

SPECIAL COMMUNICATION

Fulbright project focuses on rehabilitation technician education and physiotherapy practice at the Kachere Rehabilitation Centre in Malawi

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Abstract

Background

The aim of this project was to strengthen rehabilitation technician education and physiotherapy practice at the Kachere Rehabilitation Centre in the less-resourced country of Malawi by enlarging and reinforcing the skills of faculty, administrators, and adjunct clinicians, and fostering their continuing professional development.

Methods

The project was developed through a partnership with the Kachere Rehabilitation Centre (KRC), the Medical Rehabilitation College (MRC), and a US-trained physical therapist (a Fulbright Program Scholar - FPS). The elements were education of staff, faculty, and students, and administrative consultation for rehabilitation managers, educational administrators, and faculty clinicians.

Results

Formal and informal participant feedback on the project was positive. It indicated a receptive audience who expanded their knowledge and willingly considered ideas to modify teaching, clinical, and management approaches for optimal patient care, enhanced clinician/student learning, meeting curricular accreditation standards, and solving day-to-day challenges.

Conclusions

The project made a positive impact on the participants, fostering their goal to parallel clinical practice and educational initiatives used by recognized international standard bearers. Lessons learned emphasized the power of partnerships, networking, flexibility, and creative thinking. For international physiotherapists, it is an underutilized opportunity to extend global outreach, scholarship, clinical practice, and academic knowledge in a less-resourced country eager to upgrade the background and skills of rehabilitation providers.

Introduction

Over a 3-year period, a US Fulbright Program Scholar (FPS) had developed a successful working relationship with the leaders of Kachere Rehabilitation Centre (KRC) in Blantyre, Malawi, through interprofessional projects.¹ These collaborations led to the development of a 6-week Fulbright Specialist Project (FSP) that focused specifically on the needs of the Medical Rehabilitation College's (MRC) faculty, administrators, and students. With a paucity of formally trained rehabilitation professionals in Malawi, particularly those qualified to mentor and teach entry-level learners, there are significant demands to upgrade clinical and academic services, with sustainability strategies leading to their greater autonomy.

The main purposes of the overall FSP were the following:

- 1) To broaden the skills of rehabilitation technician faculty, administrators, and adjunct clinicians;
- 2) To offer ideas, strategies, and materials for particular elements of rehabilitation technician education;
- 3) To provide comments, questions, and suggestions on the formal MRC curricular documents;
- 4) To advise leaders on teaching, management, and consultation techniques;
- 5) To establish networks for future collaborations;
- 6) To identify pressing related needs and means to begin addressing them; and
- 7) To identify lessons learned that could apply to other scholars and potential collaborators.

Background

Many of Malawi's 17+ million inhabitants live as subsistence farmers, with per capita incomes of about \$900 dollars/year. Life expectancy at birth is 62 years for women; 58 years

for men.² Total adult literacy rate is 61.3%.³ Leading cause of mortality is HIV/AIDS, but other conditions such as cerebrovascular and cardiovascular diseases are on the rise, related to lifestyle, inconsistent medication management, and infections.

Not just the frequency of specific conditions, such as stroke, but their earlier presentation and sequelae compounds this situation and significantly influences outcomes. The high prevalence of stroke, tuberculosis of the spine and many neural inflammatory conditions leads to a steady stream of individuals seeking admission to KRC, the country's only inpatient rehabilitation facility, 40 beds, with minimal outpatient services. Many of these conditions result in the need for multiple rehabilitation interventions for extended periods of time (weeks to months). The demands on KRC staff are intense and unrelenting.

Few of the professional rehabilitation staff have been formally trained as educators to implement a training program for rehabilitation technician students, or for peers and interdisciplinary colleagues. Yet, they attempt to do so, in addition to regular patient care responsibilities. Of benefit to rehabilitation technician education, is the availability of clinicians, who also serve as faculty, to coach the students in clinical settings throughout their education. As "bedside" clinicians, they usually have the experience to reinforce classroom didactic knowledge as ongoing learning opportunities but limited techniques as professional educators. There remains, however, the steady demand on the clinicians to achieve responsible rehabilitation outcomes for the KRC patients, aside from their teaching duties.

