INFORMATION LITERACY FOR THE EMPOWERMENT OF MEDICAL SCIENCE RESEARCH AND DEVELOPMENT: AN ANALYTICAL STUDY

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Abstract:

Information resources play a significant role in clinical decision-making that requires timely and appropriate patient care. Medical practitioners need quick access to a vast amount of medical literature and cannot afford to ignore new developments in the medical sciences. This study presents the output of pre-and post-information literacy programmes among PG students in recognizing, locating, and using medical information resources in their research and medical practise at BLDE (DU) Medical College, Vijayapura. A pre-and post-survey has been adopted and conducted among 98 medical college students to assess the effectiveness of health information literacy programs. It can be seen from the result of the study that information literacy programmes have had a high influence and have increased the usage of information resources and services among medical students.

Keywords: *Information Literacy Program, Information Resources, Medical Information Resources, Library Users, Information Services, Research Support Services; Information Services*

1. Introduction:

The primary objective of the health science library is to support research and development activities and to deliver information resources and services in the interest of clinicians. The library and information centres play a major role in the information transfer cycle. They need to identify the users' needs, collect the information and information-bearing documents based on those needs, and process, organize, and store the information collected and disseminate it through various services. Medical libraries and information centres provide various information services to support research activities, clinical decision-making, and patient care. These resources provide evidence-based guidelines for therapeutic decision-making. It is generally accepted that information literacy refers to one's ability to recognise information needs; locate information; access it, understand it; evaluate it; and use it effectively, efficiently, legally, and ethically in solving problems. Competitive advantage, improved decision-making, and increased workforce efficiency and effectiveness depend on this ability.

The American Library Association defines information literacy as "a set of abilities empowering individuals to recognise when information is needed and to be able to locate it, evaluate it, and use it effectively." [6].

Students devote a significant amount of time and effort to researching and applying the information found on the internet to complete their academic assignments and projects. This study was born since post-graduate students who are writing their theses and dissertations place a high value on information literacy self-efficacy. Students' perceptions of their own self-efficacy in terms of information literacy skills, as well as instructional programmes for student users, information processing mechanisms, and methods for a successful search, could all benefit from a better understanding of what is already known in these fields. There is a strong correlation between information literacy self-efficacy and metacognitive strategies, management efforts, interpretation, critical thinking, and control beliefs. Healthcare professionals face several problems, such as medical content distributed over the web being challenging to browse, information related to clinical practise not being separated from non-clinical information, and a lack of support to retrieve information over the web. The library professional needs to deal with these problems by putting in place the right information literacy (IL) programmes for a strong clinical information system that provides a solution, spreads information, and encourages preventive healthcare practices.

2. Review of Literature

Previous studies have made it clear that students cannot acquire what they need to understand in their subject of study. They are given the crucial skills needed to become long-term free-lance learners through data acquisition. The researcher cited reviews of earlier studies in this context.

Tallolli and Mulla (2016)11 investigated the level of user literacy on resources in engineering college websites; the study discovered that libraries must conduct periodic surveys, user education, orientation, and information literacy programmes in order to make effective and efficient use of information resources and services. ***Guo (2016)*** believes that digital game-based learning (DGBL) can motivate desired learning results by actively involving students. Affective embodied agents (EAs) have been introduced into DGBL as learning partners or instructors to broaden its appeal. A pre-test post-test between-subjects experiment with three conditions—affective-EA, neutral-EA, and no-EA—involved 159 tertiary students who were chosen at random. Results showed that students benefited from interacting with the emotive EA in the information literacy game in terms of learning motivation, enjoyment, perceived utility, and behavioural intention. The necessity and urgency of increasing health information literacy (HIL) of the general population in China were explored in ***Lu, J., et al.'s (2016)*** [8]'s analysis of the library-based health information literacy service model in the age of big data. Creating a patient-focused, network-sharing health information resources bank and creating full-time and part-time HIL service teams in university libraries to establish an innovative health information services model with big data era features According to Lwoga and Sife's (2018) 9 assessment of the usage behaviour of e-resources among health sciences faculty and their level of information literacy practice, there is a need for more proactive strategies for raising faculty members' awareness of important scholarly databases and search engines, according to ***Lwoga and Sife's (2018)***[9] assessment of the usage behaviour of e-resources among health sciences faculty and their level of information literacy practises. The study was conducted at the Muhimbili University of Health and Allied Sciences. According to ***Akpovire & et al***.[1] (2019), information literacy should receive enough attention by ensuring that medical students have the necessary skills for information search. ***Ali and Naveed (2020)***[2] described the research support resources and services provided

