

Patient Satisfaction on Online Consultation

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ABSTRACT

Telemedicine proved to be an efficient means of communication for many patients during the pandemic. It significantly reduced the need to visit the hospital in person and reduced pressure on the frontline medical staff actively involved in COVID-19 management. Using telemedicine to establish a real-time, efficient and convenient platform will comprehensively improve our ability to deal with public health emergencies, which will also improve the time to diagnose and treat critically ill patients, coordinate and optimize resource allocation and avoid the spread of diseases caused by the transfer of patients. Telemedicine can provide patients with more regular and efficient care than traditional models of care. A more effective telemedicine system should be established by promoting such medical services. Though patient satisfaction was high with the services received by them, timely assessment of the problems encountered in the implementation of telemedicine services will help evolve the services not just during the pandemics but even after that.

I. INTRODUCTION

Telemedicine has emerged as an essential interface between health care providers and patients during the pandemic. The present study was done to assess this technology's level of acceptance and satisfaction amongst the patients. Telemedicine has emerged as an important interface between health care providers and patients after most countries saw major lockdowns and restrictions on people's movements during the COVID-19 pandemic. Telemedicine combines enhanced hardware, digital medicine, image capture and disease diagnosis and has the potential to ameliorate the limitations of distance by providing high-quality expert services. Tele-consultations can be done from the safety and comfort of one's own home and thus can be a major mode of health care not only during this time but also for the future. In

the face of deficiencies in the availability of healthcare providers in rural and semi-urban areas, this option of reaching out to the masses has not been utilized to its full potential. This has been attributed to differential perceptions about its utility.

II. LITERATURE REVIEW

- In November 2022, six pharmaceutical companies were chosen by the Indian Council of Medical Research to produce monkey pox vaccines - Serum Institute of India, Biological E, Dr. Reddy's Laboratories, Hester Bioscience Ltd., Indian Immunological Ltd., and Reliance Life Sciences.
- By March 2022, the Health Ministry's eSanjeevani telemedicine service had already crossed 3crore tele-consultations. Moreover, eSanjeevani telemedicine set a new record by completing over 1.7 lakhs consultations in a single day.
- As of May 2021, 11.9 lakhs Health IDs have been generated and 3,106 doctors and 1,490 facilities have registered on the National Digital Health Mission (NDHM) platform.

III. RESEARCH METHODOLOGY

- The researcher adopts a descriptive and exploratory approach. Both primary and secondary sources are utilized in conducting research. Mainly, the theoretical framework is explained by the use of secondary sources such as books, journals, and articles.
- The researcher adopts an exploratory approach, which enables the researcher to gather analysis and interpret the set of data, which were used for explanation of underlying factors that surround the need of this research work. The type of research design that we are using here is descriptive design because is used to describe characteristics of a population or phenomenon being studied.

- **Primary Data:** Data that has been generated by the researcher himself/herself, surveys, interviews, experiments, specially designed for understanding and solving the research problem at hand.
- **Secondary Data:** Using existing data generated by large government Institutions, healthcare facilities etc. as part of organizational record keeping. The data is then extracted from more varied data files.
- Secondary sources are majorly utilized in conducting research. Mainly, the theoretical framework is explained by the use of secondary sources such as books, journals, and articles.

RESEARCH QUESTIONS

There search questions related to the model are outlined below:

1. What is teleconsultation?
2. Is teleconsultation helped people during COVID-19?
3. Is it useful for future practices?
4. What is the perception of patients towards teleconsultation?

IV. DATA ANALYSIS AND FINDINGS

Data was collected in Microsoft Excel for analysis. The level of satisfaction was assessed on a five-point Likert scale. The distinction was also made between the patients who

sought telemedicine using audio only or both audio and video during the call. Descriptive statistics were used to summarise the demographic details of the patients. The statistical significance of the total score difference between the audio-only or audio and video calls was compared using the Mann-Whitney U test. Significance levels of less than 0.05 were considered statistically relevant.

