

Author's response to reviews

Title: Intent to Migrate among Nursing Students in Uganda: Measures of the brain drain in the next generation of health professionals

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Author's response to reviews: see over

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RE: Intent to Migrate among Nursing Students in Uganda:
Measures of the brain drain in the next generation of health
Professionals

Thank you for forwarding the review of our paper by James Buchan and Delanyo Dovlo.

Dr. Buchan's issues are most easily dealt with, so we'll do those first:

1. *Q: 57% diploma. 25% bacc- what were the rest?- and are they all new entries to education- ie pre-registration?*

A: The remaining were unknown. They did not indicate on the questionnaire. It is a limitation of the study that we do not know whether or not the students had prior education in nursing.

2. *Q: P6- "education" not "educations"; is there such a word as "unlikelihood"?*

A: Changed education. The definition of "unlikelihood" offered by dictionary.com is "the state of being unlikely; improbability."

3. *Q: P11 comparing results with AFRO study should be done with caution- it was a study of established workers, who may be less likely to be mobile than a cohort of new students.*

A: Yes, Dr. Dovlo commented on this as well. We have fixed it.

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Dr. Dovlo has more extensive concerns.

1. *The writing seemed unfocused and tries to use data collected, sometimes whether relevant or not. It will be good to have a clear theoretical framework around which the study is organized, where the factors used for t assessing student intentions came from and how linked to previous work in this area.*

A: We have stated the purpose of the paper more clearly in the background section, and have created a conceptual framework illustrating the factors that lead to preferences for various types of practice location: public/private, rural/urban, or Uganda/other African/abroad. Factors used for assessing student intentions came from literature review. This was added to the paper. There isn't previous work assessing nursing

student intentions to migrate. Where possible, we have added how our findings tie into prior studies.

2. *Abstract wording/language of the "results" bit should be clarified e.g "sense of profession and loyalty to country distinguished students wanting to work in rural/public or African countries compared to"*

A: We cleaned this up.

3. *Background: 1st para: Actually in most countries, nurses have already been migrating for years the issue is often a recent rise in numbers linked with a rise in disease burden.*

A: Agreed. We changed it.

4. *Background Para 2: feels slightly disjointed with a series of facts stated but not quite clear what it is trying to establish. Is it to say - "Nurses are important; and we know numbers are essential to achieve coverage, Africa has the highest shortage of nurses but also a disproportionately high BOD. Distribution between urban and rural is also a problem (but not only in Africa - in all countries). Will need to be stated much more clearly.*

A: The paragraph states: "Nurses in Africa are arguably the most important health care workers available in most sub-Saharan nations, as they perform a broad range of tasks and are often working in settings where no other health workers, including physicians, are available." That is a straightforward statement justifying the interest in African nurses as an underpinning of the motivation for this paper. We're not sure what isn't clear.

5. *No such work done before? Indeed previous work has mainly been on medical students - Mozambique, Uganda, South Africa though I will be surprised if nothing existed on nursing students elsewhere.*

A: There have been studies of medical students and nurses in practice, but no studies of nursing students that we could find. We really looked.

6. *The Uganda country information should probably have come at the beginning of the section. I think the information gained can shape specific types of policy - on future planning of the workforce strategy and how to design a policy on recruitment into training school including selection and preparation of students.*

A: Okay, done.

7. *METHODS: There is no indication of the type of student nurses surveyed and seeing the average age - are they then certificate nurses upgrading to diploma? Are they enrolled nurses being upgraded? I doubt if 30 year olds are the main source of new recruitment into training (but I may be wrong).*

A: These are both university settings, so students are typically upgrading from enrolled nurse status to registered nurse and/or BSN status. It's a limitation that we do not have very specific data on this issue. We have noted.

8. *Why was the FGD done only in Aga Khan and not Makerere - Public and private institution may have different ethos and different kinds of students.*

A: We were unable to conduct focus groups at Makerere for logistical and scheduling reasons, so our focus group data come only from the private university. We agree it is a limitation, and have noted it.

9. *What are the features of the two institutions? Private? Public? Fee paying? This information will give some sense of context.*

A: agreed, we added language.

10. *It is not clear what was used to derive the factors examined - safety of country, finances, sense of profession etc (and not too clear what the last one means for example).*

A: The authors created the questionnaire based on their understanding of the literature pertaining to medical students and other healthcare professionals. Given that there were no previous studies of nursing student intent to migrate, the content of the questionnaire also reflects simply their best judgment of the factors that might be important. A letter in BMJ by Emmanuel Makasa told why he chose not to emigrate, which is where the factors of depression and sense of professional pride were from. These are now cited in the paper.

11. *Questions as to destination - Africa is quite diverse and so it would have been good to see which type of country they were thinking of going to? Basically it's like saying the intent was to go to "Europe" or "America" rather than UK or USA.*

A: This question was asked as open-ended. The number of African countries written in was varied and reflected no trends. We noted this.

12. *Results: The sample seems to be of quite older nursing students. A lot is made of stability etc so some discussion of whatever the security situation in the country is in the background will be helpful.*

A: The average age of students, more than 30 years, would date them to having been reared during the 1970s, when Idi Amin's rule of Uganda led to chaos and prosecution of intellectuals; this may influence their sense of the nation's stability and safety. We added this to the discussion.

13. *How many of this group were having a "free education"?*

A: Probably many; we made a note of this.

14. *What is the comparison with existing nursing staff - e.g. in terms of likelihood to migrate? Is it different between students and working nurses? (e.g. using Nursing council verifications?)*

A: We don't know of studies that would answer this question. Answering this question ourselves was beyond the scope of our work. It would be a good follow-up study.

