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Baccalaureate prepared nurses as the new entry-level nursing cadre in Uganda: A qualitative study of BSN student and faculty perspectives in two universities

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ABSTRACT

Background: Low-income countries suffer chronic problems in producing, employing and distributing their health workers. The World Health Organization advocates for upgrading the number and quality of nursing professionals. As nurses and midwives comprise more than 60% of the health workforce in Uganda, the country's goal to improve nursing education is consistent with international recommendations.

Objectives: To understand the dimensions of Uganda's relatively new baccalaureate-prepared nurse cadre (BSN), we explored the views of students and faculty in relation to training, job prospects, scope of practice, and satisfaction of BSNs in Uganda.

Design: We used a descriptive qualitative design.

Setting and participants: We interviewed BSN students and faculty at two large public nursing schools in Uganda in 2017.

Methods: We conducted focus group discussions and key informant interviews and used a thematic analysis approach to analyze data.

Results: The four overarching themes were: 1) BSN training is viewed as distinct from "bedside" training, 2) A rift between nursing cadres undermines workplace harmony, 3) BSNs are dissatisfied with their salary scale, and 4) BSNs are motivated to move abroad.

Discussion: At this moment in the transition, the professional nursing culture within Uganda is not conducive to encouraging BSN entry. To gain traction and momentum for BSNs as an entry-level cadre in Uganda, policy makers might align incentives to encourage BSN trainees, as there are few BSNs within training programs and clinical settings. Increasing lower cadre nurses' understanding of the role of BSNs may help improve relations between nursing cadres. Aligning job descriptions with pay differentials in clinical settings and expanding meaningful job opportunities could help retain BSNs within Uganda.

1. Background

Several countries face a health workforce crisis, and the World Health Organization advocates for upgrading the number and quality of health professional education (World Health Organization, 2006, 2017). An effective education system is necessary to produce competent health professionals who are responsive to population health needs (Roets et al., 2016). A 10-year study in Mozambique reported a decrease in child mortality after nurse density was increased between 2000 and 2010 (Fernandes et al., 2014). Global trends and research indicate an association between baccalaureate-prepared nurses, higher-quality nursing performance, and better patient outcomes (Roets et al., 2016). This enhanced preparation of nurses supplements the quality of healthcare systems, suggesting a connection between patient safety, and more baccalaureate-prepared nursing staff in clinical settings (Aiken et al., 2014; Aiken et al., 2003; Barter and Mcfarland, 2001; Clinton et al., 2005).

Nurses and midwives comprise more than 60% of the healthcare workforce in Uganda. Since the 1990s, Uganda has licensed a variety of cadres in the nursing profession. The levels in hierarchical order include: Enrolled (EN), Registered (RN), Bachelor of Science in Nursing (BSN) and Master of Nursing nurses (Katungi et al., 2016). Students seeking to become enrolled nurses and midwives leave high school two years before completion and join a two-year certificate program. Currently, 71 schools offer EN-level programs, and these certificate holders form the largest proportion (68%) of the nursing workforce in Uganda. However, this cadre is phasing out as recent policy has declared "diploma" (RN) as the new minimum level of training for entry into the nursing profession; Uganda's Nursing and Midwives Council is encouraging ENs to upgrade to RNs by 2025 (Katungi et al., 2016).

For those who complete high school, there are two routes into the nursing profession. Students can earn an RN diploma with 3 years of

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study or proceed directly to a 4-year BSN degree program. Similar to BSN implementation in South Africa, the introduction of the BSN cadre accompanied no policy of salary differentiation between BSNs and other cadres, and did not phase out any other cadres (Roets et al., 2016).

Makerere University is the largest medical training university in Uganda and houses the national referral hospital. Prior to 1993, Makerere offered only certificate and diploma-level nursing programs with the idea of training nurses who performed as assistants to the doctor. When Makerere University began its BSN program, it also transformed thinking about the role of the nurse; the BSN cadre is expected to exercise critical thinking and judgment as team members in the health care system.

Uganda has 12 schools that offer BSN programs. Of these 12 schools, 5 reported having graduated 189 students in 2017, and of these only 119 BSNs had registered to practice by 2017. Reasons for the discrepancy between the number of graduating and practicing BSN nurses in Uganda remain unclear prompting our study.

