

PRESERVATION AND CONSERVATION OF MATERIALS IN MEDICAL LIBRARY, COLLEGE OF HEALTH SCIENCES. BENUE STATE UNIVERSITY, MAKURDI, BENUE STATE, NIGERIA.**By****GODWIN VERKAA UVERYOL****BUR VANEN AKPOO, (Ph.D.)****and****MSURSHIMA TABITHA AGBIDYE****ABSTRACT**

The study investigated preservation and conservation of materials in the Medical Library of the College of Health Sciences, Benue State University, Makurdi, Benue State, Nigeria. The study adopted descriptive survey as its design. The population of the study consists of all the 200 level medical students for the 2022/2023 academic session. The sample for the study consists of 500 students (350 MBBS and 150 Anatomy Students). A structured questionnaire was administered to the sampled respondents. Document Analysis Guide (DAG) was also used to collect results of 200 level students of MBBS and Anatomy. Purposive sampling technique was used in selecting the medical students that participated in the study. The statistical tool used for answering research questions was simple percentage. While chi-square (χ^2) was used for testing the hypotheses. Findings revealed that security of library materials, disaster recovery procedure, environmental control, proper handling of library materials, training of staff on preservation of materials were used as preservation and conservation practices in the Medical Library of the College of Health Sciences, Benue State University, Makurdi. Recommendations such as preservation and conservation of compendium of information, rare materials manuscripts, hand copies of the old as well as new materials which are prone to decay and digitalization of library materials should be preserved at the Medical Library of the College of Health Sciences, Benue State University, Makurdi were made.

Keywords: Preservation and Conservation, Materials, Medical Library, College of Health Sciences.

Introduction

A library is the core of academic activities where all pertinent information and materials are collected, organized, preserved for easy retrieval and purposeful exploitation in a continuous process of information dissemination. Babalola (2007) stated that “the fundamental role of the library is educational which should be operated as a dynamic instrument of education. In view of this, Odetoyinbo (2012) also asserted that academic library is a building, a service point, a material, an instructional and self-development centre which operates as an integral part of the entire school environment. The primary purpose of the academic library is not only to provide

books, journals and other instructional materials in support of the academic programme of the institution, but also to encourage the formation of a life-long habit of reading much and reading well.

Libraries in a bid to meet the set objectives of the users, provide, conserve and preserve a wide range of resources and services, which include monographs, textbooks, reference documents, audio-visual resources and other equipment like computer and internet facilities, current awareness, services, abstracting and indexing services and a comfortable reading environment. Libraries can only achieve their objectives if adequate preservation and conservation practices of information resources are made available for the procurement and processing of materials. Preservation is the process in which all actions are taken to check and retard deterioration, whereas conservation includes proper diagnosis of the decayed information resources, timely curative treatment and appropriate prevention from further decay. Sule and Ademu cited in Abdulrazaq (2015) observed that preservation and conservation practices of information resources lead to the security of man's recorded knowledge. Through the process of preservation and conservation, man has been able to keep intact the records of the past and present into safe places. More so, preservation and conservation practices ensure the continued supply of information for research purposes and for posterity.

When there is good preservation and conservation practices of library materials, efforts will not be wasted on replacement. Materials which should have been expended on replacement would be channeled to the acquisition of new resources to enrich the existing collection. The life span of the books, journals, monographs and audio-visuals would be safe guarded through the instrument of preservation and conservation.

Library materials consist of media, books, prints, non-print materials, library software and hardware. Non-print materials include: audio and video tape, while print materials consist of pictures, magazines, books, maps and photographic materials. Library materials deteriorate faster when publishers use substandard materials of very low

quality like papers which changes color when exposed to internal or external light or the wear and tear of paper glue and thread for sewing the book. This is common with our local publishers. Books cannot last forever and hence librarians are saddled with the responsibility of preserving library materials for future generation. Goswami (2018) in her study on deterioration of library materials in university libraries in South-West Nigeria, found that there was high rate of deterioration in the studied universities, some of which are caused by wear and tear, dust particles, bad shelving and biological agents. It is against this backdrop that this study is set out with the aim of investigating preservation and conservation in Medical Library, College of Health Sciences, Benue State University, Makurdi, to salvage the situation in the midst of dwindling budgetary allocation to libraries in Benue State, Nigeria.

