



## Title of Paper

### Collaboration among Medical Librarians in Africa: Evidence from a Pilot Survey

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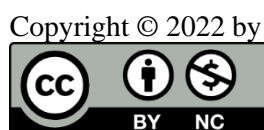
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**Abstract:** *Collaboration among professional colleagues is a critical component of professional development. Although there have been studies assessing collaboration among medical librarians in different countries, few have investigated collaboration among African medical librarians. The objectives of this study were to determine whether medical librarians collaborate, identify areas of collaboration and the reported benefits of collaboration. The study was a cross sectional survey among medical librarians in 10 African countries. A questionnaire was designed using Google form and the link was sent to medical librarians in Africa through the Association for Health information and Libraries in Africa (AHILA), Medical Library Association of Nigeria (MLA-NG), and Network of African Medical Librarians (NAML) online forums. Analysis of data was descriptive. A total of 50 respondents completed the survey, more than half (58.0%) were from Nigeria followed by Zambia (20.0%). There were slightly more females (52.0%) than males (48%); majority (70.0%) have Master's degree in librarianship. A large majority (90.0%) reported that they had collaborated on research and projects with professional colleagues. The main collaborative activities were scholarly writing, books and manuscript development, building of institutional repositories, training and consortia on subscription of electronic resources. The reported key benefits of collaboration were promotion of professional growth and development (80.0%), and keeping abreast with current best practices in the profession (76.0%). The three areas where respondents have high levels of collaboration are advocacy for access to equitable health information (64%), seeking funding for*

*innovative projects/workshops (62.0%), digitization of local contents and building of institutional repositories (60.0%) and capacity building and conference organization (54.0%). Medical librarians in Africa are actively engaged in collaboration with professional colleagues and should be encouraged to sustain it.*

**Keywords:** Collaboration, Medical librarians, Africa, Health information, Information dissemination

## **Background**

Africa's burden of infectious and chronic diseases which is the largest in the world has been a great concern to health and information experts (Anasi, 2012; World Health Organization Regional Office for Africa, 2019). The overwhelming health challenges range from continual high rates of infectious diseases to rapidly growing chronic non-communicable diseases such as human immune deficiency virus (HIV) infections, tuberculosis, cancers, diabetes, hypertension, anemia, malaria, measles, viral hemorrhagic diseases and so on (Anasi, 2012, Ihekweazu and Agogo 2020). According to Nkengasong and Tessema (2020) the bulk of the estimated 10 million deaths per year resulting from infectious diseases takes place in Africa.

At present, Africa has its fair share of the global pandemic of coronavirus (Covid-19) ravaging the world. From Egypt in February 14, 2020 to Lesotho in May 13, 2020 the virus keeps spreading and the number of new daily confirmed cases keeps rising rapidly with a particularly severe situation in South Africa, Egypt, Algeria, Morocco and Cameroon (Oxford Analytica, 2020; Ozili, 2020). According to World Health Organization (2020) as at the end of April 2020, Africa has recorded a cumulative total of 20,652 cases and 861 associated deaths (case fatality ratio 4.2%) have been reported across 45 countries, the highest mortality have been recorded in Algeria 12.6% (425/3382), Liberia 9.7% (12/124), Democratic Republic of the Congo 6.1% (28/459), Mali 5.9% (23/389), Burkina Faso 6.6% (42/632), and Niger 4.2% (29/696)

