

Strengthening Health Science Libraries and Information Centres in Nigeria through Library Collaboration: The Role of Librarians

Ahiaoma Ibegwam¹ Ph.D, Elameyi Susan Unobe ²& Chioma Uzohue³

Abstract

Objectives: There is an urgent need for the collaboration between health science libraries and medical research institute in various regions of Nigeria, so as not dissipating their meager resources by trying to specialize in every aspect of medicine at the same time. This need is the after effect of years of economic challenges, insufficient manpower development, dilapidated infrastructure, poor information record keeping, inadequate financial support for research , among many others have resulted in the inability of health sciences libraries and medical research institute to meet up, in a timely manner with the information needs of healthcare providers in Nigeria.

Methods: Thirty–four librarians of academic and officer cadre of three first generation university medical colleges and on medical research institute were surveyed.

Results: Findings from the investigation revealed that Increase in depth of collection development, Increase in service to clients, Cost saving and Sharing of resources were the major reasons for library collaborations. Resources in the form of financial, human and leadership were the greatest facilitators to successful collaboration among medical libraries. The collaborators Need and knowledge of the accruable benefits and ability to was the highest factors that facilitated collaboration among medical libraries in Nigeria. Several resources of the libraries are already used for collaboration among medical libraries. These include coping and duplicating, Professional Issues, Inter library lending/loan services, and computerized searches of online data bases are the highest in ranking. The major barriers to library cooperation were Funding and Financial Issues. Poor power supply, lack of vision, fear of loss of control and Lack of telecommunication facilities also constituted barriers.

Conclusion: Collaboration among medical libraries in Nigeria is already in existence and could get better if Library leaders understand their library's areas of strength, identified their Library resources and services that will promote effective collaboration between their health institutes and other medical libraries in support of free access to health information. It is recommended that Library leaders must take advantage of their library's area of strength, New Information and communication Technology, the internet and the world wide web in the inter library collaboration in this digital age

Introduction

Libraries coexist in a variety of organizational settings and face increasing pressure to provide more integrated access to their collections. Collaborations becomes increasingly very important to Nigeria, where inflation ,economic down- turn as well as inconsistent government policies and inadequate financing of the educational sector have made it impossible for medical libraries to adequately collect information resources needed to effective and efficient the information needs of their users(Ibegwam,and uzuegbu (2012). Universities and Research libraries have a vested interest in being able to share their holdings of unique and rare materials from their various collections in a unified way with their community of researchers and learners.

¹ University Librarian, Michael Okpara University Of Agriculture, Umudike, P.O. Box 7267, Umuahia, Abia State. Email: Anibegwam@Yahoo.Com

² (Librarian) Ahmadu Bello University Teaching Hospital, Shika – Zaria. Email :seunobe@gmail.com

³ (Chief Librarian) Nigerian Institute Of Medical Research (Nimr) Yaba Nigeria. Email : ebuzohue@yahoo.com

Collaborated access to collections is just one way of how libraries, can maximize their efficiency and impact by working closely together. How do these three communities respond to increasing economic and end-user pressures for greater integration? Shared data, services, technological infrastructure, staff, expertise and taking advantage of the new information social media and tools can unlock greater productivity within institutions, as well as create online research environments more aligned with user's expectations.

Objectives of the study

The objectives of this study are to:

1. Identify possible reasons for library collaboration in selected Nigerian medical libraries;
2. Identify Factors that facilitate collaboration;
3. Discover aspects of library resources and services where collaboration exists in selected Nigerian medical libraries;
4. Potential Areas for Collaboration among Medical and Research Institute Libraries in Nigeria;
5. determine the perceived benefits of collaboration among medical libraries;
6. discover possible barriers to collaboration;
7. to determine the status of this initiative; and
8. suggest strategies for encouraging increased and sustained inter library collaboration by professionals in Nigerian medical and research libraries

This paper will also discover the other areas of strength of the libraries and medical research institutes so as to discover new areas of possible collaboration.

