Original Research Paper

Implementation of Social Accountability in Undergraduate Medical Training at a Sub-Saharan African Medical School: Stakeholders' Perspectives

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Abstract

Background: Social accountability for medical schools is the obligation of the medical school to direct its core activities toward meeting the priority needs of the community. The core activities of medical schools are education, research, and service. Social accountability is a global concept that requires local contextualisation. Stakeholder partnerships are central to the implementation of social accountability, and stakeholders need to work together in planning, implementing, and evaluating social accountability in undergraduate medical education. We aimed to explore stakeholders' perspectives on the implementation of social accountability in undergraduate medical training at Makerere University School of Medicine. **Methods:** This was an exploratory qualitative study. Data was collected between September 2022 and December 2022. Ethical clearance was obtained from the Makerere University School of Medicine Research Ethics Committee. Fourteen stakeholders in undergraduate medical training at Makerere University School of Medicine were interviewed, including three policymakers, one health administrator, three health professionals, three community representatives, two medical students, and two representatives from the medical school. Transcripts were analysed to generate themes using the six-phase approach to thematic analysis described by Braun and Clarke. **Results:** Diverse expressions of the implementation of social accountability were present in all three core activities of the medical school. The curriculum and community-based education research and service were key expressions of social accountability in education activities. Research to understand community needs was described within community-based education research and service. The opportunities to improve the implementation of social accountability include involving civil society partners and improving equity in undergraduate medical training. **Conclusion:** Our study found evidence of the implementation of social accountability in undergraduate medical education. The opportunities to improve the implementation of social accountability in undergraduate medical education include: involving civil society partners in training medical students about the community; working with the community living in the nearby slum; and providing financial support for students.

Keywords: social accountability, medical training, undergraduate medical education, school of medicine, health professions education.

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Background

Social accountability for medical schools is defined as the obligation of the medical school to direct its education, research, and service activities toward meeting the most important needs of the community.[1] Social accountability is enhanced when stakeholders formulate and pursue a common vision for the health system, together.[2,3] Effective partnerships between stakeholders are central to the implementation of social accountability, and the expected collaborative stakeholder relationships are delineated in the partnership pentagram. The partnership pentagram was first described by Boelen in a paper for WHO in 2000 and depicts the five key stakeholders critical to setting up a sustainable health service delivery system based on people's needs.[3,4] Initially referred to as the "partnership Pentagon", the pentagram illustrates the need for all stakeholders to commit to working together and have their perspectives heard. The partnership pentagram has further been developed into the partnership pentagram plus, by adding a sixth partner of linked sectors, industry, and not-for-profit organisations.[3,5] Partnerships can exist between each of the stakeholders represented in the pentagram, and all stakeholders are called to partner for social accountability in medical training. Existing partnerships for social accountability in medical education include academic institutions/ communities through community-based education, academic institutions/ health professionals, and health administrators for clinical teaching.[3] Stakeholders must be involved in planning, implementing, and evaluating social accountability in medical education to achieve effective collaboration.[1,4]

The concept and practical application of social accountability has grown in popularity in recent years.[6–8] While social accountability is a global concept, successful implementation requires adaptation to the local context.[9] This local adaptation has been carried out in various settings worldwide with varied levels of success.[2,10–13] The factors influencing the implementation of social accountability in undergraduate medical training include: the medical school's mission; the design of the curriculum; understanding of the concept and shared values related to social accountability; community partnership; equity in student recruitment; sustainability of programs; community-based learning and service opportunities; and accreditation standards.[7–11,13–16]

Most of the literature on social accountability has emanated from high-income settings. Published literature on social accountability in medical education from sub-Saharan Africa is limited.[14] Study findings on social accountability in medical training from Africa suggest that the understanding and implementation of social accountability are limited.[14,16] A previous qualitative study from Uganda found that while the concept of social accountability was unfamiliar to the study participants, there was evidence of expressions of social accountability in undergraduate medical education at Makerere University College of Health Sciences. The expressions of social accountability included community-based training and service, student-led community initiatives, and incorporating the most important community needs in the curriculum while revising the curriculum.[14] Our findings build on these previous findings by: exploring a broader range of stakeholders than the previous study; the current expressions of social accountability; and opportunities to improve the implementation of social accountability.

In this study, we draw on the social constructivism theory to explore the stakeholders' perspectives regarding social accountability. The theory of social constructivism asserts that culture and context are important in understanding what occurs in society. Furthermore, social constructivism emphasises that people create meaning through interacting with each other and the objects in the environment.[17] Therefore, this study aimed to explore the stakeholders' perspectives on the implementation of social accountability in undergraduate medical training at Makerere University School of Medicine, Kampala, Uganda.

