

# A Study on Consumer Perceptions Towards Telemedicine in Vadodara

Parmar Kunal<sup>1</sup>, Panchal Naineshkumar<sup>2</sup>, Dr. Jayprakash Lomoria<sup>3</sup>

<sup>1,2</sup>Student, Parul University

<sup>3</sup>Professor, Parul University

## ABSTRACT

Telemedicine, the remote delivery of healthcare services through digital communication technologies, has gained significant attention in recent years. The findings indicate that consumer perceptions towards telemedicine is driven by several key factors. Convenience emerged as a crucial aspect, with participants valuing the ability to access healthcare services remotely, especially for minor ailments and routine check-ups. Time-saving and reduced travel costs were also significant contributors to preference. Privacy and security concerns were addressed through the adoption of secure communication platforms and strict adherence to data protection regulations.

The main Objective of this Research is to achieve a comprehensive understanding of consumer Perceptions towards Telemedicine and their impact on patient satisfaction and healthcare outcomes. By Using Quantitative methods in telemedicine research and evaluation, stakeholders can gain valuable insights into the effectiveness, efficiency, and impact of telemedicine interventions. These methods help inform decision-making, improve patient care, and advance the field of telemedicine.

Overall, this research provides valuable insights into consumer perceptions towards telemedicine, offering healthcare providers and policymakers a comprehensive understanding of the factors influencing its adoption.

**KEYWORDS:** Healthtech, Telemedicine, Consumer Perceptions, eHealth, Digital Health.

## INTRODUCTION

Telemedicine services in the country come under the combined governance of Ministry of Health and Family Welfare and the Department of Information Technology. Telemedicine division of MOHFW, GOI has set up a National Telemedicine Portal for enforcing a green field design one-health establishing a National Medical College Network (NMCN) for joining the Medical Colleges across the country with the purpose of e-Education and a National Rural Telemedicine Network for Healthcare delivery.

As element of the health sector of the National Health Portal (NHP), National Digital Health Authority of India (NDHAI) National e-health authority (NeHA) is being set up with a vision of achieving high quality health services for all Indians through the cost-effective and secure use of ICTs in health and health-related field. To ensure safe data transmission during telemedicine practices, MOHFW has developed a set of Electronic Health Records (EHR) norms in 2013 and a revised interpretation of the same in 2016. Telemedicine practices in India are also extended to the fields of traditional drug. The National Rural AYUSH Telemedicine Network aims to promote the benefit of traditional styles of medicine to a larger population through telemedicine.

Village Resource Centre (VRC) The VRC conception has been developed by ISRO to give a variety of services similar as tele- education, telemedicine, online- decision support, interactive growers' premonitory services, tele- fishery, e-governance services, rainfall services and water operation. The VRCs not only act as literacy centre and but also give connectivity to specialty hospitals, therefore bringing the services of expert croakers to the townlets. Nearly 500 similar VRCs have been established in the country. AROGYASREE is another internet- grounded mobile telemedicine empire that integrates multiple hospitals, mobile medical specialists and pastoral mobile unit conventions. The design is an action of Indian Council of Medical Research (ICMR).

### Literature Review

**Meg Welson, The Future of Telemedicine, IOS Press Ebook, ISSN Number – 1879-8136 (online), Volume: 80**

In this exploration I 'm study about Despite a decade of tremendous advances in telemedicine, it still has implicit far beyond current reality. New technologies are making the use of telemedicine ever more satisfying and cost and payment walls are being dived consequently smaller walls will stymie the broad relinquishment of a now- proven cost- saving quittance of a variety of health care services. Relinquishment of telemedicine will accelerate with the aging of the Baby Boomer generation and globalization manpower's will broaden relinquishment and punch bring down.

**Kaylie Toll, Lauren Spark, Belinda Neo, Richard Norman, Sarah Elliott, Leanne Wells, Julia Nesbitt, Isobel Frean, Suzanne Robinson, Consumer preferences, experiences, and attitudes towards telehealth, PLOS ONE, ISSN Number: 1932-6203, Volume: 17(8)**

