

**CHALLENGES OF ACCESSING AND UTILISING HEALTH
INFORMATION FOR INFORMATION NEEDS SATISFACTION OF
FEMALE UNDERGRADUATE STUDENTS IN COLLEGES OF
MEDICINE**

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Abstract

The study examined the challenges of accessing and utilizing health information for the information needs satisfaction of female undergraduate students in colleges of medicine. The study was guided by three research questions and one null hypothesis. The study adopted descriptive survey design. The population of the study was 1,339 registered female undergraduate students of colleges of medicine. The sample size of the study was 549 female undergraduates' students representing 41% of the population. The instrument used for data collection was questionnaire. Data gathered were analyzed using descriptive and inferential statistics. The study found out that, female undergraduate students understand that accessing and utilizing health information for meeting their information needs satisfaction has lots of benefits. However, challenges experienced in accessing and utilizing health information are: health information not packaged in an appealing/attracting format, lack of health counselors for students, negative attitudes of library staff members are a major problem and cultural or religious constraints, physical accessibility to the library building is a concern, lack of organize seminars/workshops on reproductive health, and epileptic power supply

to access electronic health information, lack of ICT facilities to access health information, lack of current and up-to-date health information in the library. Some of the solutions to the problems include: the managements of the colleges of medicine should allocate more fund to the colleges of medicine library to acquire more health information resources for the female undergraduate students so that they can access and utilize them to meet their health information needs.

Keywords: Accessibility, Utilization, Health Information, Challenges, Female undergraduate students

Introduction

College of medicine libraries are usually situated in universities and it is a place where students of higher learning particularly the female access their health information. By offering access to a collection that is broad enough to meet the interests of different users, the college of medicine libraries plays an important role as a vehicle of formal and informal education. Beyond that, the library greases the wheels of knowledge by facilitating easier and more efficient access to human records, allowing users to use what they discover to better themselves and their communities (Abubakar, Daniel, & Idris, 2020). These libraries makes knowledge available and accessible to all users, regardless of their age, gender, color, political affiliation, given its crucial function as a catalyst for societal reform; they are mainly to provide open accessibility to information on different aspect of life, like on employment, education, health, societal service, religion, economy, politics, and agricultural information (Adeleke & Makinde, 2022). Finding the health and scientific resources to enhance, modernize, study, and assess healthcare, is made easier with the aid of college of medicine libraries, which are organized to assist everyone including medical doctors, medical researchers, their patients, the students, and information professionals.

Access to reproductive health information (RHI) encompasses the entire provision and utilization of retrieval-based information services offered in the college of medicine libraries. According to Mathiesen (2014), accessibility to information occurs when one has the opportunity or chance to receive, use, and benefit from the information. Undergraduate students are an important component of achieving SDG 3 on health and wellbeing, and they are the focus of this study. According to the Population Reference Bureau (2015), female students had poorer accessibility to sexual, and health information, and risk factors for non-communicable illnesses (NCDs) like alcohol abuse, poor diets, and insufficient exercise are behaviours that begins at the early stage. Access to health

information should be available and accessible in the college of medicine libraries to assist undergraduate students in deciding who to visit, where to go, and what type of care they require. One strategy for improving health issues is to provide timely, and relevant sexual reproductive health information (SRHI) to young people, which include university students (Melaku, 2014). Nwachukwu *et al.* (2014) defined accessibility broadly as the extent to which a system is usable by as many users as possible. The rationale behind the study is to, examine the challenges of accessing and utilizing health information for information needs satisfaction of female undergraduate students in colleges of medicine which will result to improved reproductive wellbeing.

Objectives of the Study

The specific objectives of the study were to:

1. find out the extent to which health information accessibility and utilization improved reproductive wellbeing of female undergraduate students in colleges of medicine,
2. identify the challenges experienced in accessing and utilizing health information for information needs satisfaction by female undergraduate students of colleges of medicine,
3. proffer strategies to improve access and utilization of health information for information needs satisfaction among female undergraduate students in colleges of medicine.

Hypothesis

A null hypothesis was formulated and tested at 0.05 level of significance:

Ho¹. There is no significance difference in the challenges experienced in accessing and utilizing health information by female undergraduate students across the colleges of medicine.

