



Assessment of Implementation of Concept of Social Accountability in Medical Schools Programs in Khartoum State

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Abstract

Background: Social accountability of medical schools is a concept that encourages schools to produce not just highly competent professionals, but professionals who are equipped to respond to the changing challenges of healthcare through re-orientation of their education, research and service commitments, and be capable of demonstrating positive effect upon the communities they serve. The aim of this study is to assess the implementation of the concept of social accountability in medical schools.

Methods: It is a cross-sectional, descriptive and analytical study, that was conducted in eighteen medical schools) in Khartoum State out of thirty-four medical schools.

The data was collected by the world health organization (WHO) grid in the assessment of social accountability and a questionnaire. Data were analyzed using parameters of the contribution of medical schools table done by the authors, then the data spread in excel sheet to be analyzed by SPSS program.

Results: The schools are classified into five governmental schools (27%), eleven private schools 61.1%, and two special schools (11.1%) which are schools that belong to governmental ministries but their education and medical services are restricted to their employees and their families and other individuals are served in private sections. Social accountability is divided into three domains: education, research, and health services domain.

Conclusion: There are great differences in social accountability between all medical schools especially in the research domain and health services provision domain.

Keywords: Social Accountability; Healthcare; Education; Governmental Schools

Background

Social accountability of Medical School is a concept that inspires educational institutes to direct education, service activities regard prioritizing the health concerns of the community. Social accountability calls on the academic institution to demonstrate an impact on the communities served and thus make a contribution for a just and efficient health service, through mutually beneficial partnerships with other healthcare stakeholders [1].

The following essential factors are necessary to ensure the health of the community: a health system with stakeholders, a health workforce, the society and the surrounding environment [2]. The socially accountable medical school goes one step beyond as it is not only taking specific actions through its education, research and service activities to meet the priority health needs of society [3], but also working collaboratively with governments, health service organizations, and the public to positively impact people's health and being able to demonstrate this by providing evidence that its work is relevant, of high quality, equitable, cost-effective [4].

An international collaborative research project on the social accountability of medical schools based on the Delphi method emphasizes the importance of improving the capacity of medical schools to respond to the needs and challenges of health care for citizens and society in general [5]. The aim of this study is to assess the implementation of social accountability concept in medical schools.

Materials and Methods

- **Study design:** It is a cross-sectional, descriptive, analytical study.
- **Study population:** Medical schools in Khartoum State.
- **Sample size:** All medical schools in Khartoum State at the time of the study (2018 - 2019) were thirty-four medical schools; eighteen medical schools fulfilled the inclusion criteria, so they were included in the study.

The sample size is a total coverage sample (all medical schools that fit the inclusion criteria in Khartoum state were included in the study).

Inclusion criteria

Medical schools which have graduated students (that mean completed one cycle of its program at least).

Exclusion criteria

Medical schools which did not graduate students (new medical schools).

Sample size

Eighteen medical schools were included. Five of these schools are governmental schools, eleven are private schools, and two schools are of special situation that they belong to the government ministries and their services for the employee of these ministries and their families, the other individuals in the community are served in the private section.

Data collection: Data was collected using

WHO grid for assessment of social accountability (Boelen and Wool Lard's framework evaluate their program), which include the relevance, quality, cost-effectiveness and equity for the three targeted domains (education, research, and health services).

Questionnaire to complement the WHO grid. The variables in the questionnaire include:

Education domain:

- Vision and mission.
- Curriculum design.
- Presence of professionalism in the curriculum.
- Consideration of the local health and disease pattern according to the epidemiological studies, in the curriculum.
- Presence of rural residency program in the curriculum.
- Presentation of the community member on the faculty board.

Research domain:

- Conduction of the research according to community health needs.
- Distribution of research to all parts of the community.
- Participation in researches in community-solving problems.

Health services domain:

- Relationship with other stakeholders (Ministry of Health)
- Presence of teaching hospital for the medical school.
- Contribution of medical schools in other hospitals. (Number of clinical units, number of duty/week).
- Regular extra-curricular health service programs.