Statement of the Problem

Libraries have responsibilities of acquiring, processing and disseminating information to users. When the materials in libraries are allowed to deteriorate unchecked or become damaged in any way, it may be difficult to meet the informational or recreational needs of its clientele. It is the responsibility of the library staff to keep these materials in good physical condition so that they can be available for users at all times. In view of the increase of deterioration of information materials affecting great volume of library materials, there is the need for librarians to take drastic action to preserve and conserve materials to forestall complete disappearance of reference materials from our libraries and information centres. The question then is, how can materials be preserved and conserved in Medical Library of the College of Health Sciences, Benue State University, Makurdi, Benue State, Nigeria?

Research Questions

The following research questions guided the study.

1. What are the preservation and conservation practices in the Medical Library of the College of Health Sciences, Benue State University, Makurdi?
2. What are the causes of deterioration of library materials in Medical Library of the College of Health Sciences, Benue State University, Makurdi.
3. What are the techniques used in the preservation and conservation of library materials in the Medical Library, College of Health Sciences, Benue State University, Makurdi.

Hypotheses

The following hypotheses were tested at 0.05 level of significance.

1. There is no significant difference between preservation and conservation practices and academic performance of students in the College of Health Sciences, Benue State University, Makurdi.
2. There is no significant difference between deterioration of library materials and academic performance of students in the College of Health Science, Benue State University, Makurdi.
3. There is significant difference in the techniques used in the preservation and conservation of library materials and academic performance of students in College of Health Sciences, Benue State University, Makurdi.

Literature Review

Information Resources

Information resources, according to Popoola and Haliso, (2009), are those information bearing materials that the library collect, store, organize and disseminate to users in order to satisfy their present and future information needs. They are the materials in the library that make services possible. These are the materials which users come to consult, read, or borrow. Information resources are many and varied; they include paper based and machine-readable materials. Paper based information resources include books, dictionaries, encyclopedias,

journals, newspapers, magazines, vertical file materials, maps, atlases and gazettes. While machine readable materials include CD-ROM, databases, electronic journals and electronic books, tape records and films (Popoola & Haliso, 2009). Popoola further stated that until 1980's, conservation of library materials was thought to be relevant to rare book materials by librarians and curators of collection of special materials. But library information materials are bound to deteriorate or breakdown with time through the aging process and to replace them may be difficult and expensive if not practically impossible.

Ovowoh and Iwhiwhu (2010) stated that libraries acquire information resources to meet the information and recreational needs of its clientele. It is the responsibility of the library staff to keep these resources in good physical condition to make them available for users at all times. A large portion of information recorded on audio or video tape about important events and people among others, has been routinely wiped out in our electronic media houses. Similarly, Abdulrazaq in Ozioko (2015) opined that libraries and archive management must embark on conservation programmes that will safeguard their information resources from total deterioration and destruction in order to meet the ever-increasing information demands of their users. The legal and social responsibility of libraries and archives makes it imperative for them to conserve their information resources.

Deterioration of information resources is of various kinds; among them are:

Discoloration and Staining: paper documents overtime get discolored as a result of the interplay of several factors (Adeleke, et al. 2012). The most prominent cause is the reaction of radiant energy with lignin if present in the paper. This darkens the color of the paper, turning it brownish or yellowish. Discoloration results in the reduction of legibility and makes reproduction fairly difficult.

Human Factors: men are the greatest enemies of the materials on which they record their thoughts. To the long list of great libraries vandalized by conquering armies or burned in hate, must be added the incalculable loss and damage by theft, malicious mischief and careless handling by individuals. Improper and faulty actions taken by library staff may cause deterioration of library materials (Ogunmodede & Ebijuwa, 2012). Cheap and improper materials are often used for mending and repairing. Wrong insecticides are used for fumigation, repairing, restoration and lamination work, which are usually done by untrained personnel. All these are responsible for deterioration of library materials (Mahapatra & Wamukoya, 2007).

Brittleness of Information Resources: Brittleness may result from desiccation caused by high temperature among others. The test for brittleness is fairly simple and objective. Abdulrazaq (2015) referred to it as the fold endurance test which considers the number of double folding as a measure of brittleness. The book was considered very brittle if it broke often two double folding.

Abuse of Information Resources: Actions that may be considered abusive include careless or rough handling of brittle paper and fragile binding, destructive photocopy practices, disfiguring manuscripts with notation or marks and spilling coffee or ashes on materials (Adeleke et al, 2012).