Literature Review

College of medicine library is a company tasked with gathering, compiling, storing, retrieving, and providing users with access to information resources. It is a collection of informational resources and the place where these resources are stored for access. College of medicine library must provide the availability and accessibility of information resources, since it is a crucial service. These libraries provide resources to university personnel, faculty, and students while also promoting information literacy. Therefore, in order for the needs of the institutions to be met as well as those of their users, academic librarians; and

information professionals must balance specific research; and information needs with a functional collections of information resources, all the while taking the institution's subject specifics into consideration. A college of medicine library is founded by the university and receive supports and finances, through the federal or state government. Through a range of tools and services, it provides undergraduate students with equal accessibility to knowledge, creative works, and information not withstanding their age, color, nationality, religion, gender, language, handicap, financial position, job status; or educational attainment (Mbitsa, 2019). Due to its openness to all users and broad reputation, the college of medicine libraries is sometimes referred to as the people's university (Okeoma, 2015). College of medicine library is an institution where the students, staff and the general public can freely and without restriction access organized collections of information resources. They play a crucial role in promoting education, literacy, lifelong learning, health, cultural enrichment, and community engagement and are designed to meet the informational, cultural, and educational needs of people.

All female students are expected to access and utilized reproductive health information most especially the ones in colleges of medicine who are expected to make adequate use of the available health information and then pass it to their female counterpart in other faculties. Normally, childbearing age is a healthy period of life, but many females have died as a result of health issues such as Human Immunodeficiency Virus (HIV), and unplanned pregnancies, that frequently result in obstetrical complications, or unsecure abortion; however, some female students are less informed and experienced (Gamalat, Amany, & Ahmed, 2019). This is a huge public health concern, particularly for undergraduate students in Nigeria, most especially in the North Central region. It is however critical to equip the students with this crucial knowledge to help them to cope with all the conditions that make them volatile. Singh, Rai, and Singh (2014) found that 225 million women in the developing world, particularly in Nigeria, had unmet needs for modern contraceptive procedures. Women who desire to put off or delay having children but are not using contemporary contraceptive methods are referred to as having an unmet need. Similarly, Guttmacher Institute (2017) calculated that, out of the annual 210 million conceptions nation-wide, only 80 million which is (38%) were unwanted and 46 million (22%) were usually aborted. National Demographic Health Survey (NDHS, 2020), reported that maternal mortality rate (MMR) in Nigeria amount to 576 in every 100,000 live births; in accordance to the report, poor health information, and services is the major cause and this leads to about 10% of global

health burden. Moreover, the report added that fertility rate is recorded at 5.5 per woman in 2013.

The United Nations (UN) recognizes the importance of health, and the right of all students to make logical health decisions; advancement of health and rights a main priority, and to worked to confront the problems to health information and services through various initiatives and programs. The Organization established numerous global goals and targets for health and rights, including improving accessibility to family planning information, and services, lowering maternal mortality, and providing universal accessibility to sexual, and health care services. They have also highlighted and addressed health and rights through numerous projects and programs, such as Sustainable, Development Goals (SDGs), which were approved in 2015 and contain a target to ensure general access to sexual, and health care services. The United Nations emphasizes the importance of health information, and accessibility to health services for individuals, particularly the female undergraduate students, and has made it a priority to address the challenges and improve access to these resources at the global level. However, considering the unmet Millennium development goals (MDGs), new strategy has been devised using SDGs which is hoped to be achieved by member nations by 2030.

However, if female undergraduate students could access and utilize health resources and high-quality services, especially when problems emerge, health challenges might be avoided or reduced to the barest minimum. Nevertheless, in practice, most female students face significant obstacles when trying to get services, and even when they do, the services themselves are frequently of poor quality or ineffectiveness. Moreover, sector-wide programs for skilled attendance in recent years have sought to both increase supply and create demand (Odetola, 2015). The fundamental importance of health information to the society wellbeing is so much to be desired. According to WHO statistics for 2022, Nigeria contributes for more than 34% of global maternal deaths, by the risk of Nigerian woman's lifetime dying during conception, postpartum, childbirth, and or after an abortion being 1 in 22, in contrast to 1 in 4900 in industrialized countries. Health organization sees the importance of health information, accessing quality health services for female students of childbearing age and the role of information and education in promoting health; they thereby provide educational materials and works to improve the accessibility and utilization of health information, with a focus on reaching vulnerable and marginalized populations. They seek for incorporation of health into overall health-care, and works to ensure that undergraduate students have accessibility to the information, and services they

need to make knowledgeable decisions on their health. This includes access to prenatal care, family planning services, and safe delivery services. These help women to do away with problems of unintended births, unsecure abortions, and issues that relate to pregnancy (Women Health West, 2022).

