

STUDY ON THE SCOPE OF TELEMEDICINE SERVICES DURING THE PANDEMIC

SUBMITTED BY : AJIL R

MBA HM

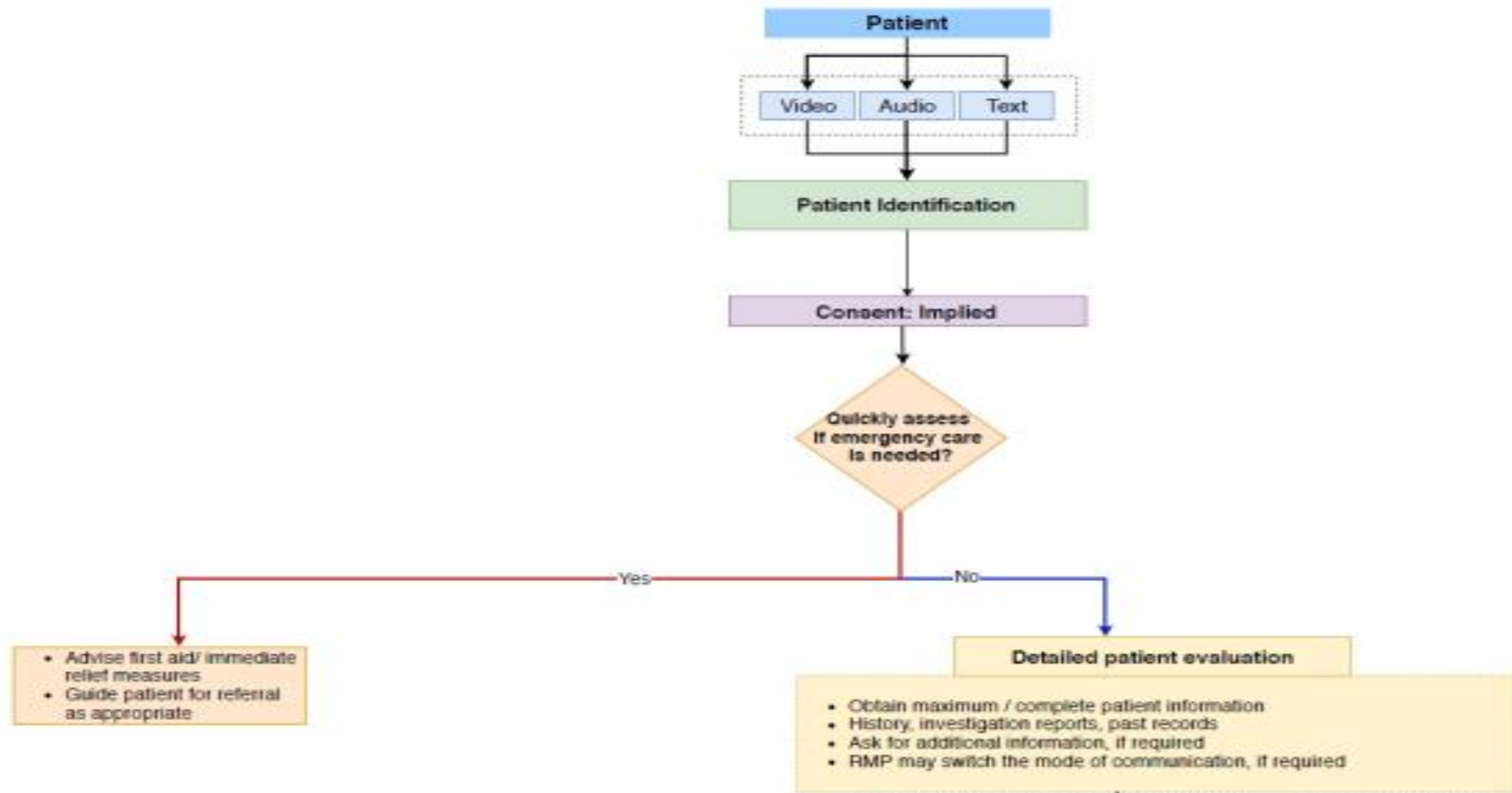
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SUBMITTED TO – Dr VINOD KUMAR

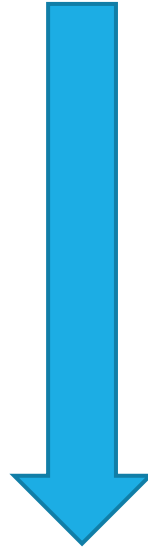
INTRODUCTION

- Telemedicine is defined as the delivery of the healthcare services, remotely, by all healthcare professionals using the information and communication technologies for the diagnosis, treatment and prevention of diseases and injuries.
- “The WHO recommends a doctor–population ratio of 1:1000 in India, current doctor population ratio is only 0.62:1000” . This ratio is more apprehensive in the wake of COVID-19 outbreak, so an easy way to reach out to the patient in need can be through telemedicine services at least in some part of the country.
- According to the report of Statista Research Department, the approximate smart phone users in India was estimated to reach over 760 million in 2021.
- The Covid-19 pandemic posed unique challenges. Even though telemedicine will not solve all the challenges, but it can utilize to evaluate and manage the patients. Telemedicine system can be conducted to prevent the risk to both patients and healthcare professionals. It can also provide rapid medical service to the community. Mainstreaming telemedicine services will reduce the inequities and barriers to the access.
- However, there has been concern on the practice of telemedicine. Lack of knowledge within the community can be a harbinger for the proper availability of the services.
- The population must be aware about the services offered and it will increase the reach of the services. With telemedicine services, there is really a higher chance of maintenance of records and it must be documented. The services must be done with compliance to the existing legal framework.

The process flow of telemedicine services: Source: Ministry of Health & Family Welfare, Government of India website.



AIM OF THE STUDY



This study was conducted to find whether the community have availed the Telemedicine services. The importance of treatment availability and treatment continuity is a major stepping stone for the success of healthcare delivery.

This study was also conducted to know the type of services they availed and the doctor specialist they consulted and if they don't use any type of telemedicine, then what was the major reason for that. The result will give some information about the areas to be focused more for expanding Telemedicine services further.

