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Medical Education for Equitable Services for All Ugandans (MESAU) Consortium: Development and Achievements

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Abstract

Purpose—In 2011, five medical schools in Uganda formed the Medical Education for Equitable Services for All Ugandans (MESAU) consortium to address the medical education challenges in meeting the nation's health needs. In this paper the authors document the development and achievements of this unique collaboration to transform medical education in Uganda.

Methods—A longitudinal qualitative study employed anthropological techniques to examine the proposed idea and development of the consortium, the experiences of consortium members, and the successes and challenges encountered during its first three years (2011–2013).

Results—The consortium approach to medical education has made important contributions to member institutions despite initial reservations and uncertainties. Acceptance of the consortium emerged because of the added benefits accruing to individual institutions and the network. The consortium has flourished partly because of its organizational structure, the support of its leadership, the ownership and active participation by member institutions, and a strong commitment to its broader goals. However, some challenges in implementation remain, including inadequate capacity, limited grants management experience, and varying degrees of research expertise among the participating institutions.

Conclusions—Despite these challenges, the consortium approach has had a positive impact on medical education by reducing inter-institutional rivalries, promoting strong collaboration, and providing mutual support and the sharing of resources for medical education and research in Uganda.

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The state of medical education in Sub-Saharan Africa has been discussed widely,[1,2] with the region still falling extremely short of the required number of health professionals.[2,3] This challenge calls for innovative approaches in medical education. Collaborative approaches such as consortia formation by stakeholders have been shown to improve efficiency and effectiveness in meeting program and policy targets, particularly in Europe and North America.[4–9] Nevertheless, institutional consortium approaches for improving the quality and increasing the quantity of health workers are little-used strategies in Africa. Collaboration among all of the country's medical schools was unprecedented in Uganda and elsewhere in Africa and was seen as a monumental challenge in the face of differing institutional/organizational cultural contexts. Such a bold move was considered necessary given the massive human resources for health challenges that Uganda faces.

In 2011 a Medical Education Partnership Initiative (MEPI) grant supported four Ugandan public universities (Makerere, Mbarara, Busitema, and Gulu) and one private university (Kampala International) to form the Medical Education for Equitable Services for All Ugandans (MESAU) consortium.[1]MESAU receives technical support from the Johns Hopkins University (JHU) and Case Western Reserve University (CWRU), both in the United States.

This anthropological study draws on ecological perspectives of system change[10–12] to examine an intervention aimed at transforming a multi-institutional collaboration in medical education. The study documents the development of MESAU, the perceived benefits, and the consortium's influence on the individual partners.

METHODS

From 2011 to 2013, this longitudinal, qualitative study utilized anthropological techniques[13,14] (Table 1) to examine the development and functioning of this consortium. Two researchers from outside MESAU, with expertise in anthropological techniques, collected data from participants who were selected based on their involvement in the consortium and interviewed about their perceptions regarding the consortium's development and its benefits. Participant observation of selected events and activities was conducted to examine more-in-depth group dynamics, including how consortium activities influenced members' interaction and subsequently decisions affecting MESAU. Various consortium documents were reviewed to provide additional information. Data were analyzed following a manifest content approach. Information from project document review initially identified common categories, which were incorporated in a matrix that tracked MESAU's themes. These categories were further refined through analysis of in-depth interviews and observation of activities being implemented. Interviews and field notes were recorded and transcribed. All data were entered into the NVivo 9 qualitative analysis software package (QSR International Pty Ltd, Doncaster, Australia) and collated to match emerging themes.

RESULTS

The Genesis

The motivation to form a consortium arose from a realization that in the context of very limited resources at each Ugandan institution, there was a need to create a national community of practice for decision making, setting national standards and guidelines, offering policy advice to the government, sharing available institutional resources, harnessing synergies, and learning from and supporting each other. The call for applications from the U.S. government through the National Institutes of Health (NIH), inviting African medical training institutions to apply for MEPI grants, presented the tipping point. At the beginning of the project there were four medical schools in Uganda (three public and one private). Government approval to start a fourth public school had stalled for many years.

The Consortium: From Idea to Active Practice

Governance—Top leadership (vice chancellors, principals, and deans) at all MESAU institutions have supported the consortium approach, which one vice chancellor hailed as "one of the most important developments in university education in Uganda." Makerere University, the prime grantee, hosts the MESAU consortium secretariat led by the MESAU principal investigator, who coordinates consortium plans and activities and communicates with participating U.S. institutions and the MEPI Coordinating Centre. Each institution has its own defined leadership, with a secretariat that supports and guides the work of its respective institution. From the beginning, MESAU institutions have had annual joint meetings during which they have set the agenda for the five-year grant period, developed MESAU strategic and implementation plans, defined annual work plans, and reviewed progress of the previous year. Similar meetings are held at each institution to review performance and to plan the next set of activities. Information and data are provided by each institution to the central secretariat at Makerere and are used to fine-tune program implementation. The MESAU Monitoring and Evaluation officer, together with officers from MakCHS Grants and Contracts Office, make quarterly support supervision visits to partner institutions.