Data was collected by the research author, from the medical school’s faculty staff (dean, head departments, and employees) and the students either by personal meeting or in form of focus group discussion.

Data management

Data evaluated by the author using parameters for evaluation of medical schools contributions table, then was spread in excel sheet and analyzed using the SPSS program.

Results

- **Governmental schools:** They are five schools (28%), that depend on the qualification only (grade of very good or more in the result of the higher secondary schools) to enter to their program and relatively low cost.
- **Private schools:** They are eleven schools (68%), depend on the qualification (grade good in higher secondary schools) which less than the governmental medical schools but with higher tuition fees.
- **Special schools:** They are two medical schools (11%), which have special type that are belong to governmental ministries and they serve the employees of those ministries and their families but other community individuals are serve on private bases.

All the governmental schools have lifelong learner as competency in their mission, outcome based curricula, community oriented curricula, concentrate on local health and disease pattern, and have professionalism in their curricula. 80% of these schools have community participation in their faculty boards. All the private schools have lifelong learner as competency in their mission, 90.9% of these schools have outcome based curricula, community based curricula, concentrate on local health and disease pattern, and have professionalism in their curricula. 54.5% of these schools have community participation in their faculty board. Both special schools have lifelong learner as competency in their mission, and

these schools have outcome based curricula. 50% have community based curricula, concentrate on local health and disease pattern, and have professionalism in their curricula. All these schools have community participation in their faculty board (Figure 1).

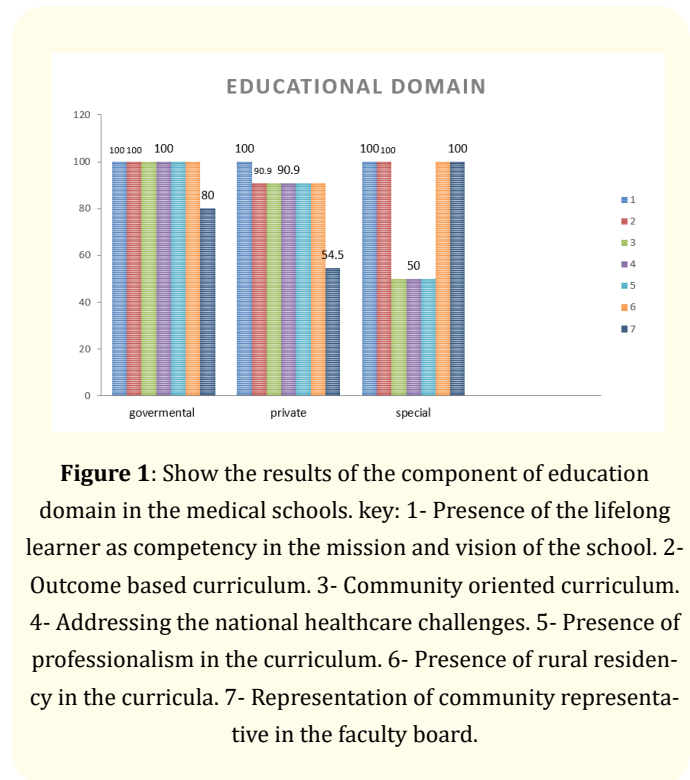


Figure 1: Show the results of the component of education domain in the medical schools. key: 1- Presence of the lifelong learner as competency in the mission and vision of the school. 2- Outcome based curriculum. 3- Community oriented curriculum. 4- Addressing the national healthcare challenges. 5- Presence of professionalism in the curriculum. 6- Presence of rural residency in the curricula. 7- Representation of community representative in the faculty board.

All governmental schools conduct researches according to the community needs and their researches are equally distributed to all part of the community. 80% of these schools their researches participate in solving community problems.

All private schools conduct researches according to the community needs. 45.5% of these schools, their researches are equally distributed to all parts of the community. 90.9% of these schools their researches participate in solving community problems.

Both special schools conduct researches according to the community needs. 50% of these schools, their researches are equally distributed to all part of the community. Both schools their researches participate in solving community problems (Figure 2).

