Application of WhatsApp Technology in Library Services: A Study

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ABSTRACT

Purpose: Technology has profoundly influenced students' lives, with the integration of mobile devices into educational settings becoming increasingly prevalent among numerous institutions. As smartphone ownership rises among students, the WhatsApp application has become a popular tool for academic collaboration and communication. This study focuses on using WhatsApp by medical students at BIMS College Belagavi in Karnataka

Methodology: The primary objective of this research is to gain a comprehensive understanding of the usage and intended purposes of WhatsApp among students. Additionally, the study explores the students' perceptions regarding the application of WhatsApp about library services and identifies any challenges they may encounter. Participants were selected at random, and data were collected through questionnaires, yielding a total of 193 responses. Statistical analysis was conducted using SPSS.

Findings: The data indicate that a majority of students utilize WhatsApp for communication and information sharing. Furthermore, students express a desire for library services to be accessible via WhatsApp, including offerings such as lists of recently acquired books and newspaper services.

Originality: This research is entirely original and examines both the services that students anticipate receiving through WhatsApp and their actual usage of the platform. The findings enable librarians to ascertain the specific services that students seek via these digital channels and to incorporate social media strategically within library operations.

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KEYWORDS: WhatsApp, Social networking sites, Library Services, Expectations, Information, Belagavi.

1. INTRODUCTION

WhatsApp has made a significant impact on the rapidly evolving digital communication landscape. Since its launch in 2009, this cross-platform messaging program has grown into a global force, uniting billions of users and revolutionizing how people, families, and organizations interact. WhatsApp's meteoric rise can be attributed to its

simplicity, dependability, and commitment to user privacy, which have made it a regular feature in the daily lives of people from all walks of life. WhatsApp's fundamental functionality is to provide a seamless and immediate means of communication, allowing users to exchange text messages, make audio and video conversations, and share multimedia information with remarkable ease. End-to-end encryption on the network has boosted its reputation as a secure and private venue for talks, attracting users who value privacy.

We live in a period where information spreads swiftly due to the globalization of technology. We may now exchange knowledge online with anyone, anywhere, at any time because of advances in information and communication technology. Social media has emerged as a valuable information resource and a forum for communication among people. Kamble & Bankapur's (2023) study found that many people utilize mobile instant messaging to interact with family, friends, and colleagues. In addition to individuals, social networking services are frequently utilized by organizations, enterprises, and institutions. There are numerous social networking platforms available, such as Facebook, Instagram, Skype, WhatsApp, WeChat, and Telegram. These programs are simple to use and can exchange multimedia in a variety of ways Embi's (2016) study indicates that the use of WhatsApp in the classroom has a favorable effect on student learning.

Figure-1

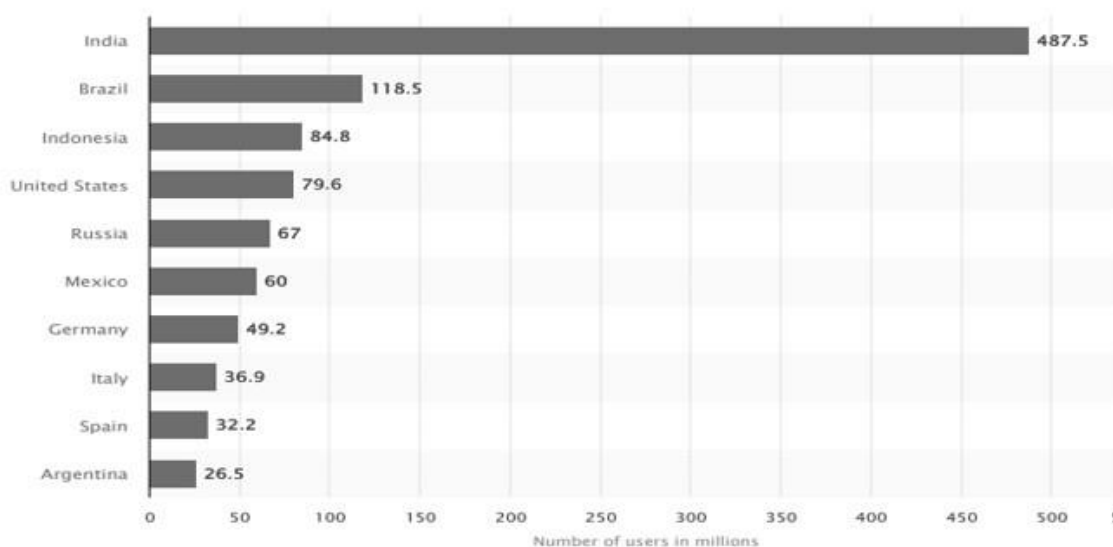Source: https://www.statista.com (Retrieved on March 02, 2024).

