

*Short Communication*

# AIDS in the 21<sup>st</sup> Century and the training of African medical students: An Observational Study at a Public Medical School in Dar-es-Salaam-Tanzania

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In any higher learning institution like universities in Africa and abroad, review of curriculums is carried out every 3 – 5 years depending on availability of funds. The exercise is an important one but sometimes can be time consuming and costly. These reviews of curricula helps to fill in the deficits or gaps by improving specific subjects or topics so as to tailor curriculums/training programmes suiting firstly the local need, national, and international requirements of final consumers of university products. So can these change in the medical curricula taught to African medical students be the way to attract and retain more medical and health providers? As researchers grapple with the influx of international funds on the African continent to manage the various epidemics, such as malaria, HIV/AIDS and TB, what are health care providers and medical students learning to prepare them to be effective and sustained leaders, virus managers, particularly after funding streams change or shift? As this observational analysis focuses on Tanzania, a country where there are approximately more than 500 students entering medical training in various public as well private medical universities after completion of their advanced level of education secondary schools (i.e. Form six) each year. There are also those who are trained as clinical officers (medical assistants) and Assistant Medical Officers (AMOs). These are paramedical staff who serve as well as doctors in some regional, district hospitals, other health centres and dispensaries located in rural parts of the country. However, these paramedical staff require 2-5 five years of paramedical training but they do not require a one year of internship after completion as opposed to medical officers/medical graduates. However, the current curricula used to train medical and paramedical students in the public and private universities or medical schools in Tanzania may not be adequate to address the new levels of care and treatment. Thus, for health care providers and clinicians treating traditional diseases, such as malaria, HIV/AIDS and TB etc, requires more business skills, such as procurement, supply distribution and in rural areas, as well, as clinic management. Traditional medical training in this country and Africa may need to shift to prepare the student to compete in the global world of disease management including building skills for self-employment after completion of their studies as this shift now is changing from depending on government created jobs. As it stands today most governments be developed and developing ones, there is an increasingly high rates of an employment to most youngsters after completion of their studies. To address the issue of training, we sought to inquire of the students, what knowledge they felt would help to best prepare them for health care in the 21<sup>st</sup> century. We asked approximately 134 third year students in Medicine, Dentistry, and Nursing students, average age 25yrs., at Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Salaam, Tanzania during a clinical pharmacology lecture class conducted by Dr Nsimba, SED. There was significant interest by the students in the concept of business, in fact, (76%) felt that they would like to learn more about entrepreneurship in addition to their medical training. Thus based on this, it may be recommended that African Medical Institutions may want to consider inclusion of some business skills so that medical students get an opportunity or be exposed to business and entrepreneurship skills apart from their conventional medical training curriculum.

**Keywords:** Aids, Africa, medical student, medical school

## INTRODUCTION AND DISCUSSION

## Observational and Interview Study

Can a change in the medical curricula taught to African medical students be the way to attract and retain more medical and health providers? As researchers grapple

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with the influx of international funds on the African continent to manage the various epidemics, what are health care providers and medical students learning to prepare them to be effective and sustained leaders, virus managers, particularly after funding streams change or shift?

As this observational analysis focuses on Tanzania, a country where there are approximately 500 students entering medical training from secondary schools after their advanced level education (Form six) each year. There are also those who are trained as clinical officers (medical assistants) and Assistant Medical Officers (AMOs) who serve as doctors in some regional, district hospitals and other rural parts of the country; they require the five years of medical training and another one year of internship after completion of five years to be medical officers/medical graduates.

However, the current curricula used to train medical students in the public and private universities or medical schools in Tanzania may not be adequate to address the new levels of care and treatment. Many of the traditional subjects learned include basic subjects like anatomy, physiology, biochemistry, behavioural sciences, medical statistics, epidemiology, management of diseases, clinical pharmacology etc. Thus, for health care providers and clinicians treating traditional diseases, such as HIV/AIDS requires more business skills, such as procurement, supply distribution and in rural areas, as well, as clinic management. Traditional medical training in this country and Africa may need to shift to prepare the student to compete in the global world of disease management.

To address the issue of training, we sought to inquire of the students, what knowledge they felt would help to best prepare them for health care in the 21<sup>st</sup> century.

We asked approximately 134 third year students in Medicine, Dentistry, and Nursing students, average age 25yrs., at Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Salaam, Tanzania during a clinical pharmacology lecture class.

These students were consulted and requested to give verbal consents 30 minutes prior to concluding their Pharmacology lecture class. After consenting then some questionnaire were distributed to them so that each student answered by filling in both a combined open and closed ended questionnaire. Which were later analyzed by the 2 investigators (Nsimba and Kelley). There was significant interest by the students in the concept of business, in fact, (76%) felt that they would like to learn more about entrepreneurship in addition to their medical training.

It is clear that the students see health and their future work as important, but they also see expanding out from the typical government job in medicine. Most understand that the economics of the day lead towards entrepreneurship and a different, non-traditional approach to medical practice, maybe with more ownership of the clinic/service area.

Should not business skills be taught to medical and allied health care providers given the focus by the development health care systems on combining clinical and administrative functions, physicians are expected to be executives? With a business focus, a sense of ownership and empowerment could emerge which would invigorate the field and stimulate an interest in a career in health care. Health care providers would see that they are able to care for their families and themselves financially while caring for the physical needs of others.

In conclusion, there is a need to review the current medical training curricula for African Universities so that some components of entrepreneurs are added or introduced in their present training curricula. In this way they will get prepared psychologically towards self employment and running other businesses apart from thinking solely of government employment after completion of their studies. However, this proposal should not only be limited to review of medical training curricula alone but for all other university courses/subjects taken by university students in different schools or faculties for example, social sciences and humanities, engineering, information and technology, education you name it.

This idea may be one of the possible solutions to reducing the problems which is facing not only developing countries but also developed ones as many of their young scholars end up unemployed after completion of their university studies because most governments especially in Africa cannot afford to absorb all its university products by employing them consequently the rate of unemployment is on an increase in Africa and this is a global issue/crisis at present and requires critical thinking and immediate actions by African Governments.

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Stephen E.D. Nsimba, DDS, MSc, PhD; Corresponding author, Senior Lecturer, Clinical Pharmacologist, Pharmaco-epidemiologist and Certified Substance Abuse, Care, Treatment and Prevention Specialist, formerly worked with the Muhimbili University of Health and Allied Sciences, Dar-es-Salaam-Tanzania. As from March, 2010, he is working with the University of Dodoma, College of Health Sciences, School of Medicine and Dentistry, P. O. Box 259, Dodoma, Tanzania.

Developed survey, collected, analyzed data and reviewed the data. There were no conflicts of interest including financial interests and relationships, and affiliations relevant to the subject in this manuscript and no compensation receive for work on this project.

Robin T. Kelley, PhD. Fulbright Senior Specialist at the Muhimbili University of Allied Health Sciences, "She had full access to all of the data in the study and took responsibility for the integrity of the data and the accuracy of the data analysis."Developed survey, collected, analyzed data and wrote report. There were no conflicts

of interest, including financial interests and relationships and affiliations relevant to the subject in this manuscript; no compensation has been received for work on this project.

Richard Kasesla, Executive Director, HIV/AIDS Business Coalition in Tanzania

Conducted literature review and reviewed drafts. There were no conflicts of interest including financial interests and relationships, and affiliations relevant to the subject in this manuscript and no compensation receive for work on this project.

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