OBJECTIVES

**To evaluate the scope of
telemedicine services
during the pandemic.**

**To explore the perception of
the community, have towards
telemedicine services during
the pandemic.**

**To assess the preferences among
different medical specialties
towards telemedicine services.**

LITERATURE REVIEW

TITLE AND AUTHOR	STUDY LOCATION, YEAR	COMMENTS
A Phased Approach for the Adaptation of Telemedicine in Diabetes Management, Vinaytosh Mishra	India, 2020	The study classified patients into two groups and their dependence on Telemedicine services. The people appropriate for falling under group 1 (ATM) require less physical interaction, or can be performed by a less skilled healthcare professional or by the patient. The components falling under group 2 (NATM) require relatively more physical interaction.
Telemedicine Across the Globe-Position Paper From the COVID-19 Pandemic Health System Resilience PROGRAM (REPROGRAM) International Consortium (Part 1), Sonu Bhaskar et all	World, 2020	The study enlisted that there are many issues related to the implementation of Telemedicine services such as the limited access to technology, lack of knowledge, language and socioeconomic barriers. The existing systems must be developed using various implementation depending on the situation of the country
Pediatric subspecialty telemedicine uses from the patient and provider perspective. Rajdeep Pooni et all.	USA, 2021	The study showed that telemedicine has delivered care to pediatric patients during the pandemic and people easily adapted to this new system with a good satisfaction rate. The providers felt that it was safest for the patients to conduct visits virtually. The patients gave positive reviews and rating for the services

Cross Sectional Study to Assess the Impact of Telemedicine on Health Care Services in Primary Health Centre, North India, A.Singh et all	India, 2021	72 % of the study subjects had not previously heard about telemedicine. The common barrier faced by the participants to use the telemedicine was because of the non-user-friendly software.
Evaluation of patient and doctor perception toward the use of telemedicine in Apollo Tele Health Services, India. Rajesh V. Acharya ¹ and Jasuma J. Rai	India, 2016	The study showed that it could prove to be useful to patients in distant regions and to rural doctors in India. In the near future, telemedicine can be considered as an alternate. 90 % of the participants found that the telemedicine is cost effective. The problems encountered with the telemedicine services were technical issues, time scheduling by the doctors, some patients felt uncomfortable to face camera.
Implementation of telemedicine system to improve and expand covid-19 screening and evaluation: a reflection on action research approach and the management of the possible spread of the pandemic, Mohammed Aslam Khan	India, 2021	The study found that the implementation of Telemedicine system with the mobile application is the best way to implement social distancing. This can improve the growing shortage of health care system. Especially the treatment associated with Covid-19 patients.
Impact of COVID-19 pandemic lockdown on occupational therapy practice and use of telerehabilitation – A cross sectional study, B. Ganesan et all.	India, 2021	60.7% of Occupational therapists used Telemedicine service as the telerehabilitation for their patients. Telerehabilitation system was implemented during the lockdown for children with autistic problems and other medical conditions. Thus, telemedicine could help the continuity of care and treatment
Turning a New Chapter in Neurosurgery Outpatient Services: Telemedicine A “Savior” in this Pandemic, Amol Rheja et all.	India, 2021	Majority of the participants agreed with the telemedicine usage and the challenges they faced were also found. Many of the respondents have smartphones, but only a fraction of them were consulted using video-based teleconsultants. The service was made on time as per the appointment. The participants faced challenges like the poor connectivity and poor verbal communication and discussion.

RESEARCH METHODOLOGY

NATURE OF THE STUDY : Descriptive Cross Sectional
SAMPLE SIZE : 200
SAMPLING : Convenience Sample
RESEARCH TOOL : Questionnaire composed of closed-ended and open ended; self administered and developed in English language.
DATA ANALYSIS : MS Excel

RESULTS & FINDINGS

<u>Sociodemographic factors</u>	<u>Number (%)</u>	<u>Aware of telemedicine services</u>	<u>Availed Telemedicine services</u>	<u>Aware but not availed telemedicine services</u>	<u>Showed interest to avail telemedicine</u>
<u>Age (years)</u>	<u>N</u>				
<u>18-34</u>	102 (51%)	87 (85 %)	44 (43 %)	43 (42%)	42 (41%)
<u>35-49</u>	48 (47 %)	42(87%)	22 (46%)	20 (41%)	16 (33%)
<u>50 and above</u>	50 (49 %)	49 (98%)	43 (86%)	06 (12%)	5 (10%)
<u>Total</u>	200	178 (89%)	109 (55%)	69 (35%)	63 (32%)
<u>Gender</u>					
<u>Male</u>	86 (43%)	77 (89%)	44	33	30
<u>Female</u>	114 (57%)	101 (88%)	65	36	33
<u>Area of Residence</u>					
<u>Urban</u>	95 (47%)	82 (86%)	41	68	36
<u>Rural</u>	105 (53%)	96 (91%)	68	28	27
<u>Level of Education</u>					
<u>High School</u>	07 (3.5%)	07 (100%)	0	0	0
<u>Secondary</u>	30 (15%)	29 (96%)	27	2	2
<u>Graduation</u>	77 (38.5%)	62 (80%)	34	9	27
<u>Post-Graduation</u>	86 (43%)	80 (93%)	41	39	34

<u>Occupation</u>					
<u>Govt Job</u>	18 (9%)	18 (100 %)	15	3	1
<u>Private Job</u>	119 (59%)	115 (96%)	63	52	42
<u>Student</u>	26 (13%)	21 (80%)	11	10	14
<u>Business</u>	20 (10%)	20 (100%)	17	3	2
<u>Retired</u>	4 (2%)	4 (100%)	3	0	1
<u>Unemployed</u>	13 (7%)	10 (76%)	8	2	3