Figure 1 shows that India has the highest usage of WhatsApp among all countries. Libraries had to adapt their services and operations to meet the evolving needs of their patrons and society. Librarians can provide library services to customers by setting up WhatsApp groups for library patrons. The previous face-to-face approach, in which a library user had to be present to consult with a librarian or use library services, is no longer necessary in the modern library setting. Globally, the quality of library services has significantly improved.

1.1. WhatsApp Application

Figure-2 WhatsApp Application Logo

Source: https://www.businesstoday.in (Retrieved on March 02, 2024).

In 2009, Brian Acton and Jan Koum developed WhatsApp, which Facebook has owned since 2014. It is an internet-based application that can be used to transmit text messages, multimedia messages, documents, audio messages, photos, contacts, and user location to other users. It is accessible on both personal computers (PCs) and smartphones. The following attributes of WhatsApp Messenger, according to Bere (Gon & Rawekar 2017):

- **Multimedia:** The user can send and receive voice notes, photos, videos, and text messages using multimedia.
- **Group Chat:** It allows group members to communicate with one another using Group Chat.
- **Cross-Platform Communications:** can send and receive unlimited messages using WhatsApp.
- **Cross-Platform Communications:** Users of different devices (personal digital assistants, smartphones, and tablets) can communicate using a variety of media (text messages, voice notes, photographs, and videos).
- **Offline Messaging:** Messages are automatically saved when the device is turned off or outside the coverage area.
- **No charges were brought:** Because WhatsApp uses the same internet data plan as online browsing or email, there are no fees connected with utilizing it.
- **Pins and User Name:** Because WhatsApp uses phone numbers and integrates with users' address books, users no longer need to remember passwords or usernames.
- **Others:** WhatsApp uses end-to-end encryption to protect our calls and communications. Also, instead of a file-sharing application or email, use WhatsApp to send PDFs, spreadsheets, slideshows, and other files.

1.2. Library Services through WhatsApp Application

Libraries are embracing new avenues to deliver their services straight to patrons' fingertips in an era marked by instant connectivity and seamless communication. One such dramatic leap into the digital sphere is using WhatsApp, the popular messaging network, as a conduit for library services. The integration of library services via WhatsApp is a deliberate reaction to the evolving information landscape and the changing expectations of tech-savvy users. According to users Chaputula (2020) there are numerous advantages of using WhatsApp to deliver library services. enhancing interactions between patrons and library staff, assisting in the collection of feedback to improve patron services, maximizing document utilization, enhancing the use of library content, and encouraging collaboration and

increased communication between patrons and library staff. Using WhatsApp at information centers and libraries provides the following benefits:

➢ A library can use WhatsApp to share information about upcoming conferences and seminars, library news, URLs to e-books and e-journals, and other pertinent announcements, as well as alerts and reminders about specific issues.

➢ The library could use WhatsApp to exchange information about its rules and regulations.

➢ WhatsApp could offer efficient real-time reference services.

➢ WhatsApp could help promote library services.

➢ WhatsApp might be used as an acquisition feedback method, and users of the library could make recommendations for the best books to buy.

➢ The library may disseminate information about new arrival books and journals.

➢ A consumer can use WhatsApp to request a book from their library in real-time by using it for outreach activities such as lending library materials to other libraries.

➢ Through WhatsApp library can provide Selective Dissemination of Information (SDI) and Current Awareness Services (CAS).

➢ Through WhatsApp, customers can request assistance while using the library and provide feedback to improve the services.

➢ WhatsApp will help library employees and patrons communicate more effectively.