The purpose of the study was to explore the implications of Uganda's transition to a modern era of nursing from the views of current BSN students and faculty and to inform strategies for retaining BSN nurses in Uganda's health workforce.

2. Methods

2.1. Study design

We used a qualitative descriptive design.

2.2. Settings and participants

We sampled participants from two universities in Uganda, Makerere University and Mbarara University of Science and Technology. These sites were purposively selected because they are the two largest BSN schools in Uganda.

Participants were recruited for focus group discussion via invitations to each school dean/principal. The inclusion criteria limited participants to undergraduate students who were completing a BSN degree, in their 3rd or 4th year, and available to join the discussion on the scheduled date. This population was purposely sampled because nurses are nearing completion of their studies and should have crystalized thoughts regarding their BSN education and their future careers in nursing.

For additional background and understanding to complement perspectives of students, we also spoke with nursing faculty members who were available for a one-time key informant interview. We purposely chose to interview faculty who received their BSN in Uganda (Tong et al., 2007).

2.3. Data collection

2.3.1. Focus group discussions

Semi-structured focus group guides were developed by modifying an unpublished tool previously used in a qualitative assessment of nursing education in Uganda within the context of HIV/AIDS. Our questions started broad in scope, and then delved into specifics, asking students why they chose this profession, and about their student experience. Then we asked where they hoped to work (and in which capacity), their professional interactions with other nursing cadres, and what they would change about their student experience (Tong et al., 2007).

The first and second authors conducted focus group discussions between August and September 2017. We chose focus groups, rather than interviews, so students could interact, and we could observe which issues resonated with others regarding experiences as BSN students in Uganda (Grembowski, 2016).

The second author explained the aim of the study, obtained verbal consent from participants to participate in the study, and encouraged discussion among the participants. Each of the three groups was limited to 7 to 10 participants to help facilitate deep discussion and to elicit reflection on complex, personal or sensitive topics (Tong et al., 2007; McLafferty, 2004). Each focus group discussion was audio recorded and lasted between 30 and 45 mins. We uploaded audio recordings to a private password-protected website.

2.3.2. Key informant interviews

The first and second author each conducted one key informant interview with BSN faculty and alternated between interviewing and taking notes. The interviewers obtained a written consent, and each 60-mins interview was recorded.

2.4. Ethical considerations

Ethical approval was granted by the ethics committee at the University of Washington (UW HSD IRB Reference no. STUDY00002713) and Makerere University (#SHSREC REF: 2017-053). Participation in the study was entirely voluntary and participants could refuse to participate or withdraw from the study at any time. All information collected was treated in strict confidence. Participants were informed of the recordings and were asked explicitly if they were willing or unwilling to be voice recorded. Participants provided verbal and/or written informed consent to the anonymous publication of data.

2.5. Data analysis

Audio recordings were transcribed verbatim by CabbageTree Solutions®. To check transcripts for accuracy, the first author listened to each recording while simultaneously reading the transcripts and confirmed the meaning of terms used by participants in consultation with the second author.

Once transcripts were checked for accuracy, the first author used Atlas.TI to develop codes, themes, and analyze the data. This process involved both deductive and inductive coding. The data were read several times along with field notes. Initial codes were derived from the grouping of field notes that documented reflections and key takeaways after each focus group discussion and key informant interview (Kim et al., 2017; Nowell et al., 2017). New codes emerged and were grouped with similar ideas (Vaismoradi et al., 2013).

2.6. Rigor

The first and second author debriefed after interviews to ensure understanding and confirm the meaning of jargon. The first author met with contributing authors to discuss various iterations of the codes and themes. We adopted reflexivity throughout our study by reflecting on our positionality as researchers and discussing the implications of colonialism and globalization on the findings (Koch and Harrington, 1998; McGhee et al., 2007).

3. Findings

Twenty-seven BSN students participated in the three focus group discussions. Nineteen were female and eight were male. The mean age of participants was 24 years (range 20 to 40). Eleven students had previously worked in the nursing profession for several years before returning for a BSN (Table 1). Two key informant interviews were conducted. Both faculty interviewed were instructors in the BSN program who had obtained a BSN in Uganda. Four themes emerged during thematic analysis (Table 2).