Methodology

The study used descriptive survey design. The population of the study is 1,339 registered female undergraduate students of colleges of medicine, North Central, Nigeria. The sampling size of this study is 549 female undergraduates of colleges of medicine, in Northern Nigeria, representing 41% of population. The instrument used for collecting data is questionnaire. Closed-ended structured questionnaire, was designed by the researcher to gather data. A total of 549 copies of questionnaires were distributed to sampled respondents, out of which 531 copies representing 96.7% were completely filled and returned, hence used for the data analysis. Descriptive and inferential statistics were used to analyze the collected data. The replies to the research questions were analyzed using descriptive statistics, including means, frequencies, percentages, and standard deviations. Mean and standard deviation were used to analyze the data.

Result and Findings

1: To what extent does health information accessibility and utilization improve reproductive wellbeing of female undergraduate students of colleges of medicine?

Table 1: Mean Response on the extent to which health information accessibility and utilization improved reproductive wellbeing of female undergraduate students in colleges of medicine

S/N	Item statement	VHE	HE	LE	VLE	Mean	St.D	Remark	Rank
1	Better understanding of sexual health	435	47	18	31	3.67	0.80	VHE	1 st
2	Improved access to healthcare services	395	105	14	17	3.65	0.69	VHE	2 nd
3	Enhanced good fertility	373	127	31	0	3.64	0.59	VHE	3 rd
4	Improved	405	61	50	15	3.61	0.77	VHE	4 th

5	menstrual health management Improved reproductive health practices	368	130	19	14	3.60	0.69	VHE	5 th
6	Changed reproductive health behavior	333	146	35	17	3.50	0.76	VHE	6 th
7	Better management of reproductive health conditions (PCOS, endometriosis)	296	205	16	14	3.47	0.68	HE	7 th
8	Increased use of contraceptives	353	90	49	39	3.43	0.93	HE	8 th
9	Empowered to make informed decisions about my reproductive life	267	202	46	16	3.36	0.76	HE	9 th
10	Increased frequency of gynaecological check-ups	255	230	46	0	3.31	0.86	HE	10 th
Grand Mean						3.52	0.75	VHE	

Results in Table 1 shows the response on the extent to which health information accessibility and utilization improved reproductive wellbeing of female undergraduate students in colleges of medicine in North central, Nigeria. From the results; the health information accessibility and utilization of health

information contributes to improved reproductive wellbeing of female undergraduate students of colleges through better understanding of sexual health, with 3.67 mean score; improved access to healthcare services, with 3.65 mean score; enhanced good fertility, with 3.64 mean score; improved menstrual health management, with 3.61 mean score; improved reproductive health practices, with 3.60 mean score; and changed reproductive health behavior, with 3.50 mean score to a very high extent. The least is increased frequency of gynecological check-ups, with 3.31 mean score. The grand mean of 3.52 indicates that health information accessibility and utilization of health information contributes to improved reproductive wellbeing of female undergraduate students of colleges of medicine to a very high extent.

2: What are the challenges experienced in accessing and utilizing health information for information need satisfaction by female undergraduate students of colleges of medicine?

Table 2: Mean response on the challenges experienced in accessing and utilizing health information for information need satisfaction by female undergraduate students of colleges of medicine

S/N	Item statement	SA	A	D	S D	Mea n	St. D	Remark	Ran k
1	Health information not packaged in an appealing/attractive format	34 4	11 9	3 6	32	3.46	0.86	Accepted	1 st
2	Lack of health counsellors for students	34 8	99	5 2	32	3.44	0.90	Accepted	2 nd
3	Negative attitudes of library staff members are a major problem	30 0	18 0	1 9	32	3.41	0.82	Accepted	3 rd
4	Cultural or religious constraints	31 6	14 7	3 6	32	3.41	0.86	Accepted	3 rd
5	Physical accessibility to the library building is a concern	31 1	13 8	5 0	32	3.37	0.89	Accepted	5 th
6	Lack of organized seminars/workshops on reproductive health	28 0	19 9	2 0	32	3.37	0.82	Accepted	5 th
7	Epileptic power supply to access electronic health information	27 7	20 4	1 8	32	3.37	0.81	Accepted	5 th
8	Lack of ICT facilities to access Health Information	31 1	13 1	5 7	32	3.36	0.90	Accepted	8 th
9	Lack of current and up-to-date health information in the	31 2	13 5	4 4	40	3.35	0.92	Accepted	9 th

