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# Community Oriented Interprofessional Health Education in Mozambique: One Student/One Family Program

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## ABSTRACT

**Background:** In the remote northern region of Mozambique the ratio of doctors to patients is 1:50,000. In 2007, Lúrio University initiated an innovative, “One Student/One Family” program of teaching and learning for health professions students, to complement their traditional core curriculum. All students of each of the school’s six health degree programs complete a curriculum in “Family and Community Health” in each year of their training. **Methods:** Groups of six students from six different health professions training programs make weekly visits to communities, where each student is allocated to a family. Students learn from their families about community life and health issues, within a community where 80% of the population still lacks access to modern health care and rely on indigenous doctors and traditional remedies. In turn, students transmit information to families about modern health care and report to the faculty any major health problems they find. The educational/experiential approach is interprofessional and community-oriented. **Results:** The main perceived advantages of the program are that it is applied and problem-based learning for students, while simultaneously providing needed healthcare services to the community. The major disadvantages include the complexity of coordinating multidisciplinary groups, the time and distance required of students in traveling to communities, and interpretation of multiple reports with variable data. **Discussion:** This community-oriented education program involving students from six disciplines uses nontraditional teaching/learning methods is the basis of the *ex libris* of Lúrio University.

**Keywords:** Community medicine, interprofessional education, traditional medicine

## Introduction

Lúrio University was established in 2006 with the mandate to cover the north of Mozambique where no public technical university previously existed. With some 24.5 million inhabitants, the north holds the most populated province of Nampula, where the University has its headquarters.

The ratio of medical doctors to inhabitants in some provinces of Mozambique is above 1:50,000. Mozambique has five medical schools, three of which are public, each

working under a different curriculum plan. Curriculum planning within Lúrio University’s Faculty of Health Sciences with its six different degrees – Medicine, Dentistry, Pharmacy, Optometry, Nursing, and Nutrition – aimed for a multidisciplinary approach. This was a great challenge for one of the poorest countries in the world (184<sup>th</sup> place), although its present economic growth is 8% a year. The University mission was tackled with innovative ideas, new strategies and nontraditional teaching methods based on the knowledge that some 80% of the population prefers traditional doctors and medicines.

A significant reorientation was needed in health education. In Africa, it was felt that it is no longer appropriate to regard the role of the community in health education as an add-on to a curriculum dominated by biology and technology, steeped in a hierarchy of disciplines where biology rules to the exclusion most social, political, and economic considerations, which play important roles in healthcare.<sup>[1]</sup>

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### The “One Student/One Family” Program

The government’s “Fight against Poverty” plan and the University in its relevant role in social cohesion are committed to improving the accessibility and quality of primary healthcare availability for Mozambique’s poor rural population. A cornerstone of this effort has been an innovative and pioneer community-based extension program, “One Student/One Family”. This learning- and community-oriented educational experience provides critical training and orientation for future generations of Mozambique healthcare workers, while students and teachers also learn from indigenous knowledge. Soon this 5-year old program will be spread to all other nonhealth courses of the University. Ultimately, only long-term monitoring and evaluation will provide the solid data needed to demonstrate its value and impact.

Within this program, competencies are defined by the faculty and include patient care, medical knowledge, interpersonal and communication skills, professionalism and ethics, practice-based learning and improvement, systems-based practices, and strong family and community approach. The latter consists of activities that extensively use the community as a learning environment, where students, teachers, community members, and representatives of other sectors are actively engaged throughout the educational experience in providing health/medical education that is relevant to suburban and rural community needs.

Knowledge flows in two ways within the program, and students have opportunities to interact with people from a wide range of social, cultural, and ethnic backgrounds. The program, as a university extension service, provides students with opportunities to become increasingly involved in health issues and, as their competency grows, to plan and provide care. It is not about poor healthcare for poor people, and it is not about saving money; rather, it is about engaging in a creative way with communities in the context of real health problems while at the same time learning and researching essential attitudes and skills applicable in both hospital and community settings. Moving beyond profession-specific educational efforts, the program promotes initiation in interprofessional collaborative practice as key to safe, high quality, accessible, and patient-centered care. Achieving this vision requires the continuous development of interprofessional competencies by health professions students as part of the learning process, so that they enter the workforce ready to practice effective team-based care.<sup>[2]</sup>