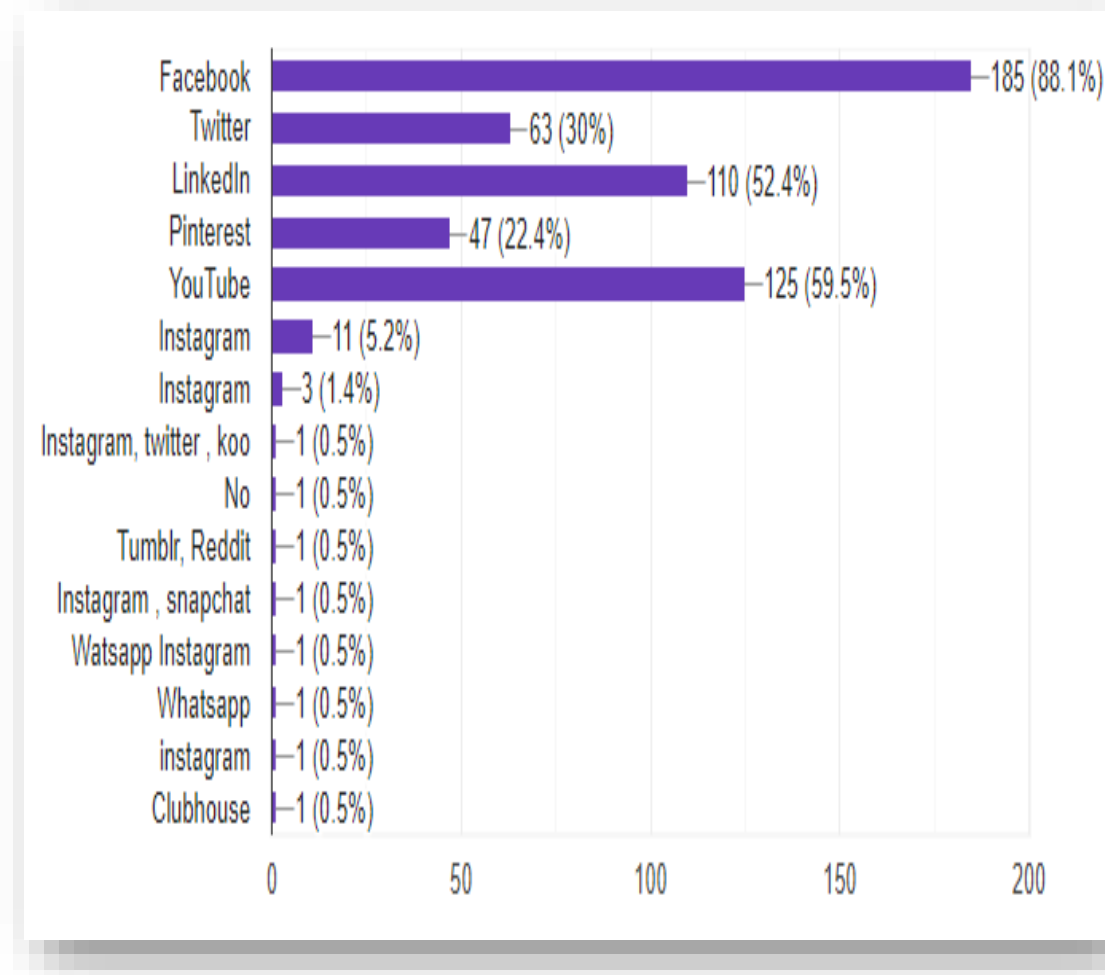
- More respondents (15) in age group 18-34 are not aware about the telemedicine services and 58 respondents in same age group not availed any type of telemedicine compared to the other age groups.
- Majority of the respondents from the rural area (91 %) are aware about the telemedicine services, which shows that the improvement of the knowledge of the rural population. While the knowledge of telemedicine services among the respondents from urban area was 86 %.

- More than half of the respondents (119) have private jobs and 63 people used telemedicine services from the category. This class of people majorly used the telemedicine services.
- A majority of the respondents (178) were found to be aware about the telemedicine services. This shows that telemedicine service has reached to most of the community. Most of the respondents (96) from the rural area are aware about the telemedicine services. This shows that the growth of telemedicine services beyond the rural-urban disparity.
- Only 22 respondents were not aware about the telemedicine services.
- 91 participants didn't avail any type of telemedicine services due to various reasons.
- Among the 91 respondents who never used any type of telemedicine services, 63 respondents showed their interest to avail telemedicine service for their coming consultations. This actually shows that the respondents will definitely avail the service if it reaches to them. So, the growth of telemedicine service is still there with the proportion of those who never used it.