10	library Relevant reproductive health information is usually lengthy	29 2	18 0	3	56		Accepted	10 th
						3.33	0.93	
11	Lack of awareness of trending RH issues through various media (posters, leaflets)	26 7	18 8	4 4	32		Accepted	11 th
						3.30	0.86	
12	Non-availability of relevant RHI in the library	22 2	21 9	5 8	32		Accepted	12 th
						3.19	0.86	
13	Lack of adequate use of social media platforms to share informative and engaging content about RHI	21 5	22 4	6 0	32		Accepted	13 th
						3.17	0.85	
14	Lack of time to locate appropriate reproductive health information	20 9	23 2	5 2	38		Accepted	14 th
						3.15	0.87	
15	Lack of time to visit the College of Medicine Library	18 1	20 2	9 4	54		Accepted	15 th
						2.96	0.96	
	Grand Mean					3.31	0.87	Accepted

Data in Table 2 shows the response to the challenges experienced in accessing and utilizing health information for information need satisfaction by female undergraduate students of colleges of medicine in North central, Nigeria. From the results; the major challenges are health information not packaged in an appealing/attractive format, with 3.46 mean score; lack of health counsellors for students, with 3.44 mean score; negative attitudes of library staff members are a major problem and cultural or religious constraints with 3.41 mean score; physical accessibility to the library building is a concern, lack of organize seminars/workshops on reproductive health, and epileptic power supply to access electronic health information with 3.37 mean score; lack of ICT facilities to access health information, with 3.36 mean score; lack of current and up-to-date

health information in the library, with 3.35 mean score; relevant reproductive health information are usually lengthy, with 3.33 mean score; while the least challenges is lack of time to visit the college of medicine library, with 2.96 mean score. The grand mean of 3.31 shows that the majority of female undergraduate students experienced all the challenges in accessing and utilizing health information.

3: What are the strategies for improving access and utilization of health information for information needs satisfaction among female undergraduate students in colleges of medicine?

Table 3: Mean response on the strategies for improving access and utilization of health information for information needs satisfaction among female undergraduate students in colleges of medicine

S/N	Item statement	SA	A	D	SD	Mean	St.D	Remark	Rank
	To ensure improved access and utilization of health information:								
1	university authorities should ensure the library building is accessible to all students	377	154	0	0	3.71	0.45	Accepted	1 st
2	there should be regular workshops and seminars where students can learn about RHI from qualified healthcare professionals	349	182	0	0	3.66	0.48	Accepted	2 nd
3	librarians should make use of social media platforms to share	383	118	30	0	3.66	0.58	Accepted	2 nd

	informative and engaging content about RHI								
4	creation of awareness of trending RH issues through various media (posters, leaflets)	361	156	14	0	3.65	0.53	Accepted	4 th
5	the use of the College of Medicine library should be mandatory	333	195	3	0	3.62	0.50	Accepted	5 th
6	a look for alternative means for funds by management of college of medicine libraries for packaging and repackaging of RHI in attracting formats to the students	329	202	0	0	3.62	0.49	Accepted	6 th
7	provision of stable electricity power supply	328	189	14	0	3.59	0.54	Accepted	7 th
8	Library staff members should be friendly	340	153	38	0	3.57	0.62	Accepted	8 th
9	relevant reproductive health information should be short and precise	316	181	34	0	3.53	0.61	Accepted	9 th
10	there should be health counsellors for students	305	198	28	0	3.52	0.60	Accepted	10 th