Review of related Literature

The concept of collaboration

In this study, collaboration, cooperation and resource sharing will be used as synonyms in application to the same concepts. According to Schneider, F. (2007) , the term collaboration at present is analogously used as cooperation. The importance of collaboration is a key ideal in the attainment of success . It is a foundation of acquaintance among people of one's similitude. Furthermore, it switches the stance of competence within a certain group into a stance of interactive production. A proper guide to collaboration must be set to fully employ and support its goal. Notwithstanding the idea of working in unison, collaboration still has the setback of failure. Various research studies proved that working teams often arrive at a wrong decision especially on tasks requiring solutions to complex problems. This might be a point of truth as individuals classified within the team itself are each a subject of different and distinctive personalities, thus creating a clash among their decisions and thoughts. This can be resolved by means of apposite selection of groupings, that is, assigning each individual to groups of similar interests , knowledge or skill for a gear towards the success of the project being collaborated . That is the reason for the choice of medical libraries in Nigeria. Another obstacle to collaboration is technology . The dynamics of technology poses the independence of learning , hitherto . It creates distance among each individual as learning can readily be accessed through various technological approaches such as the internet and the new information media among others , therefore needing no longer the interaction with different personalities significant to team work. D'Amour D, Ferrada-Videla M, San Martin Rodriguez L, Beaulieu MD.(2005) posits that c the concept of collaboration is commonly defined through (1)five underlying concepts: sharing, partnership, power, interdependency and process; (2) the most complete models of collaboration seem to be those based on a strong theoretical background, either in organizational theory or in organizational sociology and on empirical data; (3) there is a significant amount of diversity in the way the various authors conceptualized collaboration and in the factors influencing collaboration; (4) these frameworks do not establish clear links between the elements in the models and the outputs; and (5) the literature does not provide a serious attempt to determine how patients could be integrated into the health care team, despite the fact that patients are recognized as the ultimate justification for providing collaborative care.

The Collaboration Concept is a process where collaborators move from coexistence to full cooperation. It is the decision of a group of people to work together to achieve a common goal or vision. The effectiveness of team work and the sharing of expertise and responsibility leads to care that is greater than the sum of its parts. Collaboration fosters synergy that patients will notice(Nursing .com, 2010).

Collaboration Models

There have been various models of team collaboration (Orasanu & Salas, 1992;; Stahl, 2000; McNeese, Rentsch, Perusich, 2000; Hurley, 2002; Noble, 2002) each focusing on various aspects while describing those aspects at different levels of detail.

However, for a model of collaboration to be an effective mechanism for understanding the operating cognitive mechanisms underlying collaborative team behavior the model needs to be defined at a level of granularity, which covers all the major components and mechanisms of team collaboration. The approach to describing the model is as follows: (1) define the problem domain for the model, (2) define all the various collaboration stages that a team goes through to solve the problem, (3) define the meta-cognitive processes that guide team collaboration, (4) define and describe the information processing components that the team performs to achieve each collaboration stage, (5) define the knowledge required to achieve each information processing component and (6) define the communication mechanisms used by the team to build the necessary knowledge along with supporting the information processing. Collaboration in an academic library, it is associated with academic development, innovative library practice, up-to-datedness and promptness in the delivery of users information needs. Collaboration is what differentiates organization knowledge management from individual learning or knowledge management(Anasi; Imo;Akpan and Adedokun(2012).

Collaboration Methods

Collaborative methods are processes, behaviors and conversations that relate to collaboration between individuals. These methods specifically aim to increase the success of teams as they engage in collaboration. Collaboration among libraries can occur in various ways. There are the traditional interlibrary loan procedures, which do not differ from those of other libraries. Most libraries, especially those of universities and research centres, will lend materials to other libraries and will borrow as well, using standard interlibrary forms or online requests through major networks. Perhaps the only distinguishing feature in a medical library is that more materials are of serials nature and do not circulate beyond the library walls because limited which is consequent on the high cost of procurement of the foreign titles. Increasingly, however, medical libraries provide photocopies and computer print-out , as well as forwarding of digital copies via the webs in lieu of lending original materials.