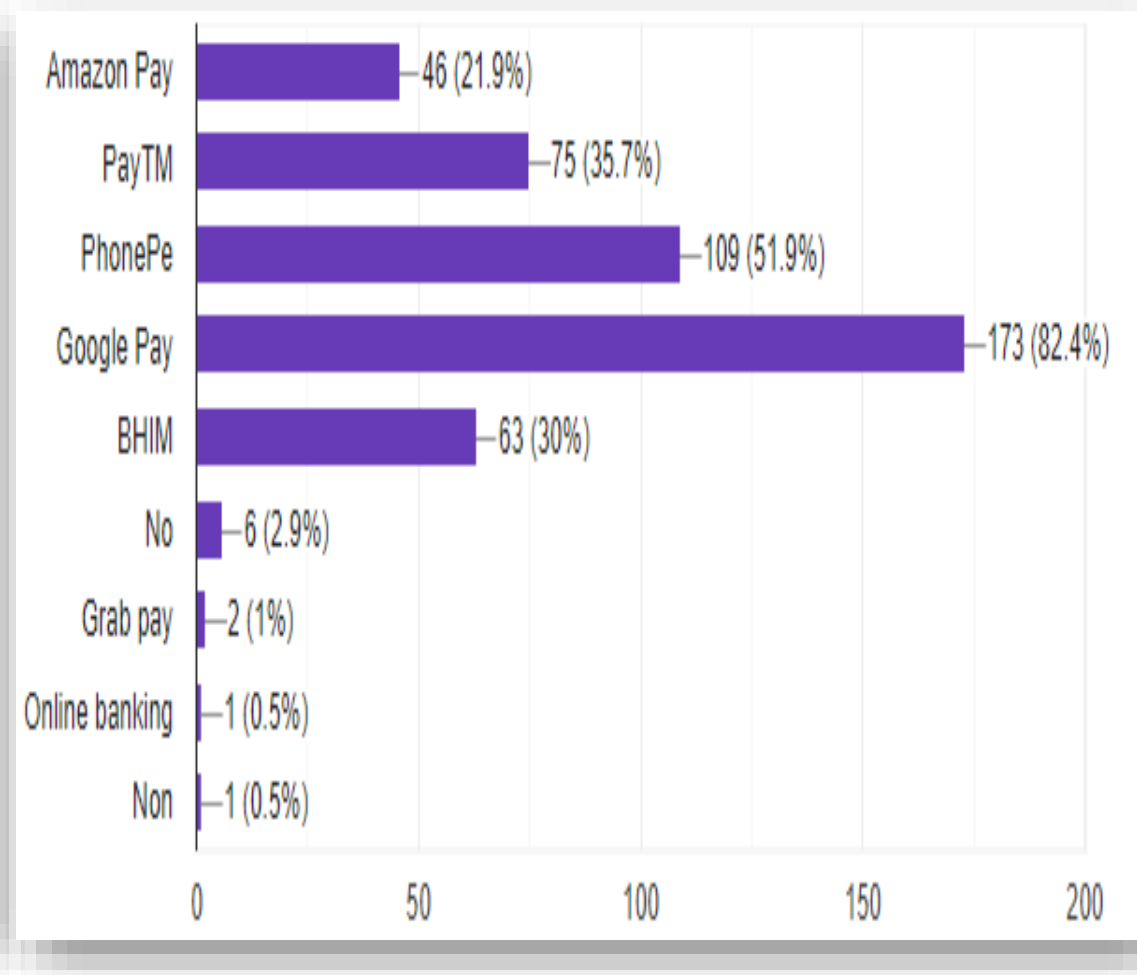
Appropriateness of appointment scheduling for consultation		Number of times the telemedicine availed		Telemedicine use before the pandemic	Patient history taken by the consultant		Patient history not taken by the consultant
Correct Appointment Schedule	Delayed appointment schedule	Single	Multiple	Used	Not used		
102	07	66	41	52	57	102	7

- Majority of the respondents (94 %) marked that their scheduled appointment was appropriate.
- Almost 52 respondents availed telemedicine services before the Covid pandemic onset and the services were available before the pandemic time. This shows that the telemedicine services were common in some healthcare delivery services.
- The consultant didn't take the history of few of the participants (7). It's a mandatory step in either physical or virtual consultation to take the history of the patient by the consultant before the consultation and treatment procedure.

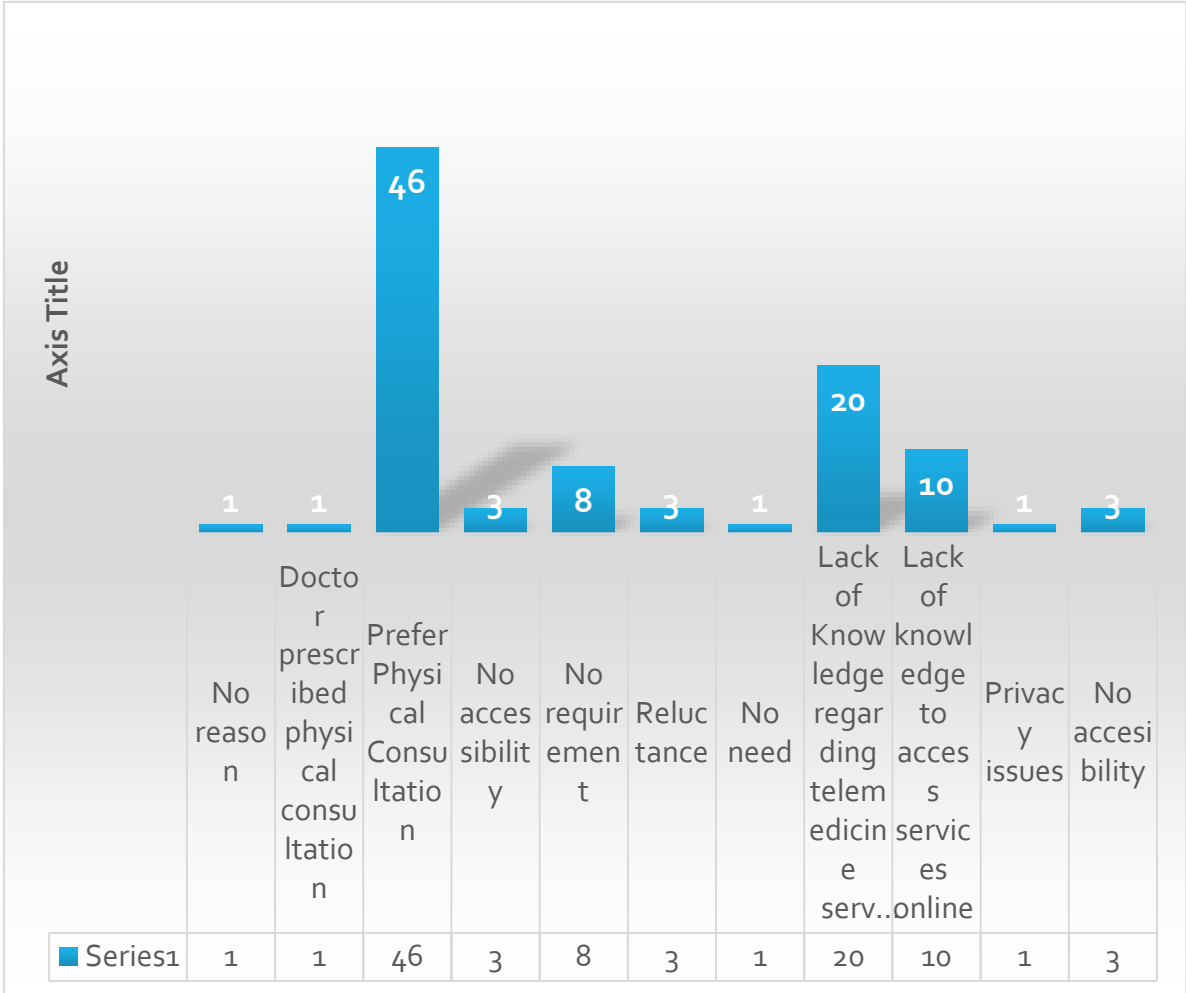
Use of different social media platforms by the respondents