11	wrong cultural or religious belief should be disannulled	284	217	30	0	3.48	0.60	Accepted	11 th
12	relevant RHI should be made available in the library	269	248	14	0	3.48	0.55	Accepted	11 th
13	there should be adequate provision of ICT facilities through which access to RHI can be achieved	293	201	37	0	3.48	0.62	Accepted	11 th
14	library staff should assist students in locating appropriate reproductive health information	357	84	58	32	3.44	0.91	Accepted	14 th
15	heads of libraries should ensure the availability of current and up-to-date health information in the college of Medicine libraries	270	237	24	0	3.42	0.72	Accepted	15 th
	Grand Mean					3.56	0.59	Accepted	

Data in Table 3 shows the response on the strategies for improving access and utilization of health information for information needs satisfaction among female undergraduate students in college of Medicine in North Central, Nigeria. From the results the major strategies are university authority should ensure the library building is accessible to all students, with 3.71 mean score; there should be regular workshops and seminars where students can learn about RHI from qualified healthcare professionals, and the librarians should make use of social

media platforms to share informative and engaging content about RHI with 3.66 mean score; creation of awareness of trending RH issues through various media (posters, leaflets), with 3.65 mean score; the use of college of medicine library should be mandatory, and a look for alternative means for funds by management of college of medicine libraries for packaging and repackaging of RHI in attracting formats to the students with 3.62 mean score; provision of stable electricity power supply, with 3.59 mean score; library staff members should be friendly, with 3.57 mean score; relevant reproductive health information should be short and precise, with 3.53 mean score; and there should be health counsellors for students, with 3.52 mean score; while the least strategy is heads of libraries should ensure the availability of current and up-to-date health information in the college of medicine libraries, with 3.42 mean score. The grand mean of 3.56 shows that the majority of the female undergraduate students accepted all the strategies.

4: There is no significant difference in the challenges experienced in accessing and utilizing health information by female undergraduate students across the colleges of medicine.

Table 4: Summary of ANOVA on mean ratings on the challenges experienced in accessing and utilizing health information by female undergraduate students across the colleges of medicine

S/N	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	24.530	4	6.132	0.141	0.967	Not Significant
Within Groups	22956.423	526	43.643			
Total	22980.953	530				

P<0.05; D: Decision; **S:** Significant; **NS:** Not Significant

Table 4, reveals that the F value 0.141 is significant at 0.967. Since this significant level of 0.967 is greater than the 0.05 level of significance at which the null hypothesis was tested, the null hypothesis is therefore upheld. Hence, there was no significant difference in the challenges experienced in accessing and utilizing health information by female undergraduate students across the colleges of medicine in North central, Nigeria.

Discussion of Findings

The extent to which health information accessibility and utilization improved the reproductive well-being of female undergraduate students in colleges of medicine

The study found that the health information accessibility and utilization of health information contribute to improved reproductive well-being of female undergraduate students of colleges of medicine to a very high extent. This is because the study found out that the health information accessibility and utilization of health information contribute to better understanding of sexual health, improved access to healthcare services, enhanced good fertility, improved menstrual health management, improved reproductive health practices, changed reproductive health behaviour, better management of reproductive health conditions (polycystic ovary syndrome, endometriosis), increased use of contraceptives, empowered to make informed decisions about reproductive life, and increased frequency of gynaecological check-ups. The findings of this study are by that of WHO (2017) who reported that access to information about maternal services should be available in the school through the College of Medicine libraries to help students make informed decisions. Information about safe sex and family planning services can help reduce unplanned pregnancies and their adverse consequences. Health issues affect many students' lives both socially and academically.

Similarly, the findings of the study correspond with the findings of Mbugua and Karonjo (2018) who found that accessing health information is crucial for undergraduate students to make informed decisions about their health. This information is not only important in their growth and development, it also influences their ability to achieve both educational and personal goals thus impacting their adulthood and ensuring they have healthy pregnancies and successful deliveries. Additionally, the findings of the study follow the findings of Cassidy et al. (2019) who reported that accessibility of reproductive health information is very crucial for these students to make correct decisions about their health, it helps the students avoid falling into sexual health problems that may affect their academic life. Also, the findings of Mbelle et al., (2018) reported that accessing reproductive health information helps students to avoid sexually transmitted infections (STI), unplanned pregnancies, and unplanned responsibilities which may adversely affect their education, career and their future progress; it also makes sure that they have healthy pregnancies and successful child deliveries.