With its global user base and user-friendly design, WhatsApp offers libraries an unparalleled potential to transcend physical barriers and communicate with patrons in real-time. This strategy is consistent with the desire to democratize access to information, ensuring that libraries remain dynamic hubs of knowledge in an ever-expanding digital environment. This investigation goes into the paradigm change created by libraries as they leverage the power of WhatsApp to bring services directly to consumers' palms. The integration is more than just using a popular messaging platform; it is a purposeful effort to meet consumers where they are - on their mobile devices - and create an accessible, interactive, and personalized library experience.

2. LITERATURE REVIEW

Ansari, (2016) addresses the use, use, and benefits of WhatsApp for libraries. Libraries may use WhatsApp to provide services such as reference, current awareness, selective information dissemination, user forums, document reservations, Ask the Librarian, abstract services, acquisition feedback, e-book searches, and library notifications. Ansari & Tripathi, (2017) assess WhatsApp's use in information centres and libraries to provide services. Respondents were excited about using WhatsApp to get services. The majority of respondents believe that using WhatsApp can improve alert services, virtual references, and alerts and that libraries can more effectively harness their potential to provide better user services. WhatsApp has several capabilities, including group messaging, real-time audio recording of conversations, multimedia sharing, and instant message delivery. Stephen, (2019) noticed WhatsApp's importance among libraries and information professionals in India's northeast. WhatsApp is used by 100% of LIS specialists to reply to user inquiries, stimulate in-person contact among library patrons, and distribute connections to the library's website, social media accounts, library map, and OPAC. Reminders and Notifications,

ask a Librarian, User Discussion Forum Library News are all services that LIS experts can provide to WhatsApp users.

Purkayastha & Chanda, (2020) explored how LIS professionals utilize WhatsApp and if they use the medium to advertise library services. WhatsApp is used by LIS professionals in the North-Eastern region. LIS professionals generally use WhatsApp to share instructional content. WhatsApp might be used to provide library news and events, current awareness services, virtual reference services, and library notification services, according to the majority of respondents. Saha et al., (2019) investigates the use of WhatsApp by Chhattisgarh library personnel. Because of its diverse features, it has been demonstrated that the majority of professionals use WhatsApp for both personal and professional purposes. They utilize WhatsApp to convey information and address workplace issues. Professionals regularly utilize WhatsApp for group discussions. WhatsApp is used by professionals of all ages in Chhattisgarh. Chhattisgarh LIS workers use social media to expand library services.

Anwar & Zhewei, (2020) investigate how LIS professionals in Pakistan use and interpret WhatsApp. 77% of respondents said WhatsApp was a useful way to share information, according to research. It became evident that LIS professionals benefit greatly from the use of WhatsApp for their numerous tasks. Kenchakkanavar & Hadagali, (2015) investigate the use of WhatsApp by social science research students at Karnataka University in Dharwad, Karnataka State. In 96.87 percent of cases, academics use WhatsApp to send images and details about workshops, seminars, and conferences, as well as to participate in group conversations about their research projects. There is a WhatsApp group for research scholars. The bulk of social science scholars are active members of this WhatsApp group. It highlights how WhatsApp is used for both personal and professional objectives. Based on the opinions of library specialists, it appears that the WhatsApp application could be useful in offering library services.

3. OBJECTIVES

The objectives of this study are as follows:

- ✓ To analyze the utilization of WhatsApp among students.
- ✓ To assess the frequency of WhatsApp usage and examine the duration of engagement with the application.
- ✓ To identify the purposes for which students use WhatsApp.
- ✓ To evaluate student perceptions regarding the provision of library services via WhatsApp.
- ✓ To investigate the challenges encountered by students while using WhatsApp.

4. METHODOLOGY

The current research population consists of medical students from the Belagavi Institute of Medical Science (BIMS) College islocated in Belagavi, Karnataka. A structured questionnaire was employed to gather primary data from the respondents, utilizing an online Google questionnaire for data collection. The questionnaire is organized into two distinct sections; Section "A" addresses the demographic information of the respondents, while Section "B" evaluates the functionality of WhatsApp and the perceptions of users regarding its effectiveness in delivering library services. A random sampling procedure was implemented, yielding a total of 193 responses. The collected data were analyzed using SPSS software.

