



FIGURE

Quarterly Number of Surgical Cases at Malamulo Adventist Hospital From Medical Statistics and Data (2009–2018)

innovative GSR could be replicated in other programs, with benefits for US residency programs and the international site.

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Structured Elective Placements in Graduate Medical Education: A Novel Approach to Increasing Posttraining Opportunities in Africa

Setting and Problem

Elective placement allows learners to pursue a topic of interest of their choice, with the intent of broadening their education.¹ During the placement, students spend time in a work setting outside the university or their activities are focused on specific content of their choice. Although work placement

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increases the employability of undergraduate students,² there is limited data on its benefit for graduate students. At Makerere University, in Kampala, Uganda, the Department of Paediatrics and Child Health in the College of Health Sciences offers a Master of Medicine degree (MMed) in pediatrics and child health, where an elective placement is a component of the curriculum.³ Individuals with a MMed (pediatrics and child health) degree typically practice in pediatrics or child health after graduation. Individuals accepted into the program often worked in the health care sector prior to matriculating into the program.

Innovative approaches are needed for elective placement to be beneficial to trainees, given that the majority of MMed students were employed in health care settings prior to their admission into the program.

Intervention

The elective placement in the MMed (pediatrics and child health) program is structured as a formal course with a coordinator. The course has 5 objectives: (1) enable students to get hands-on experience in settings they will work in after graduation; (2) provide an opportunity for students to apply in practice the principles and techniques theoretically learned; (3) provide opportunities for students and academic staff to interact with potential employers, which also facilitates review of the MMed curriculum; (4) develop students' understanding of the demands, responsibilities, and opportunities of employment; and (5) strengthen collaboration with Makerere University. The 4-week elective placement is at a facility of the student's choice either in Uganda or outside the country. Students are advised to choose among the following areas: clinical care, administration, research, and medical education. In addition, Department of Paediatrics and Child Health faculty set up collaborations with higher income nations aimed at exposing the students to child health in a different setting. The host institution selects a supervisor for the student during the placement, who assesses using a form provided by the department. The department also allocates a local supervisor to keep in touch with the student and, when possible, visit the student to ensure the objectives of the placement are achieved. At the end of the placement, the student writes a report on their experience using a template provided by the department. This report contributes 60% and the host supervisor's assessment contributes 40% of the final grade.³

Outcomes to Date

From the students' reports and their subsequent choices of career and work location after graduation, these structured elective placements are highly beneficial. Several students have found employment in places of their earlier elective placements or at similar institutions. A number of those with placements in higher income nations have undertaken subspecialty training in areas such as endocrinology, cardiology, nephrology, and hematology/oncology, with some going back to the host institutions of their placements for subspecialty training. Many have been retained in the Department of Paediatrics and Child Health at Makerere University, strengthening the institution's training capacity. Others have successfully competed for research grants and scholarships, including US National Institutes of Health Fogarty fellowships.⁴

From 2015 through 2017, 44 students, all with clinical jobs prior to admission to the MMed program, completed elective placements in the following areas: clinical care (n = 18), administration (n = 15), research (n = 9), and high-income country placements (n = 2). After graduation, 32 have clinical appointments, 3 are undertaking subspecialty or research fellowships, 3 are administrators, 3 have faculty positions, 2 have research jobs, and 1 is completing a PhD.

The placement program also has generated new institutional collaborations for training and research for Makerere University, and has strengthened existing ones. Given that Makerere University receives students for its MMed degree from all over Africa, the opportunities for these structured elective placements make a contribution to child health throughout the continent.

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Postgraduate Medical Education for a Rural Majority: The MMed (Rural) Experience in Papua New Guinea

Setting and Problem

“The limited number of health professionals in many low- and middle-income countries are not distributed

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evenly across the population. In general, deploying doctors, nurses, and other professionals to remote rural areas is difficult and care givers tend to be concentrated in major urban areas.”¹ This statement rings very true in Papua New Guinea (PNG), where the proportion of the population living in rural areas is 86%, the second highest in the world.² The health challenges facing rural populations are summed up by the “inverse care law” of Julian Tudor Hart: “Availability of good medical care tends to vary inversely with the need of the population served.”³ To improve access to health care in rural areas, health professionals must be moved to where these great needs exist (see the FIGURE for the current distribution of physicians).

Postgraduate training of physicians can be strategically positioned in rural communities to facilitate the provision of services and increase the likelihood that graduates of these programs will continue serving in these areas. The generalist or primary care physician is the focal point of this effort, and should be capable of dealing with a wide variety of clinical problems as well as promoting community health and managing a health care facility.

Intervention

A new rural graduate medical education program to train rural specialists began in PNG in 2008. The aim is to provide physicians who are capable of managing a rural health facility for the large underserved rural population of this nation. “The awarding of this degree follows supervised experience and demonstration of general and specific competencies in the clinical disciplines, supervised postgraduate training in a district hospital setting, and postgraduate training in aspects of public health and health administration.”⁴ In addition to supervised clinical instruction and maintaining a log of cases and clinical problems, curriculum elements are specific to PNG’s rural health care needs, such as practical skills training in ultrasonography, solar power module and radio installation, and management and leadership training. Candidates are given 4 to 8 years to complete the curriculum while providing services under the sponsorship of a district hospital. Completion of the training and recognition as a specialist in rural medicine also requires completion and presentation of a research project accepted by the University of Papua New Guinea (UPNG) postgraduate committee and passing a 2-part examination, including a common core and a specialty-specific component. The MMed (Rural) degree is recognized by the National Department of Health and holds pending approval of