Table 1: Learning topics and target audience

Learning topics	Clinicians/faculty	Students
1. WCPT 2017 overview; preparing abstracts and posters for submission	✓	
2. The ICF Framework and Models of Care	✓	✓
3. Integration lab focusing on the ICF Framework	✓	✓
4. Learning styles and strategies for optimal learning		✓
5. Results of community reintegration studies and implications for clinical practice	✓	
6. Future of technology, the iGeneration, and impact on physical therapy practice		✓

WCPT = World Confederation for Physical Therapy; ICF = International Classification of Functioning, Disability and Health

The professional history for the training of physiotherapists is short in Malawi. It began formally in 2010, with the first cohort of Bachelor's students graduating in 2014. Prior to this time, all physiotherapists in Malawi graduated from schools in neighboring countries (Tanzania, Mozambique, Nigeria, and Zambia). For the most part, training initially was at the diploma, not Bachelor's level, which exists today and is the current minimum international standard.

Currently, there are about 50 registered physiotherapists in Malawi who provide the majority of services in state and non-governmental organization (NGO)-affiliated facilities, mainly within the major cities of Blantyre and Lilongwe. Their 4-year diploma qualification prepares them clinically, but does not provide the academic background for teaching appointments in the MRC program, nor at the University of Malawi, College of Medicine's Physiotherapy Program.

To meet unmet needs for credentialed rehabilitation personnel, the Rehabilitation Technician Program was established at the Certificate level in 1999. This program features two plus years of intense academic learning and nearly a year of specific patient-related clinical training in suburban and rural communities. The graduates are skilled and enthusiastic clinicians, motivated to provide practical and high-quality rehabilitation services, which includes duties not only supporting the practice of physiotherapy, but also occupational therapy, and minimally, speech/language therapy. However, at their level of education, rehabilitation technicians are not qualified to teach in an academic program nor completely fulfill educator roles beyond their primary involvement with patients and peer colleagues. As of 2016, there were 100 graduates of the MRC, with 105 students enrolled.

The Fulbright Program was established by the US Congress in 1947 under President Harry S. Truman based on Arkansas Senator J. William Fulbright's appreciation for the power of international engagement.¹ Today, the program is the flagship international educational exchange program sponsored by the US government. Its goal is to foster mutual understanding between the people of the United States and those of other countries with educational and cultural exchange that assist in the development of peaceful relations. Source of funding is an annual appropriation from the US Congress with direct and indirect support from partner and host institutions in over 160 countries. During its history, the Fulbright Program has provided international exchange opportunities to more than 370,000 participants (students, scholars, educational leaders, and faculty).¹

The Fulbright Specialist Program features a diverse group of highly experienced well-established US faculty members

and professionals that have developed specific educational and training projects with recognized international educational institutions. These projects support the critical priorities identified by host institutions, US embassies, and binational Fulbright commissions abroad. Through an application, vetting, and candidacy process, scholars are identified who then partner with qualified

communities around the world, develop a project, and submit it for potential approval by the educational agency administering the Program (The Institute of International Education, Council for International Exchange of Scholars).¹ Final approvals include confirmation of host-site commitments and the approval from the host country's US embassy. This process could extend a timeline from many months to more than a year for the qualified scholar.

Methods

The FSP content focus in Malawi was academic, consultative, and a combination of both. Academically, formal presentations covered physical therapy practice and educational foundational and application topics (Table 1). Consultation was used to evaluate the MRC curriculum (course descriptions, educational objectives, and content topics), and to provide management strategies for clinical and academic leaders. A collaborative project with a US-based university engineering program and KRC was further developed, a plan for the creation of a video documentary film on Kachere was initiated, and an exploration of additional funding resources was begun.

Academic advising was provided for individuals who plan to upgrade their education or wanted to explore formal and informal professional development opportunities. Research advising to specific individuals included how to develop, execute, and disseminate research and special interest projects through poster and oral presentations, the development of abstracts, guidelines for a scoping review, a framework for qualitative data analysis, and feedback on a doctoral survey draft.

The long-term focus was on sustainable efforts, creative utilization of limited resources, and development of linkages with professional, government, and non-governmental organizations that will strengthen the infrastructure, infuse it with ideas and resources, and shed a spotlight on this valuable program, its staff, and needs. With a US visit by one of the Malawi educators following the project, there was a reciprocal opportunity to expand the impact of this project and shape future collaborations. Ethics approval was not required for this project. Agreement for participation by the faculty, administrators, students, and staff was obtained informally and through their participation in the various project components, including completion of a program feedback forms.