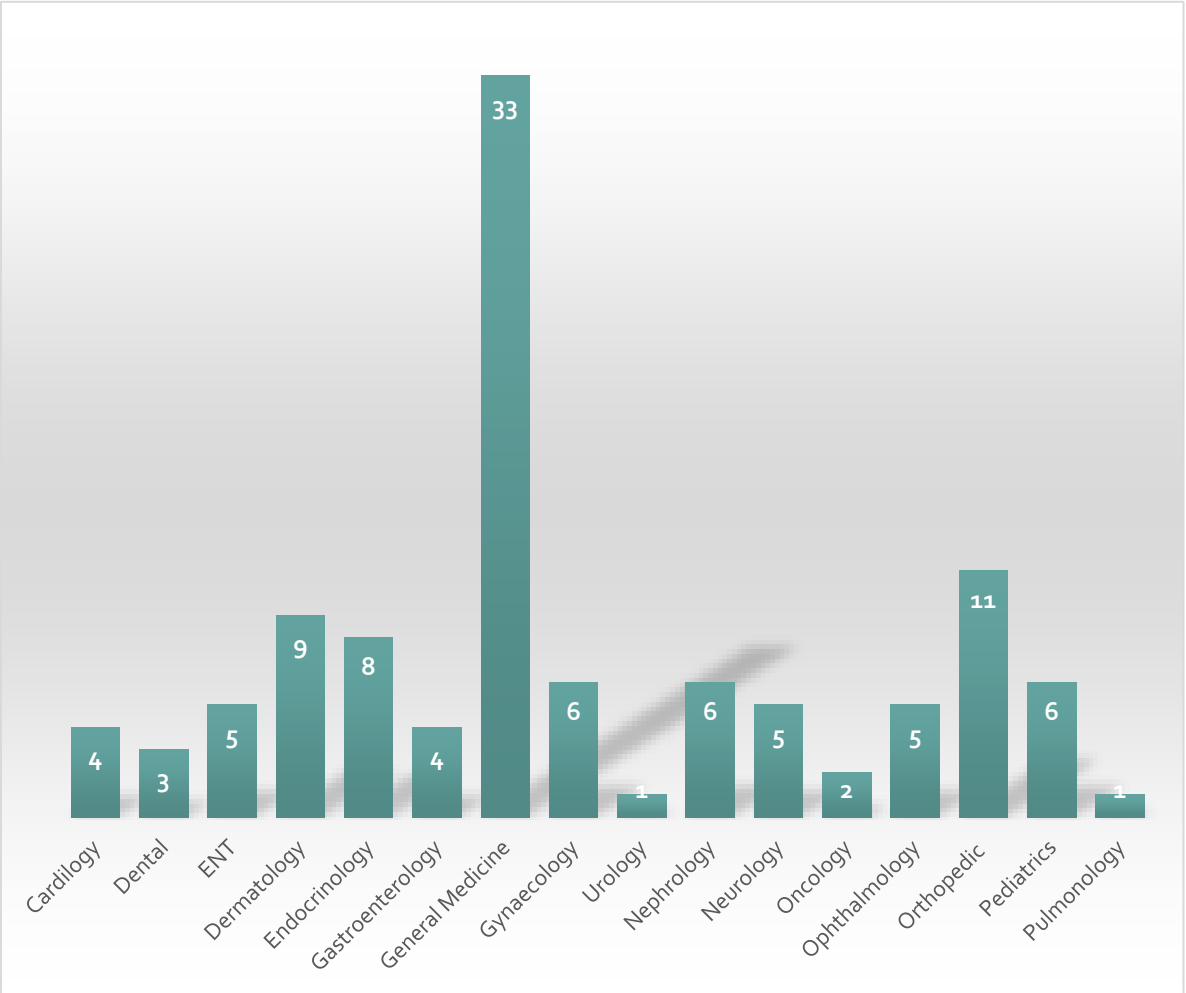
Use of online transaction platforms/ wallets by the respondents use of different social media platforms by the respondents



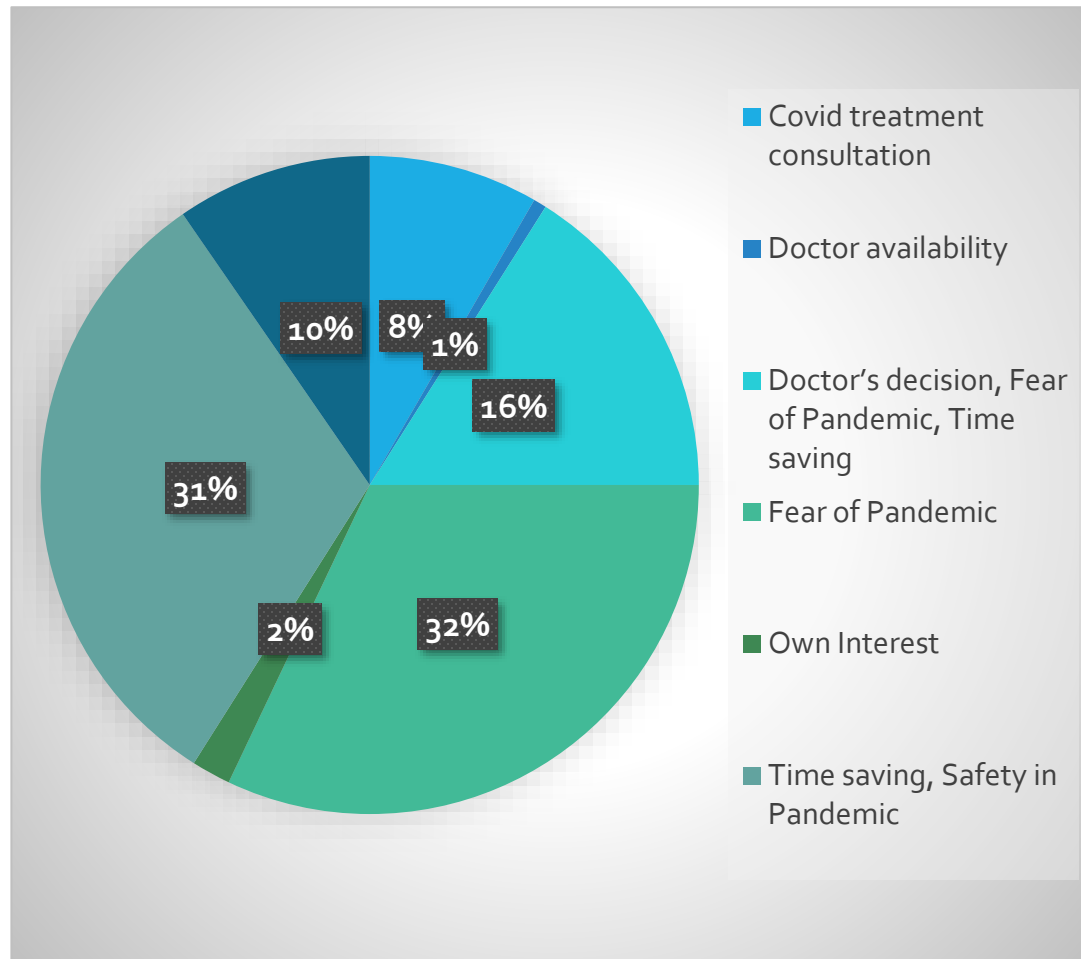
The main reason for not being availed any type of telemedicine services



