



Why the Faculty of Medicine, University of Gezira (FMUG), Sudan has the potential to lead in social accountability: reflections, opportunities and future directions

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Abstract: Social accountability is an essential component for all medical schools as it deals with education, research and services. In this mini-review, we have discussed why the Faculty of Medicine, University of Gezira (FMUG), Sudan, can lead in social accountability in Africa and the Middle East. This critical analysis is based on searching the literature published in PubMed, Medline, Scopus and Google scholar. We added sections about reflection on opportunities and future direction for FMUG on social accountability. Many unique features in the curriculum that led to excellence in teaching, research and service, will qualify FMUG to lead in social accountability. The location in the heart of Sudan and being community-oriented medical education meant that FMUG, over the last 45 years, gained and mastered the art of social accountability. FMUG continues to be a leader in medical education and has a pioneer master's program in medical education. The majority of the graduates who are not staff members continued to support the medical school many years after their graduation (teaching, research and donation) and promote the concept of social accountability at the national and international level. The curriculum meets all of the competencies of social medicine. Hence, graduates are influential leaders in all medical specialties, and most importantly, in addressing the priority health concerns of the community in rural and urban areas. Therefore, through research and innovations, FMUG can establish social accountability alliance for medical schools and consider adding more unique components to the concept of social accountability (promotion of concept health made at home, especially during COVID-19 pandemic). For instance, retention and recruitment of doctors (training and promotion) and brain drain are main challenges to many health authorities in African and Middle East countries. Another area of innovation, is environmental social accountability of medical schools in order to develop environmentally sustainable solutions to address health concerns especially during the COVID-19 pandemic. This of considerable importance as Gezira state has one of the largest irrigation agriculture schemes in the world. We believe that medical schools' concept of social accountability will continue to evolve, likely depending on the community's needs.

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Introduction

The unique location of Sudan in the heart Africa provides an opportunity for the country to have a significant role in medical education and a possible chance for a major role

in social accountability (1). The only definition of social accountability of medical school is one that provided by the World Health Organization (WHO) in 1995 as 'the obligation to direct their education, research and service

activities towards addressing the priority health concerns of the community, region, or nation they have the mandate to serve. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public. Therefore, medical schools are expected to play a significant role (in collaboration with government and health authorities) in the developing a health system in rural and urban areas (2). Medical schools' social accountability can help Sudan decrease morbidity and mortality associated with communicable and non-communicable disease (3). Importantly, Noor *et al.* showed that the burden of non-communicable diseases exceeded the burden of communicable diseases (4).

Innovations in medical education in 1975 were made when Professor Bashir Hamad introduced the concept of community-oriented medical education in Africa at Gezira University (5-8). The faculty of Medicine, Gezira University (FMUG), has a long and pioneer reputation in community-oriented medical education. Therefore, it is not surprising that most established medical schools within the last twenty years adopted the curriculum and structure of FMUG (5-9). Importantly, FMUG has a community-oriented based curriculum, a family medicine program in the community, integrated program of field training, research, and a rural development course (5-9). The curriculum integrates courses in social sciences and clinical practice. The curriculum receives regular monitoring from stakeholders, and FMUG maintains excellent partnerships with local government in the Gezira state and local hospitals (10). The role of FMUG in improving the health services in rural areas in Gezira state received national and international recognition (11,12). In addition, FMUG contributes to providing health services for entire populations in the rural and urban areas.

Furthermore, the majority of medical schools who adopted the concept of socially accountability (Philippines, Australia, Canada and Suez Canal University in Egypt) have a more significant role in the improvement of health services in rural areas, besides the ability to produce doctors who can work around the world (13). In this mini-review, we have discussed why the Faculty of Medicine, University of Gezira (FMUG), Sudan, has the potential to lead in social accountability, especially in Africa and the Middle East.

Methodology

We searched the main databases like PubMed, Medline, Scopus, and Google Scholar for English published studies

about social accountability of medical schools in Sudan, Africa and the Middle East regardless of the time limit. The keywords used during the search were: Sudan, social accountability, Africa and the Middle East. The search included all manuscripts published about FMUG since its establishment in 1975. We have also included manuscripts published about social accountability in Sudan, Africa and Middle East. As the concept of social accountability is relatively new and due to paucity of publications in this area, we have tried to include all the publications that relevant to the topic.

Social accountability of FMUG

The main aim of establishing the FMUG in 1975 was to apply a community-oriented and community-based curriculum. Importantly, beside the capabilities of the graduates of FMUG to work in rural communities, they have demonstrated capabilities to work in different countries like the USA, UK and Gulf countries (5-9). Ahmed and Alneel wrote a comprehensive review about the curriculum of FMUG (10). In 2016 Elsanousi *et al.* showed that FMUG meets most social accountability criteria and future studies in this matter are needed (14). One of the unique features of the curriculum of FMUG is early exposure to community training. For instance, students will enroll in the integrated program of field training, research, and rural development course from the second year of the five years curriculum. Ahmed [2019] wrote a comprehensive analysis for the social aspect of this course (9). In addition, students also have family medicine training and primary health care training. It is worth mentioning that FMUG has also established postgraduate master's degree training in family medicine and another master degree in medical education, which attracted reasonable number of graduates of FMUG and other universities (15,16). The contribution of FMUG in promoting medical education and social accountability is confined to Sudan and extends to a global level. For instance, FMUG is the founder of THEnet (Training for Health Equity Network organization- an international organization that promotes global collaboration in social accountability across medical schools) (<https://thenetcommunity.org/>) (17). This may also explain the active engagement of medical students and staff in FMUG in social accountability. Importantly, FMUG was regarded as one of the three medical schools (the others USA and Australia) in the world that promote socially accountable health professional education (SAHPE). It was also