Benefits of collaboration among libraries

Successful collaboration can have many benefits including: Maximizing the power of participating groups through joint action and building human capital and community support (Shepherd,2004). Avoiding unnecessary duplication of effort or activity Sharing talents and resources , Providing superior quality services ,Developing and demonstrating public support for an issue, action, or unmet need Increasing funding and grant opportunities, Expanding programming and outreach by reaching new audiences, creating and enhancing programs and services. Assisting with marketing library programs and services or heightening awareness of the library. Increasing staff job satisfaction and a better understanding of their roles in a broader perspective. Fostering cooperation among grassroots organizations and community members. Being visible not to just those who are library patrons but also to those who can provide funding. Taking part in community meetings, city council meetings, etc allows the opportunity to voice the importance of libraries and form partnerships that might not have been formed otherwise Creating community connections. Accomplishing more than any single organization could. Many libraries encourage staff to participate in opportunities for the library to actively engage in the community outside library walls with good reason: Collaborations can enhance the library's ability to serve your community and make library services more visible and valued. The purpose for collaboration should be at the heart of your library's mission. By working across traditional boundaries, the library can deliver better service, value, and outcomes for your library's customers, stakeholders, and communities.

Working collaboratively opens up possibilities and enables libraries to share and conserve resources, reach new audiences, and expand services and programs. Collaboration allows libraries to provide more than they could alone. Collaborative behaviour is the only way to connect to the many library customers using new social technologies. By establishing relationships with varied people from different community groups whose purposes align with the library, including local agencies, religious organizations, local schools, and parents groups that share the library's goals and philosophy, the library can increase its knowledge of the community and its needs while expanding the library's sphere of influence. Successful collaboration can have many benefits including: Maximizing the power of participating groups through joint action and building human capital and community support. Avoiding unnecessary duplication of effort or activity.

Sharing talents and resources Providing superior quality services. Developing and demonstrating public support for an issue, action, or unmet need Increasing funding and grant opportunities. Expanding programming and outreach by reaching new audiences, creating and enhancing programs and services. Assisting with marketing library programs and services or heightening awareness of the library Increasing staff job satisfaction and a better understanding of their roles in a broader perspective Fostering cooperation among grassroots organizations and community members.

Being visible not to just those who are library patrons but also to those who can provide funding. Taking part in community meetings, city council meetings, etc allows the opportunity to voice the importance of libraries and form partnerships that might not have been formed otherwise Creating community connections. accomplishing more than any single organization could

How Libraries Can Develop Collaborative Partnerships

Previous studies on collaboration

Increase in the value and demand for information puts pressure on African university libraries to offer more effective services to users. African universities must shift gears in order to justify their existence in the changing information sharing environment (Etim, 2006). **Hussaini Ali; J.E. Owoeye'** and **Stella N.I. Anasi**(2010) described the benefits derivable from library cooperation as immense. As savings are made from limited funding; users have ready access to a greater amount of information resources; duplication of materials is reduced and time and efforts too. Staff build and maintain professional relationships and this boosts their morale and bring about job satisfaction as they are able to use their talents more, share skills, expertise and facilities of each member library. Anasi, Akpan and Adedokun(2012) further stated that the ultimate in library cooperation is when the individual user in a specific library, sitting behind a workstation goes through options which give him access to contents of collections of several libraries, which he can retrieve the electronic versions of the full texts and download or print. The real gain, which is substantial, is intellectual, where access to larger amount of materials is made. These scholars noted that unfortunately, however, that despite good laid down policies, visions, missions and promises, the philosophy of resource sharing in Africa, in general, and Nigeria, in particular, has remained largely on paper. This situation is undoubtedly caused by lack of mutual trust, political will to succeed, gross under-funding of libraries and inhospitable networking environment, among other critical issues.