Table 1
Focus group sociodemographic data (n = 27).

Variable	n (%)
Gender	
Female	19 (70.4)
Male	8 (29.6)
Age (years)	
20–29	23 (85.2)
30–39	3 (11.1)
40	1 (3.7)
Are you an upgrade?	
Yes	11 (40.7)
No	16 (59.3)

Data source: 27 BSN students who participated in three focus groups conducted in August and September 2017 at Makerere University and Mbarara University of Science and Technology.

3.1. BSN training is viewed as distinct from "bedside" training

Participants reported BSN training is fundamentally different from non-BSN (or lower cadre) nurse training. In addition to nursing care, students said they are trained in leadership, nursing science, community outreach and have "better ideas, better opportunities" (FG 2) to contribute to the health system in more far-reaching or systematic ways. One faculty said:

> *Our focus is to ground our students in the basic sciences because at diploma level they don't have that time to get grounded. They might be good with skills but being able to practice with rational and be independent in terms of thinking is lacking in their level. So, we want our Bachelor students to be able to independently make decisions in nursing care and explain why they're doing what they're doing without waiting for their doctors or saying the doctor did not say to do this.* [As a result,] *we have graduates who are right now in leadership deciding policies for nursing leadership… people in research, pushing the research agenda for that country…it's research that impacts on the health and the planning of the country* (Faculty 1).

3.2. A rift between nursing cadres undermines workplace harmony

Participants said Ugandan clinical settings employ lower cadre nurses in overwhelming numbers and BSN students expressed not feeling supported by lower cadre nurses during clinical rotation because in Uganda, "nurses eat their young." Students reported that lower cadre nurses resist offering precepting guidance to BSN students in clinical setting, therefore, making it hard for BSNs to integrate into clinical settings:

> *…at first when I went to ward there are certain departments…*[*where*] *those enrolled or registered nurses they don't like the BSN nurses* (FG 2).

Another student explained that a principal nursing officer at a referral hospital said:

> '*…you guys are half- baked,' like we don't have much knowledge. They tried to look at us as if we don't know. They want us also to go through the same levels they went through, yet the system has changed* (FG 1).

> *That things you want to learn from them, they're like…'you're going to become our bosses'… and they don't want to teach you* (FG 2).

3.3. Fractured relations across cadres threatens patient care

BSN students said they felt undermined by lower cadre nurses who did not seem to value teamwork in the ward and "try to fail you." Sometimes this was described as:

> *…whenever you're trying to bring a change in practice, they try to sabotage it; they're trying to subdue you* (FG 2).

Others said it was feeling as if more senior nurses did not respect BSN nurses. BSN students expressed concern over the implications these fractured partnerships had on patient safety. A BSN student described an experience where patient care was compromised because lower cadre nurses were spiteful towards the BSNs, refusing to help them in the ward:

> *…when I go to maternity ward at night, sometimes, lives are lost because of carelessness… there are some nights I spent on ward and you realize that when around midnight sisters* [*lower cadre nurse on duty*] *sleep and you find only there are like 5 wings and only two sisters working. You want to call them; you're busy working and you're alone. They tell you, 'we're resting'. And sometimes lives are lost because of that; mothers push on the floor because she said I'm not working…we're losing lives because of that* (FG 2).

3.4. Lower cadre unwilling to upgrade to BSN (especially older nurses)

One faculty said lower cadre nurses are resisting to upgrade their educational credentials to BSN either because they are close to retirement or believe an upgrade will not improve their salary:

> *…there's that resistance between the lower cadre and the bachelor's that they're feeling…*[*the BSNs are*] *taking their jobs and all that.' You know, some of them are old* [*lower cadres*]; *they don't want to go for that; someone is like 'I'm left with three years to retire, why should I go and upgrade? Is it really worth* [*it*]*? I go and study for three years. Then I come back and then I find I no longer have a job?' So, all those are the factors that might have challenged them. Phasing out might have challenges* (Faculty 2).

