Attitudes and Perceptions of Postgraduate Medical Trainees towards the Library User Education (LUE) Programme

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Abstract

Library user education aims to make library users proficient in research and lifelong learners. The impact of library user education extends beyond the classroom and orientation, allowing users to engage themselves and effectively identify, access, retrieve, and use library information resources to their advantage. It also raises awareness of the library's available information resources. The Postgraduate Institute of Medicine (PGIM) library of the University of Colombo has identified the importance of acquiring user perceptions through user education programmes. This study aimed to assess postgraduate trainees' perceptions and investigate the impact of the user education programme conducted by the PGIM library. The library user education programmes considered in this study are the PGIM library resources and services, which include the library digital repository, literature review, E-Resources, avoiding plagiarism and managing references. The survey research design was used for the study, while the questionnaire instrument was used for data collection.

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Received: 29/04/2023, Accepted revised version: 23/06/2023
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The study population comprises all users participated for the library user education programme in 2020 -2021. The study found out that the user education programme had positively affected the postgraduate trainees' use of the library and academic performance. Awareness, accessibility, and utilisation of library services and resources impact the library user education programme. The study also emphasised the significance of ongoing library user education programmes in developing research skills among medical students in order for them to develop medical information retrieval, supporting research work and other findings provided to medical trainees, which supports their professional life.

**Keywords:** Library user education, Information Skills, Library Resources and Services, Postgraduate Medical Trainees, Information Searching
Introduction
A major objective of health sciences libraries is the organisation of medical information and dissemination to medical trainees and professionals. With the explosive growth rate of medical information, it has become increasingly crucial for those in the medical science field to find the most efficient means to locate needed information.

Libraries must have a forum as an information provider that users can use to improve the quality of programmes, one of which is the user education programme. User education is a method or programme that makes future information users aware of the value of information and motivates them to use information resources. The library helps its readers with their reading and research needs. In order to ensure that information sources, services, and resources are appropriately utilised to users' advantage, the library has to offer better services to its patrons. Therefore, the user education programme is essential for the success of library users. User education is intended to improve users' knowledge of the library's collections and services and motivate patronage, attitude change, increased usage, and increased demands on the library (Okoye 2013). In the same way, it attempts to change individual behaviour towards and experience using the library and other information sources (Oyedipe and Okewale 2012).

The library is the lifeline for research, learning, and teaching at every academic institution since no success in learning, teaching, or research would be possible without it. Therefore, library users must be directed or trained to obtain knowledge and literacy skills to pursue academic achievement. Because of its intended activities to help users comprehend and make effective and efficient use of the library and employ the gained information or knowledge to address any problem at hand, library training is frequently referred to as user education or library orientation (Gregory and Broussard, 2011).

Measuring attitudes and perceptions towards the university library and its user education programmes is an effective way to develop new approaches, allowing librarians to continue improving on existing library services. According to Ogunmodede and Emehara (2010) the purpose of library user education is to provide library users with the knowledge and skills they need to use library resources effectively, efficiently, and independently. They also observed that, in today's digital environment, library resources are so complex that the average library user cannot effectively use them without the assistance or guidance of library user education librarians. It is anticipated that library user education will have various beneficial consequences on
students' learning outcomes, research habits, and self-motivation for independent learning. In a broad sense, it involves instructing users on how to use library systems efficiently.

Furthermore, library user education programmes are designed to inform and influence users' opinions and attitudes towards library usage issues and inspire their quest for knowledge, which is critical for individual and societal advancement (Tiefel, 1995). Typically, library education programmes cover a range of library services, including OPAC use, library tours, and inquiry-based training for teaching information literacy. Students who learn research skills in an inquiry-based learning environment are more likely to use library materials and databases in their research and assignments.

This study aims to investigate how user education programmes conducted by the library of the PGIM have influenced medical trainees in their educational and research activities, as well as to identify the trainees' attitudes and perceptions toward the library user education programmes, which will necessitate future visions. The respondents' responses might be useful in adding new components to enhance future programmes.