by Pakistani university libraries. To improve library users' information and research literacy, libraries not only provide specialised research tools (e.g., citation management software, data analysis software) but also manage research training programmes such as citation management, avoiding plagiarism, data analysis, academic writing, developing research proposals, conducting online surveys, and so on. **Carolyn Caffrey *& et al.* (2022)** study lists recent publications on information literacy instruction and libraries. A brief introduction and a carefully chosen annotated bibliography of works on various library kinds, study populations, and research contexts are provided. The chosen bibliography is helpful for busy practitioners, library science students, and anyone who want to learn about information literacy in various contexts to effectively stay up with changes in library training. The study briefly describes 424 sources and calls attention to those that make original or noteworthy scholarly contributions. **Ghorbanian Zolbin, M *& et al.* (2022)** The findings of the review indicate three primary themes, which provide a summary of the current literature, and in all three the results show that health intervention programmes help to enhance health literacy skills of elderly people.

3. Need and purpose of the study

Medical practitioners from medical institutions require an information environment to update information in clinical practises to meet their needs through a single point of access from the web. Information literacy programmes have enabled them to use required medical literature from the web. To serve the faculty and students in their academic work efficiently and effectively, it is necessary to ascertain the effectiveness of information literacy programmes being provided by the library professionals. In this concern, a pre-posttest study on information literacy will help the librarians and other information managers to develop an Information and Communication Technology (ICT) based library system through which the faculty and students can access and search for clinical information resources through the latest web environment.

4. Objectives

The study's goal is to assess whether information literacy self-efficacy is being explored in various fields, situations, and research topics. It also needs more research to bridge the gap between theoretical and practical applications in real-world information-seeking activities. As a result, the current study attempts to bridge the gap, specifically in a BLDE(DU) academic setting.

1. To find out how well the information literacy programme helps BLDE (DU) students use electronic information resources.
2. Analyze the familiarity of the library with the pre and post-test information literacy programmes.
3. To find out awareness about the library's resources and services in pre- and post-test contexts among the respondents
4. To assess the respondents' awareness and use of various technological tools and applications in pre and post-ILP
5. To determine the efficacy of library services in pre- and post-testing.

5. Significance of the Study

Growth and change have always been predominant characteristics of libraries, and information literacy programmes generate the effective use of resources, collections, and services within the library system. Library professionals also need to know whether the programmes for user education, information literacy, and research support services are sufficient to meet the needs and demands of medical professionals and others. It is accepted that a well-equipped medical library is indispensable for sustaining quality research; the researcher believes that the study will help to take proper policy decisions and other measures needed to overcome shortcomings, if any.

6. Research design and methodology

The researcher chose the survey method for the study. It was conducted at the Central Library of BLDE (Deemed to be University), Vijayapura. The study sample included the faculty and students. Data analysis uses simple descriptive statistics. The survey questions were developed based on the survey used. Information on the respondent's age, gender, and course of study is provided in this section. At the Reference Department's section dedicated to online electronic information sources, 98 respondents received questionnaires. The BLDE (DU) Library's information literacy workshops were not offered to students who had not attended any of them. The respondents' characteristics were thought to be crucial in identifying those who utilised the information literacy programme offered at the BLDE (Deemed to be University), Vijayapura. Ninety-eight students responded to the pre-survey and post-survey with response rates of 100%, respectively.

7. Method

To more directly connect the information literacy component to the hands-on training and lecture methods using department-wise small group content and incorporate this information literacy program, from the 15th to the 21st of March 2022. It offers an opportunity for people experiencing students and faculty members to informally meet with a librarian and library service to discuss topics or concerns over a cup of coffee. There were 98 PG students who attended the training session. The Library Orientation, Hands-on Training of Remote Access of Library Resources, ProQuest Database Search, DELNET network access, Scopus database search strategy, Grammarly digital writing tools installation, Institutional Repository access, OPAC search, Swayam MOOCs programme registration, BMJ Best Practices, BMJ Research to Publication, and Mendeley Reference Management software installation, etc. Team Library coordinated and delivered the content and training. The survey methods were used for data collection, and the respondents' pre-survey and post-survey were collected.

8. Data analysis

For the Pre- and Post-ILI sessions, data was collected using Google forms. The data was tabulated using Microsoft Excel and analysed with SPSS.