Results

Accomplishments from the FSP included completion of 6 continuing professional development sessions for 37

Table 2: Program feedback form

Learning objectives	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1. This program met my overall expectations.	1	2	3	4	5
2. The topics were relevant to my professional roles.	1	2	3	4	5
3. I understood the information presented.	1	2	3	4	5
4. My personal learning objectives were met.	1	2	3	4	5
5. I was able to participate in the discussions.	1	2	3	4	5
6. I did not experience language barriers.	1	2	3	4	5
7. My questions were answered satisfactorily.	1	2	3	4	5
8. Additional resources were shared with me.	1	2	3	4	5
9. Audiovisual aids were helpful.	1	2	3	4	5
10. I look forward to future presentations!	1	2	3	4	5

Table 3: Mean scores for program feedback results

Learning objectives	Students	Clinicians	P-value
1. This program met my overall expectations.	4.23	4.10	0.29
2. The topics were relevant to my professional roles.	4.52	4.59	0.81
3. I understood the information presented.	4.30	4.40	0.83
4. My personal learning objectives were met.	4.08	4.10	0.91
5. I was able to participate in the discussions.	4.15	4.29	0.98
6. I did not experience language barriers.	4.22	4.73	0.006
7. My questions were answered satisfactorily.	3.99	4.10	0.64
8. Additional resources were shared with me.	3.82	4.21	0.33
9. Audiovisual aids were helpful.	3.98	4.35	0.45
10. I look forward to future presentations!	4.62	4.65	0.78
Mean scores	4.19	4.36	0.64

clinicians and 114 students, management and academic advising for several leaders, and curricular review with feedback on the MRC program to administrative faculty. Of key importance was the ongoing communication, formal and informal leadership planning, and strategy sessions during the visit. Flexible scheduling, openness to candid feedback, and adjustments in the agenda, as needed, were integral to the success of this project.

Participants attending the professional development sessions completed Program Feedback Forms with 10 questions related to knowledge gained for each specific topical presentation. The Form used a Likert-type rating scale, from 1 to 5, with 5 indicating the highest level of agreement with the statements and 1 the lowest level (Table 2). Formal analysis of program evaluation data was based on 150 completed surveys that had appropriate professional designation identifiers (student vs clinician). The mean rating for students who completed forms on specific learning topics was 4.19 and for faculty was 4.36 (Table 3). Comparing mean scores for each group, there was no significant difference between the groups except for experiencing language barriers, the students rating it significantly lower than faculty. In general, weakest topic areas were meeting personal learning objectives, participating in the discussion, having questions answered satisfactorily, the sharing of additional resources, and helpfulness of audiovisuals. Looking forward to future presentations and topic relevance were rated the highest by both groups (Table 3).

Discussion

Many Fulbright recipients have described their experiences internationally for varying periods over the last 35+ years. The purposes of the projects were generally for teaching/training and research. Several of them reported projects that lasted

several weeks or months in duration, particularly under the Fulbright-Hays Program for educators (one covering work in Malawi).⁴ Peterson, Hargis, and Nesbit conducted research in Malawi under a multiple-month 2011 Fulbright grant, but no other physical therapists were identified in the scholarly literature.⁵

Providing education and training, as noted through this FSP in many targeted topic areas enhanced faculty, clinician, and student

knowledge and should increase their value to clients, their profession, and to each other. In addition, it should bring them a greater sense of pride and fulfillment for their own personal and professional accomplishments and enhanced capacity to make a difference in the provision of health care and professional training in Malawi. Follow-up plans included individualized leadership consultation via Skype and email, a reciprocal visit by a MRC leader to the US, implementation of an engineering project with a US university, and planning for two additional visits by the FPS.

Challenges encountered during this project included completing an ambitious agenda of continuing professional development topics in two weeks with staff, who have primary clinical care responsibilities and priorities, technology and related challenges, some of which were not controllable and language barriers even in a country where academic programs favor English usage. Some of these challenges are the realities of working in a less-resourced community with multiple competing priorities, and limited technical amenities. Other factors affecting the results of this project were the variable years and depth of training, education, and experience of participants. These points were noted for future consideration.

On the other hand, the seemingly minor challenges were offset with flexible and adaptable scheduling by all partners, having sufficient printed materials available for the major presentations, “grouping” students and faculty together during targeted presentations for mentoring purposes, and providing “clinical integration” experiences as part of the topic discussions.

Unique to this project was the opportunity for a US physical therapist to harness the power of the FSP to shape the future of rehabilitation technician education and physiotherapy clinical practice in a less-resourced country and serve as a model for similar educational and clinical communities. It required a strong commitment to the lengthy FSP application process, the development of an acceptable project with a qualified partner community as defined by the FSP, a unified project vision, and a respectful working relationship between the players built on communications and trust, prior to and during all aspects of the project. Lessons learned included the importance of professional networking, sensitivity to local culture and style of learning, background, and professional expectations, and creativity in exploring new ideas with application to the project at hand.

Competing interests

The author declares that she has no competing interests related to this work.

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