endorsed as highly for socially accountable competencies, communication skills, teamwork, professionalism, work-readiness, commitment to practice in rural communities, commitment to practice with underserved ethnic and cultural populations, 'overall performance' and 'overall clinical skills' (18). Therefore, it is possible to conclude that SAHPE medical graduates are able to serve hospital doctors and community leaders with a vision in addressing the community's needs (18). Considering all these factors, we believe that the FMUG can provide innovation and development in the concept of social accountability of medical schools.

Why FMUG has the potential to lead in the social accountability of medical schools?

Since the establishment of FMUG, the medical school has achieved success after success. This likely due to the dedication, determination and desire of the staff, medical students and graduates to support and encourage curriculum innovations and integrations. The following are examples of why FMUG may have the potential to lead in the social accountability:

- (I) Excellence in teaching and medical education: This can be endorsed by the fact that FMUG was awarded Hamdan Award (United Arab Emirate) for the Best Medical College/Institute or Center in the Arab World 2001–2002. In 2017, FMUG was also awarded the Islamic Development Bank Prizes for Science and Technology (Saudi Arabia) (11,12). In addition, FMUG is regarded as one of the pioneer medical schools that promote socially accountable health professional education (SAHPE) (18).
- (II) The unique structure of the curriculum of FMUG perhaps has led to excellence in teaching, service and research. Importantly, the curriculum of FMUG was adopted by many medical schools in and outside Sudan. Notably, social accountability is regarded as a benchmark for excellence in medical education (1,9).
- (III) More than four-decade experience in community-oriented and community-based curriculum and medical education.
- (IV) The curriculum is also unique in meeting all of the competency for social medicine (9,10).
- (V) FMUG has postgraduate Master programs in medical education and other master programs in family Medicine.

- (VI) FMUG has collaboration in research and teaching at national and international levels. The different academic centers in FMUG may promote such academic and research activities, among these centers are Blue Nile National institute for communicable Disease (BNNICD), Education Development center, Primary Care and Health Education center and Non-communicable Disease center.
- (VII) The geographical location of FMUG.
- (VIII) The community support group and the role of community representatives in having opinions about promoting health policies and collaboration with non-governmental organizations (NGOs) is another factor.
- (IX) Another unique feature of FMUG, the majority of the graduates who are not staff members, continued to support the medical school many years after their graduation (teaching, research and donation) and promote the concept of social accountability at the national and international level. This kind of everlasting emotional bond of graduates of FMUG with their medical school is also because the curriculum is unique in meeting most of the competency for social medicine. Hence, graduates are influential leaders in all medical specialties and, most importantly, in addressing the priority health concerns of the community in rural and urban areas.
- (X) The medical school has adopted different initiatives to tackle different health issues like an infant and maternal mortality, diabetes in children, hearing loss, blindness, and cancer detection. In addition, most of the staff also have total clinical commitments in the local hospitals, and some are leaders in delivering clinical service (13).

What are potential areas of innovations that FMUG can adopt in social accountability?

Ahmed *et al.* have described the benefits of social accountability for medical schools and the community (1). They also described the triangle of social accountability for low resource setting countries and explained that social accountability is the benchmark of excellence and accreditation for medical schools and not research output. Therefore, it is possible to suggest that FMUG has all the ingredients and potential to provide innovations in social accountability. The following can be an example of such

innovations.

- (I) Social accountability council or alliance: Ahmed *et al.* provided a detailed description for the benefits of social accountability alliance (co-ordination among medical schools, design and implementation of policies, works in collaboration with stakeholders, promotions of ethics and professionalism, set short- and long-term goals, mobilize resources and sustainability). As social accountability is regarded as the benchmark of excellence for medical schools and part of the accreditation, medical schools in Sudan must adopt the concept of being socially responsible medical school (19-28). The FMUG has the golden opportunity to support other medical schools in Sudan to adopt such an approach due to their long experience in social accountability and community-oriented education. This can be a huge task for FMUG and will need a budget and excellent collaborations with other medical schools, especially in data collections, implementations of new policies and staff education. The possible options for FMUG to deal with this monumental task will be either to open a specialized center dedicated to social accountability or to continue to coordinate working in social accountability from The Educational Development and Research Centre (EDC). Indeed, as Ahmed *et al.* mentioned in their review, social accountability council or alliance can bring many benefits for different communities across Sudan and medical schools. For instance, they mentioned that social accountability would increase the effectiveness of medical schools' productivity, research output, and health service in urban and rural areas of Sudan (1).
- (II) They add more unique components to the concept of social accountability relevant to Africa and Middle East. Research and innovations by FMUG can promote social accountability among medical schools and consider adding more unique components to social accountability. For instance, retention and recruitment of doctors and brain drain are main challenges to many health authorities in African and the Middle East countries. The concept of promotion and training for doctors can also be an essential concept that can be part of social accountability. Therefore, more research is needed to expand the components of social accountability to include retention,

recruitment, training and promotion. Perhaps for medical schools in Western countries, the components of social accountability can be left as it is now (education, service and research).