All governmental schools have collaborative relationship with Ministry of Health. 60% of these schools have their own teaching

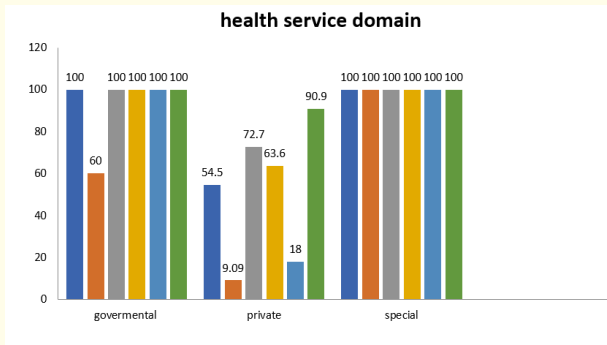


Figure 2: Show the results of health services domain in medical schools. Key: 1- Collaborative relationship with Ministry of Health. 2- Presence of teaching hospital for medical schools. 3- Clinical training of students in Ministry of Health' hospitals. 4- Provision of medical services by medical schools. 5- 25% or more is the impact of medical school services in relation to whole hospital. 6- Extra-curricular programs in medical schools.

hospitals. All these schools train their students in hospitals and primary health centers of Ministry of Health, provide medical services in these hospitals and have 25% and more impact of the services in these hospitals, that means the medical schools cover 25% from the working units and load of services provision in that hospitals. All these schools have extra-curricular programs, e.g: these schools do rural trips to provide free medical services for community, and their staff and students participate in the camping done for some epidemics like cholera.

54.5% of the private schools have collaborative relationship with Ministry of Health. 9.09% of these schools have their own teaching hospitals. 72.7% of these schools train their students in hospitals and primary health care centers of Ministry of Health, 63.6% of these schools provide medical services in these hospitals, and 8% of these schools have 25% and more impact of the services in these hospitals. All these schools have extra-curricular program.

Both special schools have collaborative relationship with Ministry of Health, have their own teaching hospitals (but their services are restricted to their employees and their families, the other community individuals served in the private centers), train their stu-

dents in hospitals and primary health centers of Ministry of Health, provide medical services in these hospitals, have 25% and more impact of the services in these hospitals, and have extra-curricular program.

Results of the assessment of social accountability domains in governmental medical schools using the WHO grid

The results of WHO grid for the assessment of social accountability in governmental medical schools are: these schools fulfill the all domains of the social accountability regarding the education, research, and health services domains which are community relevance, quality, cost effectiveness, and the equity (Figure 3).

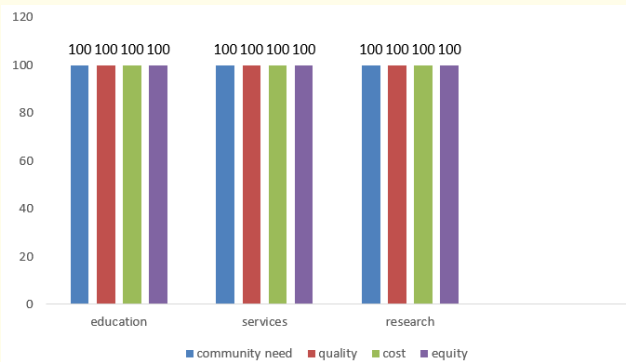


Figure 3: Show results of the assessment of social accountability in the governmental medical schools using the WHO grid.

Results of the assessment of social accountability domains in private medical schools using the WHO grid

Education domain: all private schools fulfill the community relevance and quality domains, but their cost is high and not available for all community individuals.

Health services domain: all these schools show community relevance on their services, 63% of these schools fulfil the quality domain in their services, 80% of these schools services are cost effective and 63% of these schools services are equally distributed for whole community.

Research domain: all these schools have community relevant researches to solve the health problems, 90.09% of these schools

have high quality researches (multidisciplinary- multi sector), and 72.7% of them have researches which are equally distributed to the target community (Figure 4).