9. Results and Discussion

Data analysis uses simple descriptive statistics. The survey questions were developed based on the survey used. Information on the respondent's age, gender, and course of study is provided in this section. In the Reference Department's section dedicated to online electronic information sources, 98 respondents received questionnaires. The BLDE (DU) Library's information literacy workshops were not offered to students who had not attended any of them. The respondents' characteristics were thought to be crucial in identifying those who utilised the information literacy programme offered at the BLDE (Deemed to be University), Vijayapura. Ninety-eight students responded to the pre-survey and post-survey with response rates of 100%, respectively.

Table-1: Gender-wise distribution

Gender	***Number of responders before ILP (n= 98)***	***Number of responders after ILP (n= 98)***
Male	54 (55.10)	54 (55.10)
Female	44(44.90)	44(44.90)

The participation towards the gender-wise distribution data shows that most of the respondents are ‘male' (n = 54, 55.10), and about 44 (44.90%) are from the 'female' category for pre and post-information literacy programs.

Table-2: Department-wise distribution

Department	***Number of responders before ILP (n= 98)***	***Number of responders after ILP (n= 98)***
Pathology	4 (4.08)	4 (4.08)
Dermatology	5(5.10)	5(5.10)
General Surgery	9 (9.18)	9 (9.18)
Anesthesiology	13 (13.26)	13 (13.26)
Orthopaedics	10 (10.20)	10 (10.20)
Psychiatry	2 (2.04)	2 (2.04)
ENT.	5 (5.10)	5 (5.10)
Ophthalmology	4 (4.08)	4 (4.08)
Radio-Diagnosis and Imaging	4 (4.08)	4 (4.08)
General Medicine	20 (20.40)	20 (20.40)
Paediatrics	8 (8.16)	8 (8.16)
Obstetrics & Gynecology	10 (10.20)	10 (10.20)
Respiratory Medicine	2 (2.04)	2 (2.04)
Geriatric Medicine	1 (1.02)	1 (1.02)
Emergency Medicine	1 (1.02)	1 (1.02)

The cross-tabulation of respondents by their department shows that the majority of the respondents, about 20 (20.40%), are from the General Medicine department, followed by 13 (13.26%) respondents from the Anesthesiology department, and 10 (10.20%) respondents from the Orthopedics and Obstetrics & Gynecology departments. Further data shows that 9 (9.18%) and 8 (8.16%) of respondents were from General Surgery and Pediatrics, respectively. About 07 departments have representatives of fewer than 05 members.

Table-3: Awareness of the Library

About Library	Number of responders before ILP (n= 98)			Number of responders after ILP (n= 98)				Pre	Post	
	Very much familiar	familiar	Not familiar	Very much familiar	familiar	Not familiar	Correlation	χ^2_{cal}	χ^2_{cal}	χ^2_{tab}
Library Timings	10 (10.20)	40 (40.81)	48 (48.97)	62 (63.26)	35 (35.71)	01 (01.02)	-0.9254	0.08	0.55	5.99
Borrowing privilege	01 (1.02)	28 (28.57)	69 (70.40)	56 (57.14)	40 (40.81)	02 (02.04)	-0.9937	0.06	0.31	5.99
Library Rules	01 (1.02)	25 (25.51)	72 (73.46)	60 (61.22)	36 (36.73)	02 (02.04)	-0.9963	0.21	0.99	5.99
Library Staff	01 (1.02)	20 (20.40)	77 (78.57)	52 (53.06)	45 (45.91)	01 (01.02)	-0.9933	0.54	0.32	5.99

From the data analysis, it is clearly witnessed that there is a negative correlation between pre and post-test with reference to library components like library timings, borrowing privileges, library rules, and library staff.

Also, we notice that the calculated value of χ^2 is less than χ^2 tabled value. Hence, we accept the null hypothesis at a 5% level of significance with 4 degrees of freedom, which also justifies that there is a relationship between **about library** and information literacy programs.

It's evident from table 3 that to improve correct comprehension of the library systems, practical orientation techniques, including individualised instructions, guided tours, and group instructions, should be improved. Additionally, the university library staff should provide information literacy programmes that appeal to all user groups, including junior and senior workers, as well as the people the library serves in the community.

Table-4: Awareness about the Library Resources

H_0: There is a relationship between library resources and information literacy programs.
H_1: There is no relationship between library resources and information literacy programs.