Challenges experienced in accessing and utilizing health information for information needs satisfaction by female undergraduate students of colleges of medicine

The study found that, the major challenges are health information not packaged in an appealing/attractive format, lack of health counsellors for students, negative attitudes of library staff members are a major problem and cultural or religious constraints, physical accessibility to the library building is a concern, lack of organize seminars/workshops on reproductive health, and epileptic power supply to access electronic health information, lack of ICT facilities to access health information, lack of current and up-to-date health information in the library, and relevant reproductive health information are usually lengthy. There was no significant difference in the challenges experienced in accessing and utilizing health information by female undergraduate students across the college of medicine in North central, Nigeria. This implies that regardless of institution, majority of female undergraduate students experience similar challenges in accessing and utilizing health information for information needs satisfaction by female undergraduate students of college of medicine, in North central, Nigeria. The findings of the study is in accordance with the findings of Awoyemi, Obi and Owoye (2021) who discovered that poor infrastructure, cultural and social norms, and limited access to technology were major barriers to students' access to and use of health information.

The findings of the study also correspond with the findings of Umera et al. (2021) who revealed that lack of access to information, cultural and social norms, and language barriers were some of the challenges female students face regarding health information. Similarly, with the findings of Okeke, Eze and Ani (2019), factors hindering resource and service utilization include the absence of usage guides, inadequate funding, and insufficient power supply for ICT facilities. According to the Population Reference Bureau (2015), female students have less access to sexual and health information and services. Many female students are unaware of their health information needs or where to access necessary information. Significant barriers to utilization include ignorance about and misperceptions about health treatments (Shiferaw et al., 2020). Some women may not have access to health care providers, and online resources may be limited, language may also be a barrier to accessing health information for those who are non-English speakers. Young women in low-income households may face financial barriers in accessing health services, including tests and treatment for STIs, pregnancy tests, and contraceptives. However, barriers, such as social and cultural stigmatization, lack of awareness, language barriers, and financial

constraints, prevent people from accessing this information (Shiferaw et al., 2020).

Strategies for improving access and utilization of health information for information needs satisfaction among female undergraduate students of colleges of medicine

The study found out that, the major strategies are university authority should ensure the library building is accessible to all students, there should be regular workshops and seminars where students can learn about reproductive health information (RHI) from qualified healthcare professionals. The librarians should make use of social media platforms to share informative and engaging content about RHI, creation of awareness of trending reproductive health (RH) issues through various media (posters, leaflets), the use of colleges of medicine library should be mandatory, and a look for alternative means of funds by management of colleges of medicine libraries for packaging and repackaging of RHI in attracting formats to the students, provision of stable electricity power supply. Library staff members should be friendly, relevant reproductive health information should be short and precise, and there should be health counsellors for students.

The findings of the study is in accordance with the findings of Ezema (2016) who suggested improved rural development strategies such as information distribution via mobile communications, the building of remote libraries and information centers with Internet hubs, and periodic long-lasting adult literacy campaigns centred on information about health. The findings of the study also correspond with the findings of Melaku (2014) who reported that, one of the methods that can be used to improve health challenges is through the provision of relevant and timely sexual and reproductive health information (SRHI) to the youths, which include those studying in universities. Similarly, the findings of the study is in agreement with the findings of Yari (2016) who suggested effective interventions that focus on a diverse approach from various stakeholders need to be in place to improve the health of female students.

Conclusions

The study investigated the challenges of accessing and utilizing health information for information needs satisfaction by female undergraduate students in colleges of medicine. The study concluded that, the female undergraduate students understand that accessing and utilizing health information needs for meeting their information needs has lots of benefits. However, challenges experienced in accessing and utilizing are health information not packaged in an appealing/attracting format, lack of health counsellors for students, negative

attitudes of library staff members are a major problem and cultural or religious constraints. Physical accessibility to the library building is a concern, lack of organize seminars/workshops on reproductive health, epileptic power supply to access electronic health information, lack of ICT facilities to access health information, and lack of current and up-to-date health information in the library. The study is a novel study on the challenges of accessing and utilizing health information for information needs satisfaction by female undergraduate students in colleges of medicine.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Librarians should make use of social media platforms to share informative and engaging content about reproductive health information
2. There should be regular workshops and seminars where students can learn about reproductive health information from qualified healthcare professionals
3. The medical libraries management should search for alternative means for funds by management of colleges of medicine libraries for packaging and repackaging of reproductive health information in attracting formats to the students.

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