The implementation of the program followed several steps establishing an interface between the knowledge possessed at the University and the wisdom of the local culture. In the first stage, consultations and hearings were held among the great number of stakeholders in the region. Community leaders, who are powerful and important people in Africa,

heard about the reasoning for and objectives of the program. They learned that all students are required to participate in this annual experience, from their first to last academic years. In monthly meetings students and tutors share experiences across groups. All undergraduate students simultaneously undertake a course entitled “Research Methodology” and are expected to conduct surveys or applied research to serve the community and also prepare them to participate in research after graduation. The program and students’ involvement are directed principally at the factors that impede the country’s development and the wellbeing of its citizens.

The University, being a young institution, has the advantage that its students in Medicine, Dentistry, Pharmacy, Optometry, Nursing, and Nutrition share a single faculty and common subjects. The “One Student/One Family” subject curriculum is carried out in small groups of five to six students, one from each discipline, with each group assisting identified families. At the beginning of the academic year, each group is assigned a tutor-educator. The program’s principal goal is to contribute to the development of society and care for citizens. It aims to facilitate the integration of teaching, learning, and applied research, while meeting the pressing needs of communities. Students and faculty in the program are currently evaluating data collected on community health needs and discussing possible interventions. Initially, case reports were prepared addressing the communities’ demographic, social, nutritional, health, and general wellbeing. Analyses have been extended to include statistical data from cases.

The program, “One Student/One Family,” is offered within the Faculty of Health Sciences as a compulsory discipline designated “Family and Community Health”, and is spread over 10 months in the 4 years of training of each of the six participating courses/disciplines. A student from each of the six health educational areas is allocated to a group. Medical students, with a 6-year curriculum, participate in the program during their first 4 years. The designation “One Student/One Family Program” comprises this “Family and Community Health” discipline in the Faculty of Health Sciences, while it is designated as “Community Support” in the other nonhealth faculties, namely, Architecture, Agrarian Sciences, Engineering, Informatics, and Natural Sciences. While teaching and learning has been considered successful, proper evaluation of the teaching–learning outcomes in these disciplines is still being conducted.

The transformation envisioned in the program enables opportunities for health professions students to engage in interactive learning with those outside their profession as a routine part of their education. These educational processes integrate knowledge, skills, attitudes, and values in the demonstration of competencies. The goal of this interprofessional learning is to prepare all health

professions students to capably work together with the common goal of building a safer, more patient-centered and community-oriented healthcare system.<sup>[3]</sup>

### Perceptions of the Program's First Five Years

Some of the program's perceived advantages include access to a wider variety of patients; greater opportunity for students to develop and practice clinical skills; increasing opportunities for applied research; more continuity of care with patients; greater relevance to learning; more experience with the determinants of health and the impact of social, economic, and political events on the health of people; more enjoyable educational experiences; and improvement in students' communication skills.

The program has some disadvantages and has experienced challenges. These include significant variability in learning experiences across different community sites and different preceptors; the significant time required to travel to community sites; the organization required to group students and arrange travel; the difficulties of scheduling for an entire year; a shortage of tutors; the unfamiliarity of faculty with teaching within this type of program; language barriers; and on complex monthly debates on the output data contained in the group reports. In addition, some students have had negative attitudes about the experience, believing it offers second-rate medicine. The biggest challenge has been in attempting to incorporate the successful aspects of the program into other nonhealth courses at Lúrio University.

### The Way Forward

How healthcare is delivered is as important as what healthcare is delivered. Overall, the challenges faced in the "One Student/One Family" program have been those inherent in working in a developing country. It is important to be realistic about the timeframe needed to accomplish tasks when initiating an innovative, community-based and interdisciplinary program such as this. One cannot expect events to advance as quickly

as within developed countries. Developing countries can share ideas on interprofessional education with universities in other countries to improve their community-based education approaches.

An ambitious community-based program faces many challenges, requires constant dedication from staff, and must regularly assess student's learning to understand how well the program meets their needs. Outweighing any challenges, the program offers opportunities for health professions students to regularly engage in interactive learning with students of other professions.<sup>[4]</sup> The need remains to identify, agree on, and strengthen core competencies for interprofessional collaborative practice across the professions, providing an integrated and cohesive answer to the needs of the families with whom students work.

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