**Statement of the Problem**
The library user education programmes are carried out in PGIM library to help medical trainees with the library environment and its materials. The library carries out orientation to educate Postgraduate medical trainees in using the available services and resources and enable them to effectively use them to their benefit in their academic requirements. Most of the newly enrolled medical trainees of the PGIM have no hands-on training skills for utilising library materials such as retrieving appropriate medical information, effective use of the internet, and library materials. The scope of the library user education programme helps users improve their skills, allowing the library materials to be used to their full potential.

**Research Objectives**
This study aimed to look into postgraduate trainees' perceptions of the library user education programmes at the Postgraduate Institute of Medicine and the
impact of such library user education programmes on postgraduate trainees. The study's specific objectives were as follows:

- To examine the postgraduate medical trainees' attitudes and perspectives on library user education programmes.
- To study the utility of library user education programmes conducted by PGIM library.
- To investigate the level of satisfaction about the library's user education programmes among postgraduate medical trainees in PGIM.

Review of Literature

Prior to the introduction of information and communication technologies, the bulk of library collections was kept and made available in printed form. The evolution and continued advancement of information and communication technology, which pervades all aspects of human activity, has gradually transformed our daily routines. Nowadays, information is sought for and given through various technical and communication methods, employing numerous tools and equipment, and in multiple forms (print and electronic), all of which may be accessed remotely via the internet. The development of ICT has significantly altered the roles and activities of librarians in the library context. Due to the complexities associated with accessing this information, particularly those in electronic formats, users must possess a wide range of demonstrable competencies, strategies, and information technology knowledge to effectively use the information sources and resources available for learning and research.

The library user education programme is designed to familiarise students and researchers with library resources and services and to provide students with the ability to recognise when information is needed, locate it, and assess and use it appropriately. According to Madhusudhan and Singh (2010), library orientation is a component of user education often used in academic libraries to familiarise users with the library and its resources and services. The primary goal of the library user education programme is to teach students how to use the library and its services in general. This primary concern can be expanded to include the introduction of a specific library's layouts and facilities. According to Ibiodi (2005), this is part of a larger university activity on information literacy training, which takes the form of library user education.

In higher education, libraries are regarded as the ultimate knowledge repository, particularly in universities. Because of its strategic importance, people probably tend to miss out on getting the right information at the right
time. According to Madukoma (2013), library orientation was implemented in academic institutions to ensure that students have the intellectual ability and competence to search and retrieve material as well as develop a framework for learning. The impact of library orientation extends beyond the amount of years students spend in institutions. It has a long-term impact on library users, allowing them to learn how to identify, access, retrieve, and use library materials with ease. Bhatti (2010) praised the fact that excellent library orientation naturally ties to active learning strategies and life-long learning. Active learning as a strategy of educating kids that allows them to participate in class moves them beyond the role of passive listener and note taker and encourages them to think for themselves.

According to Abdulsalami et al. (2020), qualified staff members who can successfully handle the challenge of user education in tertiary institutions are needed to strengthen the library. Also, 97(73.5%) confirmed that orientation improves students' learning skills and guides them to research. The study recommended that human resources should be managed well and effectively by being very cooperative and coordinated to achieve a common goal. This will undoubtedly help eliminate or reduce the threat to library orientation because of the apparent user orientation issues, and it is reasonable to conclude that the success of library literacy in tertiary institutions depends on the efficient and practical skills of the personnel with good teaching orientation and methodology.

The study results showed that postgraduate students who have learned the necessary skills for using online databases through user education find the process of information access and retrieval through those databases to be enjoyable. Further, the study identified that the postgraduate students had received some user education on how to use online databases, and they would also find those databases useful for their intended purposes. Therefore, the study showed that user education, perceived enjoyment, and objective usability affected how the postgraduate students from the four universities used online databases (Ajala and Adetimirin, 2018).