Library Resources	Number of responders before ILP (n= 98)			Number of responders after ILP (n= 98)				Pre	Post	
	Very much familiar	familiar	Not familiar	Very much familiar	familiar	Not familiar	Correlation	χ^2_{cal}	χ^2_{cal}	χ^2_{tab}
Library OPAC	01 (1.02)	22 (22.44)	76 (77.55)	49 (50)	45 (45.91)	04 (04.08)	-0.9804	0.53	0.54	5.99
Library Institutional Repository	01 (1.02)	22 (22.44)	75 (77.53)	58 (59.18)	36 (36.73)	04 (04.08)	-0.9905	0.53	0.31	5.99
e-resources	02 (02.04)	41 (41.83)	55 (56.12)	63 (64.28)	34 (34.69)	01 (01.02)	-0.9544	0.96	0.31	5.99

The data analysis shows a negative correlation between pre and post-test with references to library resources like Library OPAC, Institutional Repository, and e-resources..

We also notice that the calculated value of χ^2 is less than χ^2 tabled value; hence, we accept the null hypothesis at a 5% level of significance with 4 degrees of freedom, which also justifies that there is a relationship between **library resources** and information literacy programs.

The effectiveness of the tactics mentioned above was also evaluated. Respondents talk about how well the university's methods for teaching library users how to find and use information in Table 4.

Table-5: Awareness about the Library Services

H_0: There is relationship between library services and information literacy program.
H_1: There is no relationship between library services and information literacy program.

Library Services	**Number of responders before ILP (n= 98)**			**Number of responders after ILP (n= 98)**				**Pre**	**Post**	
	Very much familiar	familiar	Not familiar	Very much familiar	familiar	Not familiar	**Correlation**	χ^2_{cal}	χ^2_{cal}	χ^2_{tab}
Circulation services	01 (01.02)	23 (23.46)	75 (76.53)	49 (50.00)	46 (46.93)	03 (03.06)	-0.9714	0.5	0.81	5.99
DDS	01 (01.02)	22 (23.46)	75 (76.53)	45 (45.91)	47 (47.95)	06 (06.12)	-0.9485	0.45	0.96	5.99
Reprographic Service	01 (01.02)	20 (20.40)	77 (78.57)	53 (54.08)	40 (40.81)	05 (05.10)	-0.9998	0.46	0.2	5.99
Book bank service	01 (01.02)	20 (21.42)	77 (78.57)	44 (44.89)	48 (48.97)	06 (06.12)	-0.9464	0.3	0.17	5.99
Printing and Scanning	01 (01.02)	30 (30.61)	67 (68.36)	55 (56.12)	41 (41.83)	02 (02.04)	-0.9808	0.38	0.59	5.99
User Awareness Program	01 (01.02)	21 (21.42)	76 (77.55)	51 (52.04)	43 (43.87)	04 (04.08)	-0.9949	0.64	0.47	5.99

From the analysis of the data, it is clear that there is a negative correlation between the pre-test and the post-test when it comes to library services like circulation services, document delivery services, reprographic services, book bank services, printing and scanning, and the User Awareness Program.

We also notice that the calculated value of χ^2 is less than χ^2 tabled value Hence, we accept the null hypothesis at a 5% level of significance with 4 degrees of freedom. We agree with the null hypothesis, which also shows that there is a link between library services and programmes that teach people how to use information.

It’s clear that the library services' effectiveness is accurate, and then using that information is crucial. Therefore, information literacy promotion techniques are intended to allow library users

to acquire the appropriate technology-using skills and thereby resolve their research or academic issues. When library users use the information they've learned to do things like research, they need to have a certain set of skills.

Table-6: Awareness of the Library Technological Tools

H_0: There is a relationship between library technological tools and information literacy program.
H_1: There is no relationship between library technological tools and information literacy program.