Uhegbu, (2010) espouses the rationale for public–private sector collaboration for quality library and information science education in Nigeria. In all the phases librarianship has passed through in Nigeria, it has been public sector sponsored. The paper identifies ways in which the private sector could participate towards ensuring quality library and information science education in Nigeria. It identifies the token presence of the private sector in librarianship as one of the factors that lead to infrastructural decay, inadequate or near absence of teaching and learning aids, low social perception of the profession and poor remuneration of librarians in the country. Ways that can be used to attract private sector support are outlined. Private sector participation in librarianship will provide funds to acquire new facilities, maintain existing ones, develop infrastructure and equip libraries and resource centres which will ultimately lead to the production of technically sound and knowledgeable professional.

How Libraries Collaborative Partnerships Can be Developed

Partnerships can range from short-term agreements to share a venue and the associated costs of a single program, to long-range arrangements between government agencies or businesses to provide ongoing services. Examples include: Sharing technology skills and technology costs with neighboring libraries or community groups through consortiums or committees. Collaborating on shared programme development and promotion such as computer training classes, consumer health information or resources for new immigrant Sharing the expense of employing a computer trainer, Web designer or tech support person. Online sharing through blogs or discussion groups that disseminate local expertise and information. Sharing the expense of purchasing and maintaining one web server among several small libraries, Training and funding partnerships. Partnering to build and share audiences. Fostering political alliances, Working with local and state agencies to provide business development workshops and research. Providing career centers for locating and applying for employment opportunities online. Cross-promoting of events through flyers or online means This study therefore attempts to discover the issues that affect the strengthening of health science libraries and medical research institutes in Nigeria through library collaboration. The health sciences librarians were used as the subject of this study because of their pivotal role in information collection, management and dissemination within the health professional team and medical sciences community.

Research Methods

This study used descriptive survey design using researcher designed questionnaire for data collection for data generation (The library collaboration in the questionnaire are adaptation of those currently in use in academic libraries United States Agricultural Information Questionnaire 2009; Wilson, 2007; and Finnert, 2005). They are however not exhaustive. In Nigeria there are 29 NUC accredited medical school in Nigeria; Out of this 23 are federal.

Three of these medical schools from the oldest universities that are adjudged as being very equipped and have been around long enough to have produced generations of medical graduated and therefore are able to bring value to the collaboration in terms of human and material resources. These are the colleges of medicine health sciences libraries of the universities of Lagos in the west; Ahmadu Bello University in the north and university of Lagos also in the west. All these universities belong to the first generation universities are located in the western and northern parts of Nigeria. The National institute for Medical Research (NIMR) being the oldest medical institute in Nigeria, with two out-stations in New Bussa in 1983 was also included. Since most of these medical libraries are in the west it is hoped that cooperation and collaboration will be easier.

Findings and Discussions

The questionnaire was distributed to all known librarians and library officers of these libraries. In all thirty seven copies of this questionnaire was administered and thirty four (91.9%) useable copies were returned. Fifteen (15) of the responders were women while 19 of the respondents are males. Twenty-nine of them were above 40 years, while four of them were between 30-40 years. None was below thirty years of age. Twenty-one of them had practiced for four to nine years, while nine had worked between 10-19 years. Only four of the librarians had worked between one to three years on the job. Tables 1-8 are used to depict some of the answers that were received in response to some of the vital questions that were asked. Objective 1: Identify possible reasons for library collaboration in selected Nigerian medical libraries

Table 1: Reasons for library collaboration

| Items | Yes | No opinion | No |
|--|-----------|------------|----------|
| Increase depth of collection development | 34(100%) | - | - |
| | 34(100%) | - | - |
| Cost saving | 34(100%) | - | - |
| Share resources | 34(100%) | - | - |
| Demonstrate proactive approach | 21(61.8%) | 7(20.6%) | 6(17.6) |
| Share expertise | 23(67.6%) | 5(14.7%) | 4(11.8%) |
| Encourage discussion | 12(35.3%) | 21(61.8%) | 2(5.9%) |
| Sense of obligation | 11(32.4%) | 23(67.6%) | - |
| Utilize staff more fully | 23(67.6%) | 9(26.5%) | 3(8.8%) |
| Generate profit | 15(44.1%) | 12(35.3%) | 7(20.6%) |
| ICT promotes collection development | 19(55.9%) | 8(23.5%) | 4(11.8%) |

