

# Why social accountability of medical schools in Sudan can lead to better primary healthcare and excellence in medical education?

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## ABSTRACT

**Introduction:** Medical education in Sudan continues to evolve and progress with proliferation in the number of medical schools after 1990. Social factors and the geographical location of Sudan will increase the opportunity of success of medical schools to be socially accountable. In this analysis, we explained why social accountability is needed in Sudan and how this can enhance both excellence in medical education and primary health care, especially in rural areas. **Methodology:** PubMed, scopus Medline, and Google Scholar were searched for published-English literature concerning social accountability of medical schools in Sudan and worldwide were reviewed regardless of the time limit. We have also included examples of medical schools from Sudan and the Middle East to reflect on their experience in social accountability. **Results:** In this critical review, we have shown that social accountability will come with benefits for medical schools and the community. Implementation of social accountability in medical schools in Sudan will increase the effectiveness of medical schools' productivity, research output, and health service in urban and rural areas. There is an urgent need for social accountability alliance in Sudan to increase collaboration between medical schools. This will increase the benefits of social accountability for all stakeholders and also increases the competency in social medicine within the medical school curriculum. **Conclusion:** Social accountability is regarded as a sign of excellence in medical education. Primary care physicians in Sudan are expected to be the leaders in the implementation of social accountability. This analysis answered two important questions about why medical schools in Sudan should be socially accountable? And do we need a special structure of social accountability in Sudan?

**Keywords:** Medical schools, rural community, social accountability, Sudan

## Introduction

The World Health Organization (WHO) introduced the concept of social accountability of medical schools to the world in 1995 as “the obligation to direct their education, research,

and service activities towards addressing the priority health concerns of the community, the region, and/or the nation they have the mandate to serve.<sup>[1]</sup> The priority health concerns are to be identified jointly by governments, healthcare organizations, health professionals, and the public. The concept urges medical schools to implement its social contract through adherence to values of quality, equity, relevance, and effectiveness and by active participation in health system development.<sup>[2]</sup> Social accountability should be the motive for the complete fledge of medical schools' three main categories of tasks; education, research, and services.<sup>[3]</sup>

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With the new transition in Sudan, it is expected that implantation of social accountability in medical schools in Sudan will increase the effectiveness of medical school output; doctors, research productivity, and health service.<sup>[4]</sup> Considering that, Sudan has a long tradition and legacy in medical education started in 1924 with the opening of Kitchener Memorial College (Now College of Medicine-University of Khartoum). Within the last two decades, there was an expansion in the number of medical schools.<sup>[5,6]</sup> The increased number of medical schools results in increased medical graduates who are required to work to satisfy the Sudanese health needs and expectations.<sup>[7]</sup>

## Methodology

We searched PubMed, Medline, Scopus, and Google Scholar for English published studies regardless of the time limit from 1960 to 2020, we used the keywords: Social accountability, Sudan, medical school. We have also searched the social accountability of medical schools in the Arab world and the Middle East. We included articles that reflect the research activities of some universities in Sudan. We have also searched for an alliance of social accountability and issues related to leadership in medical education.

### The benefit of social accountability for the medical school and community

The benefit of adoption of social accountability strategy is well-recognized for medical schools and the community around it and the community beyond, they are summarized in Table 1.

### Why should medical schools in Sudan be socially accountable?

The Sudanese medical community is expecting revolution and radical reform in medical education after the recent political changes in the country. Social accountability continued to be essential for medical schools in Sudan for the following reasons:

1. It is an indicator of the excellence of medical schools, according to Hunt and Harden (2016) the measure of excellence of medical schools is not based on research conduction and publication only.<sup>[31]</sup> They questioned reports produced by university league tables, i.e., by Times Higher World University ranking and the Shanghai Academic Ranking of World Universities. In their discussion for this point, they brought evidence from the fact that what is taught in the classroom is entirely different from research output and publications. Importantly, Mullan *et al.* (2010) suggested that medical schools ranking according to the social mission are different from medical school rankings based on publication and research grants<sup>[33]</sup>
2. It is thought that Times Higher World University ranking and the Shanghai Academic Ranking of World Universities, may have created the problems of brain drains in Africa.<sup>[32]</sup> This may refer to a misconception among staff in medical