15. Was the issue of preference for urban and public sector work elaborated on in the focus groups? It might help to have more discussion on these.

No, the focus of the groups was to talk about emigration factors. Therefore, not much information was gathered about why they preferred urban sector work during the focus groups. However, they did state that they felt more respected by patients and the institution in the public sector versus private sector.

16. *Focus Groups: Studies in Ghana (Buchan & Dovlo 2004) found the UK easier to enter (because no exams needed only an orientation period, similar nursing approaches) than the US so this is very interesting finding here.*

It was not clear to me why a "disguised reason" was needed to get information on work permits, and the issue of fees/fraud of recruiting agents have been documented and it will help if possible to learn more about Uganda's situation of the risks nurses have to take to be recruited.

A: We agree all this would be interesting to explore, but it was beyond the scope of this paper. Please help us find Buchan & Dovlo 2004—it didn't come up in Pub Med. People apparently do feel a level of stigma about seeking to migrate, which may have led to the disguised reason.

17. *Outlook on working conditions....(page 7) What exactly was being assessed in "working situation"? It is interesting that so many (76%) would return to Uganda after working abroad is there any indication of what return is like currently?*

Working situation refers to the multitude of factors in Table 3. This has been further clarified in the paper. There are no good data systems to answer the question on what the rate of return for nurses who are working abroad.

18. *Did they elaborate any further in the FGD as to what will make them return?*

A: Students talked about how it is family that makes them want to stay in Uganda. "If pay is good, then I don't think nurses will think of leaving. People want to stay with their families, but then they sacrifice to go." However, we didn't specifically talk about the reasons why they would return, although it seems that if they are leaving primarily to earn more money for their families back home in Uganda, then they would return home after earning enough money.

The pay situation - see paper by M. Vujicic and others comparing pay.

A: Good reference; added sentence about how Uganda ranks in nurses' pay in the discussion.

Unemployed nurses working as barmaids - is there any hard evidence or data on the number of trained nurses not working in health?

A: No, there is no data available on this.

19. *What do they mean when they say they are "exploited" by the PNFP sector?*

A number of interesting issues here that are not quite explored to provide better knowledge and understanding e.g. Nurses exploited, or private practice demands, "rights not protected" and nurses blamed for doctors' mistakes - are there "stories" to back these? Lack of job protection - not quite clear what is meant here.

A: We could go into great detail here, but I think it is distracting from the focus of the paper. We have companion work (unpublished as yet) with lots of rich focus group data underscoring this finding. We are confident this is a prevailing view among a large sector of nurses in Uganda—the public sector pays more, and there is more job security there. The private sector has better working conditions, supplies and equipment.

20. *Profiling students on future intentions page 8/9--Rural based students insensitivity to stability or financial incentives - this sounds a bit strange - is it that urban students are unaware that the rural areas are actually safe? Are rural students simply ignorant of the financial gains in migration? But then rural students are "expected to experience depressions when working in Uganda"? if demographically rural students were older is the attitude a function of age and family links etc? What do older urban students think? The issue of being a role model in their communities seems a strong factor how does this compare with other situations?*

A: We don't know the origins of these points of view without a much bigger study. This gives a flavor of the views being expressed by nursing students in two Kampala universities; we agree a follow up study would be warranted. This section has been re-recorded.

21. *Discussion: The first paragraph that quotes the WHO AFRO study is comparing 2 different things - student nurses and actual general health workers not disaggregated! It will be good to find out other existing data for Ugandan nurses or other professions migration (e.g. verification records)*

A: James Buchan noted this too—we have fixed. There are no verification records available yet from the Nursing Council in Uganda (but they're working on it!).

22. *What exactly is this "expectation of depression" about? can any literature be sourced on this? (students from rural areas less likely to want UK and vice versa - this seems like rather irrelevant information?)*

A: A letter published by Makasa in BMJ (Africa's medical brain drain: Why I want to stay in Africa *BMJ* 2005, 331:780) states the following: "The colleagues I know who have gone abroad often develop low level depression. They are distanced from their families and culture, get sun deprivation, and may be subject to covert racism, often manifest in difficulty getting suitable jobs.....I get much joy from serving my own community, and much gratitude from them. Given the shortage of doctors in Africa, the local people need my services, arguably more than peoples of privileged communities. I have also been helped through my education by the people, who through their taxes and community commitment support the public hospitals in which we are trained..." Based on this, we wanted to further study the topic of depression as well as a sense of personal pride in profession and loyalty to country.

23. *page 12 para 3 talks of interactions between type of practice; intent to migrate; students personality???, and demographics - quite strange.*

A: We dropped this paragraph as unnecessary now that we have a conceptual framework.

24. *Para 4: Why is there low intake from rural areas into schools or it was simply the self-selection of urban respondents? This may influence policy decisions.*

A: Our guess is that this is a common situation, as it certainly is the in the US—rural students are less prepared for higher education and are less likely to seek it. Beyond the scope of this paper, in any case.

25. *The conclusions are stated rather like an unconnected shopping list and are rather perfunctory.*

A: Agreed—we've fixed that.

26. *Other possible references – Prof. S Reid South Africa, and P. Ferrinho et al (Mozambique) on rural medical students, M. Vujicic on wage differentials between African countries and destinations, a lot of work on push pull influences.*

A: Reid & Vujicic sources added. Also included reference to previous push pull influences in the introduction.

Thank you for comments, please let us know if you have further questions.

Lisa Nguyen