All Sri Lankan university libraries are currently running user education programmes for their users using a variety of techniques. A survey was conducted by Ratnayake (2004) to determine the various user education initiatives offered by academic libraries. He noticed that these programmes were only for first-year undergraduate students and included an introductory session followed by a library tour. Hindagolla (2013) drew attention to the discrepancy between patrons' expectations and the user education programmes provided by the main library of University of Peradeniya while
noting the inability to raise awareness of the library's resources and services adequately. The challenges in incorporating information literacy into the university curriculum were revealed by a study done by Ranaweera (2010) comparing the information literacy programmes of five government universities in Sri Lanka. Although the information literacy programme began as a credit-bearing course for undergraduate students at the University of Sabaragamuwa's Department of Languages. Nawarathne and Singh (2013) emphasised the programme's success. According to Punchihewa et al. (2018), most students seek library advice and assistance when they have difficulty finding and locating information sources relevant to their work. Therefore, through library user education programmes, the library and the faculties should establish a collaborative mechanism to support students' assignments and projects. The study intends to address a research gap by examining the impact of user education strategies and approaches in improving postgraduate medical trainees' information literacy skills as well as their capacity to evaluate and utilize medical literature. Further study suggests the library should also concentrate on introducing new approaches to user education programmes, particularly the practical abilities required to access the necessary information, since this would encourage students to use the library. Further, the study recommended that the library continue working closely with the faculties to impart knowledge on information management, plagiarism, and referencing to raise the calibre of research.

User Education Programmes at Postgraduate Institute of Medicine, University of Colombo

The Institute of Postgraduate Medicine was established under the University of Ceylon Act No.1 of 1976. The library at the Postgraduate Institute of Medicine was established in the year 1980. It is evident from annual reports and prospectus of the PGIM that user education programmes were conducted for the PG trainees and trainers from the beginning to upgrade the available resources and services of the Library.

The user education programme of the PGIM for Postgraduate medical trainees has been a compulsory programme as part of their course since 2022. Based on the decision made at the University of Colombo, Senate Meeting No. 463rd on 30.06.2021, the concept note on 'Orientation Programme on PGIM Library Resources and Services by the Library of the PGIM’ was approved, and the Orientation programme on PGIM library resources and services is a mandatory programme for all postgraduate trainees who enter the PGIM training programmes, especially for trainees who undertake research as part of their training. Hence as recommended by the Faculty Board, the Senate approved the programme structure for all training.
programmes and a certificate of participation to be awarded on successful completion of the orientation programme.

Also, Senate noted that the board decided to make this training programme compulsory for all successful trainees at the selection examinations after the Senate of the University of Colombo approved this decision. Further, this requirement was included in the selection examination circulars and General Regulations and Guidelines for trainees. The library is currently running several user education programmes, considering the patrons' needs for current information and utilising the most cutting-edge technologies (Dilhani et al., 2022). This study is therefore intended to examine the effect of user education on the utilisation of the resources and services of the library, PGIM.

Methodology
The survey research strategy was used in this study, with an online self-administered structured questionnaire with open-ended and closed questions as the data collection tool. The online google form was designed to assess the impact of library user education programmes, and medical trainees' attitude and perceptions of user education programmes with multiple selections. The SPSS 23 data analysis software was used for data analysis. The study population comprises postgraduate medical trainees participated in library user education programmes from 2020-2021. The study consists of 612 postgraduate medical trainees. Out of the 612 postgraduate medical trainees, 523 responded to the questionnaire, yielding a good response rate of 85.46%.

Results and Discussion
The library user education programme aims to familiarise users with the mechanisms for searching, analysing, and utilising all forms of library resources. Library, PGIM, conducted several online user education programmes in 2021 during the COVID 19 pandemic situation in the country. As per figure 1, several programmes were conducted in the same month for trainees who follow various specialities.

