist. Additionally, there is confusion around nurses performing advanced practice skills because they have on-the-job experience versus being formally qualified to do so.

Nurses [can] work in specialized areas for a lengthy period of time, like 15 years and so on. You have become quite advanced practitioner learning on the job, but they don't have higher qualifications. For example, someone working in oncology doing chemotherapy, assisting in cardiac surgery, and so on. This is quite advanced practice, but they have not been formally, educationally, trained to do it. So, this is a type of informal advance practice (Respondent from Association focus group).

Many respondents noted that perception of nurses can be a barrier to improving pathways to advanced practice nursing. Advanced degrees are not understood or recognized by the community, government or employers, leaving newly credentialed nurses in a disadvantaged position of not being utilized for their skillset. About half of respondents used the phrase 'a nurse is just a nurse' to explain that perceptions of nursing are often limited to those of direct patient contact at the health facility.

Professional status and leadership

Several respondents cited a lack of agreement about whether nurses are responsible for stalling progress or there is a lack of opportunities for advancement. Some attributed this to weak unions and associations. However, in some countries, the associations are strong and have been able to advocate for better conditions and wages for nurses.

> We manage to advocate to the higher authorities, the government, and we insisted on reviewing the scheme of service for nurses, and it was reviewed.... So, it's more focused on advocacy, strong advocacy for the nurses. And now they do believe in the association. In fact, until recently, there were very few numbers, but now we have seen the number has increased over 200% (Respondent from Association focus group).

Tension sometimes exists between nurses and physicians within the workplace. Physicians are often put in leadership positions that dictate to nursing positions, because of their perceived elevated status, rather than because of seniority and familiarity with the role in a particular health facility.

Nurses are often not recognized in areas where they can provide leadership, like in government and hospital settings. Several respondents lamented that nurses are not included in government leadership roles, which limits their voice in matters related to health in their country. In the few instances that they are, it shows to have great positive impacts in a country's health system.

> Many nurses in my country have now been given senior positions at the ministry of health. This is helping to advocate and popularize [nursing]. Experience has showed that

when nurses are in charge of primary health care, indicators around it are much better (Respondent from Lesotho).

Mobility, migration and retention

Perhaps, the most reported impact of the nursing workforce on a country's economy was the movement of nurses in and out of their respective country for work opportunities, career advancement or for better pay and working conditions. In all countries, particularly those where nursing education is funded by the government, this represents a significant loss of investments and a complicating factor in projecting health system workforce needs.

> I can say that unfortunately there is poor compensation, and this actually makes [the country] lose a number of nurses and the best quality of nurses to other countries. Those that are recruited to replace them have little or no experience, which makes us lag behind. ... Our well-trained nurses always go out and when we employ the new ones, we have to start mentoring them, and to us that is a big loss (Respondent from Kenya).

Discussion

This study was conducted to describe the factors affecting nursing education and labour markets in the ECSA region, with the ultimate goal of defining the most critical areas for investment in the region's nursing workforce and education systems. At the time of study inception, a comprehensive analysis of the health labour market in this region has not been conducted. The results of this study can help countries highlight policy changes, areas of investment and opportunities for advancement of nurses in the ECSA region. Three key themes emerged from the data regarding trends in the nursing labour market and opportunities and threats to maximizing the role of nurses in ECSA: nursing education, nurses in the workforce and health system implications.

Limitations

Those who agreed to provide interviews represent a subset of countries in the region, not including Mozambique. The focus group of government representatives declined to be audio recorded and instead opted to provide written notes. Therefore, their viewpoints are likely to be under-represented compared to other focus group perspectives. Interviews did not include representatives from the private sector, investors in nursing education and nursing students. Insights from these stakeholders could strengthen the study.

Countries in the ECSA region have different cadres of nurses and there are some differences in how nurses are defined, as their scope and roles vary. Thus, providing a

working definition of 'nurse' might have sharpened the discussion and data and prevented participants from including individuals like nursing assistants in their interpretation. However, providing a clear interpretation of this might have restricted discussion if the definition differed from the interpretation of participants, and not providing one allowed more abstract thinking. Additionally, there was an opportunity for potential bias when focus group interviewees were interviewed by their nursing colleagues. However, interviews were transcribed verbatim and this method of transcription allowed for assessment of bias in interviews.