Mismanagement of Information Resources: Mismanagement falls more specifically within the realm of the librarian, archivist and institutional policies and programmes that endanger library and archival materials. Mismanagement relates to housekeeping practices as well as processing, storage and handling procedures that adversely affect the well-being of materials. Inappropriate conservation treatment carried out by unqualified personnel is also an example of mismanagement. Broader examples include institutions having security neither programme nor disaster preparedness plan. The lack of conservation programme that is a fully integrated aspect of library administration contributes as much to the quiet disintegration of materials as the zealous application of inappropriate remedies (Adeleke et al, 2012).

Preservation and Conservation.

Preservation, according to Baker and Reitz in Abdulrazaq (2015), is the action taken to prevent, stop, or slow deterioration. It can be described as the act of anticipating and preventing decay. Preservation can also be defined as the measures taken in prolonging the existence of library and archival materials by maintaining them in a condition suitable for use either in their original format or in a format more durable through retention under proper environmental conditions or actions taken after a book or collection has been damaged to prevent further

deterioration (Abdulrazaq, 2015). International Federation of Library Association (IFLA) (2010) defined preservation to include: all the managerial and financial considerations, staffing, levels, policies, techniques and methods involved in preserving library and archive materials and information contained in them. Okpala (2010) maintained that preservation include both short-term and interim measures to protect or stabilize the place, as well as long-term actions to retard deterioration or prevent damage so that the place can be kept serviceable through routine maintenance and minimal repair, rather than extensive replacement and new construction. Chaudhary (2011) on his part stated that preservation is a branch of library and information science concerned with measuring or restoring access to artifacts, documents and records through the study, diagnosis, treatment and preservation of decay and damage.

Similarly, conservation, according to International Federation of Library Association (IFLA) is defined as specific practices taken to slow down deterioration and prolong the life span of an object by directly intervening in its physical or chemical make-up. Edhebe in Ozioko (2014) noted that conservation is the maintenance of documents in a usable condition through treatment and repair of individual items to slow the process of decay or to restore them to a usable state. Ozioko further reiterated that conservation includes study, diagnosis, preventive care, examination, treatment, documentation, and using any methods that may prove effective in keeping that property in as close to its original condition as possible and for as long as possible. Tondo, Jembe and Yankyar, (2022) opined that conservation is the treatment of information resources to stabilize their physical structure in order to sustain their survival as long as possible in their original format.

The most complex issue facing libraries today is how best to preserve the materials that comprise their collections. Since all library materials are not of equal value, decisions must be made concerning what should be preserved. This process also involves setting priorities and determining appropriate preservation methods and techniques that will be adopted to prolong the life span of library materials (Akande, 2009).

Akporhonor, (2011) identified the need to adopt preventive measures in conservation and preservation of library materials and records. These include proper housing of documents, protection against heat, humidity, light, air pollution, dust, insects, fungi, water and mishandling. Anasi, (2010) advocated for a preventive conservation and preservation approach in African countries, which should focus on improving the environment, controlling light, temperature, humidity and pollution. There are different methods and techniques librarians and archivists can employ to prolong the life span of materials in their custody. They include:

Careful Handling: There is need to educate librarians, archivists and users on the need to handle all library and archival materials with care. It is equally important that the surrounding of the library and archives should be kept clean, that is, good housekeeping should be maintained. Anasi, (2010), maintained that the practice of good housekeeping is probably the simple and less expensive method of preventive conservation for any type of information material. There are two aspects of housekeeping. These are cleaning the building and cleaning the library materials which include the use of vacuuming and dusting. Users should be prohibited from eating, drinking and smoking in the library.

Control of Environmental Factors: One of the most important factors affecting the longevity of library materials is the environment in which these materials are stored, used and displayed. In view of the above, Mohammed (2006) stated that conducive environment has a profound positive effect on the longevity of every item in the library. In the same vein, Chaudhary (2012) attested that after collection protection, environmental control is the most cost-effective investment in building design to extend the service life of the collection. The benefits of extended service life and reduced collection maintenance costs, in addition to considerations of human comfort, often can justify environmental control throughout the library. Sunlight also should be prevented from falling directly on papers because the sun is a great emitter of ultraviolet rays (Ogunsola&Ikegune, 2016).

Security: Libraries are required to provide adequate security to lives and materials in the library. All materials in the library should be identified with mark of ownership to prevent incidents of theft. The use of electronic detection at the exit is also required to prevent unauthorized removal of materials with ownership mark. There is also the need for proper surveillance by staff on users consulting materials. This will go a long way in preventing stealing, mutilation and other damages to materials in libraries (Abdulrazaq, 2015).