Participants of the user education programme
The course-wise participation of users for the user education programme for 2020-2021 are shown in Figure 1.
Figure 1: Participants of the user education programme

Figure 1 shows Postgraduate trainees, namely Doctor of Medicine (MD) trainees 37% (n=191), Master of Science (MSc) trainees 35% (n=184), Diploma trainees 18% (n=93) and Certificate trainees 10% (n=55), respectively. Most MD trainees participated in the library user education programme.

Postgraduate medical trainees' perception of the user education programme

A user education programme was implemented to utilise the library services and resources to PG trainees' full potential. The primary goal is to instil in library users the fundamental knowledge and skills required to use the library's resources effectively.

Table 1: Medical trainees' perception of the user education programme

<table>
<thead>
<tr>
<th>N/S</th>
<th>Perception</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Useful</td>
<td>147</td>
<td>28.11</td>
</tr>
<tr>
<td>2</td>
<td>Very Useful</td>
<td>376</td>
<td>71.89</td>
</tr>
<tr>
<td>3</td>
<td>Not Very Useful</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>4</td>
<td>Not Useful</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>523</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows the responses of medical trainees towards their perceptions of the impact of the library user education programme. The 28.11% (n=147) respondents agreed that the orientation programme is useful, while 71.89% (n=147) agreed it is very useful. This means that the trainees
were satisfied with the user education programme, which will add value to the research and reading culture.

**Ability to search medical information sources**

The quality of education depends mainly on the quality and quantity of information resources. User education is crucial to using e-resources because postgraduate trainees need to be educated and learn searching skills to retrieve and use e-resources for their research.

![Figure 2: Ability to search information sources](image)

**Figure 2:** Ability to search information sources

Figure 2 indicates the information literacy skills of medical resources possessed by medical trainees for using electronic resources. 93.91% agreed that they could effectively search online databases such as ClinicalKey, HINARI, and PubMed; for example, 87.34% could retrieve e-resources from the PGIM E-Repository, and 82.02% could use Google Scholar to search for any information whenever the need arose.

Also, 78.53% of the trainees have pointed out that they received e-resources using an online public access catalogue (OPAC). Further, 73.04% of the trainees were satisfied with applying searching strategies such as Boolean operators to locate and search for specific information. Though, the majority of the respondents (68.06%) do not have the skills to use Medical Subject Heading (MeSH) keywords to explore journal articles.
Awareness level of postgraduate medical trainees about the online databases

One of the main objectives of library user education is to guide and assist in utilising online databases. The use of online databases for research is an important basis for academic movement. The databases are accessible on the internet and systems at the library. The online databases available in a library, PGIM, play a prominent role in expediently facilitating access to the required information for medical trainees. Furthermore, there is no need to visit the library or PGIM to use print formats because any user can access digital resources online through networks or authentication methods.

Registered library trainees can access the subscribed databases. Table 3 explores PG trainees’ use of databases by postgraduate trainees for research and the reason behind using resources.

![Figure 3: Postgraduate medical trainees' perception of using the online database](https://example.com/figure3.png)

**Figure 3: Postgraduate medical trainees' perception of using the online database**

Most Postgraduate medical trainees affirmed that they could search databases available in the library. Data from surveys show how frequently users use the various online databases. Figure 3 depicts the usage percentages of online databases. Out of all the respondents, there was 70% more usage for ClinicalKey and PubMed databases, with the highest usage percentage among all the online databases. The HINARI, Emerald Publishing, and Taylor & Francis databases have lower usage than ClinicalKey. The
ClinicalKey provides the opportunity to access the current and up-to-date data/information remotely. These valuable information resources have been utilised by most of the medical professionals of the PGIM for better informed and updated medical knowledge (Wadasinghe, 2022).

**Postgraduate medical trainees' attitudes to library services**

The library provides different types of services to meet the needs of the medical trainees. These include those listed in Figure 4.