5. DATA ANALYSIS AND INTERPRETATIONS

5.1 Demographic Information

Table-1 Demographic Information

		Respondents	**%**
Gender	Male	75	38.9
	Female	118	61.1
	Total	193	100
Course	MBBS	34	17.6
	B.Sc. Nursing	36	18.7
	JNM	45	23.3
	Paramedical	78	40.4
Age	18-20	24	12.4
	21-23	96	49.7
	24-26	40	0.7
	More than 26	33	17.1
Locality	Rural	90	46.6
	Semi-urban	42	21.8
	Urban	61	31.6

Table 1 displays student demographic data, with a higher representation of females (61.1%) compared to males (38.9%). Paramedical students formed the largest group (40.4%), followed by JNM (23.3%), and B.Sc. Nursing (18.7%), and MBBS (17.6%). In terms of age distribution, nearly half of the respondents (49.7%) were in the 21-23 years category, followed by more than 26 years (17.1%) and 18-20 years (12.4%). There appears to be a possible data entry issue with the 24-26 age group (0.7%). Rural students formed the largest group (46.6%) regarding locality, indicating a strong representation from non-urban areas. Urban students comprised 31.6%, while semi-urban respondents were 21.8%.

5.2 Use of WhatsApp

Table-2 Use and Frequency Use of WhatsApp, Period of Using WhatsApp, and Average Time Spent on WhatsApp by Students

Characteristics		**Respondents**	**%**
Use of WhatsApp	Yes	190	98.4
	No	03	1.6
Frequently use of WhatsApp	Very Frequently	60	31.6
	Frequently	76	40.0
	Sometimes	33	17.4
	Rarely	15	7.9
	Never	06	3.2
Period of using WhatsApp	Less than 1 year	18	9.5

	1-2 years	42	22.1
	3-4 years	48	25.3
	5-6 years	51	26.8
	More than 6 years	31	16.3
Average time spent on VCS	Less than 1 hour	21	11.1
	1-2 hours	76	40.0
	3-4 hours	45	23.7
	4-5 hours	27	14.2
	More than 6 hours	21	11.1

Table 2 reveals that 98.4% of students use WhatsApp, indicating its widespread adoption as a communication tool. In terms of frequency, 71.6% use it either frequently or very frequently, while only 3.2% never use it. Regarding the period of use, most students have been on WhatsApp for an extended duration, with 26.8% using it for 5-6 years and 25.3% for 3-4 years. Only 9.5% are recent users (less than 1 year). The average time spent on WhatsApp varies, with 40% spending 1-2 hours daily, while 23.7% spend 3-4 hours. A significant portion (11.1%) use it for more than 6 hours daily, suggesting potential effects on productivity and academic focus.

5.3 Devices to Use the WhatsApp

Table-3 Devices to Use WhatsApp

Devices	5	4	3	2	1	M	SD
PC	33(17.1)	24(12.6)	21(11.1)	25(13.2)	87(45.8)	2.43	1.571
Laptop	37(19.5)	45(23.7)	30(15.8)	27(14.2)	51(26.8)	2.95	1.497
Smartphones	148(77.9)	30(15.8)	9(4.7)	0	3(1.6)	4.68	.709
Tablet	18(9.5)	27(14.2)	39(20.5)	22(11.6)	84(44.2)	2.33	1.403

*5=Always 4=Often 3=Sometimes 2=Rarely 1=Never M=Mean SD=Standard Deviation

Table 3 indicates that smartphones are the primary device for WhatsApp usage, with 77.9% always using them and a high mean score (M = 4.68, SD = 0.709), showing consistent preference among students.

Laptops are moderately used, with 19.5% always using them and 23.7% using them often (M = 2.95, SD = 1.497). PCs and tablets have lower usage, with 45.8% never using PCs and 44.2% never using tablets, reflecting their limited role in WhatsApp communication.