Reformatting: Some library materials could become brittle as a result of quality of paper used to produce them. These materials break easily due to constant usages. To avoid the loss of intellectual content of materials, libraries should make photocopies and microfilm of the materials to prolong their life span. Other forms of reformatting include:

- a. **Digitization:** This is the process of converting traditional library materials such as books and paper-based information materials into electronic form so that they can be stored and manipulated. Examples of electronic form include diskettes, CD Rom, and flash.
- b. **Lamination:** Lamination is another technique of reformatting used to restore a book or document into a usable condition. Lamination provides protective waterproof transparent cover to all varieties of documents.
- c. **Binding:** This is another method of elongating the life span of materials in the library. Materials that have been damaged over the years are taken to bindery for repairs and restoration.

Methodology

The design used for the study is descriptive survey. Descriptive survey is one in which a group of items are studied by collecting and analyzing data from only a few considered to be representative of the entire group. The population of the study consists of all 200 level Medical Students of College of Health Sciences, Benue State

University, Makurdi for the 2022/2023 academic session. The sample for the study consists of 500 students (350 MBBS and 150 Anatomy Students). This represents 10% of two hundred level students. A structured questionnaire was designed and administered to the sample respondents. Document Analysis Guide (DAG) was also used to collect results of 200 level students of MBBS and Anatomy. Purposive Sampling Technique was adopted in selecting the medical students that participated in the study. The statistical tools used for answering research questions were simple percentage, while chi-square (χ^2) was used for testing the hypotheses.

Results

Research question 1: What are the preservation and conservation practices in the Medical Library, College of Health Sciences, Benue State University, Makurdi.

| Preservation and conservation practices | Very important (%) | Important (%) | Less important (%) | Not Important (%) | Total (%) |
|--|--------------------|---------------|--------------------|-------------------|-----------|
| Security of library Materials | 318(63) | 185(37) | | | 500 (100) |
| Disaster Recovery Procedure | 46(9.2) | 454(90.8) | | | 500 (100) |
| Environmental Control | 224 (44.8) | 276(55.2) | | | 500 (100) |
| Handling of library materials | 200(40) | 247(49.4) | 53(10.6) | | 500 (100) |
| Training of Staff On preservation of Library materials | 254(50.8) | 193(38.6) | 53(10.6) | | 500(100) |
| Restoration of degraded Library materials | 95(19) | 405(91) | | | 500 (100) |
| Funding Total | 382(76.4) | 118(23.6) | | | 500 (100) |

Table 1 above shows that security of library materials has 318(63%), which means it is very important. Disaster recovery procedure has 454 (90.8%) respondents who said it was an important preservation and conservation practices. Environmental control has 276(55.2%) respondents who were of the view that it was important to use it as the preservation and conservation practices. Handling of library materials with care has 247 (49.4%) of respondents who agreed that it should be used as important preservation and conservation practices. Training of staff on preservation of library materials has 254 (50.8%) respondents who opined that it was a very important preservation and conservation practice. Restoration of degraded library materials has 405(91%) respondents who said it was important to use it as preservation and conservation practices. On the need for proper funding, 382(76.4%) respondents felt that it was a very important preservation and conservation practice.

Respondents identified security of library materials, disaster recovery procedure, environmental control, proper handling of library materials, training of staff on preservation of library materials, restoration of degraded library materials and adequate funding as preservation and conservation practices in the Medical Library, College of Health Sciences, Benue State University, Makurdi. This finding agrees with Abdulrazaq (2015) who observed that preservation and conservation practices of information resources lead to security of man's records of the past and present into safe places. Abdulrazaq further reiterated that when there is good preservation and conservation practices of library materials efforts will not be wasted on replacements.