Methods

Study design

This was an exploratory qualitative study. Qualitative design was chosen because it allowed an in-depth exploration of social accountability. Fourteen key informant interviews with stakeholders in medical training in Uganda were conducted. The partnership pentagram[5] was used to identify the categories of stakeholders. All categories of the partnership pentagram were represented in the sample. Purposive sampling was used to select key informants likely to have knowledge and experiences relevant to social accountability and undergraduate medical education.

Study site

Makerere University School of Medicine is the oldest medical school in East Africa and has been part of the University since 1924. The School of Medicine is one of the four schools that make up Makerere College of Health Sciences (MakCHS). The Makerere College of Health Sciences has undergone curricula changes since 2003/2004, when the problem-based learning approach replaced the traditional medical curriculum. In 2015, The Bachelor of Medicine and Bachelor of Surgery (MBChB) program converted to a Competency-Based Medical Education curriculum to produce graduates capable of meeting the needs of the community.[18] The MBChB program lasts five years and includes a pre-clinical phase in the first two years of training, and a clinical phase for the latter three years. After completing the MBChB program, graduates do one year of compulsory internship. During the third and fourth years of training, medical students go into the community for Community-Based Education Research and Service.

Study tool design

Key informant interview guides were developed using information from existing literature about social accountability in undergraduate medical education. The guides were then reviewed by three medical education and one qualitative research expert. The key informant guides were edited to incorporate the experts' views. The key elements of the interview guide focused on the nature of the stakeholders´ involvement with the medical school, the stakeholders´ view of the most important health needs of the community, and the efforts by the medical school to equip medical students to meet these needs. The probes explored the existing partnerships for the implementation of social accountability in undergraduate medical education, suggestions to improve implementation, and opportunities for improved social accountability at the medical school.

Recruitment of study participants

Policymakers, health administrators, health professionals, community advocates, and representatives from the medical school were invited to participate in the study by email, telephone call or a visit to their place of work. Individuals who expressed interest in participating were contacted to schedule interviews at a convenient time and place for each participant. Most of the interviews were conducted at the study participant's place of work. The lead author or a research assistant followed up invitations with a phone call, reminder email or repeat visit. Individuals who did not respond to two or more invitations and reminders were not contacted further.

Key informant interviews

Fourteen key informant interviews were conducted between September 2022 and December 2022. The stakeholders interviewed included: three policymakers, one health administrator, three health professionals, three community representatives, two medical students, and two representatives from the medical school (Table 1). The interviews lasted an average of 36 minutes. The key informant interviews were held at a location that allowed the key informants to express themselves freely. The interviews were conducted in English, as all key informants were comfortable using this language. The interviews were conducted by the lead author or a trained research assistant and were audio recorded.

Data management and analysis

The recordings were transcribed by a research assistant with experience in qualitative research. The interview transcripts were read, and audio recordings were reviewed to ensure accuracy. Thematic analysis of the transcripts was done using the procedure described by Braun and Clarke.[19] This six-phase approach includes phase 1: familiarising yourself with the data by reading and re-reading transcripts and listening to audio recordings; phase 2: generating initial codes; phase 3: searching for themes; phase 4: reviewing potential themes; phase 5: defining and naming themes and phase 6: producing the report.[20] The coding process was inductive. Themes were generated, reviewed, defined, named, and agreed upon. The point of saturation was identified when no new ideas were found in the transcripts, and data collection was stopped. The voices of the key informants were used to present the findings. Triangulation of data was done between the different categories of stakeholders.

Ethics

Ethical approval for the study was obtained from the Makerere University School of Medicine Institutional Review Board (Mak-SOMREC-2021-77) and the Uganda National Council for Science and Technology. Written informed consent was obtained from the study participants. The

trustworthiness of the data was ensured by collecting data from multiple perspectives and triangulating between the different perspectives and sources of data.

Results

Fourteen key informant interviews were held with stakeholders in medical training in Uganda. Four informants were female, and ten were male. Three study participants were community representatives working with civil society organisations, three were policymakers, and two were medical students (Table 1).

The themes generated are described in depth below and summarised in Table 2. The themes were grouped as: 1) expressions of social accountability in undergraduate medical training; and 2) opportunities for improving the implementation of social accountability in undergraduate medical training (Table 2).

Theme 1: Expressions of social accountability in undergraduate medical training

This theme relates to the stakeholders' descriptions of experiences related to social accountability in undergraduate medical training. The expressions of social accountability were present in all three core activities of the medical school: education, research, and service.

Table 1: Characteristics of key informants

Category of participant	Gender	
	Male	Female
Policymakers	2	1
Health Administrators	0	1
Medical students	2	0
Community representatives	2	1
Representatives from the medical school	1	1
Health professionals	3	0

Table 2: Summary of themes

Theme	Subtheme
Theme 1: Expressions of social accountability	The curriculum Community-based education research and service Research within the community Student-led community initiatives
Theme 2: Opportunities to improve social accountability	Orienting students towards the community Improving equity in medical training

Expressions of social accountability in education activities

Stakeholders described social accountability as representing community needs in the curriculum and service-based learning, including community-based education, research, and service (COBERS). The curriculum is central to medical education activities. The description of the curriculum centred on its ability to facilitate learning social accountability through COBERS and teaching on the social aspects of medicine.