In times like these, Africans need unfettered access to health information. Medical librarians as health information professionals need to form a common front in order to tackle the daunting health challenges in the continent. For instance, at the outbreak of coronavirus, the health care professionals in Africa formed an alliance to develop Africa Joint Continental Strategy for COVID-19 coordinated by Africa Centres for Disease Control to address the rising health issues (MassingaLoembe', Tshangela, Salyer, Varma, Ouma and Nkengasong (2020). Weekly virtual coordination meetings to ensure timely dissemination of information about coronavirus were held by health experts (MassingaLoembe', Tshangela, Salyer, Varma, Ouma and Nkengasong (2020). Health information professionals also need to collaborate to provide equitable access to health information. Undoubtedly, the black holes of health information deficit in urban and rural Africa demands partnership and collaboration among African medical librarians. Gathoni (2012) acknowledged the strategic role of professional networks in improving access to and use of health information in Africa. The Network of African Medical Librarians (NAML) and Association for Health Information and Libraries in Africa are partnering with several international organization such as Office of Global AIDS of the United States Department of State, the Elsevier Foundation, National Library of Medicine, Partnerships in Health Information (PHI) among others to enhance access to health information in Africa (Ajuwon, Chigbundu, Omogbai, and Agwu, 2020; Godbolt, Stanley, Sturges, 2019; Shaw, 2012)

Indeed, collaboration is the key to effective response to Africa's endemic disease burdens and health information conundrum. The word collaboration according to Pham and Tanner (2014, p.22) "is a complex concept that is often used interchangeably with coordination, cooperation, partnership and coalition, although they denote different layers of meaning and purpose as well as degree of relationship". Axelsson, Sonnenwald, and Spante (2006) described collaboration as human behaviour among two or more individuals that facilitates the sharing of meaning and completion of tasks with respect to a mutually-shared super ordinate goal.

Comprehensively, Pham and Tanner (2014, p.23) defined collaboration as:

"an interactive process among internal and external stakeholders who work together to communicate their knowledge, skills, resources and authority in planning, designing, decision making and problem solving process for the achievement of a mutual goal".

Collaboration can facilitate access to expertise, exploitation of available resources and technologies, creation of new knowledge or exploitation of existing knowledge, curriculum development, capacity-building and training (Melin, 2000; Pham and Tanner, 2014). Hara, Solomon, Seung-Lye and Sonnenwald (2003) stressed that collaboration addresses critical research problems, constant changes of technology and vibrant development of knowledge and expertise. Supporting this view, Gathoni, Chimwaza, Godbolt and Msengezi (2013) opined that collaboration enables easy and speedy communication, joint solving of problems, provision of a unique source of knowledge and expertise, resource exchange, coalition building, promoting of public access to health information.

There is a robust body of literature showing health science librarians collaboration in different research and project activities. Ellero (2009) examined collaboration among health science librarians for the implementation of electronic medical record. The study reported that 53% of survey responders favoured or participated in electronic medical record development. Ajuwon, Kamau, Kinyengyere and Muziringa (2017) reported a collaboration between academic health sciences librarians, public and community librarians and some non-governmental organization in four African countries (Kenya, Nigeria, Uganda, and Zimbabwe) to carry out a successful consumer health information project. Through this collaboration a total of 65 librarians from 34 public and community libraries were trained on how to access and use consumer health information resources by health sciences librarians in the selected countries. This project was funded by the Elsevier Foundation.

A survey of challenges health science librarians face when collaborating on systematic reviews was conducted by Nicholson, McCrillis and Williams (2017). The study found that the most frequent and challenging issues relate to development of the research question and general communication with team members. Ibegwam, Unobe and Uzohue (2019) explored collaboration between health science librarians and medical research institutes in support of access to health information in Nigeria. The study revealed that the major barriers to collaboration were funding and financial issues, poor power supply, lack of vision, fear of loss of control, lack of telecommunication facilities among others.

Globally medical librarians are embracing collaboration and partnership for improved access to health information (Godbolt, Stanley, Sturges, 2019; Gathoni, Chimwaza, Godbolt and Msengezi, 2013). This is evident in the upsurge of collaborative projects and research works, exchange programs, budget management, curriculum planning and development, capacity building and conferences, among others (Godbolt, Stanley, Sturges, 2019; Ajuwon, Kamau, Kinyengyere and Muziringa, 2017; Ukachi, 2016).

However, a literature search revealed a dearth of studies on African medical librarians' collaboration for enhanced access to health information in Africa. It is against this backdrop that this study investigated collaboration among medical librarians for improved access to health information in Africa. The study will document medical librarians' extent of participation in collaborative activities, their attitude towards collaboration, their perception of the benefits of collaboration and challenges faced when collaborating for access to health information.