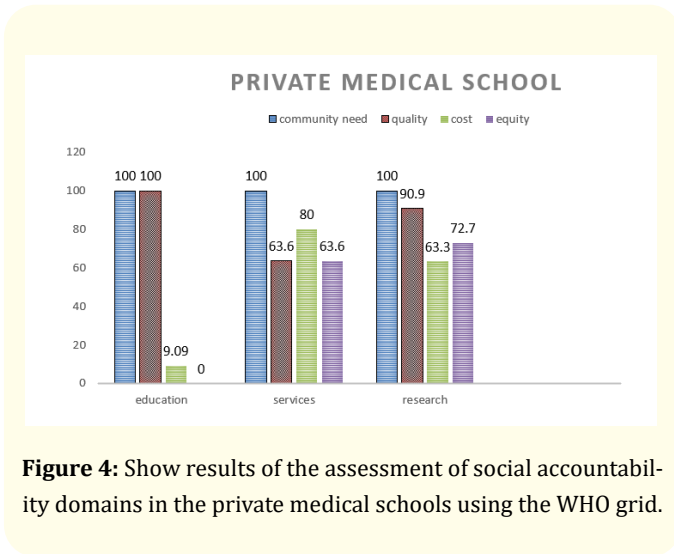


Figure 4: Show results of the assessment of social accountability domains in the private medical schools using the WHO grid.

Results of the assessment of social accountability domains in special medical schools using the WHO grid

Education and health service domains: both special schools show community orientation and good quality in their education and health services but they have high cost to community individual so that their education and health services are not equally distributed to the community.

These special schools full fill all domains of research (community oriented, quality, cost effective, and equity) (Table 1) (Figure 5).

Schools	Number	Mean	Standard Deviation	T . Value	Sig. (2-Tailed)
Governmental	5	7.800	0.44721	39.000	0.00
Private	11	6.090	0.30151	37.000	
Special	2	6.000	0.00000	0.0000	

Table 1: Show the Comparison between the Education domain the in different types of Schools.

The comparison between the education domain in different types of schools

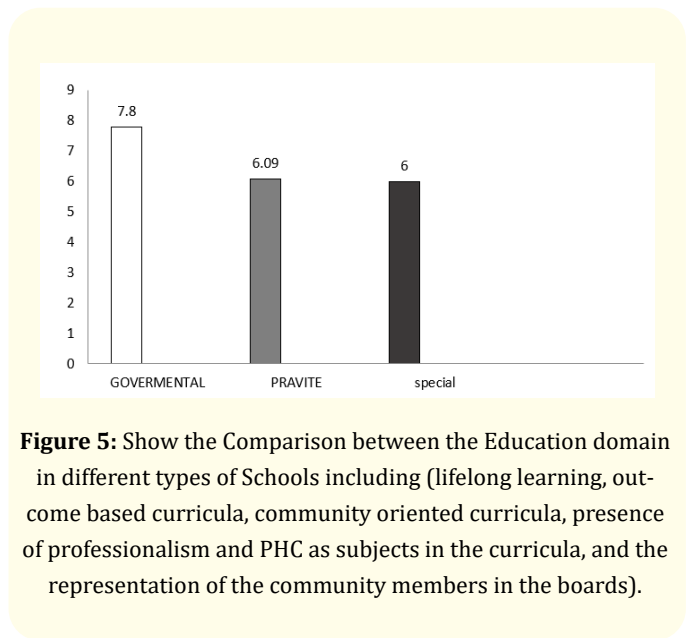


Figure 5: Show the Comparison between the Education domain in different types of Schools including (lifelong learning, outcome based curricula, community oriented curricula, presence of professionalism and PHC as subjects in the curricula, and the representation of the community members in the boards).

The mean of the Education domain using the WHO tool of assessment in Governmental School equal (7.800), in private Schools equal (6.090) and in special Schools equal (6.000). The mean of the Education domain using the WHO tool in Governmental Schools is greater than the mean of that in private Schools and the mean of that in special Schools, so there are significant differences according to the significant T-value (Table 2).