Levels of participation—A strong partnership has developed between the five Ugandan institutions as well as with JHU and CWRU, which partner with MESAU to provide technical support in identified priority areas. Across the network and at each institution, MESAU identifies lead persons responsible for planning and implementing identified activities with the participation of other faculty. Joint projects are agreed upon during consortium meetings, especially the annual review meetings, and all institutions contribute personnel to plan and implement these activities. The joint projects include the definition of common competencies expected of a medical graduate in Uganda; the four-year longitudinal Community-based Education, Research, and Services (COBERS) impact evaluation study, and the study that has evaluated admission criteria to make admissions more equitable while targeting those who are more likely to commit to working in rural areas. Students have participated in MESAU activities such as curriculum reviews, mentored student research, and activities to enhance medical ethics and professionalism.

Budgets and financial arrangements—Budget allocations were made during the project design phase. These consist of institutional budgets for funds allocated to a particular institution during each grant year and a core budget that is used to support joint activities such as annual meetings, site visits, or joint projects.

Establishing MESAU

As expected, there were initial reservations about a country-wide consortia approach, driven in part by concerns of a hidden agenda by the lead institution and uncertainty about the future functioning and direction of the consortium. This initial reservation stemmed from the variability in institutional strengths. Three years after the formation of the consortium, there is a reported change in such concerns. As one participant noted:

> As a young institution there was a fear that our systems were still weak and may not match-up to those of more established, older universities. We thought we didn't have much to offer, but three years down the road we have found that learning has been mutual and inclusivity was high on the agenda of MESAU. (Faculty, Gulu University)

Participants noted that once the initial fears waned, implementation proceeded rapidly, with several targets being met (see Supplemental Digital Table 1 [[LWW INSERT LINK]] for full descriptions), which demonstrated important strides made by the commitment to partnership. Strong commitment led to institutions' finding even more opportunities to collaborate in projects such as sharing library resources and developing graduate tracking mechanisms. As another participant noted:

> MESAU has enhanced harmonization within the consortium members. We have a desire to do the same things [and] we are actually doing the same things and learning from one another. (Department Head, Mbarara University)

Acceptance of, and confidence in, the consortium approach have been reinforced by the nature of the grant that recognized consortium partner institutions as sub-grantees with authority to manage finances and other resources allocated to them. A good indication of the high acceptance of the consortium approach is the value added and achievements realized as a consortium and indeed the benefits accruing to individual institutions since MESAU's inception. One example of this is the availability of faculty and student research grants to all schools in the consortium (see Supplemental Digital Table 1). [[LWW INSERT LINK]]

Development of the consortium may be partly attributed to the governance structure and role of MESAU leadership, which demonstrated commitment to joint implementation of activities such as curriculum development, distance learning, and community-based initiatives. This commitment fostered a collective belief in the idea that the consortium approach was not only the right thing to do, but also, given time, it would work. It can be argued that commitment by MESAU leadership to joint implementation of activities enabled the working relationship to evolve into a true partnership and steered the consortium through various challenges.

> There has been a genuine effort by the leaders of the member institutions to engage in a constructive way, agreeing on goals that are mutually beneficial to them, and

this has allowed for better implementation of activities. (Member, International Technical Consultation Team)

Benefits of the Consortium Approach

The consortium approach has provided a platform for partner institutions to interface with policymakers more meaningfully. The varying lengths of existence and capacities of member institutions were associated with difficulty in accessing policymakers or meeting with officials. However, the consortium allowed the activities of individual member institutions to be seen by policymakers from a broader national public health perspective rather than from their individual institutional goals. The MESAU institutions can now present a unified front to government officials to articulate their needs and argue for important national health concerns. For example, MESAU is discussing with various stakeholders the need to review admission criteria to health professions training institutions as a way to bridge the gap in rural–urban maldistribution of the health workforce. The consortium approach has become increasingly appreciated by government ministries and other partners. For example, Busitema University had for several years advocated, largely on its own, to open the proposed medical school but had been unsuccessful in doing so. The consortium shared resources with Busitema, advocated for its potential, and provided technical support to the faculty, all of which contributed to the opening of Busitema Faculty of Health Sciences in October 2013.

The consortium approach has enabled the potential of joint programming and implementation of MESAU activities. MESAU's goals are also closely aligned with those of the partner schools, which has helped to limit constraints attributed to differences in organizational capacities. In addition, such joint implementation of activities has facilitated the rapid diffusion of ideas and innovations across MESAU.