## Research Questions

The following research questions will guide the study:

1. Do medical librarians in Africa participate in collaborative projects/researches and in what areas?
2. To what extent have medical librarians in Africa participated in collaborative projects/researches that promote access to health information?
3. What Information and Communication technology (ICT) tools/platforms do medical librarians in Africa use for collaboration activities?
4. What are the medical librarians' perceptions of the benefits of collaboration for access to health information?
5. What is the attitude of medical librarians towards collaboration for access to health information?
6. What challenges do medical librarians in Africa face when collaborating for access to health information?

## Methods

The study was a cross sectional survey among medical librarians in 10 African countries. A questionnaire was designed using Google form and the link was sent to medical librarians in Africa through the Association for Health information and Libraries in Africa (AHILA), Medical Library Association of Nigeria (MLA-NG), and Network of African Medical Librarians (NAML) online forums. Analysis of data was descriptive.

## Empirical Results

### Demographic information of respondents

A total of 50 respondents completed the survey, more than half (58.0%) were from Nigeria followed by Zambia (20.0%). There were slightly more females (52.0%) than males (48%); majority (70.0%) have Master's degree in librarianship. The demographic information of respondents is presented in Table 1.

Table I: Demographic Distribution of the Respondents

Demographic Data	Options	Frequency	%
Name of Country	Nigeria	29	58.0
	Kenya	2	4.0
	Tanzania	1	2.0
	Zambia	10	20.0
	Zimbabwe	1	2.0
	Mali	3	6.0
	Liberia	1	2.0

	Cote d Ivoire	1	2.0
	Burkina Faso	1	2.0
	Cameroon	1	2.0
<b>Gender</b>	Male	24	48.0
	Female	26	52.0
	Total	50	100.0
<b>Age</b>	31-35yrs	5	10.0
	36-40yrs	12	24.0
	41yrs and above	33	66.0
	Total	50	100.0
<b>Working Experience</b>	1-5yrs	3	6.0
	6-10yrs	12	24.0
	11-15yrs	14	28.0
	16-20yrs	7	14.0
	21yrs and above	14	28.0
	Total	50	100.0
<b>Highest Educational Qualification</b>	PhD	7	14.0
	MLS	35	70.0
	BLS	8	16.0
	Total	50	100.0
<b>Status</b>	Assistant Librarian	16	32.0
	Librarian 2	4	8.0
	Librarian 1	3	6.0
	Senior Librarian	14	28.0
	Reader/Associate/Deputy Librarian	3	6.0
	University Librarian/ Professor/Director	10	20.0
	Total	50	100.0

RQ1: Do medical librarians in Africa participate in collaborative projects/research and in what areas?

Data generated on medical librarians' participation in collaborative projects and researches are presented in Table II. The result of the analysis in Table II revealed that a large majority (90.0%) reported that they had collaborated on research and projects with professional colleagues. The main collaborative activities were scholarly writing, books and manuscript

development, building of institutional repositories, training and consortia on subscription of electronic resources.

**Table 11:** Medical librarians' participation in collaborative projects/researches

Responses	Frequency	%
No	5	10.0
Yes	45	90.0
Total	50	100.0

RQ2: To what extent have medical librarians in Africa participated in collaborative projects/researches that promote access to health information?

The responses in Table 111 revealed that the respondents unanimously agreed that they collaborate in all the areas indicated in the Table except for curriculum development of medical librarianship and translation of health information into indigenous languages which had mean rating of 1.96 and 1.64 respectively.