5.4 Purpose of Using WhatsApp

Table-4 Purpose of Using WhatsApp

Purpose	5	4	3	2	1	M	SD
Chatting	106(55.8)	45(23.7)	36(18.9)	3(1.6)	0	4.34	0.837
Sharing Photos and Videos	84(44.2)	61(32.1)	42(22.1)	0	3(1.6)	4.17	0.883
Sharing Information	66(34.7)	97(51.1)	21(11.1)	3(1.6)	3(1.6)	4.16	0.801
To know department notifications	84(44.2)	54(28.4)	37(19.5)	12(6.3)	3(1.6)	4.07	1.016

connectivity with family and friends	57(30.0)	79(41.6)	45(23.7)	9(4.7)	-	3.97	0.854
Study in a group	45(23.7)	75(39.5)	61(32.1)	9(4.7)	-	3.82	0.848
Reach people anytime	45(23.7)	66(34.7)	64(33.7)	9(4.7)	6(3.2)	3.71	.984
Just forward messages	39(20.5)	73(38.4)	54(28.4)	15(7.9)	9(4.7)	3.62	1.046

*5=Always 4=Often 3=Sometimes 2=Rarely 1=Never M=Mean SD=Standard Deviation

Table 4 reveals that chatting (M = 4.34) is the most common purpose of using WhatsApp, followed by sharing photos and videos (M = 4.17) and sharing information (M = 4.16). A significant number of students also use WhatsApp to receive department notifications (M = 4.07) and stay connected with family and friends (M = 3.97). Academic usage is also notable, with students using WhatsApp for group studies (M = 3.82) and reaching people anytime (M = 3.71). However, forwarding messages (M = 3.62) is the least important purpose, showing varied responses among students. Overall, WhatsApp serves as a multifunctional tool, primarily for social interactions, but also plays an essential role in academic communication and information sharing among students.

5.5 Importance of WhatsApp Features to Students

Table-5 Importance of WhatsApp Features to Students

Features	3	2	1	M	SD
Document sharing	133(70.0)	54(28.4)	3(1.6)	2.68	0.499
Long typing space	112(58.9)	72(37.9)	6(3.2)	2.56	0.558
Video and picture sharing	97(51.1)	69(36.3)	24(12.6)	2.38	0.701
Reactions	78(41.1)	79(41.6)	33(17.4)	2.24	0.729
Sharing location	70(36.8)	81(42.6)	39(20.5)	2.16	0.742
Message privately	58(30.5)	102(53.7)	30(15.8)	2.15	0.666
In-chat polls	69(36.3)	76(40.0)	45(23.7)	2.13	0.766
Avatars	57(30.0)	79(41.6)	54(28.4)	2.02	0.766
Various emoticons	45(23.7)	88(46.3)	57(30.0)	1.94	0.732
Payments	49(25.8)	81(42.6)	60(31.6)	1.94	0.757
Build community	48(25.3)	76(40.0)	66(34.7)	1.91	0.771
WhatsApp Business	27(14.2)	91(47.9)	72(37.9)	1.76	0.684

*3= Very Important 2= Moderately Important 1= Not Important M=Mean SD=Standard Deviation

Table 5 highlights that document sharing (M = 2.68) is the most important WhatsApp feature for students, followed by long typing space (M = 2.56) and video/picture sharing (M = 2.38). These findings suggest that students primarily use WhatsApp for academic and professional communication rather than casual interactions. Features such as reactions (M = 2.24), sharing location (M = 2.16), and in-chat polls (M = 2.13) hold moderate importance, indicating that while students find them useful, they are not essential for their daily WhatsApp usage. On the other hand, WhatsApp Business (M = 1.76), building community (M = 1.91), and payments (M = 1.94) are the least valued features. This suggests that students do not actively use WhatsApp for business, financial transactions, or large-scale networking.

5.6 Students Opinion Regarding the WhatsApp

Table-6 Students Opinions Regarding WhatsApp

Opinions	5	4	3	2	1	M	SD
WhatsApp was easy to be used	70(36.8)	84(44.2)	24(12.6)	12(6.3)	-	4.12	0.859
It was simple to learn how to use WhatsApp for messaging.	54(28.4)	94(49.5)	39(20.5)	-	3(1.6)	4.03	0.796
WhatsApp is a good tool for language learning.	58(30.5)	66(34.70)	54(28.4)	6(3.2)	6(3.2)	3.86	0.993
I was able to easily transmit any discussed information by using WhatsApp.	54(28.4)	64(33.7)	45(23.7)	21(11.1)	6(3.2)	3.73	1.087
WhatsApp is useful for academic engagement.	18(9.5)	106(55.8)	60(31.6)	3(1.6)	3(1.6)	3.70	0.727
It's convenient for me to learn English via WhatsApp.	18(9.5)	87(45.8)	67(35.3)	15(7.9)	3(1.6)	3.54	0.833