Library Technological Tools	Number of responders before ILP (n= 98)			Number of responders after ILP (n= 98)				Pre	Post	
	Very much familiar	familiar	Not familiar	Very much familiar	familiar	Not familiar	Correlation	χ^2_{cal}	χ^2_{cal}	χ^2_{tab}
Remote Access	01 (01.02)	27 (27.55)	70 (71.42)	63 (64.28)	34 (34.69)	01 (01.02)	-0.99459	0.01	0.03	5.99
DELNET	01 (01.02)	23 (23.46)	74 (75.51)	49 (50.00)	45 (45.91)	04 (04.08)	-0.97639	0.04	0.47	5.99
OPAC	01 (01.02)	21 (21.42)	77 (78.57)	54 (55.10)	41 (41.83)	03 (03.06)	-0.99996	0.04	0.02	5.99
Similarity/ Plagiarism	01 (01.02)	24 (24.48)	73 (74.48)	60 (61.22)	36 (36.73)	02 (02.04)	-0.99435	0.06	0.72	5.99
Mendeley	01 (01.02)	19 (19.38)	78 (79.59)	62 (63.26)	34 (34.69)	02 (02.04)	-0.96645	0.1	0.49	5.99
Grammarly	01 (01.02)	34 (34.69)	63 (64.28)	69 (70.40)	28 (28.57)	01 (01.02)	-0.99671	0.25	0.33	5.99
Swayam	01 (01.02)	28 (28.57)	69 (70.40)	65 (66.32)	32 (32.65)	01 (01.02)	-0.99072	0.02	0.46	5.99

The data analysis shows a negative correlation between pre and post-test with reference to library technological tools like Remote Access, DELNET, OPAC, Similarity/Plagiarism, Mendeley, Grammarly, and Swayam.

Also, we notice that the calculated value of χ^2 is less than χ^2 tabled value; hence we accept the null hypothesis at 5% level of significance with 4 degrees of freedom; we accept the null Hypothesis, which also justifies that there is a relationship between **library technological tools** and information literacy programmes.

The results showed that providing written materials on information literacy, orientation skills on information sources and their users, and giving new users guided tours were the most effective tactics used by the library to teach information literacy to library patrons. This is consistent with Weiner's findings that librarians employ various techniques, including instructions on how to conduct library research and apply information literacy.

Table-7: Awareness about the Library e-resources

H_0: There is relationship between library e-resources and information literacy program.

H_1: There is no relationship between library e-resources and information literacy program.

Library e-resources	Number of responders before ILP (n= 98)			Number of responders after ILP (n= 98)				Pre	Post	
	Very much familiar	familiar	Not familiar	Very much familiar	familiar	Not familiar	Correlation	χ^2_{cal}	χ^2_{cal}	χ^2_{tab}
ProQuest	01 (01.02)	19 (19.38)	78 (79.59)	52 (53.06)	44 (44.89)	02 (02.04)	-0.99712	0.53	0.86	5.99
Scopus Database	01 (01.02)	19 (19.38)	78 (79.59)	57 (58.16)	39 (39.79)	02 (02.04)	-0.99486	0.51	0.56	5.99
BMJ Case Report	01 (01.02)	15 (15.30)	82 (83.67)	58 (59.18)	29 (29.59)	01 (01.04)	-0.89795	0.53	0.25	5.99
BMJ Best Practices	01 (01.02)	16 (16.32)	81 (82.65)	68 (69.38)	29 (29.59)	01 (01.02)	-0.90441	0.47	0.21	5.99
PubMed	01 (01.02)	32 (32.65)	65 (66.32)	54 (55.10)	39 (39.79)	05 (05.10)	-0.97963	0.47	0.52	5.99

The data analysis clearly shows a negative correlation between pre and post-test with reference to library e-resources like ProQuest database, Scopus Database, BMJ Case Report, BMJ Best Practices, and PubMed.

We also notice that the calculated value of χ^2 is less than χ^2 tabled value; hence, we accept the null hypothesis at a 5% level of significance with 4 degrees of freedom. We agree with the null hypothesis, which also shows that there is a link between library e-resources and programmes that teach people how to find and use information.

It was decided that the library's ways of teaching people how to find and use information were mostly effective.

Table-8: Opinion toward Information Literacy Program

Rating of Course	***Number of responders after ILP (n= 98)***			
	Very Good	**Good**	**Average**	**Not Good**
Rate the post-training section.	60 (61.22)	37 (37.75)	01 (01.02)	0
Would you consider further training on the topic on your own?	64 (65.30)	32 (32.65	02 (02.04)	0
Would you like to have received some further reading material on the course subject?	62 (63.26)	32 (32.65)	04 (04.08)	0
Would you like to receive the course material in print for further personal research?	66 (67.34)	30 (30.61)	01 (01.02)	01 (01.02)
Would you have preferred more follow-ups?	63 (64.28)	33 (33.67)	02 (02.04)	0
Would you have liked further guidance after	67	29	02	0

taking the course?	(68.36)	(29.59)	(02.04)	
Would you feel confident about taking another course on the same platform?	62 (63.26)	34 (34.69)	02 (02.04)	0

The respondents were asked if they were satisfied with the information literacy programme provided to them related to medical information in the Library and Information Centre, and the responses showed that 67 (68.36%) respondents mentioned "Very Good for the factor"; followed by 66 (67.34%) respondents mentioned "Very Good for the factor *Would you like to receive the course material in print for further personal research?* 65% of respondents indicated "Very Good" for the factor "*Would you consider further training on the topic on your own? 64.28% of respondents stated "Very Good for the factor* Would you have preferred more follow-ups? Moreover, about 63.26% of respondents have to opine "Very Good." *Would you feel confident about taking another course on the same platform?* Overall, about 60 (61.22%) respondents agreed that the post-training section was "Very Good."