**Table 111:** Areas and Extent of Collaboration for Access to Health Information

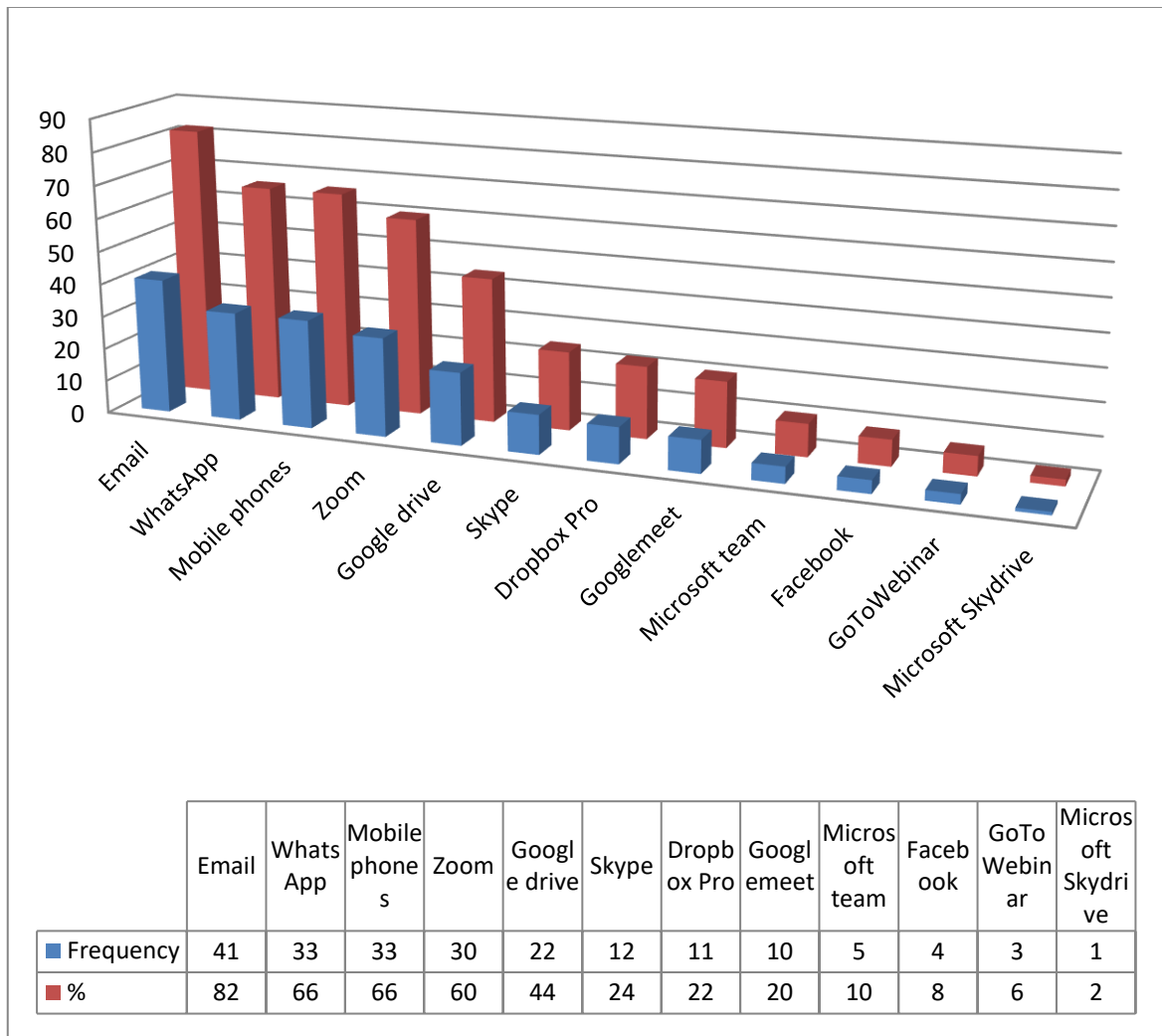
Areas of Collaboration	VGE	GE	SE	NR	Mean	Remark
Digitization of local content and building of Institutional repositories	15(30.0)	15(30.0)	11(22.0)	9(18.0)	2.72	To a great extent
Advocacy for equitable health information access	14(28.0)	18(36.0)	8(16.0)	10(20.0)	2.72	To a great extent
Seeking of funds for innovative projects/workshops	10(20.0)	21(42.0)	9(18.0)	10(20.0)	2.62	To a great extent
Capacity building and conference organization	15(30.0)	12(24.0)	9(18.0)	14(28.0)	2.56	To a great extent
Repacking of health information into diverse formats	6(12.0)	18(36.0)	13(26.0)	13(26.0)	2.34	To a great extent
Procurement of cutting edge ICT Infrastructure	10(20.0)	10(20.0)	12(24.0)	18(36.0)	2.24	To a great extent
Curriculum development of medical librarianship	6(12.0)	8(16.0)	14(28.0)	22(44.0)	1.96	To a small extent
Translation of health information into indigenous languages	4(8.0)	8(16.0)	4(8.0)	34(68.0)	1.64	To a small extent