- (III) The joint venture with the Sudanese medical diaspora to collaborate and contribute to knowledge transfer. More information can be found in an editorial published in this journal, written by Ahmed *et al.* entitled the role of Sudanese diaspora and nongovernmental organizations (NGOs) in the health system in Sudan: towards better future and a model of social accountability (29).
- (IV) Environmental, social accountability of medical school is another area of innovation that FMUG can address to actively develop, promote, and protect environmentally sustainable solutions to address the health concerns. This is of considerable importance as Gezira state has one of the largest irrigation agriculture schemes in the World. For example, having environmentally accountable medical schools across Sudan will allow the contribution of medical schools in water sanitation and eradicate water-borne diseases, which can decrease the burden of communicable diseases.

Social accountability and the concept of 'Health is made at home; hospitals are for repairs'

Lord Nigel Crisp (former head of the English NHS) mentioned in his book that he 'learned the saying 'Health is made at home, hospitals are for repairs' from an African friend, Dr. Francis Omaswa'. The main idea introduced by Lord Nigel Crisp is the fact that health can be made by the people in the community, while hospitals can concentrate on treating diseases and injuries (doing repairs). Health at home is about managers tackling stress at workplaces, health educators teaching people in villages about health and hygiene, teachers dealing with pupils from disadvantaged backgrounds about to be expelled from schools, and doctors introducing innovations in the community to prevent diseases. Lord Crisp described them as 'leaders, pioneers and opening up new ideas for us about health creation and quality of life and showing us what they mean in practice by creating health and preventing disease (without waiting for government or health professionals to tell them what to do) (30).

Health at home is an important concept and share the vital point that the community and the public need to make their health. The definition of social accountability by the

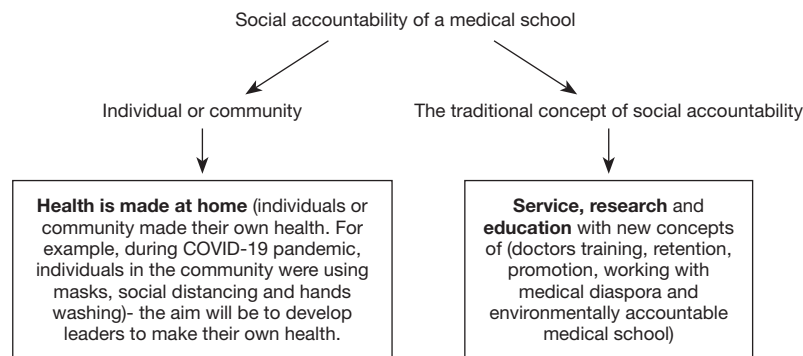


Figure 1 Illustrates possible innovations and future directions for the concept of social accountability of a medical school. We believe that FMUG has an excellent chance to introduce innovations in the concept social accountability due to the reasons mentioned in the text above.

WHO in 1995 pointed for the fact that social accountability should address the priority of the health concerns of the community. This again may emphasize the importance not only of having a dedicated academic center for social accountability, but also the importance of teaching and increasing awareness about social accountability of medical schools for health and non-health professionals (individuals in the community and leaders can take active part in promotion of health education and implementation of health policies). Importantly, such phenomena were seen during the COVID-19 pandemic when religious leaders, police officers, teachers and students and all community members promoted the concept of social distancing and hands wash. Nigel Crisp also suggested that the current health system will not be able to deal with obesity, stress, addictions and poverty. It is important to emphasize that during the COVID-19 pandemic, the adherence of the public and different communities to social distancing, mask-wearing, and hand washing contributed in part to decreasing the prevalence of COVID-19. Therefore, it is possible that the COVID-19 pandemic may have brought the need for changes in different aspects of our life and the need for more flexibility and resilience in the roles and functions of medical schools, especially towards the community. Therefore, medical schools' concept of social accountability will continue to evolve, which will likely depend on the community's needs. The resilience and flexibility of the curriculum in introducing innovations will allow FMUG to lead in the concept of social accountability.

Conclusions

The world after the COVID-19 pandemic is not going to be

the same again. Medical schools' social accountability needs to be structured and directed according to the community's needs. Perhaps it is possible to project that the future of social accountability of medical schools may evolve around two directions especially after COVID-19 pandemic. One direction will be at the individual and community level (health is made at home) and the other direction will be the traditional concept of social accountability (service, education, and research). For the latter, we can add the new concept of retention, recruitment, working with medical diaspora, training and promotion of doctors and environmentally socially accountable medical school (*Figure 1*).

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