Increase in depth of collection development, Increase in service to clients, Cost saving and Sharing of resources with 100% respondents consecutively were the major reasons for library collaborations

Objective 2: Factors that facilitate collaboration

Table 2: Identify Factors that facilitate collaboration

| Factors that facilitate collaboration | Yes | No opinion | No | Ranking |
|---|-----------|------------|-----------|----------|
| Needs and benefits | 27(79.4%) | 4(11.8%) | 3(8.8%) | 2(5.9%) |
| Positive attitudes | 15(44.1%) | 7(20.6%) | 12(35.3%) | 5(15.7%) |
| Vision, mission, goals | 21(61.8%) | 3(8.8%) | 10(35.3%) | 3(8.8%) |
| Resources-financial, human and leadership | 29(85.3%) | - | 5(15.7%) | 4(11.8%) |
| Community development | 4(11.8%) | | | 1(2.9%) |
| Constant communication | 27(79.4%) | 2(5.9%) | 5(15.7%) | 2(5.9%) |

Resources in the form of financial, human and leadership (85.3%) were the greatest facilitators to successful collaboration among medical libraries. The collaborators Need and knowledge of the accruable benefits and ability to were the highest factors that facilitated collaboration among medical libraries in Nigeria. The least facilitator was

Community development. **Objective 3: determine the status of library collaboration initiative among medical libraries in Nigeria**

Table 3: status of library collaboration initiative among medical libraries in Nigeria

| Items | No. of respondents | Percentages | Ranking |
|------------|--------------------|-------------|---------|
| Yes | 29 | (85.3%) | 1 |
| No | 3 | (8.8%) | 2 |
| No opinion | 1 | (2.9%) | 3 |

85.3%of the respondents stated that collaboration is already in existence in among medical libraries in Nigeria. Objective 4: Identify **Library resources and services** where collaboration exists in selected Nigerian medical libraries

Table 4: Library resources and services collaboration between health institutes and medical libraries in support of free access to health information

| Library resources ad sevices | Existing | Not Existing | No Response |
|--|-----------|--------------|-------------|
| Benchmarking and Library Standards | 5(14.7%) | 21 (61.8%) | 8 (23.5%) |
| Compensation and Salary Issues | 17(50%) | 13 (38.2%) | 4 (11.8%) |
| Expert Searching | 23(67.6%) | 11(32.4%) | - |
| Health Information Literacy | 11(32.4) | 17(50%) | 6(17.6) |
| Accreditation Resources | 9(26.5) | 19(55.9)% | 6(17.6) |
| Library Public Relations and Marketing | 5(15.7%) | 23(67.6%) | 6(17.6) |
| Professional Issues | 31(91.2%) | - | 3(8.8%) |
| registration of external users | 9(26.5%) | 23(67.6%) | 2(5.9%) |
| Inter library lending/loan services | 30(88.2%) | 4(11.8%) | - |
| referencing | 23(67.6%) | 11(32.4%) | - |
| selective dissemination of information | 18(52.9%) | 16(47.1%) | |
| ICT / audiovisual | 16(47.1%) | 18(52.9%) | |
| coping and duplicating | 34(100%) | - | - |
| thesis services | 23(67.6%) | 4(11.8%) | 7(20.5) |
| Indexing and abstracting | 8(23.5%) | 26(76.5%) | |
| Bibliographic compilations | 12(76.5%) | 5(15.7%) | 17(50.0%) |
| Computerized searches of online data bases | 26(35.3%) | - | 8(23.5%) |

Several resources of the libraries are already used for collaboration among medical libraries. These include coping and duplicating34(100%), Professional Issues31(91.2%), Inter library lending/loan services30(88.2%), and Computerized searches of online data bases 26(35.3%) are the highest in ranking. While issues related to Library Public Relations and Marketing, Benchmarking and Library Standards5(15.7%) were the least resources or services that are collaborated. Objective 5:Potential Areas for Collaboration among Medical and Research Institute Libraries In Nigeria