> Working as a consortium has helped individual institutions benchmark themselves against others, not as competitors but as partners. We can sit and make decisions together. We feel we are partners in this, working toward a common goal. (Faculty, Mbarara University)

Driven by the need to align their activities to the broader consortium's research and training agenda, some partners with historically lower research outputs have been provided with the opportunity to engage more productively in research through the broader MESAU platform. The consortium promotes rigorous multidisciplinary mentored research by faculty teams that involve more than one institution (see Supplemental Digital Table 1). [[LWW INSERT LINK]] Moreover, across all institutions, undergraduate students who rarely participated in research have been afforded the opportunity to conduct research in multi-disciplinary teams with faculty mentorship. This early exposure to the research process has a positive impact on students' attitude toward medical training:

> [Because] we had never received funds to support undergraduate research apart from the mandatory research projects as part of their course, there was never an opportunity for an undergraduate student to publish a paper. But now students are principal investigators, lead authors. Our students are energized. This is unprecedented. (Faculty, Mbarara University)

Partners also noted benefits from the consortium approach on curriculum development processes, the introduction of e-learning, enhancement of COBERS, building of research capacity, and mentorship.

Challenges of the Consortium Approach

The desire for all consortium partners to implement activities simultaneously has at times proved difficult because of differences in institutional culture, resources, and expertise in program management. Some partners have been slower than others in implementing efficient grant management systems, which has led to delayed delivery on common consortium goals. Providing the needed assistance to younger institutions that might lack the necessary systems to manage these resources, while simultaneously resisting the temptation to channel more resources into more established schools with better inherent management systems, requires a delicate and ongoing balance.

Also, while political willingness has been expressed during meetings between government departments and MESAU members, this has yet to translate into government budget support to the consortium. Sustainability of MESAU activities beyond the MEPI current grant remains a challenge.

> With MESAU, the momentum is high, [and] faculty and students alike are energized. However, we worry what happens after the grant. Some activities may not be sustained. For many activities to prevail beyond the grant, we need more funding opportunities since most of our institutions are already under-resourced. Faculty/PhD Student, Gulu University

DISCUSSION

Medical training in Uganda's public and private medical schools is undergoing major transformational changes, in curriculum, retention strategies, and the experiences of students and faculty. A consortium approach to implementing collaborative medical training across an entire country is a novel idea in Uganda. Although consortium members may have previously partnered on different capacity-building programs, they had different capacities and institutional identities when they joined MESAU. Partnering has long been identified as a success factor in other consortia.[3] In this case, despite a relatively short period of collaboration, MESAU appears to have gained a strong foothold among the institutions, which may be the result of the institutions' commitment to a shared national goal of enhancing medical education to improve health service delivery. The importance of commitment by leadership to partnership has been similarly observed in other medical training partnerships[15,16] and cannot be over-emphasized.

Understandably, during development of the MESAU consortium, reservations and concerns emerged, but these have declined over the years as institutions have interacted more with one another, engaged in shared activities, experienced more open communication, committed more to the shared goal, and experienced mutual benefits. This seems to have influenced members' perceptions about the consortium and engendered widespread

acceptance. These experiences have also been demonstrated elsewhere[4,16–19] and have been shown to enable such collaborations to succeed.[3,16,17]

Study Limitations

MESAU has been in existence for only three years, which might not be long enough to demonstrate its value and stability. No baseline data had been collected prior to implementation of the consortium approach, which would have been useful for comparison. However, the prospective qualitative approach involving triangulation of several anthropological data collection techniques enabled in-depth analysis of views about the consortium from important stakeholders such as students, government officials, and other partners.

Conclusion

In this interim analysis of the MESAU consortium, strong leadership and decentralized ownership of the initiative have encouraged high levels of institutional buy-in and the sharing of resources among partners. In spite of some challenges, the consortium approach has thus far been successful in reducing inter-institutional rivalries and promoting strong collaborations in medical education. All of this in turn should help to address Uganda's educational and health challenges.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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Table 1

Methods used to Collect Data to Examine the Development and Functioning of the Consortium

Methods	Targeted respondents/events	Freq.
In-depth interviews	Heads of units, deans of schools	4
	MESAU investigators	2
	International technical team	1
	Postgraduate students	5
	Selected faculty	6
Participant observation	Site visits	2
	Symposia	1
	Joint planning meetings	2
	Institutional implementation meetings	5
	Workshops and trainings	4
	Monitoring/Evaluation visits	3
Document review	Work plans	4
	Minutes of meetings	7
	MESAU annual reports	2
	Newsletters	4