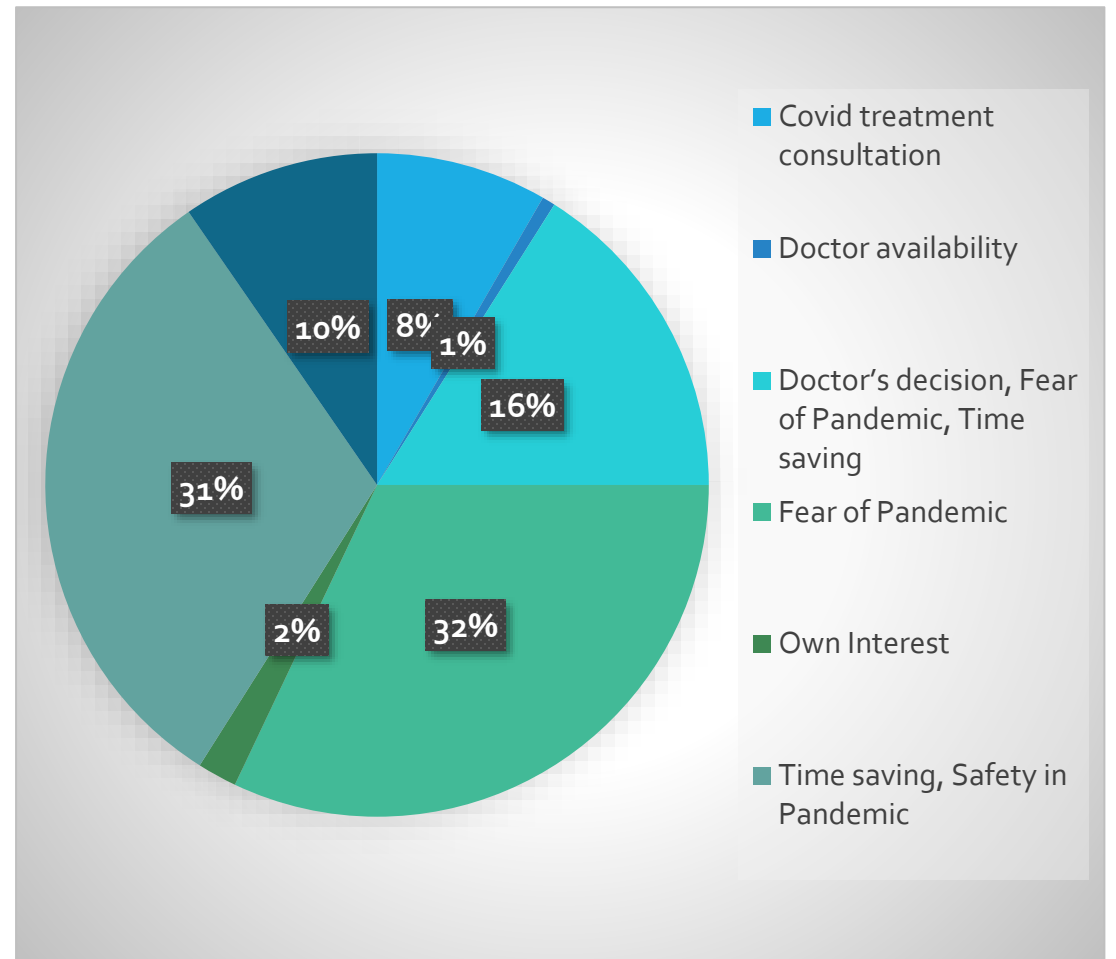
The medical specialist the respondents consulted through telemedicine services.