Table 5: Potential Areas for Collaboration among Medical and Research Institute Libraries In Nigeria

| | Agree | Strongly agree | No opinion | Disagree | Strongly Disagree |
|--|-----------|----------------|------------|-----------|-------------------|
| Repackaging information | 11(32.4%) | 15(44.1%) | 2(%) | 4(11.8%) | 2(58.8%) |
| Staff training/ development | 15(44.1%) | 14(41.2%) | 3(%) | 1(2.9%) | 1(2.9%) |
| Provision of facilities for life long learning | 27(79.4%) | 2(5.9%) | 5(%) | - | - |
| Library exhibition /out reach programmes | 4(11.8%) | 7(20.6%) | - | 13(38.2%) | 10(29.4%) |
| Inter library loan service | 14(41.2%) | 19(58.9%) | 1(2.9%) | - | - |
| Open access catalogues of indigenous publication | 12(35.3%) | 10(29.4%) | 12(35.3%) | - | - |

Presently collaboration and some degree of partnership exist in the areas of Provision of facilities for life long (27(79.4%) agreeing and 2(5.9%) strongly agreeing) of cooperating with other libraries. Also in existence is Inter library loan service with 14(41.2%) and 19(58.9%) agreeing and strongly agreeing.

Objective 6: determine the perceived benefits of collaboration among medical libraries discover possible barriers to collaboration

Table 6: Benefits of collaboration among medical libraries

| Perceived Benefits | Yes | No opinion | No | |
|---|-----------|------------|-----------|--|
| Determines quality of library service information skill needed by students for research project | 11(32.4%) | 20(58.8%) | 3(8.6%) | |
| Increased opportunities for funding | 12(35.3%) | 11(32.5%) | 10(29.4%) | |
| Closer Relationships with new colleagues | 17(50.0%) | 15(44.1%) | 2(5.8%) | |
| Better decisions & deliverables | 25(73.5%) | 4(11.8%) | 5(12.7%) | |
| Increased likelihood of technology transfer | 19(55.9%) | 15(44.1%) | - | |
| Enhanced appreciation of other cultures | 13(38.3%) | 15(44.1%) | 6(17.6%) | |
| Opportunities to learn & develop new technologies | 26(76.5%) | 8(23.5%) | - | |
| Opportunities to meet or exceed user needs & expectations | 23(67.6%) | 9(24.6%) | 2(5.8%) | |
| Opportunities to improve leadership, management & rhetorical skills | 14(41.1%) | 13(38.2%) | 7(20.6%) | |
| Provision of quality information | 27(79.4%) | 5(12.7%) | 2(5.9%) | |
| Ability to compare notes on best practices | 27(79.4%) | 6(17.6%) | 1(2.9%) | |

The highest perceived benefits of collaboration were Opportunities to learn and develop new technologies with 26(76.5%) respondents and the expectation of Better decisions & deliverables as attested to by 25(73.5%) of the responders. Objective 7: possible barriers to library collaboration

Table 7: Respondents opinion of possible barriers to library collaboration

| Barriers to Resource Sharing | Yes | No opinion | No | % |
|--|-----------|------------|-----------|---|
| Priority given to local users | 12(35.3%) | 3(8.8%) | 5(14.7%) | |
| Lack of Access to ICT facilities | 23(67.6%) | 10(29.4%) | 1(2.9%) | |
| lack of resources | 5(14.7%) | 7(20.5%) | 22(64.7%) | |
| fear of loss of control | 25(73.5%) | 9(26.5%) | - | |
| lack of time | 5(14.7%) | | | |
| lack of evidence of benefits | 5(14.7%) | - | 29(85.3%) | |
| Funding and Financial Issues | 31(91.2%) | - | 3(8.8%) | |
| lack of vision | 27(79.4%) | | | |
| Library Staffing Barriers | 17(50%) | 2(5.8%) | 5(14.7%) | |
| Lack of motivation | 12(35.3%) | 2(2.8%) | 20(58.8%) | |
| Lingering climate of competition among the libraries | 9(26.5%) | 2(0%) | 23(67.6%) | |
| Lack of telecommunication facilities | 25(73.5%) | 9(0%) | - | |
| Lack of management support | 19(55.9%) | 11(0%) | 4(11.8%) | |
| Poor power supply | 27(79.4%) | 7(20.5%) | | |