*5= Strongly Agree 4= Agree 3= Neutral 2= Disagree 1= Strongly Disagree M=Mean SD=Standard Deviation

Table 6 indicates that students perceive WhatsApp as an easy-to-use and accessible communication tool. The highest-rated statement was "WhatsApp is easy to use" (M = 4.12), with over 81% of students agreeing or strongly agreeing. Similarly, "It was simple to learn how to use WhatsApp for messaging" (M = 4.03) received strong agreement, reinforcing WhatsApp's intuitive nature. In terms of academic engagement, over 65% of students agree that WhatsApp is useful for education, though 31.6% remained neutral, suggesting varying usage patterns for learning purposes. The ability to transmit information easily (M = 3.73) and support language learning (M = 3.86) received moderate agreement, with some students expressing neutrality or disagreement. Interestingly, the lowest-rated a statement was "It's convenient to learn English via WhatsApp" (M = 3.54), showing more mixed opinions on its effectiveness for language learning.

5.7 Students' Frequency of Visits to the Library

Table-7 Students' Frequency of Visits to the Library

Frequency	Respondents	%
Daily	12	6.3
Twice in week	79	41.6
Once in a month	60	31.6
Rarely	39	20.5

Table No. 7 indicates the analysis of students' library visit frequency reveals moderate engagement, with only 6.3% of students visiting daily, while the majority (41.6%) visit twice a week. A significant portion (31.6%) use the library only once a month, and 20.5% visit rarely, indicating that more than half of the students (52.1%) are infrequent users.

5.8 Students Expected Library Services Through WhatsApp

Table-8 Students Expected Library Services Through WhatsApp

Library Services	5	4	3	2	1	M	SD
News Paper Service	61(32.1)	75(39.5)	39(20.5)	3(1.6)	12(6.3)	3.89	1.074
List of new books	18(9.5)	91(47.9)	72(37.9)	0	9(4.7)	3.57	0.850
Current Awareness Service (CAS)	13(6.8)	72(37.9)	81(42.6)	6(3.2)	18(9.5)	3.29	0.991
Announcements about workshops and exhibitions	18(9.5)	67(35.3)	78(41.1)	3(1.6)	24(12.6)	3.27	1.088
Document preservation	15(7.9)	66(34.7)	79(41.6)	6(3.2)	24(12.6)	3.22	1.076
Links to e-journals and e-books	16(8.4)	66(34.7)	72(37.9)	15(7.9)	21(11.1)	3.22	1.079
Reference Services	22(11.6)	69(36.3)	42(22.1)	33(17.4)	24(12.6)	3.17	1.218
Reminders and notifications	6(3.2)	45(23.7)	97(51.1)	27(14.2)	15(7.9)	3.00	0.909
User discussion forum	9(4.7)	61(32.1)	72(37.9)	15(7.9)	33(17.4)	2.99	1.136
Acquisition Feedback	6(3.2)	40(21.1)	90(47.4)	39(20.5)	15(7.9)	2.91	0.924

*5= Strongly Agree 4= Agree 3= Neutral 2= Disagree 1= Strongly Disagree M=Mean SD=Standard Deviation

Table 8 indicates that students have a strong preference for information-based library services through WhatsApp, with Newspaper Service (M = 3.89) and List of New Books (M = 3.57) being the most valued. These services help students stay updated on current affairs and new academic resources. Moderate importance is given to Current Awareness Service (CAS) (M = 3.29), Announcements about Workshops and Exhibitions (M = 3.27), Document Preservation (M = 3.22), and Links to e-journals and e-books (M = 3.22). These findings suggest that students appreciate timely academic updates and access to digital learning materials. On the other hand, engagement-based services such as User Discussion Forums (M = 2.99) and Acquisition Feedback (M = 2.91) are rated lower, indicating lesser interest in interactive or feedback-driven features. Reminders and Notifications (M = 3.00) also received a neutral response.