- schools in a low-resource setting that the reputation of medical schools is based on research output and publication that may result in a feeling of incompetence and lack of appreciation as some of the staff in these countries feels they are not catching with international standards in research and publication
3. It is important and empowering for all the medical staff in medical schools in low-resource countries to appreciate the fact that excellence in medical education is not linked with research and publication. It is connected to the social mission of the medical school and teaching and learning achieved by medical students
  4. The Association of Medical Education in Europe (AMEE) started the ASPIRE to Excellence initiative in medical education in 2012 to identify an excellent medical school.<sup>[34]</sup> One of the aspects of the initiative is social accountability. Therefore, it is a great opportunity for Sudanese medical school to embrace the social accountability missions, most of the medical schools in Sudan has a strong commitment to society<sup>[4]</sup>
  5. Social accountability is regarded as a benchmark of excellence in medical education and enhance the opportunity of the medical school to be accredited.<sup>[8]</sup> Sudan Medical Council has introduced social accountability as part of the accreditation standards<sup>[35]</sup>
  6. Sudan is a large country with a unique geographical location that accommodates different tribes and ethnicities.<sup>[36]</sup> This important, in terms of prevalence and management of communicable and noncommunicable diseases. Therefore, the social accountability of medical schools that reflect the social mission may be different from medical schools to another according to the health concern in different parts of the country, e.g., noncommunicable diseases are more in the north of Sudan than east Sudan, where there is a high prevalence of the communicable disease.<sup>[37-40]</sup> Sickle cell disease is also an important issue in the west of Sudan.<sup>[41]</sup> Tropical and infectious diseases are an important challenge for health authorities in the southern part of Sudan.<sup>[40,42]</sup> Sudan has one of the largest rivers in the World "River Nile." In addition to large numbers of agriculture schemes that are based on irrigation and long artificial channels. Therefore, water-borne disease is also an important issue that needs to be addressed
  7. Environmentally accountable medical schools will provide an opportunity for Sudanese medical schools to contribute in a positive way towards the clean environment (water sanitation, health education, increase areas of green zones). This per se can contribute towards decreasing the burden of most of the communicable diseases in Sudan
  8. Despite the increase in medical schools and medical graduates, it remains one of the important challenges for a health authority in Sudan to attract graduates to stay in rural areas. Majority of graduates left to work in Gulf countries, European countries, or in North America<sup>[43]</sup>
  9. Social accountability of medical schools will allow medical schools to specialize in community issues and contribute

**Table 1: Evidence of the benefits of achieving social accountability for both medical schools and the community**

Benefits for medical school	Reference	Benefits for the community	Reference
a yardstick for quality in medical education	[8]	Selection of students from local rural and underserved communities	[9]
The benefit of research for academic staff	[10]	Encourage communities to be part of the medical school support group, and contribute in the effective way of helping the community	[11]
The benefit of research in medical education	[10,12]	Employment of staff from rural areas and underserve group will empower many individuals to take positive initiative towards health service	[13-15]
Opportunity to work with stakeholders	[9,16]	Retention and recruitment of skilled staff will ensure sustainability	[9,17,18]
Education	[3,4,19]	Students from SAHE medical school are likely to stay in rural areas after graduation	[4,14,18]
Provision of health services	[4,17,20]	Doctors from SAHE medical schools are more skilled in meeting the needs of underserved communities in comparison with graduates from traditional medical schools.	[13,14,20]
Opportunity for collaboration with other medical schools	[9]	Decrease infant mortality rate	[21,22]
Changing culture, changing minds: leading change	[13,22]	Decrease maternal mortality rate	[23,24]
Support for postgraduate education	[25]	Increase number of family physician	[21,25,26]
Opportunity for innovation -video conference teaching telemedicine, Northern Ontario School of Medicine, Canada	[27]	Provision of service for communities in far distance using new technologies.	[28]
Opportunity to prioritize research according to the need of the community (not necessarily communicable and noncommunicable disease), this can be genetic condition (ie arrhythmogenic ventricular cardiomyopathy-ARVC) Memorial University of New Foundland, Canada	[22]	Flexibility in the selection of research according to the need of the community whether its genetic disorders, communicable or noncommunicable disease or environmental issues	[16]
Social accountability linked with success in the accreditation of the medical school	[10,29]	Environmentally accountable medical school	[30]