The major barriers to library cooperation were Funding and Financial Issues with 31(91.2%) respondents; Poor power supply and lack of vision with 27(79.4%) respondent, each and fear of loss of control and Lack of telecommunication facilities with 27(79.4%) responders supporting this position. Objective 8 : suggest strategies for encouraging increased and sustained inter library collaboration by professionals in Nigerian medical and research libraries.

Table 8: Strategies for encouraging increased and sustained inter library collaboration

| Strategies | Yes | No opinion | No |
|--------------------------|-----------|------------|-----------|
| Workshops/seminars | 26(76.5%) | 8(23.5%) | - |
| User groups | 17(50%) | 7(20.6%) | 10(29.5%) |
| Networking via internet | 22(64.7%) | 12(35.3%) | |
| web conferencing | 10(29.4%) | 20(58.8%) | 4(11.7%) |
| Gifts and exchange | 23(67.6%) | 8(23.5%) | 2(5.8%) |
| Communication by telecom | 31(91%) | 3(8.8%) | - |
| Email communication | 23(67.6%) | 10(29.4%) | 1(2.9%) |
| | | | |
| | | | |

Main strategies for encouraging increased and sustained inter library collaboration as posited by the respondents are Communication by telecom, 31(91%), and Workshops/seminars 26(76.5%). Web conferencing with 10(29.4%) was the least.

Table 9: Areas of strength of the medical libraries and medical research institutes

| Area of strength/ Research Priorities | Frequency | percentage |
|--|-----------|------------|
| Provision of specialized medical services | 30 | 30(88.2%) |
| Production of highly trained medical manpower | 30 | 30(88.2%) |
| Conduct of research into health related problems | 30 | 30(88.2%) |
| HIV/Aids | 30 | 30(88.2%) |
| Schistosomiasis | 4 | 4 (11.8%) |
| Malaria | 4 | 4 (11.8%) |
| Onchocerciasis | 4 | 4 (11.8%) |
| Tuberculosis | 4 | 4 (11.8%) |
| Diarrhoeal Diseases. | 4 | 4 (11.8%) |
| Haemoglobinopathies | 4 | 4 (11.8%) |
| Nutrition. | 4 | 4 (11.8%) |
| Special Childhood Communicable Diseases rates. | 4 | 4 (11.8%) |
| Strategic Research | 4 | 4 (11.8%) |
| Biotechnology Research | 4 | 4 (11.8%) |
| Guinea Worm Disease | 4 | 4 (11.8%) |
| Leprosy Research | 4 | 4 (11.8%) |
| Cancer Research | 4 | 4 (11.8%) |

Areas of strength of the medical libraries and medical research institutes are as stated on table Provision of specialized medical services, Production of highly trained medical manpower and, Conduct of research into health related problems are areas of strength and Research Priorities of the institutions under study and by implication the libraries under study suggest strategies for encouraging increased and sustained inter library collaboration by professionals in Nigerian medical and research libraries for the furtherance of human and materials resources sharing with their peers locally and internationally

Conclusions and Recommendations

Collaboration among medical libraries in Nigeria is already in existence and could get better if Library leaders understand their library's areas of strength, identified their **Library resources and services that will promote effective collaboration between their health institutes and other medical libraries in support of free access to health information.**

The challenges and barriers to collaboration must be known. In same vein, the benefits, leaders must know the Strategies for encouraging increased and sustained inter library collaboration. Both staff and senior university administrators must be on the know of ongoing activities through effective communication. Factors that facilitate collaboration must be made known and used to the advantage of effective library cooperation The following recommendations are made:

1. The challenges of collaboration should be studied by collaborating medical libraries in Nigeria and concerted efforts made to overcome them.
2. Library leaders must take advantage of New Information and communication Technology, the internet and the world wide web in the inter library collaboration in this digital age
3. The medical libraries should discover their areas of strength and take advantage of them in the partnership with sister libraries
4. The benefits of collaboration should encourage medical librarians that collaboration is a worthwhile venture to be taken advantage of
5. Library top management as well as the University management should support and encourage publishing and dissemination of information, especially indigenous information.