School	Number	Mean	Standard Deviation	T . Value	Sig. (2-Tailed)
Governmental	5	7.5000	0.70711	15.000	0.00
Private	11	4.0000	0.00000	0.000	
Special	2	6.5455	2.01810	10.757	

Table 2: The Comparison between the Health service domain in the different types of School that the mean of the Health services domain using the WHO tool of assessment in Governmental Schools equal (7.5000), in private Schools equal (4.0000), and in special Schools equal (6.5455).

The comparison between the health service contribution in the different types of schools

The mean of the Health services domain using the WHO tool in Governmental is greater than the mean in special Schools and

the mean in private Schools. So there are significant differences between the schools in the health services domain according to the significant T-value (Table 3).

School	Number	Mean	Standard Deviation	T . Value	Sig. (2-Tailed)
Governmental	5	8.0000	0.00000	0.000	0.00
Private	11	4.0000	0.00000	0.000	
Special	2	7.1818	1.25045	19.045	

Table 3: The Comparison between the Research domain using the WHO tool in different types of Schools.

The mean of the research domain using the WHO tool of assessment in governmental Schools equal (8.0000), in private Schools equal (4.0000), and in special Schools equal (7.1818). The mean of the research domain using the WHO tool in Governmental Schools is greater than the mean in special Schools and the mean in private Schools. So there are significant differences between the schools in the research domain according to the significant T-value (Figure 6).

The comparison between the research contribution in different types of schools

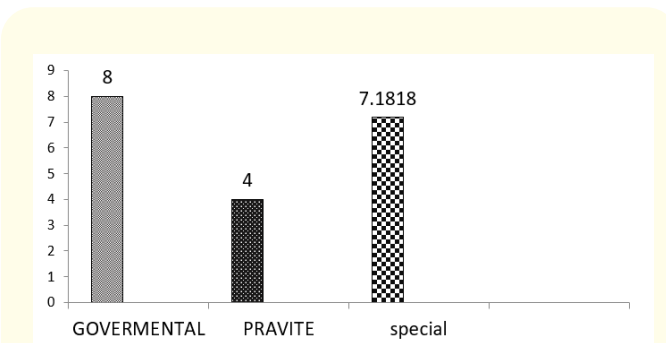


Figure 6: Show the Comparison between the Research domain in different types of Schools include (the relevancy to health needs, participation in solving health problems, and equity).

Parameters for evaluation of medical schools contributions

Education domain	S1	S2	S3	S4	S5
Vision and mission					
Curriculum:					
Health					
Community medicine: PHC/health system					
Research methods					
Students projects					
Endemic/infections/MCH/non communicable diseases					
Clinical training: Health system					
Secondary hospital					
PHC					
Health facilities (relationship)					
Research					
Students researches					
Graduate researches					
Research institution					
Multi-disciplinary/multi-sectors					
Quality: international publications					
National journals					
Services					
Collaboration t MOH facilities					
Clinical units (hospital)					
0-15%					
-25%					
40%					
50%					
PHC facility					
Partnership.					
H.C administration					
Accidental and emergency coverage/week					
20%					

40%					
60%					
80%					
University hospital (100%)					
No					
Yes/one					
More than one					

Table a

Discussion

In this cross-sectional descriptive-analytical study that assesses the implementation of social accountability in eighteen (five governmental, eleven private, and two special) medical schools in Khartoum state that complete one cycle at least of its program, there are significant differences between the old governmental medical schools and the new private medical schools. We discuss each domain of social accountability separately. In this domain, all the medical schools start to change their curricula to an outcome or competency-based and community-based curricula (but they differ in their implementation of the community-based curricula), so they implement some of the courses in the community environment like the rural residency, primary health care (PHC) and others. These changes came after the widespread and updated knowledge in medical and health care professional education. Most of these medical schools try to redesign or modify their curricula to catch up with these updates (with the help of the experts in medical and health care education) to satisfy the expectations of the community [7-9] and to compete with other schools locally and globally. So, this study shows that most medical schools are concerned about lifelong learning as one of the most important competencies of their graduates.