V. RESULTS

From a total of 389 patients who were given consultation through the telemedicine services during this period, we could contact 320 patients for feedback. Finally, 300 of them gave their consent to assess the satisfaction and were included in the analysis [Table 1]. Fifty-five percent (n = 165; 55%) received teleconsultation via telephone call (landline or WhatsApp audio call), while the other 45% (n = 135) preferred video calling services (on WhatsApp messenger). Most of the participants were females (53%), more than 40 years (45%) and from urban areas (52%). A higher number of patients from rural areas sought help on audio calls, while video calls were preferred by the urban patients ($P < 0.05$). Preference was not observed for medical or surgical specialty consultations. The participants were a uniform mix of new and follow-up patients. Most of them (81%) had booked an appointment for discussing their medical problems only.

Variable	Audio call only	Audio + Video call	Total	Chi-square (P)
Number of teleconsultations	165 (100)	135 (100)	300 (100)	
Gender				2.52 (0.28)
Female	89 (55.9)	70 (51.9)	159 (53.0)	
Male	76 (46.1)	65 (48.1)	141 (47.0)	
Age category of the patients				0.42 (0.93)
≤20 years	13 (7.9)	12 (8.9)	25 (8.3)	
21-40 years	65 (39.4)	56 (41.5)	121 (40.3)	
≥41 years	75 (45.5)	59 (43.7)	134 (44.7)	
Did not disclose	12 (7.3)	8 (5.9)	20 (6.7)	
Residence				2.91 (0.08)
Rural	86 (52.1)	57 (42.2)	143 (47.7)	
Urban	79 (47.9)	78 (57.8)	157 (52.3)	
Specialty category				0.67 (0.88)
Medicine and allied branches	84 (50.9)	63 (46.7)	147 (49.0)	
Surgery and allied branches	81 (49.1)	72 (53.4)	153 (51)	
Education of the service user				1.49 (0.68)
Illiterate	23 (13.9)	16 (11.9)	39 (13)	
Less than primary	14 (8.5)	8 (5.9)	22 (7.3)	
Less than high school	72 (43.6)	58 (43)	130 (43.3)	
Graduate and above	56 (33.9)	53 (39.3)	109 (36.3)	
Monthly income of the user				3.12 (0.21)
< 20,000	64 (38.8)	43 (31.9)	107 (35.7)	
> 20,000	57 (34.5)	60 (44.4)	117 (39)	
NIL	44 (26.7)	32 (23.7)	76 (25.3)	
Number of Family members				1.88 (0.17)
<4	81 (49.1)	77 (57)	158 (52.7)	
>4	84 (50.9)	58 (43)	142 (47.3)	
Type of consultation				0.40 (0.93)
Follow-up consultation	83 (50.3)	67 (49.6)	150 (50.0)	
New consult	82 (49.7)	68 (50.4)	150 (50.0)	
Tele-consultation sought for				0.91 (0.63)
Family member	35 (21.2)	23 (17.0)	58 (19.3)	
Self	130 (78.8)	112 (83)	242 (80.7)	
How did you come to know about telemedicine services?				2.79 (0.59)
Hospital Staff	46 (27.9)	32 (23.7)	78 (26)	
Family and Friends	77 (46.7)	64 (47.4)	141 (47)	
IEC Material Given by Hospital Staff	9 (5.5)	13 (9.6)	22 (7.3)	
Newspaper/televised advertisement	11 (6.7)	11 (8.1)	22 (7.3)	
Social Media	22 (13.3)	15 (11.1)	37 (12.3)	

Table 1: Background characteristics of the study participants who received the treatment via telemedicine services