References

- Anasi, SNI, Akpan, I. M. and Adedokun, T. (2012) information communicate technologie and Knowledge sharing among academic librarians in south west , Nigeria {implications for professional Development NLA: promoting library and information science profession for National Development. Ibadan : University Press PLc1-20
- D'Amour D, Ferrada-Videla M, San Martin Rodriguez L, Beaulieu MD. (2005) The conceptual basis for interprofessional collaboration: core concepts and theoretical J Interprof Care. 2005 May;19 Suppl 1:116-31.
- Felicia E. Etim (2006) Resource Sharing in the Digital Age: Prospects and Problems in African Universities / Library Philosophy and Practice Vol. 9, No. 1 (Fall 2006)
- finnerty, c. (2005) an exploratory study of collaboration in new ealand alia.org.au/publishing/aarl/36.4/finnerty.pdf
- Hurley, John (2002). Towards a Cognitive Organizational Framework for Knowledge Management. ONR/SPAWAR Systems Center San Diego Workshop, Cognitive Elements of Effective Collaboration. San Diego, CA.
- Ibegwam, A. and Uzuegbu, C. P. (2012) Collaboration And Networking In Library And Information Science Education In Nigeria: A Trend Or A Need? (In-press)
- Hussaini Ali; J.E. Owoye' and Stella N.I. Anasi (2010) Resource Sharing among Law Libraries: An Imperative for Legal Research and the Administration of Justice in Nigeria. Library Philosophy and Practice. <http://www.webpages.uidaho.edu/~mbolin/ali-owoye-anasi.htm>/Retrieved 24, July 2012.
- McNeese, M. D., Rentsch, J. R., & Perusich, K. (2000). Modeling, Measuring and Mediating Teamwork: The Use of Fuzzy Cognitive Maps and Team Member Schema Similarity to Enhance BMC31 Decision Making. IEEE International Conference on Systems, Man and Cybernetics, p 1081 – 1086. NY: Institute of Electrical and Electronic Engineers.
- Noble, David (2002). Cognitive-Based Guidelines for Effective Use of Collaboration Tools. Cognitive Elements of Effective Collaboration. ONR/SPAWAR Systems Center San Diego Workshop, Cognitive Elements of Effective Collaboration. San Diego, CA., 15-17.
- Norman Warner; Michael Letsky; and Michael Cowen (2003) Structural Model Of Team Collaboration Nursing.com (2010) Faculty of Nursing, University of Montreal, Montreal, Quebec, Canada. danielle.damour@umontreal.ca
- Orasanu, J. & Salas E. (1992) Team Decision Making in Complex Environments. In Klein, G., Orasanu, J., & Calderwood, R. (eds.). Decision Making in Action: Models and Methods. Norwood, NJ: Ablex Publishing Corp.
- Schneider, F. (2007). Collaboration. Retrieved 19 July 2007, <http://summit.kein.org/node/Shepherd>, Murray (2004) Library Collaboration: What Makes It Work? http://www.iatul.org/doclibrary/public/Conf_Proceedings/2004/Murray20Shepherd.pdf Retrieved on 24, July, 2012.
- Stahl, Gerry (2000). A Model of Collaborative Knowledge-Building. In B. Fishman & S. O'Connor-Divelbiss (Eds.), Fourth International Conference of the Learning Sciences. Mahwah, NJ: Erlbaum, 70-77
- Uhegbu, A. N. (2010) Quality library and information science education in Nigeria/ <http://ifl.sagepub.com/content/37/3/228.abstract>. Retrieved 24, July 2012