Note: NR- Not Really; SE- Small Extent; GE-Great Extent; VGE-Very great Extent

RQ3: What Information and Communication technology (ICT) tools/platforms do medical librarians in Africa use for collaboration activities?

The four prominent ICT tools/platforms that the respondents used for collaboration were:

- (1) Email- 41 (82 per cent);
- (2)WhatsApp - 33 (66 per cent));
- (3)Mobile phones - 33 (66 per cent); and
- (4)Zoom - 30 (60 per cent)



**Figure1.**A bar chart showing ICT tools/ platforms Medical librarians' use for Collaboration

RQ4: What are the medical librarians' perceptions of the benefits of collaboration for access to health information?

Table IV: Medical librarians' perceptions of the benefits of collaboration for access to health information

Benefits	Frequency	%
Promotes professional growth and development	40	80.0
Helps to advance professional practice	39	78.0
Keep up-to-date with developments in the profession	38	76.0
Ensures best practices in the profession	33	66.0

Facilitates collaborative learning and innovations	34	6.0
Creates room for cross fertilization of ideas for improved performance	31	62.0
Aids access to financial grants for innovative projects	19	38.0
Creates opportunity for mentoring emerging leaders	25	50.0
Opens door to multiple sources of funding for a single initiative	16	32.0
Effective means of developing potentials/capacity building	24	48.0
Aids coordination of advocacy programmes	20	40.0
Promotes benchmarking and standardization of medical library processes	23	46.0
Reduces costs and duplication of efforts	27	54.0

RQ 5: What is the attitude of medical librarians towards collaboration for access to health information?

The analysis in Table V revealed that all the items listed attracted high mean scores except the item which states that “using the collaborative tools is tedious and very demanding” which had a mean score of 2.24. This showed that medical librarians have positive attitude towards collaboration.

TableV: Respondents’ Attitude towards Collaboration for Access to Health Information

	SA	A	D	SD	Mean	Remark
I acquire cutting edge skills and competencies through collaboration	31(62.0)	17(34.0)	2(4.0)	0(0.0)	3.58	Strongly Agree
Collaboration is the best way to provide equitable access to health information	31(62.0)	16(32.0)	3(6.0)	0(0.0)	3.56	Strongly Agree
Collaboration creates opportunity to address complex issues and problems	31(62.0)	16(32.0)	3(6.0)	0(0.0)	3.56	Strongly Agree
I enjoy participating in collaborative projects /research	33(66.0)	11(22.0)	5(10)	1(2.0)	3.52	Strongly Agree
Collaboration builds trust among professional colleagues	27(54.0)	19(38.0)	4(8.0)	0(0.0)	3.46	Agree
My professional passion and enthusiasm is high when I collaborate	26(52.0)	18(36.0)	6(12.0)	0(0.0)	3.40	Agree
Collaboration opens the door for funding opportunities	23(46.0)	23(46.0)	4(8.0)	0(0.0)	3.38	Agree
Collaboration promote increased monitoring and information sharing	28(56.0)	15(30.0)	5(10.0)	2(4.0)	3.38	Agree



on diseases						
Collaboration prepares me for future leadership roles	21(42.0)	24(48.0)	5(10.0)	0(0.0)	3.32	Agree
Collaboration promotes even development of medical libraries	25(50.0)	14(28.0)	10(20.0)	1(2.0)	3.26	Agree
Collaboration facilitates digitization of resources	13(26.0)	22(44.0)	12(24.0)	3(6.0)	2.90	Agree
Using the collaborative tools is tedious and very demanding	6(12.0)	11(22.0)	22(44.0)	11(22.0)	2.24	Disagree