![Figure 4: Postgraduate medical trainees' attitudes on library services](image)

Respondents were asked to indicate the types of services they used. The most used service of the library is the article request service which was used by 92.13% of the respondents, followed by the plagiarism service used by 84.56%. The past question papers service was used by 78.63%. 74.53% of users looked for the help to literature survey, followed by 54.42% with bibliographic services, and 46.87% were interested in scanning/ printing services. 46.74% of respondents were interested in user seminars.

**Impact of the user education programme on searching medical information for academic performance**

Methods and technologies for improving access to medical information databases are referred to as medical information retrieval. The postgraduate
trainees with medical information-seeking capacity would perform excellent academic performance.

![Figure 5: Searching medical information for academic performance](image)

**Figure 5: Searching medical information for academic performance**

Figure 5 above shows trainees’ responses towards improved academic performance derived from library user education. In the survey, 96.53% of respondents confirmed that the library user education programme improves students' learning skills and guide them in information searching. 89.87% of respondents indicated that user education programme helps to identify and retrieve the right information. In comparison, 82.67% of respondents were able to determine the trustworthiness of information sources. Additionally, 76.46% of respondents agreed that it helps ensure better use of the library's electronic resources. Furthermore, 74.32% of respondents confirmed that the user education program increases their knowledge of available information resources and sources within and outside the library. Summarily, well-tailored orientation confirms students' ability and knowledge to use and acquire knowledge of library usability, and it also improves students' use of the library in pursuit of their studies. In general, this is a solid observation that orientation programmes have, in many ways, positive impacts on academic performance.

**Managing References using Mendeley Reference Management Tool**

The management of references is critical in research work. Manually managing references, organising them, and properly citing them in a
consistent style is extremely difficult. Reference managing software was introduced to avoid these barriers in managing references, and today there is a wide range of software available to manage references. (Francese, 2013) emphasised the significance of proper citations in scholarly communication.

Mendeley is a free reference management system. It is also an academic social network that can assist you in organising your research, collaborating with others online, and discovering the most recent research (Hicks, 2011). It allows for the automatic generation of bibliographies and allows for easy online collaboration with other researchers. Papers can be easily imported from other research software, relevant papers can be found based on reading, and papers can be accessed from anywhere online. Medaille, (2010) and Barsky (2010) investigated Mendeley and discovered that it aids in the organisation of one's research, collaboration with others online, and discovery of the most recent research based on searching keywords, automatic online synchronisations, group discussion, and easy importing and exporting of bibliographic data.

![Figure 6: Benefits derived from the use of the Mendeley Reference Management tool](image)

**Figure 6:** Benefits derived from the use of the Mendeley Reference Management tool

Figure 6 shows the benefits of reference management tools that a good number of Postgraduate trainees opined positively to the use of Mendeley. From the responses, the majority, 96.6%, agreed that Mendeley manage references; 97.72% confirmed that easy generation of
bibliography/referencing, while 91.58% agreed that it was easy to insert the citation. It also shows that it helps to create a custom reference style, as 83.42% of respondents indicated. 78.45% of respondents reveal that saving trainees time with easy-to-provide references benefits respondents. 72.9% of PG trainees also pointed out that tracking citations without difficulty, and 67.32% agreed that it helps make notes.

**Postgraduate medical trainees' knowledge of plagiarism**

The attitude of trainees towards plagiarism has been studied. The word 'plagiarism' is derived from the Latin word 'plagiarius', which means 'kidnapper' or 'abductor'. In this regard, William (2002) considers plagiarism a serious crime because it involves stealing someone's 'creativity, ideas or language'.

![Knowledge on plagiarism chart](chart.png)

**Figure 7: Knowledge on plagiarism**

In figure 7, an analysis of the findings showed that 98.21% of respondents agreed to summarise someone else's idea without attribution to the source was plagiarism. 97.54% of the respondents agreed to copy from the internet without giving credit to the source, and 96.78% using most of someone else's original text but changing the order and not citing in-text but including source in the reference list with regards to knowledge of plagiarism. 93.21% of the respondents indicated plagiarism as paraphrasing someone else's words with an in-text citation but omitting the source in the reference list, and 91.43% of postgraduate trainees recognized quoting text verbatim with citation and page reference in-text but omitting the source in the reference list as plagiarism. Finally, 90.87% agreed that using most of
someone else's original text but changing the order, citing in-text but omitting the source in the reference list, was considered plagiarism.