10. Major Findings

The following are the significant findings of the study:

a) The majority of the respondents are'male' (n = 54, 55.10) and about 20 (20.40%) are from the General Medicine department,
b) The awareness of the library timings has increased from 10.20% to 63.26% at "very familiar". Borrowing privileges, library rules, and library staff details have increased from 01.02% to 57.14%, 61.22%, and 53.06%, respectively in the "very familiar" category.
c) The post-test result reveals that 50% (n = 49) of respondents were very familiar with library OPAC, 58 (59.18%) of respondents with the institutional repository service provided by the library, and 63 (64.28%) of respondents were very familiar with using e-resources.
d) Pre-test results indicated that no respondents were "very much familiar" with the major services of the library. In contrast, the ILP post-test results showed there was a significant awareness established among the respondents. The report reveals that 55 (56.12%) of respondents are very familiar with document printing and scanning, reprographics services (n = 53, 54.08%), user awareness programme (n = 51, 52.04%), and circulation services (n = 49, 50%).
e) Responses towards awareness of library technological tools and applications show that from the pre-test, no respondents were'very much familiar', and after the ILP post-test, there were significant changes can be seen from the respondent's group that respondents were'very much familiar' towards Grammarly (70.40%), SWAYAM course (66.32%), mLibrary Remote Access (64.28%), Mendeley reference management software (63.26%), and URKUND plagiarism similarity checker (61.22%).
f) It is evident from the study that from the ILP pre-test, no respondents mentioned "very much familiar" and In contrast, the post-test result shows that respondents were'very much familiar' with BMJ Best practises & BMJ Case reports (70.40% & 59.18%), Scopus database (58.16%), PubMed (55.10%), and Proquest database (53.06%).

g) 60 (61.22%) respondents agreed the post-training section was "Very Good," and 67 (68.36%) respondents mentioned "Very Good for the factor *"Would you have liked further guidance after taking the course?"*

11. Discussion

Post-test results explore that after conducting an ILP, there was a significant development observed in terms of their library timings, borrowing privileges, rules and regulations, and the library staff. The post-test result indicates that the ILP has influenced the growing use of library resources such as OPAC, institutional repositories, and e-resources.The technological tools and applications enable the students to search and retrieve the information related to this study, highlighting that no respondents were "very much familiar with this category, and the ILP enabled them to create more awareness and make it easily accessible. The study reveals that more than 50% of respondents are well aware of those technological tools and applications provided by the library ***(****Hanbidge-2015, Ali and Naveed-2020)*. Medical faculty and students rely upon various information resources to improve clinical decision-making, keep up-to-date, write research reports, and other similar academic activities. However, they differ in their opinions in some cases; in most of their responses, they indicate agreement among them in resource familiarity, and they agree that ILP has increased the usage and use of information resources subscribed by the library (Williams-2013, Ullah & Ameen-2014, Mulla-2014).61.22% of respondents agreed that the post-training section was 'Very Good 65% of respondents indicated they considered further training on the topic on their own and needed to get course materials/tutorials to improve their search skills *(Kratochvil-2013)*, and this indicated the information literacy programmes are an ideal tool for faculty and students to make them aware of medical information at any time and any place to access organised information resources.

12. Conclusion

The tendency toward specialisation in medicine makes hospitals more obliged to maintain effective medical information delivery. Library professionals have to keep up with the latest technological developments in library activities. The main tactics used by academic institutes to improve information literacy among library users are information literacy resources, one-on-one training, demonstration, welcoming new users, and organising seminars and workshops. These tactics were largely successful. However, some library patrons believe additional efforts are required to increase the tactics' efficacy. Therefore, practical orientation methods, including individual instructions, guided tours, and group instructions, should be improved to improve correct comprehension of the library systems. The academic library staff should also provide information literacy programmes that appeal to various user demographics, including students, faculty, staff, and even the general public.

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