to the prosperity of the surrounding areas. For instance, the University of Kassala in East of Sudan can develop an initiative to decrease the number of individuals with tuberculosis, which is very common in Kassala state,<sup>[44,45]</sup> in terms of research, education, and service. Besides, researchers from Nile valley University have extensively established research in collaboration with Milton Keynes, the UK about the noncommunicable disease.<sup>[46]</sup>

The specialization of medical schools in special community issues will come with different benefits for the health system in Sudan. Examples of such benefits can be seen in the following: (i) opportunity for staff to specialize in areas that are relevant to the community (ii) decrease financial cost and provide timely consultation in a case similar problems occurred in other parts of Sudan (iii) opportunity for collaboration between staff in different universities (iv) enhance postgraduate training (v) opportunity for innovation not only in medical management but also medical education

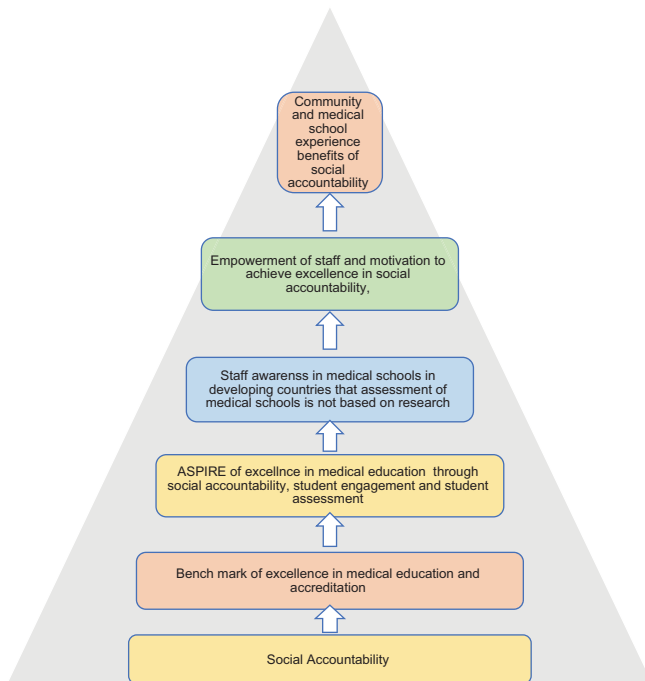
- Social accountability and community interaction will increase community participation. Sudanese are very generous and tend to contribute to charitable work. This will help to formulate a community support group, collaboration with nongovernmental organizations (NGOs), and importantly allow community representatives to contribute to the planning of community policies and planning.

The triangle of social accountability for low-resource setting countries [Figure 1] gives a summary of why social accountability will be important for developing countries.

### Social accountability and experience of medical schools in Sudan, Egypt, and Saudi Arabia

We have included The Faculty of Medicine, University of Gezira (FMUG) in Sudan, Faculty of Medicine, Suez Canal University (FOM/SCU), in Egypt and College of Medicine, Qassim University in Kingdom of Saudi Arabia as these medical schools published manuscripts about their experience in social accountability.

FMUG established in 1975, the curriculum is the community-oriented and community-based curriculum. The graduates of FMUG are expected to serve the world and have the skills to serve the rural communities.<sup>[4,12,35]</sup> Elsanousi *et al.* have assessed the social accountability of FMUG IN 2016. They conclude that FMUG has achieved the majority of the essence of social accountability and it is socially responsive and responsible and can be labeled as socially accountable in certain aspects.<sup>[4]</sup> Further research is also needed to assess whether FMUG is now fully socially accountable.