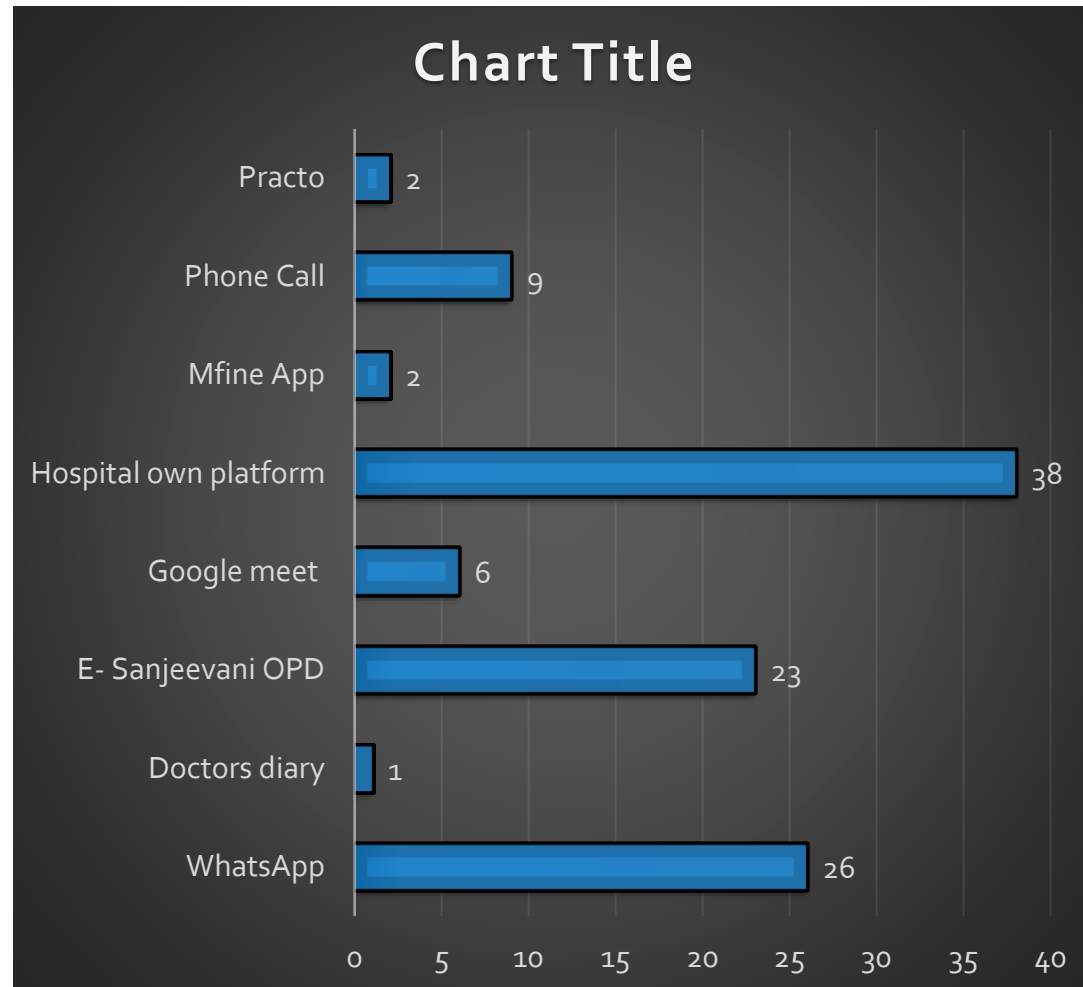
The main reasons for adopting Telemedicine services



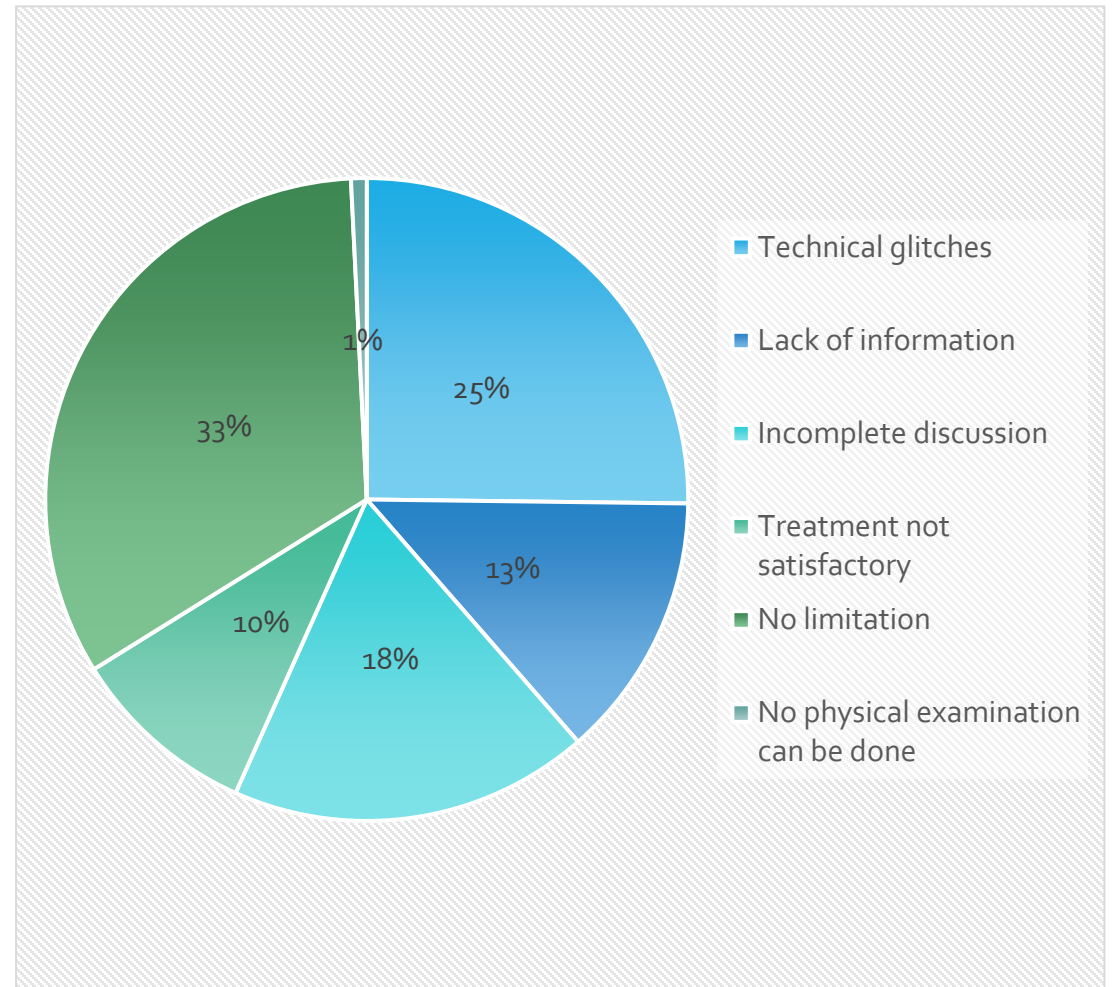
The benefits of using Telemedicine among the respondents