Research Question 2: What are the causes of deterioration of library materials in the Medical Library, College of Health Sciences, Benue State University, Makurdi.

| Causes of deterioration | None Extent (%) | Little Extent (%) | Moderate Extent (%) | Great Extent (%) | Total (%) |
|---------------------------------------|-----------------|-------------------|---------------------|------------------|-----------|
| High acidity levels of book materials | 74 (14.8) | 299 (59.8) | 127 (25.4) | - | 500 (100) |

| | | | | | |
|-------------------------------------|------------|------------|------------|------------|-----------|
| Excessive Light | 36(14.8) | 291 (58.2) | 173 (34.6) | - | 500 (100) |
| Poor book shelving | 71(7.2) | 212 (42.4) | 168 (33.6) | 49 (9.8) | 500 (100) |
| Dust and Particulate Matter | 73(14.2) | 115 (23) | 219 (43.8) | 93 (18.6) | 500 (100) |
| Relative humidity | 145(29) | 85 (17) | 226 (45.2) | 44(8.8) | 500 (100) |
| Wear and tear due to rough handling | - | 123 (24.6) | 262 (52.4) | 115 (23) | 500 (100) |
| High temperature levels | - | 164 (32.8) | 256 (51.2) | 80 (16) | 500 (100) |
| Pest | 71 (14.2) | 201 (40.2) | 182 (36.4) | 46 (9.2) | 500 (100) |
| Non-print Materials | 108 (21.6) | 86 (17.2) | 175 (35) | 131 (26.2) | 500 (100) |

In table 2, 299 (59.8%) respondents were of the view that high acidity levels of book materials was to a little extent cause of deterioration of library materials. 291(58.2%) respondents on the other hand were of the opinion that excessive light was to a little extent cause of deterioration of library materials. 212(42.4%) respondents shared a different opinion that poor book shelving was to a little extent responsible for deterioration of library materials. 219(43.8%) respondents felt, dust and particulate matter to a moderate extent was responsible for deterioration of library materials. 226(45.2%) respondents were of the view that relative humidity was of moderate extent responsible for deterioration of library materials. 262(52.4%) respondents were of the view that wear and tear due to rough handling on a moderate extent was the cause of deterioration of library materials. 256(51.2%) respondents on their part stated that high temperature levels on a moderate extent was responsible for deterioration of library materials. 201(40.2%) respondents on their part, to a little extent felt that pests were responsible for deterioration of library materials. 175(35%) respondents in their view, to a moderate extent alluded the cause of deterioration of library materials to non-print materials.

The study found that the causes of deterioration of library materials include: high acidity levels of book materials, excessive light, poor book shelving, dust and particulate matter, relative humidity, wear and tear due to rough handling, high temperature levels, pest and biological agents. This finding is in consonance with Goswami (2018) who in her study on deterioration of library materials in university libraries in South-West Nigeria, found that there was high rate of deterioration in the studied universities, some of which were caused by wear and tear, dust particles, bad shelving and biological agents.

Research Questions 3: What are the techniques used in the preservation of library materials in the medical library, College of Health Sciences, Benue State University, Makurdi?

| Preservation and conservation Techniques | Very often (%) | Often (%) | Occasionally (%) | Never | Total |
|--|----------------|------------|------------------|----------|----------|
| Binding | 86(17.2) | 294(58.8) | 120(24) | - | 500(100) |
| Encapsulation | 71(14.2) | 270(54) | 159(31.8) | - | 500(100) |
| Photocopying | 49(9.8) | 241(48.2) | 210(42) | - | 500(100) |
| Digitalization | 49(9.8) | 320(64) | 131(26.2) | - | 500(100) |
| De-acidification | 49(9.8) | 208(41.6) | 172(34.4) | 71(14.2) | 500(100) |
| Cleaning and Dusting | 71(14.2) | 392(78.4) | 37(7.4) | - | 500(100) |
| Shelving Library Materials to allow For free flow of air | - | 418(83.6) | 82(16.4) | - | 500(100) |
| Use of insecticides and insects' repellants | 37(7.4) | 98(19.6) | 365(73) | - | 500(100) |
| installing air conditioners in the library. | 86 (17.2) | 333 (66.6) | 81 (16.2) | - | 500(100) |
| Provision of adequate security systems | 49(9.8) | 288(57.6) | 163(32.6) | - | 500(100) |

In table 3, 294 (58.8%) respondents were of the opinion that they often used binding as the preservation and conservation techniques in the medical library. 270(54%) respondents on their part stated that they often used encapsulation as the preservation and conservation techniques. 241(48.2%) respondents were of the view that they

often used photocopying as the preservation and conservation techniques. 320(64%) respondents stated that they often used digitalization as the preservation and conservation techniques. 208(41.6%) respondents agreed that they often used de-acidification as the preservation and conservation techniques. 392 (78.4%) respondents were of the opinion that they often used cleaning and dusting as the preservation and conservation techniques. 418 (83.6%) respondents agreed that they often used shelving library materials to allow for free flow of air as the preservation and conservation techniques. 365 (73%) respondents were of the view that they occasionally used insecticides and insect repellants as the preservation and conservation techniques. 333 (66.6%) respondents stated that they often used air conditioners in the library as the preservation and conservation techniques in the library. 288 (57.6%) respondents were of the view that they often provided adequate security systems as the preservation and conservation techniques in the library.