5.9 Problems Faced While Using WhatsApp

Table-9 Problems Faced While Using WhatsApp

Problems	5	4	3	2	1	M	SD
limited memory storage	15(7.9)	42(22.1)	58(30.5)	54(28.4)	21(11.1)	2.87	1.120
Application Error	6(3.2)	42(22.1)	45(23.7)	55(28.9)	42(22.1)	2.55	1.152
Slow Loading	15(7.9)	21(11.1)	66(34.7)	58(30.5)	30(15.8)	2.65	1.116
Nothing	12(6.3)	18(9.5)	60(31.6)	58(30.5)	42(22.1)	2.47	1.125
Internet Connection	12(6.3)	18(9.5)	54(28.4)	66(34.7)	40(21.1)	2.45	1.115

*5=Always 4=Often 3=Sometimes 2=Rarely 1=Never M=Mean SD=Standard Deviation

Table 9 reveals that limited memory storage (M = 2.87) and slow loading (M = 2.65) are the most common issues faced while using WhatsApp for academic purposes. Application errors (M = 2.55) and internet connectivity problems (M = 2.45) are less frequent concerns. Notably, a significant number of respondents did not face major

issues (M = 2.47), indicating that WhatsApp remains a reliable platform for academic communication despite some technical challenges.

5.10 Students Satisfaction in Using WhatsApp

Table-10 Students Satisfaction in Using WhatsApp

	Respondents	**%**
Very satisfied	45	(23.7)
Satisfied	124	(65.3)
Neutral	18	(9.5)
Dissatisfied	3	(1.6)
Very dissatisfied	0	0

Table No. 10 shows that the majority of students express a high level of satisfaction with WhatsApp. 65.3% are satisfied, while 23.7% are very satisfied, making a total of 89% positive responses. A small percentage (9.5%) remain neutral, and only 1.6% report dissatisfaction. Notably, no students were very dissatisfied, indicating that WhatsApp is widely accepted and effective for communication among students.

FINDINGS

- A total of 193 respondents participated in the study, with a majority being female (61.1%). The highest proportion of respondents belonged to the paramedical discipline (40.4%). The predominant age group was 21-23 years (49.7%), and 46.6% of respondents were from rural areas.

- A significant majority (98.4%) of respondents reported using WhatsApp. 71.6% of respondents used WhatsApp frequently or very frequently for various purposes. The most common usage duration was 1-2 hours daily (40%), followed by less than 1 hour (32.1%).

- Smartphones were the most preferred device (M = 4.68) for accessing WhatsApp, followed by laptops (M = 2.45) and tablets (M = 2.11).

- The most common purposes of WhatsApp usage among students included chatting (M = 4.34), sharing photos and videos (M = 4.17), and academic communication (M = 4.07). Other purposes included discussions on study topics (M = 3.85) and accessing educational materials (M = 3.79).

- The most valued WhatsApp features included document sharing (M = 2.68) and long typing space (M = 2.56). Features like voice messaging (M = 2.34) and video calling (M = 2.28) were moderately used for academic purposes.

- 81% of students agreed that WhatsApp is easy to use (M = 4.12). WhatsApp had moderate engagement for academic discussions (M = 3.70) and was perceived as somewhat effective for learning activities (M = 3.55).

- Only 6.3% of students visited the library daily. Students expressed a high preference for receiving newspaper services (M = 3.89) and lists of newly acquired books (M = 3.57) through WhatsApp.

- The most commonly reported challenges included) and limited memory/storage issues (M = 2.65) and slow loading (M = 2.65).

CONCLUSION

The study highlights that WhatsApp is a widely used platform among students for academic collaboration, information sharing, and communication. While it offers valuable features like document sharing and group discussions, its potential for library services remains underutilized. Challenges such as internet connectivity and technical issues hinder seamless use. To maximize its benefits, libraries can integrate WhatsApp for book updates, reference services, and academic notifications. Digital literacy training can help students use the platform effectively for research. Improving internet connectivity on campuses and addressing technical issues will enhance its usability. Additionally, promoting balanced usage can encourage students to manage screen time while still benefiting from offline library resources. By implementing these strategies, institutions can optimize WhatsApp as an academic and library support tool.

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