**Figure 1:** The triangle of social accountability for low resource setting countries. Social accountability as a benchmark for excellence and not research allows teaching staff to focus and work with motivations in main components of social accountability (research, service, and teaching)

Hosny *et al.* assessed the social accountability of FOM/SCU. The assessment was achieved using the Conceptualization, Production, and Usability model.<sup>[19]</sup> Their result showed that FOM/SCU has very good compliance with the production domain. However, more work is needed with conceptualization and production domains. They concluded that FOM/SCU can be recognized as a school that is taking the initiative towards social accountability.<sup>[19]</sup> The College of Medicine at Qassim University (COMQU) was a relatively new medical school established in Saudi Arabia in 2001. Using the social accountability grid issued by the WHO as a basis for assessing social accountability, COMQU showed agreement with the social accountability principles in the three domains of the grid. The indicators related to the education domain demonstrate more compliance than those of research and community health service. The authors concluded that COMQU is also a socially responsive medical school.<sup>[4]</sup>

The above studies showed that FMUG is socially responsible, while both COMQU and FOM/SCU were socially responsive medical schools. This may emphasize the following facts;

1. The concept of social accountability is not widely practiced not only in Sudan but also in the Middle East countries
2. More work is needed by medical schools in Sudan to be socially accountable
3. Stakeholders, medical schools in Sudan, and the Sudanese community have not yet seen or experienced the full benefits of social accountability of medical schools. Therefore, more awareness of the benefits of social accountability is needed.



**Figure 2:** Gives a brief summary of the proposed functions and duties of the social accountability alliance

4. Medical educationists, primary care physicians, leaders in medical education, and public health should embrace more proactive steps in medical schools to achieve all the dominions of social accountability

### Do we need a special structure of social accountability in Sudan?

From the above discussion, it is clear that the implementation of social accountability among medical schools in Sudan will not be an easy task. There is a need for coordination and equal distribution of tasks and activities among medical schools scattered in different states in Sudan. Sudan Alliance for social accountability of medical schools was developed in 2016.<sup>[47]</sup> Figure 2 gives a summary of proposed functions and duties of the social accountability alliance or council including the role of primary care physicians in implementations of the goals of the alliance/council of social accountability. Primary care physicians are also expected to be heavily involved in medical education research and leadership positions. Taking leadership and research role will allow primary care physicians to act as role models for new graduates to join the specialty and serve individuals in rural areas.

### Conclusion

Social accountability is regarded as a benchmark of excellence in medical education and it is part of the accreditation of the medical schools. The concept of social accountability of medical schools is widely accepted in Canada, the USA, and Korea.<sup>[48-50]</sup> The main components are education, research, and service. In this critical analysis, we have critically analyzed the literature about social accountability with a special focus on how this can fit within the current situation in Sudan. This critical analysis discussed the important issues about the definition of

social accountability, benefits of social accountability for the community, and medical school. Perhaps medical schools can build and produce more innovations based on the experience of faculty of medicine University of Gezira (FMUG) as a pioneering example for social accountability in Sudan or other medical schools in the region.<sup>[3,4,12,19,51]</sup> This analysis answered two important questions about why medical schools in Sudan should be socially accountable? and do we need the special structure of social accountability in Sudan?

### Summary of the key points

- Social accountability is regarded as a sign of excellence in medical education
- Conduction of research is not the main sign of the excellence of the medical school
- Social accountability will come with benefits for medical schools and the community.
- Implementation of social accountability in medical schools in Sudan will increase the effectiveness of medical schools' productivity, research output, and health service in urban and rural areas.
- There is an urgent need for social accountability alliance in Sudan to increase collaboration between medical schools.
- Primary care physicians in Sudan are expected to lead in the implementation of social accountability (leadership and research role)

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### Conflicts of interest

There are no conflicts of interest.

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