Note: SA- Strongly agree; A- Agree; D- Disagree; SD- Strongly disagree;

RQ 6: What challenges do medical librarians in Africa face when collaborating for access to health information?

The seven leading challenges medical librarians face when collaborating for access to health information were:

- Absence of support systems that encourage collaboration 74%
- Lack of awareness about the ultimate benefits of collaboration 72%
- Inadequate funding 70%
- Lack of awareness of the existence of collaborative tools/platforms 70%
- Dearth of ICT infrastructures/facilities 62%
- Lack of interest in collaborative initiatives 58%
- Lack of relevant ICT skills 54%

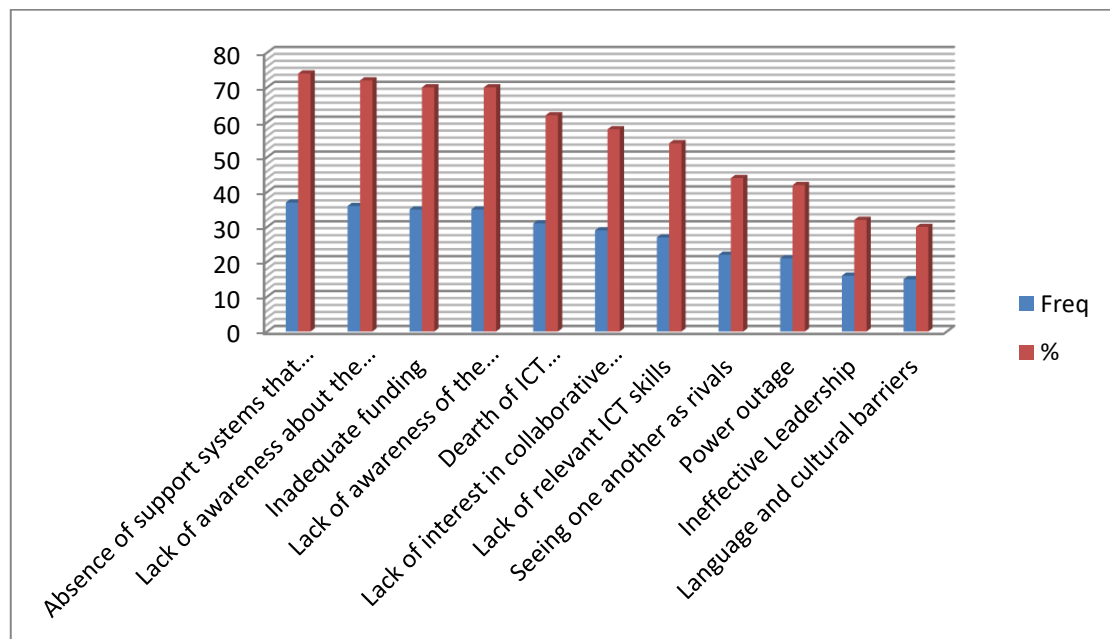


Figure 2: A bar chart showing challenges medical librarians face when collaborating for access to health information

## Conclusion and Recommendations

Medical librarians in Africa are actively engaged in collaboration with professional colleagues and should be encouraged to sustain it. Medical librarians in Africa should take advantage of emerging ICT tools and platforms such as Zoom, Microsoft team, Googlemeet, Google form and so on that offer exciting experience to collaborate with one another. The Association for Health information and Libraries in Africa and Network of African Medical Librarians should inculcate the culture of collaboration among medical librarians. The benefits far outweigh the challenges.

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