Level of satisfaction with library user education programme of postgraduate medical trainees

The study aimed to determine whether the postgraduate medical trainees are satisfied with the library user education programme.

![Figure 8: Level of satisfaction with the library user education programme](image)

Figure 8 shows the satisfaction level of library user education programmes among medical professionals. On analysing the satisfaction level of medical trainees with the library user education programme, most of the medical trainees were satisfied with the knowledge gained on e-resources, and remote access service (93.67%), followed by 87.21% knowledge gained on avoiding plagiarism 86.87% knowledge gained on library resources and services. 86.38% were satisfied with the knowledge gained in hands-on training sessions. The above figure shows that 79.46% are satisfied with the knowledge gained on the Mendeley Reference Management tool, and 73.41% are happy with the knowledge gained on the article request service. Followed by 71.37%, knowledge gained of scholarly searching methods. 64.65% of medical trainees are satisfied with knowledge gained on the library webpage,
and medical trainees are less satisfied with the user education programme duration compared to the other factors.

**Conclusion**

The university library plays a vital role in assisting the university in fulfilling its goal. The effectiveness of the library of the PGIM, to a large extent, depends on utilising its resources and services. The main purpose of the PGIM library is to provide medical information sources relevant to learning, teaching and research. Utilising the library's resources and services is crucial to its success. This study focused on investigating the perception and attitudes of postgraduate medical trainees towards user education, with a specific emphasis on their awareness, accessibility, and utilization of information resources and services in the library of the PGIM. The ultimate aim of this research was to assist postgraduate medical trainees in attaining their goals. The PGIM library plays an essential role. Using library resources and services by medical trainees in PGIM is essential for the user education programme. The user education programme is an attitude a user shows when he/she searches for knowledge.

This study has ascertained that medical trainees use library resources and services provided for them. It concludes that the medical trainees are well versed in information literacy skills, which they use to exploit the millions of information available in online resources via the internet. Hence, the study clearly shows that in the postgraduate trainees' perception of using an online database with the library user education programme, the majority of respondents are delighted with the ClinicalKey and its remote access service of the PGIM library to meet their information needs.

Due to the need for medical trainees for high-quality, authoritative, relevant, accurate, and timely medical information, students studying at PGIM need to know the library's resources and services and the best way to track and access them in order to support their academic performance. Also, they need to acquire research skills and develop clinical knowledge by learning how to perform effective literature searches from the universe of knowledge and then analyse, appraise, apply, and evaluate the information as the basis for clinical decisions.

After the user education programme, postgraduates medical trainees know the information resources and services available in the library relevant to their research activities and the right skills to locate, evaluate and use those resources. The findings here seem to show that respondents' knowledge of plagiarism had improved after the subject was taught. The Mendeley
reference management tool is very useful to postgraduate medical trainees who can take advantage of new technology to learn about the research and academic potential in their discipline.

The study discovered that trainees had much more positive perceptions and attitudes toward using library resources and services. This shows that the students are more concerned with their courses of study. The paper concludes that the medical trainees in the PGIM have the necessary information literacy skills to meet their academic and research requirements. The study's findings show that the continuing user education programme for postgraduate medical trainees fully optimises and benefits from the e-resources and services provided by the library, PGIM. In addition, the library needs to create more awareness of some of its services so that postgraduate students will be aware of them, which will improve their use of library resources and services.

The study established that library user education enables the library to sensitise newly enrolled postgraduate medical trainees to courses and create adequate awareness about the library's available resources and services to meet and satisfy the users' needs.

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