3.5. BSNs are dissatisfied with their salary scale

The salary scale for BSNs working in Uganda was the most common concern among all participants. Participants reported BSNs do not have job descriptions that support distinguishing a pay differential from lower cadre nurses in clinical settings.

Table 2
Overview of themes.

Main themes	Sub-themes
BSN training is viewed as distinct from "bedside" training	
A rift between nursing cadres undermines workplace harmony	Fractured relations across cadres threatens patient care
	Lower cadres are unwilling to upgrade to BSN (especially older nurses)
BSNs are dissatisfied with their salary scale	Employers do not know the value of BSNs
BSNs are motivated to move abroad	Low salary results in Ugandan brain drain
	"…We're trained to work in different settings"

Data source: 27 BSN students and two BSN faculty who participated in focus group discussions and interviews conducted in August and September 2017 at Makerere University and Mbarara University of Science and Technology.

A student shared frustration and disappointment with the inevitability of being left highly educated and unemployed by the Ugandan government upon graduation:

It's so absurd when you find the institutions are training nurses at bachelor's, level and you find the government is not employing them, or if they're employed, the pay is really too little compared to the resources they're investing (FG 3).

Participants said the Ugandan government is not actively restructuring policies to welcome this new cadre of nurses into its health care personnel system:

… in our country the policy has refused to change that allows Bachelor students to be employed in public hospitals directly (Faculty 1).

A student expressed disappointment in the false advertisement that they would receive more money if they obtain a BSN:

You can imagine the year BSN started in Uganda, 1993, up to now the BSN does not have a salary scale, really? I'm very disappointed in them… Can you imagine that they still, when they're advertising they still advertise for double pay? (FG 2).

An upgrading BSN student shared her discontent after speaking with friends in the clinical setting who are also BSN upgrades, saying:

…they still work with their first primary basic pay (FG 1).

One faculty member explained that BSNs who are underpaid or feel undervalued in the public sector leave for the private sector:

But the problem is with our country the [*BSN*] *cadre we're producing is … on the scheme of service but it is not well stipulated even the salary. So, you find that the products we're producing, of course, they will go out there. They can be put in those health centers and work, but the salary does not meet the expectation. So, in the end, they leave it and go to maybe* [*non-governmental*] *project work which is paying better. And you can't blame them because someone has studied four years and four years of really much hectic work;, it's really demanding. Then goes out there and earns the same as an enrolled nurse, so that is where the problem is…* (Faculty 2).

3.6. Employers do not know the value of BSNs

Participants said the pay BSNs currently receive indicates BSNs are undervalued by the government. One participant said when employers do not pay more for BSNs, this signals that BSNs are not different from lower cadre nurses:

You find that when you apply like a bachelor's and a diploma, the diploma nurse is employed because for us [*BSN*] *we would want more money of which the money is not like catered for by the government* (FG 1).

Students expressed that equal pay between BSN and other nursing cadres communicates equal value. And that having a set salary for BSNs from the Minister of Health that is comparable with training would indicate their value to employers:

…there's no set salary scheme so someone [*employer*] *would prefer to hire a diploma certificate nurse, teach them what they will do, what a degree nurse can do, and pay them that low salary* (FG 2).

3.7. BSNs are motivated to move abroad

BSN students' motivation to move abroad was connected to the working condition in Uganda. Many BSN students expressed frustration with the Ugandan government because the long-promised salary scale had still not been implemented. Participants said the job description for clinical nursing fails to reward the higher BSN skill level, and therefore contributes to outmigration. Some participants expressed loyalties to Uganda and were staying to work because of their scholarship commitments but said the inconsistent integration of BSN into the Ugandan health workplace leads them to believe their training is malaligned with their work setting.

3.8. Low salary results in Ugandan brain drain

Students said the low salary for BSNs was a primary reason they would not work in the clinical setting in Uganda. Some students thought that to receive fair pay and work in the clinical setting they would have to leave Uganda:

I believe there are more enrolled [*nurses*] *…but nowadays I'd say anyone even a person who has not actually been to school at least can learn how to insert a cannula [and] can learn how to do the basic things because that's a job description they have of what a nurse should do. They believe a nurse all they have to do is cannulate, inject, give medication. So, they would rather get someone, teach them how to do that, and they would do that. So… you'll really not find a BSN actually doing clinical practice. Most of them are now going to research. And if someone… really loves to do clinical, they will not be in Uganda; they're going to Kenya; they're going to Rwanda; they're going somewhere, not Uganda* (FG 2).