"So the curriculum is designed very well in that they (the medical students) have opportunities to go out and interact with the community; for example in their third-year recess term, they have COBERS and electives. So those are good opportunities and I think they are beefing up the small community placement in the fourth year of the curriculum before the problem-based learning was adopted." **(KI 9, Representative from the medical school)**

Further still, this quote refers to the changes from a traditional medical curriculum to the problem-based learning approach, and later to a competency-based curriculum that is currently implemented. These changes increased the time students spend in the community with a longitudinal distribution of community-based learning activities through two years of their medical training.

Students saw COBERS as a learning experience that allowed them to explore the community through research and provide services as defined in the following quote:

"In our third-year recess term, we do something called ´community-based education research and service´, so that's where you are scattered in all health centres or general hospitals around the country. First of all, you go with an aim to do research, and the other thing is to do the community-based kind of service. So that's why you will be learning, but you will be providing a service." **(KI 1 Medical student)**

The study participants described the quality of graduates in terms of competence, which determines their ability to serve the community. In

the following quote, the education provided by the medical school, the ability of the graduates to serve the community with up-to-date medical knowledge received from the medical school, and the skills necessary to run rural health units are linked.

"I know that the education provided at the medical school helps them (the graduates) in a number of ways. One is that it equips them (the graduates) with the most recent practices in the medical field from what I have seen, I have seen a number of studies and not only studies but also practical application of knowledge not only at the institute but also the wider Mulago (the location of the medical school) and not only Mulago, I have visited health units up country but you will literally find intern doctors running facilities." **(KI 12 Community representative)**

Expressions of social accountability in research activities

Expressions of social accountability in research activities were limited to the COBERS experience. Research during COBERS is conducted with the community to identify health needs and devise solutions in the form of interventions that the students may implement.

"..as a school of medicine and in particular the department of paediatrics, we engage the undergraduate students to participate in research, when they go into the communities they actually involve in community engagements and research looking at some of the challenges the communities are facing." **(KI 2, Health professional)**

Expressions of social accountability in service activities

Student involvement in community health activities was perceived as a tool for more excellent orientation toward the community. The opportunity to get to know the community and work well in the society, hence gaining skills, knowledge, and attitudes that promote social accountability, was expounded upon:

".... when students participate in outreaches or community activities like vaccination, participate in things like health education, ... non-communicable disease awareness campaigns or surgical camps. All these expose them to different interactions with the community ahead of their learning and practice so that when they come to finish their formal education they have an understanding of what the community looks like." **(KI 6 Policymaker)**

Student-led community-based initiatives were also described as a tool to enhance social accountability in service provision by the medical school.

" Yes we as students we always organise an annual medical camp where we sit down and choose where we are going." **(KI 1, Medical student)**

Community representatives described social accountability as community involvement, empowerment, and advocacy for the community. The community members were viewed as active participants in social accountability efforts.

"We (civil society organisations) have an approach, called community-led monitoring where we (civil society organisations) are working with the expert clients to oversee the implementation of policies, the service delivery at the facility, and they give us feedback which feedback we share with the relevant service providers especially the ministry of health and other stakeholders more especially the national medical stores, especially regarding the issues of stock outs" **(KI 4 Community representative)**

While community-led monitoring is not limited to the medical school, this strategy is relevant to the activities of the medical school.

Theme 2: Opportunities for Social Accountability.

This theme relates to opportunities for social accountability in medical training. Most of the opportunities identified by stakeholders were in education and service. The opportunities were classified as: 1) increasing orientation towards the community; and 2) improving equity and quality of training.

Increasing student orientation toward the community

The community representatives were eager to work with the medical school to train the medical students to understand the community's needs better. The stakeholders' desire to work together is an opportunity to create new partnerships, and strengthen existing partnerships, with civil society partners to promote social accountability in the medical school.