Questions related to satisfaction	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
Registration/Appointment services					
Ease of seeking appointment	3 (1.0)	1 (0.3)	-	155 (51.7)	141 (47.0)
Were you satisfied with the manner the receptionist talked to you?	2 (0.7)	1 (0.3)	-	155 (51.7)	142 (47.3)
Consultation with the doctor					
The voice/video quality of the service	5 (1.7)	1 (0.3)	2 (0.7)	153 (51.0)	139 (46.3)
How much did the doctor show concern towards your problems?	2 (0.7)	3 (1.0)	3 (1.0)	150 (50.0)	142 (47.3)
Do you feel relaxed during the telemedicine session?	1 (0.3)	2 (0.7)	2 (0.7)	150 (50.3)	145 (48.3)
Time was given to listening to your problems	-	2 (0.6)	3 (1.0)	152 (50.7)	143 (47.7)
The explanation of your problem by the doctor	1 (0.3)	3 (1.0)	1 (0.3)	149 (49.7)	146 (48.7)
The explanation of the treatment	1 (0.3)	5 (1.6)	2 (0.7)	146 (48.7)	146 (48.7)
The advice for follow up	1 (0.3)	4 (1.3)	2 (0.7)	147 (49.0)	146 (48.7)
Post consultation services					
The clarity of the prescription provided to you	1 (0.3)	5 (1.7)	1 (0.3)	147 (49.0)	146 (48.7)
The ease of getting medicines with the help of that prescription slip	1 (0.3)	6 (2.0)	2 (0.7)	148 (49.3)	142 (47.6)
Overall satisfaction:					
Overall, how satisfied do you feel with the role of telemedicine in relieving your present medical problem?	1 (0.3)	4 (1.3)	3 (1.0)	146 (48.7)	146 (48.7)
Would you like to use telemedicine again?	2 (0.7)	4 (1.3)	5 (1.7)	144 (48.0)	145 (48.3)
Overall, how satisfied were you with the last telemedicine session?	1 (0.3)	3 (1.0)	46 (15.3)	123 (41.0)	127 (42.3)
Do you think your telemedicine session was as good as a regular in-person visit?	1 (0.3)	2 (0.7)	159 (53.0)	69 (23.0)	69 (23.0)
In the future, would you prefer the regular visit or just avail the telemedicine services	1 (0.3)	1 (0.3)	138 (46.0)	95 (31.7)	65 (21.7)
Would you recommend this service to your knowns?	1 (0.3)	1 (0.3)	270 (90.0)	14 (4.7)	14 (4.7)
Overall satisfaction score	1 (0.3)	0	6 (2.0)	195 (65)	98 (32.7)

Figures in parentheses depict percentages

Table 2: Satisfaction of the clients with the teleconsultation services on a Likert scale

Questions related to satisfaction	Median (range)			P (Mann-Whitney U test)
	Audio call	Video call	Total	
Registration/Appointment services				
Ease of seeking appointment	4 (1-5)	4 (1-5)	4 (1-5)	0.898
Were you satisfied with the manner the receptionist talked to you?	4 (1-5)	4 (1-5)	4 (1-5)	0.948
Consultation with the doctor				
The voice/video quality of the service	4 (1-5)	4 (1-5)	4 (1-5)	0.765
How much did the doctor show concern towards your problems?	4 (1-5)	4 (1-5)	4 (1-5)	0.802
Did you feel relaxed during the telemedicine session?	4 (1-5)	4 (2-5)	4 (1-5)	0.980
Time was given to listen to your problems	4 (2-5)	4 (2-5)	4 (2-5)	0.860
The explanation of your problem by the doctor	4 (1-5)	4 (2-5)	4 (1-5)	0.986
The explanation of the treatment	4 (1-5)	4 (2-5)	4 (1-5)	0.717
The advice for follow up	4 (1-5)	4 (2-5)	4 (1-5)	0.934
Post consultation services				
The clarity of the prescription provided to you	4 (1-5)	4 (2-5)	4 (1-5)	0.932
The ease of getting medicines with the help of that prescription slip	4 (1-5)	4 (2-5)	4 (1-5)	0.926
Total score	44 (23-55)	44 (26-55)	44 (23-55)	0.932
Overall satisfaction				
Overall, how satisfied did you feel with the role of telemedicine in relieving your presenting problem?	4 (1-5)	4 (2-5)	4 (1-5)	0.981
Would you like to use telemedicine again?	4 (1-5)	4 (2-5)	4 (1-5)	0.950
Overall, how satisfied were you with the last telemedicine session?	4 (1-5)	4 (2-5)	4 (1-5)	0.884
Do you think your telemedicine session was as good as a regular in-person visit?	4 (1-5)	3 (2-5)	3 (1-5)	0.992
In the future, would you prefer the regular visit or just avail the telemedicine services?	4 (1-5)	4 (3-5)	4 (1-5)	0.280
Would you recommend this service to your knowns?	3 (1-5)	3 (3-5)	3 (1-5)	0.005
Overall satisfaction score	23 (6-30)	23 (15-30)	23 (6-30)	0.681

Table 3: Comparison of the client's satisfaction based on the type of call

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