The study revealed that binding, photocopying, digitalization, cleansing and dusting, shelving library materials to allow for free flow of air, use of insecticides, installing air conditioners and provision of adequate security systems were the preservation and conservation techniques used. This finding agrees with the study of Ozioko (2014), who stated that conservation is the maintenance of documents in a usable condition through treatment and repair of individual items to slow the process of decay or to restore them to a usable state.

All the three null hypotheses were rejected because the p-values were less than 0.05 level of significance indicating that there were statistically significant differences between preservation and conservation practices, deterioration of library materials and techniques used in the preservation of library materials and academic performance of students in the College of Health Sciences, Benue State University, Makurdi.

Hypothesis 1: There is no statistically significant difference between preservation and conservation practices in the medical library and the academic performance of students in the College of Health Sciences, Benue State University, Makurdi.

Chi-square test of significant difference between preservation and conservation practices and academic performance of students.

| | Value | Df | Asymptotic significance (2-sided) |
|-------------------------------|----------|----|-----------------------------------|
| Pearson chi-square | 1500.000 | 27 | .000 |
| Likelihood Ratio | 1343.909 | 27 | .000 |
| Linear –by-Linear Association | .048 | 1 | .827 |
| N of valid cases | 500 | | |

The chi-square test between preservation and conservation practices in the medical library and the academic performance of students in the College of Health Sciences showed a p-value of $0.00 < 0.05$. Therefore, we reject the Null Hypothesis, and state that there is a statistically significant difference between preservation and conservation practices in the medical library and the academic performance of students in the College of Health Sciences, Benue State University, Makurdi.

Hypothesis 2.

There is no statistically significant difference between deterioration of library materials in the medical library and the academic performance of students in the college of Health Sciences, Benue State University, Makurdi.

Chi-square test of significant difference between deterioration of library materials and academic performance of students.

| | value | df | Asymptotic significance (2-sided) |
|--------------------------------|----------|----|-----------------------------------|
| Pearson chi-square | 3500.000 | 63 | .000 |
| Likelihood ration | 1997.491 | 63 | .000 |
| Linear –by-Linear Associations | 7.952 | 1 | .005 |
| N of valid cases | 500 | | |

The chi-square test between deterioration of library materials and academic performance showed a p-value of $0.00 < 0.05$. Therefore, the Null hypothesis is rejected and the alternate hypothesis accepted. This suggests that there is a statically significant difference between deterioration of library materials in the medical library and the academic performance of students of the College of Health Sciences, Benue State University, Makurdi.

Hypothesis 3

There is no significant difference in the techniques used in the preservation of library materials in the medical library and the academic performance of students of the College of Health Sciences, Benue State University, Makurdi.

Chi-square test of significant difference between techniques used in the preservation of library materials and academic performance of students.

| | value | df | Asymptotic significance (2-sided) |
|-----------------------------------|----------|----|--------------------------------------|
| Pearson chi-square | 2500.000 | 45 | .000 |
| Likelihood ration | 1599.603 | 45 | .000 |
| Linear –by-Linear Associations | 58.397 | 1 | .000 |
| N of valid cases | 500 | | |

The chi-square analysis between preservation techniques and the academic performance of students of the College of Health Sciences showed p.value of $0.00 < 0.05$. thus, we reject the Null hypothesis and state that there is a statistically significant difference between the techniques used in the preservation of library materials in the medical library and the academic performance of students in the college of Health Sciences, Benue State University, Makurdi.

Recommendations

The following recommendations are made:

1. There should be preservation and conservation of compendium of information at the Medical Library, College of Health Sciences, Benue State University, Makurdi.

2. Rare materials: Manuscripts and other materials should also be preserved at the Medical Library, College of Health Sciences, Benue State University, Makurdi.
3. Hard copies of the old as well as new materials which are prone to decay should be preserved at the Medical Library, College of Health Sciences, Benue State University, Makurdi.
4. **Digitalization:** Library materials such as books and paper-based information materials should be converted into electronic form so that they can be stored.