"I think they (the medical school) would benefit a lot from civil society engagements or having the voice of the consumers if they could listen to us so that by the time they are done, I think civil society would really improve the way they understand how

the community operates" **(KI 4 Community representative)**

The opportunity to work with accessible vulnerable populations such as slum-dwellers was described.
" Many times we (educators and health professionals) get challenged that the university is neighbouring a slum with poor health conditions and we have a university, we have a hospital… so I think we should have some community outreach programs and at least reach out to the communities that we share neighbourhoods with." **(KI 10 Health administrator)**

Improving equity of medical training and training the educators.
Study participants described the need to increase the representation of underserved communities in the student community. Vulnerable students are likely to need support to complete their medical training. Financial and academic support would encourage students from underserved areas to study medicine.
"What I would take to be very important is if there is a systematic way of enrolling students from under-served areas. They are more likely to go back and serve in their home areas. The second one is giving special scholarships to the less privileged but who are keen to serve and ensuring that part of the scholarships entails them going back and serving in specific areas. In that way, they create a system of where people are encouraged to go and work in underserved communities, and in a way, they will learn from those communities and be able to practice, serve and meet the needs of the people." **(KI 12, Community representative)**
Study participants recommended training for educators to enable them to effectively impart knowledge and skills to the students.
"The college needs to train the trainers. You have the brains; you know it, but you don't know how to impart it. And we should even have refresher courses." **(KI 10, Health administrator)**

Discussion
This study aimed to explore the stakeholders' perspectives on the implementation of social accountability in undergraduate medical training at a sub-Saharan African medical school. Our study identified diverse expressions of social accountability and opportunities for the medical school to meet community needs better. Stakeholders described social accountability in medical training in unique and diverse ways consistent with a social constructivism approach.[17] The descriptions of social accountability were embedded in the curriculum, community-based education research and service, and student-led community initiatives. The opportunities to create a more socially accountable medical school include improving the student orientation toward the community and enhancing equity in medical training.

From the academic and community perspective, the curriculum and quality of medical training were noted to promote learning experiences that empower students to meet the community's needs. When designed with the community in mind, the curriculum can be a powerful tool for social accountability in medical education.[10] The Competency-Based Medical Education curriculum implemented at Makerere University School of Medicine was developed in consultation with various stakeholders, including community representatives.[18]

Effective partnerships between key stakeholders are critical for building a socially accountable school. Study participants described numerous ways the community and the medical school work together currently, as well as opportunities for new forms of partnership between the two entities. COBERS is an excellent example of an existing medical school and community collaboration. Community service learning through COBERS or student-led community service initiatives improves the motivation and attitude of medical students towards social accountability.[12,21] Among the new approaches suggested was the formal inclusion of community members, particularly civil society partners, in training the students about community aspects of health, and the community's active involvement in monitoring the medical school's efforts to meet their needs. The Northern Ontario School of Medicine program provides evidence of how medical schools can meaningfully incorporate partnerships with the community in all stages of the education cycle, including involving community members in planning as well as implementing educational activities.[22] Similarly, the AIDER (Assess, Inquire, Deliver, Educate, Respond) model and HSP (Hardware, sSoftware, Partner) model emphasise the need to partner for the successful implementation of social accountability in medical education.[2,23] The community must be actively included in efforts to meet their most important needs.[16]

Our results corroborate previous research findings on the expressions of social accountability in the

form of community-based education research and service at the medical school.[14] Community-based learning is beneficial for training health workers who will later serve within the community.[10,24] Initiatives led by or including medical students to improve access to healthcare are evidence of social accountability in medical education, as noted in other settings.[12,13,25] While challenges and limitations exist in student-led initiatives, including limited funding and support, their benefits include improved learning outcomes, acquisition of social accountability skills, and orientation toward social accountability practice.[12,13,21]

Additionally, we identified vital opportunities to realise social accountability in medical education, including considerations for equity in student recruitment, and collaboration with communities and community representatives. Equitable recruitment of medical students benefits medical students and their communities and produces more socially accountable doctors.[24,26] The challenges in ensuring equity in student recruitment in Uganda have been documented, including decreasing representation of the rural population and underserved communities.[15] Similarly, the outcomes seen in the practice intentions and career choices of medical students in Uganda reflect the need to improve equity in the admission processes of the medical school. Medical students in Uganda have predominantly expressed intentions to either take on specialised medical practice instead of general practice, leave the practice of medicine, or leave the country following their graduation.[27,28]

Strengths and limitations

The major strength of this study lies in the wide range of stakeholders interviewed and the scope of expressions explored. The practical and actionable opportunities to improve social accountability provide simple steps that can enhance the implementation of social accountability at sub-Saharan medical schools. The major limitation of this study is that the study was done at only one medical school. Thus, these findings may not be generalisable to other settings. However, these findings provide insight into social accountability in medical education. They are consistent with prior literature, providing reassurance that they may have broader application beyond the study setting.

Conclusion and recommendations

Diverse expressions of social accountability are present in undergraduate medical education. The opportunities to improve social accountability include: involving the community in medical education activities, particularly civil society partners; working with accessible vulnerable populations such as the community living in the slum adjacent to the medical school; and improving equity in medical training. The opportunities to enhance equity in medical training include actions to increase the representation of underserved communities in the medical school through financial support for these students.

Data Availability Statement

The datasets for this study will be provided by the authors.

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