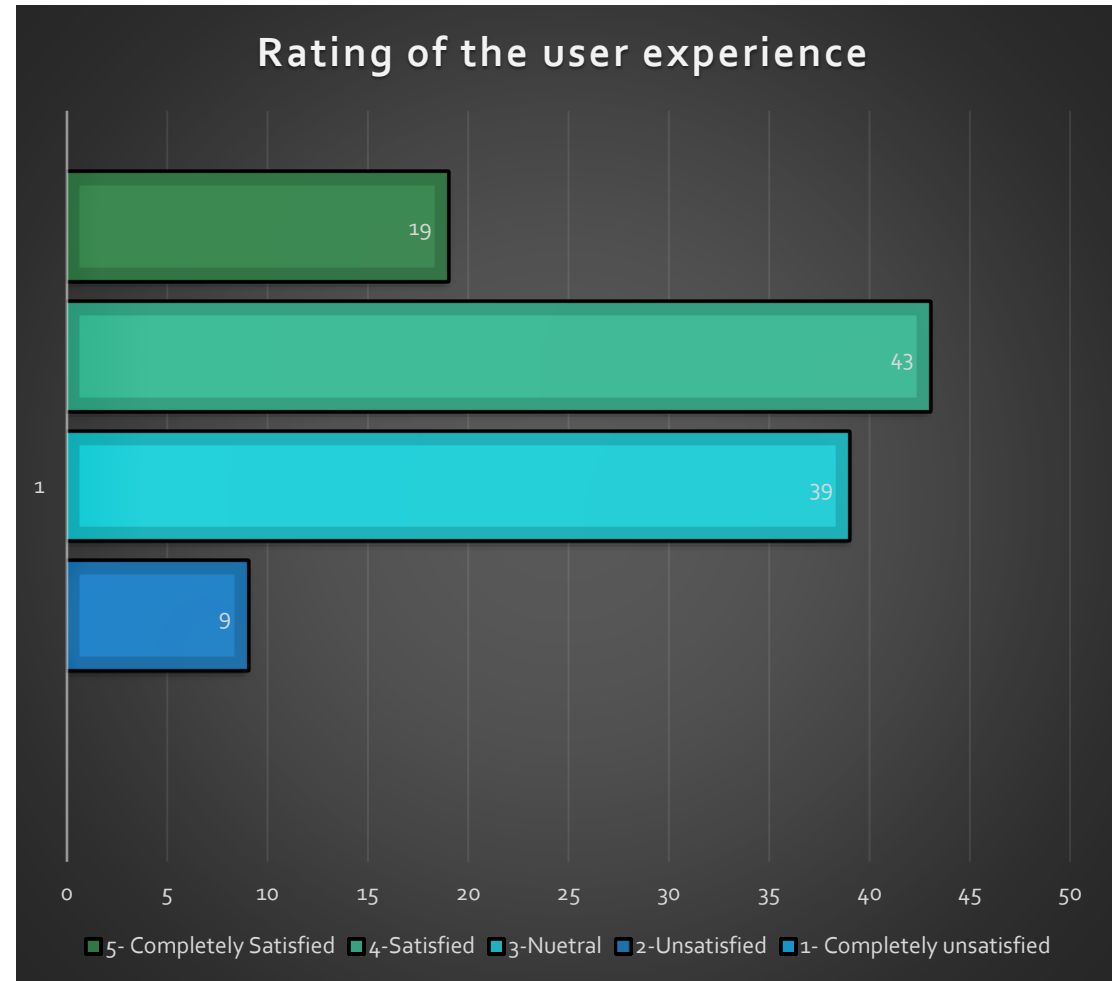
The platform which was used for availing the telemedicine services



The limitations experienced by the respondents during the telemedicine consultation



The user satisfaction after using telemedicine services, on scale of 1-5, (1 being the least and 5 being the maximum)



CONCLUSION

- Telemedicine services have become popular among the community irrespective of their area of residence, education, gender, occupation and other sociodemographic background. Among the geographical disparity, respondents from rural areas availed telemedicine more.
- Respondents who got infected with Covid-19 also used telemedicine services, which actually shows the importance of treatment availability and helped to provide adequate healthcare support virtually.
- Telemedicine is a feasible model of healthcare delivery in considering that the comprehensive, compassionate and professional health can be delivered to the community.
- The telemedicine can be included for all the specialties and super specialty consultants without any constraints. The available technology on web and mobile phone based platforms can be used to spread proper information
- Proper information regarding the importance and benefits of telemedicine services must be imparted to the community so that the preference for physical consultation will change and start adapting telemedicine services.
- Telemedicine served to reduce the inequalities of healthcare accessibility and availability during the period and provided services remotely through various sources. The community actually utilized the telemedicine services and only some people are not aware about the telemedicine services. The community is still ready to avail the services if they get the services.
- The pandemic fear has curtailed the people to stay inside their home and insisted the people to avail the telemedicine services. But the people have accepted the services and there is a large scope for telemedicine services to grow and increase the benefit to the people.

RECOMENDATIONS

- Addressing the drawbacks and making changes to ensure the proper treatment delivery is the need of the hour.
- The importance of telemedicine must be educated to the community and the healthcare workers.
- Government can come up with more and advanced services in e-Sanjeevini OPD services, it can actually reduce the cost of healthcare and out of pocket hospital expenditure of the common community in private healthcare facilities.
- The consultants must strictly follow to take the consent and treatment history from the patient.
- The follow up consultation can be promoted using telemedicine services as it can ensure the unnecessary travel of the patient.
- Telemedicine services must be made accessible, available and affordable to each and everyone in the country.
- Patient consent is mandatory. Consent can be taken through an email, text or audio/video message. The patient's medical history and the conditions must be taken mandatory.

LIMITATIONS

- The questionnaire was shared to the respondents who use WhatsApp and they have enough knowledge in the technology. There is a possibility that the response offered by the respondents were biased.

THANK YOU