One student said that those who stay in Uganda work at NGOs in preference to the public sector:

…when you look at the salary scale for the BSN, the job description has been there, and the salary scale has been there, but it has taken long for the Ministry of Health to implement it…So all those things have discouraged BSN nurses who have the experiences to go and change all these things that are happening in the clinical setting…Most of them end up in NGOs… Some go for brain drain and all that because there is not good interest in the government because they're paying you little, and they don't want to implement the salary scale for the BSN or the working conditions are not good, so why should you suffer, and yet you have another opportunity (FG 2).

3.9. "…We're trained to work in different settings"

Students expressed concern with the juxtaposition of the training they receive to practice in Uganda, which is not aligned with the realistic work settings in Uganda. Students said they were trained to work in different settings, in part, due to the inconsistent implementation of the BSN cadre into the Ugandan health care system:

… the training, what we learn here, we don't really put them down there at work. You're trained here with all this knowledge and skills. When you complete here [*and*] *you reach there you're taken to a health center to where basically you have nothing to do. I still blame the Nursing Act not being worked on really. The Nursing Act is left stagnant. Let it be worked on to really face the current situation* (FG 1).

… If I had the opportunity, I would wish to work in a different setting because we're trained to work in different settings (FG 1).

Most of the BSN students said they could not imagine themselves in positions with responsibilities in the clinical setting, working alongside other cadres of nurses. This seemed to be because BSNs see a disconnect between the type of work BSNs are trained to do and what they are allowed do in the clinical setting with an overwhelming majority of non-BSN cadres. Students reflected on the lack of BSN presence in the ward:

…an enrolled nurse takes vitals, can take temperature. A certificate nurse also does this… For the BSNs who've gone through things like patient assessment, you get to attend meetings, but on the ward you can never and never, I have never seen a [*BSN*] *nurse assisting a patient. But we're taught here. Maybe because what we have in the wards are not*

graduate nurses. Maybe they're diploma or registered nurses… (FG 2).

4. Discussions

In one of the first qualitative studies on the implications of Uganda's transition to BSN training from the view of current BSN students and faculty, we found several barriers to satisfying nurse practice careers for BSN students. The themes in our study captured perspectives on the association between educational training and employment structures for nurses and the future of the nursing profession in Uganda.

Participants reported BSN students are better equipped than lower cadres to make critical bedside decisions in the wards, while also participating in health systems change. Similar studies have reported that BSNs offer critical thinking, leadership, and research skills, essential in resource-scarce areas (Billings and Halstead, 2015; Roets et al., 2016), (Shipman et al., 2011). Additionally, research suggests nurse executives in university teaching and community hospitals prefer to have more than half of their nurses educated at the BSN level, largely because it improves the quality of patient care (Aiken et al., 2014; Goode et al., 2001). A study comparing the educational level of hospital nurses and surgical patient mortality found that, after adjusting for numerous factors including nurse experience, a 10% increase in the proportion of BSN or higher degree was associated with a 5% decrease in the likelihood of patient death and the odds of failure to rescue.

Currently, only a few countries in the world including the Philippines, Canada, Australia, Norway, Spain, and New Zealand, require a bachelor's degree as entry into the nursing profession (Beach, 2018; Medicine, 2011). Uganda's decision to phase out certificate (or enrolled) nurses, if successful, may prepare Uganda's nursing profession to shift towards higher levels of critical thinking skills. South Africa made a similar shift in 2016 when nearly 20% of its nurses were trained in a four-year degree program; other African countries like Malawi, Mozambique and Kenya are also moving towards degree programs, however, none has a plan to phase out lower cadres (Roets et al., 2016).