Additionally, given variations between countries, it is difficult to create one comprehensive plan for regional investment. Future research could benefit from framing recommendations around country-specific workforce and education data. The strengths of the study include its unique outreach to a community of nurses in vulnerable countries of the ECSA region, endorsing and enhancing the role of the ECSA collaborative in addressing and resolving their unique and common interests.

Conclusion and recommendations

This study has found specific areas to improve the nursing labour and workforce market through changes in nursing education, nursing post-deployment and elevating the status of nurses. Domestic and international investment in nursing education to improve resource availability will yield quality nurses and faculty that are not overstretched. Strengthening workforce regulations and promoting nurse leadership are needed to improve education, increase investments in education, and improve working conditions and the ability of nurses to provide quality care. Specialty and advanced practice nursing should be better defined as to ensure nurses with these skills are utilized to the extent of their scope. Governments should monitor workforce data from health management information systems to flag problems of insufficient workforce numbers. All of these efforts can improve the quality of education and the retention of nurses in a country, therefore maximizing investments in the health system.

Implications for nursing & health policy

Nursing education

Countries in the ECSA region have answered the global call to increase the numbers of nurses to strengthen their health system, largely responding by opening more schools in an effort to produce greater numbers of nurses (WHO, 2020). According to respondents, this approach is not working – schools open without approval (non-accredited schools),

monitoring standards is difficult, there is little unity in investment of education, and, despite producing adequate numbers of nurses in schools, countries still struggle with attrition of nurses. In- and out-migration of nurses in search of specialties and better pay was cited as a challenge to properly account for nursing workforce numbers, which negatively affects forecasting. To improve retention and satisfaction of nurses in their jobs, nursing schools should work with facilities to develop a system to incentivize students to work in communities that need them most (rural). The bonding system in many countries could be strengthened by putting greater accountability mechanisms in place.

Quality care is being increasingly emphasized as key to achieving universal health coverage. Examining schools' selection criteria and making them more rigorous will lead to higher quality nurse candidates.

Nurses can advocate for development of a cost-neutral budget to enhance regulatory bodies' abilities to monitor standards (WHO, 2020). Governments can subsidize regulatory bodies of public schools and charge private schools for this same service, in order to remove public versus private bias in regulation. Contemporary global guidance (WHO, 2020) advocates for greater regulatory intervention to remediate and, if necessary, close schools not meeting standards. To standardize regulations within the region, competency checks and licencing could be harmonized between countries to account for intra- and inter-country differences.

Scope of practice

To provide better clarity around the roles and scope of specialty and advanced practice nurses, schools, regulatory boards and governments need to ensure that there are clear, competency-based requirements (including structured, on-the-job training) for specialty and advanced practice nursing roles and that programmes meet educational standards.

Stakeholders in the region need to advocate for advanced practice role recognition. Nursing should take the lead to develop and disseminate a consensus definition of general, specialty and advanced practice nursing roles. Nurses should use associations and membership bodies to advocate for comprehensive role recognition and tease apart degree versus clinical competencies (e.g. specialty nurse and advanced practice nurse).

Nurse Leadership

Nurses are well-positioned to be leaders in their health systems and to advocate for improved quality and status of their profession. Nurses must search for opportunities to role model leadership to younger nurses. Methods of assertive interprofessional communication is one important agenda item.

There is a clear opportunity for increased representation of nurses in government leadership positions. Advocacy by nurses to formalize such roles at all levels of government is imperative to drive policy that ensures full utilization of the nursing workforce.

Author Contributions

Study design: LH, PJ.
Data collection: LH, PJ.
Data analysis: AB, NR, PJ, LH.
Study supervision: PJ, LH.
Manuscript writing: AB, PJ, LH.
Critical revisions for important intellectual content: PD, AK, BG, NR.

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