Professionalism is an integral part of social accountability as proved by many studies [10], all medical schools started to implement professionalism (using different educational strategies) in their curricula as one of the requirements of accreditation by the Sudan Medical Council (SMC).

Aware that involvement of the community in the planning and the implementation of the education program is important in the accountability of the schools [11], most of the medical schools in this study have community participation in their faculty board.

In the old governmental schools, there is a great impact of their graduates on the medical education as they spread to other medical schools to act as teachers and faculty staff to spread their knowledge and experience to others, this ensures their good usability which is the main domain in the assessment of social accountability. Also, the faculty staff of most of these schools work on teaching hospitals that participate in the training of the house officers, medical officers and registrars in their different clinical units.

From the results of this study, we can classify the medical schools according to the reactivity with the community needs [12] into: Reactive: most of the governmental medical schools, some of the private schools and both other schools are aware and react to the community needs. Neutral: these are the new private schools that are implementing their programs with little or no responsibility towards the community. Clinical training is different in these medical schools. As there is increase demand for training sites the medical school tries to compensate for this in different ways, In the domain there is a wide range of differences between the schools. We can classify the schools according to their researches contribution.

Regarding the health services domain, the provision of medical services by medical schools is one of the most important accountabilities of these schools toward the community. To ensure the maximum benefits of the medical provision of the schools, there should be a collaboration between the medical schools and other health system stakeholders [13], like the Ministry of Health and Sudan Medical Council (SMC).

If we compare medical schools in Khartoum state with the other medical schools in Sudan we identify that the University of Gazeira Faculty of Medicine is the most advanced in implementing the concept of social accountability especially its impact on health services at health centres and causality units [14]. While the medical schools in the states have a greater contribution in health services because the doctors and health personnel contribution of these medical schools are more than that of the Ministry of Health [15].

If we compare medical schools status in Sudan from this study with the global consensus recommendations we will find that most of the medical schools don't anticipate the health needs that they don't conduct research that rising the community health problems (area 1), the old schools have collaborative partnering with the

ministry of health (area 2). Most of the medical schools are adapting to the evolving roles of doctors and other health professionals (area 3). All medical schools in this study fostering the outcome-based curriculum (area 4), most of these (old) schools are responsible medical schools (area 5), the medical schools need to adopt standards for education, research and service delivery (area 6), also they need to support continuous quality improvement in education, research and service delivery (area 7), also they should establish mandated mechanisms for accreditation. (area 8). (one of these schools (governmental school) is accredited by the SMC and most of the others start their accreditation process). These areas 6, 7, and 8 should be done in a collaboration with the health system and higher education stakeholders, to unify the standards for more quality and perfection. They should balance the global principles with context specificity (area 9). They should define the role of society (area 10) [16].

Most of the regional countries like Ethiopia start to give great attention to the social accountability of medical schools by introducing new innovative curricula based on the concept of social accountability to ensure the quality of education and to promote health services [17]. In Saudi Arabia, there was a study that assesses the accreditation process does promote the concept of social accountability [17]. This reflects the growing awareness about social accountability.

Conclusion

There are great differences in social accountability between all medical schools, especially in the research domain and health services provision domain. In the education domain, there are differences in the designs and implementation of their curricula but most of these curricula are community-based, and outcome-based curricula. The private schools and other schools their education is not available to all community individuals. In the research domain, there are groups of medical schools that fit the expectations. The provision of health services by medical schools are widely different from the group of three governmental schools and one private school that have their own teaching hospital and the medical services cover a wide area in Khartoum, to schools that collaborate with Ministry of Health and provide about (25-50%) of medical services in the ministry's hospitals, but some schools have no collaboration with the ministry of health and they do not provide medical services to the community, the other schools they have their own teaching hospital that cover a certain category of people.

Ethical Consideration

ethical approval was obtained from the research ethics committee at the University of Khartoum Faculty of medicine, then informed consent and agreement were taken from the medical school's managers to collect the data, verbal consent also was obtain from faculty staff and students or any person in the small group discussion to collect the information.

Conflict of Interest

All authors declare there is no conflict of interest.

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