Participants expressed disharmony between BSNs and non-BSNs. BSNs said they felt insufficiently valued in the clinical setting. Tension between nursing cadres may contribute, in part, to BSN students reporting that non-BSNs intentionally resist teaching them while in the ward, undermining their collaborative success in patient care. All this compromises patient safety. The lack of a salary scale differentiation between BSNs and non-BSNs further antagonized the differences between them. BSNs were not attracted to the public sector in sufficient numbers; without a salary scale, there is no career path to include salary increase. A study assessing the implementation process of two discontinued nursing cadres in Uganda also reported the challenging effects of the lack of a differentiated scheme of service and salary scale (Amandu et al., 2013). In November 2017, the government responded to a nurse's strike by promising to increase salaries but has not yet done so (Joel, 2017; URN, 2017). Before the strike, salaries were more similar between BSNs and non-BSNs, but a proposed strike resolution scheme harmonizes BSN salary scales with other professionals (Ministry of Public Service, 2017).

Both the Ugandan Ministry of Health and the Ministry of Education and Sports encourages nursing opinion leaders to support those holding certificates to upgrade by 2025 (Katungi et al., 2016). This shift towards higher educational training for nurses indicates Uganda's continued effort to bridge academic pathways between lower cadres, BSN and higher degrees to advance the future of nursing (Barter and Mcfarland, 2001; Close and Orlowski, 2015; Fauteux, 2013; Sroczynski et al., 2011). However, participants expressed resistance from non-BSNs to upgrade their educational credentials and integrate BSNs into clinical settings. Many claimed this stemmed from job insecurity among non-BSNs. Some of our participants suggested the Ministry of Health could mitigate this problem by giving BSNs a unique job description when in the clinical setting.

Similar to previous studies, our participants voiced a desire to work abroad following completion of their BSN training. A 2008 study of Ugandan registered nursing and BSN students found 70% wanted to work outside Uganda; only 8% said they were unlikely to migrate (Nguyen et al., 2008). Multiple studies examining the views of medical or nursing students on migration supported our participants' sentiment that students who intend to migrate are in search of better salaries, improved working conditions, career development, opportunities for further training and political stability (Akl et al., 2008; Dambisya, 2003; Dovlo, 2007; Hagopian et al., 2005; Hagopian et al., 2009; Imran et al., 2011; Lee and Moon, 2013; Sousa et al., 2007).

This study has limitations. Data were collected in a limited time with fixed dates. This limited the number of students and faculty in our sample. This study was conducted in two of the largest BSN schools in Uganda, and results may not be generalizable to smaller BSN schools in Uganda. Future research should include more schools and consider triangulating the data by adopting questionnaires with participants and conducting formal key informant interviews with members of the government involved in nursing education and practice.

This paper is among the first to study nursing student and faculty perceptions towards the implementation of the BSN training program in Uganda. Our findings revealed students and faculty valued BSN preparation because of its robust training, positioning nurses to influence the broader health care system. The juxtaposition of the knowledge gained in training and the realities of practice in the clinical setting was highlighted as a reason for the unsuccessful implementation of the BSN cadre into the clinical setting. The participants' perceptions of the Ugandan government's struggle with the logistics of the implementation was crystalized as stressful. This caused conflict between nursing cadres around salary scale and job descriptions, resulting in many BSNs yearning for employment outside of Uganda upon graduation.

At this moment in the transition, the professional nursing culture within Uganda is not conducive to encouraging BSN entry. To gain traction and momentum for BSN as an entry-level cadre in Uganda, policymakers need to align incentives to encourage trainees. With so few trainees and so few BSNs in clinical settings, the culture is not conducive to encouraging BSN entry. Lower cadre nurses need to be helped to understand how their interests align with their BSN colleagues. Policymakers need to align job descriptions with pay differentials for the clinical settings and expand meaningful job opportunities. As Sub-Saharan African countries continue to absorb BSN cadres into the health care system, they should consider the sensitivities of current cadres by implementing policies that reduce friction and fully integrate BSNs at their full capacity into the health system.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

AA, AH, JP and RN were responsible for the concept of the study and the first draft of the paper. AA and DO were responsible for the qualitative arm of the study including design, data collection and analysis. All authors contributed to and approved the final manuscript.

Consent for publication

All participants provided written informed consent and gave their consent to the anonymous publication of data.

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