Conclusion

Library materials are the heart of libraries. They play vital roles to learning and studying information. Every library (Medical Library, College of Health Sciences, Benue State University inclusive) should have the planning for preventive preservation programme, then the outline in the guidelines can be used within the library to raise awareness of library education to users and staff. Finally, libraries should not only strive to acquire materials but should ensure that the materials acquired are preserved and conserved in usable conditions for generations of users. Thus, library materials can unavoidably get damaged, but with careful preventive measures, deterioration of the materials may be lessened or prevented as the adage says “prevention is better than cure”.

REFERENCES

- Abdulrazaq. A.B (2015). Preservation and conservation of information Resources in Libraries and Archives in Ozoiko, R.E (ed), *Book of Readings in Library and Information Science Makurdi: Climax graphics and Publishers*.
- Adeleke, O., Okusaga, T. and Lateef, E. B (2012). Preservation and conservation of information bearing materials, *Readings in Education, Development and Globalization*, 77-86.
- Akande, S.O. (2009). Knowledge perception and Attitudes of library Personnel towards Preservation of Information Resources in Nigerian Federal Universities. *Library Philosophy and Practice*, 1 (2), 22-34.
- Akporhanor, B.A. (2011). Preservation of Records in University in the South-South zone of Nigeria. *Abaraka, Journal of Information and knowledge management*, 2 (1), 40-45.

- Anasi, S.N. (2010). Preservation and Conservation Nigerian Cultural Heritage in the Era of Globalization. *African journal of libraries, Archives and Information Science* 1 (1), 62-69.
- Babalola, F. (2007). Problems of Preservation and repair of library resources. The case of Adeyemi College of Education library. *Ondo library journal*, 1 (1), 22-35.
- Chaudhary, S.K (2011). *Library preservation and conservation*. New-Delhi: APH Publishing Corporation.
- Goswami, S. (2018). Deterioration of Library Materials: Causes and Prevention. *Journal of Library and Information Science*, 44(2), 123-136.DOI: 10.1177/0971751118769644
- IFLA (2010). Principles for the care and handling of library materials. *International Preservation Issues*, 3 (1), 7-12.
- Mahapatra, S. K., and Wamukoya, J. K. (2007). Preservation of Library Materials: A Review of the Methods and Techniques Used in Africa. *International Journal of Information and Library Research*, 9(2), 127-143.
- Mohammed U.N. (2006). Preservation and conservation of Library materials, the situation in the *National library of Nigeria*, 17(1 & 2), 116-139.
- Odetoyinbo, J. (2012). Problems of preservation repair of library resources: the case of Adeyemi college of Education library. *Ondo library journal*, 1 (1), 5-20.
- Ogunmodede, T.A. and Ebijuwa, A.S. (2012). Problems of conservation and preservation of Library Resources in African libraries. *Greener journal of social Sciences* 3 (1), 50-57.
- Ogunsola, O., and Ikegune, E. (2016). Preservation of Library Materials: A Study of the Effects of Climate Change on Book Collections in Nigeria. *Journal of Environmental Studies and Sciences*, 6(2), 135-145.DOI: 10.1080/22589947.2016.1263551.
- Okpala, J. I. (2019). Preservation of Library Materials: A Review of the Nigerian Scenario. *International Journal of Library and Information Science*, 12(1), 1-14.DOI:10.7176/IJLIS
- Ovowoh, J., and Iwhiwhu, P. (2010). The State of Library Materials in Nigeria: A Survey of the Collection Development Process in Public Libraries. *Journal of Library and Information Science*, 38(1), 55-68.DOI: 10.1177/097175110805800105.
- Ozioko, C. I. (2014). Conservation of Library Materials: A Study of the Use of Traditional Techniques in Nigeria. *Journal of Conservation and Museum Studies*, 13(2), 35-45.
- Popoola, A., and Haliso, A. (2009). Management of Library Materials: A Study of the Challenges Faced by Librarians in Nigeria. *Journal of Librarianship and Information Science*, 41(3), 143-155.

Tondo, R.I., Jembe, R.T. and Yankyar, A.T (2022). Conservation and Preservation of Information Resources for improved service Delivery in Francis Idachaba Library, Joseph SarwuanTarka University Makurdi, Nigeria. *Library philosophy and practice (e-journal)*. <https://digitalcommons.un/.edu/lib/phi/prac/7379>