I'm chancing exploration to study in this Australia, telehealth isn't new, with several telehealth specialist services being available for those living in pastoral and remote communities. still, previous to the COVID-19 epidemic, telehealth wasn't routinely available for primary care or civic specialist movables. There has been an increased focus in the use of telehealth within primary care, and particularly general practice, but overall, there has been limited exploration to date to guide telehealth best- practice grounded on consumer gests and preferences within these settings. We aimed to capture the consumer experience of telehealth during the COVID- 19 epidemic, through a new Kitchen Table Discussion (KTD) system. This increases access to a broader community consumer cohort, with consumer hosts leading conversations in a safe terrain. The KTDs were conducted in May 2021, with 10 community members each hosting a group of over to 10 actors. A aggregate of 90 actors took part from across Australia, with the maturity living in major metropolises, although a significant proportion lived in inner and external indigenous areas of Australia, or had experience living in pastoral, indigenous or remote areas. Seventy percent of actors reported using telehealth in the history. Data were analyzed successionaly using thematic analysis and linked crucial themes modality, convenience, access, stay time, being relationship, communication, connectivity, cost, and sequestration. Overall, the future of telehealth looks hopeful from the perspective of the consumer, but significant advancements are needed to ameliorate consumer engagement and experience. It's apparent that 'one size doesn't fit all', with results suggesting consumers value the vacuity of telehealth and having choice and inflexibility to use telehealth when applicable, but don't want to see telehealth replacing face- to- face delivery. Actors tended to agree that telehealth wasn't a favored system when physical examination was needed but would suit certain points of the case trip.

**Rho Hyun-Jeong, Jeong Se-Hyung, Understanding Patient Satisfaction, Trust, and Loyalty towards Telemedicine Services: A Proposed Framework, Health Inform Res., ISSN Number: 1225-8903, Volume: 23**

This composition help to discusses a proposed frame for understanding patient satisfaction, trust, and fidelity towards telemedicine services. It explores factors that impact patient preferences for telemedicine and provides perceptivity into the perfecting telemedicine services grounded on patient perspectives. Although this composition is from 2017, it offers precious perceptivity into client preferences for telemedicine that may still be applicable moment.

### **RESEARCH METHODOLGY**

The topic “Consumer Perceptions towards Telemedicine” has already been described, and many researchers have moved from defining it in terms of concepts and facts that are known and unknown, but I discovered a lot of new information and ideas from other individual regarding the topic.

After gathering data from both sides, I created my research design and sample size. I conducted the study using Quantitative research (Primary data).

Clearly, then's an figure of a prospective exploration approach for examining the consumer perceptions towards telemedicine in vadodara.

#### **Research Design:**

This study will use a quantitative methodology and exploration tools to obtaine thorough perceptivity on customer preception towards telemedicine in vadodara.

the study design and framework using some of the major forms of research design.

Such as:

- Exploratory Design:

- 1) Descriptive

- Conclusive Design:

- 1) Causal design

I conducted research on the subject of “Consumer perceptions towards telemedicine” using “Design of Descriptive Research” I came up with some extremely useful and original findings.

Design of Descriptive Research I used to look into the challenges and concerns related to my research topic that affected individuals and consumers in Vadodara. I used a questionnaire with a five-point Likert scale pattern to perform a Descriptive investigation across vadodara city.

I used to concentrate on the examination of situations and particular issued when using the casual research design.

#### **Sources of Data:**

To gather data on consumer perceptions towards telemedicine in Vadodara City, you can consider multiple sources and research methods, depending on the scope and objectives of your study. Here are some potential sources of data:

- Surveys and Questionnaires
- telemedicine Service Providers
- Existing Studies and Reports

**Primary Data:** Primary data was collected using survey method (Google Forms) by sending questionnaire to general public through mails and messages. The questionnaire where carefully considering the parameters of the study.

**Data Collection Method:**Data is gathered using Primary survey method through questionnaire.

**Population:**The study population size is 205 respondent, who are falling in the age group of 18 and above of Vadodara (Gujarat), India.

**Sampling Method:**Probability sampling method – simple random sampling

**Sampling Frame:**Consumer of Vadodara city aged 18 to 60 through email via google form and telephonic survey.

**Data Collection Instrument:**Questionnaire including 5point Likert scale, close ended questions like rating scale/ranking scale and open-ended question at the end.

**DATA ANALYSIS**

**Table:1 Gender**

GENDER	FREQUENCY	PERCENTAGE
Male	125	61%
Female	80	39%

**TABLE 2: AGE**

AGE	FREQUENCY	PERCENTAGE
25years or below	96	46.8%
26 - 35	59	28.8%
36 - 45	40	19.5%
46year & above	10	4.9%

**TABLE 3: Higher Qualification**

EDUCATION LEVEL	FREQUENCY	PERCENTAGE
Below 10 <sup>th</sup>	15	7.3%
10 <sup>th</sup> & 12 <sup>th</sup>	32	15.6%
Graduation	75	36.6%
Post Graduation	79	38.5%
Diploma in chemical	1	0.5%
Diploma gnm	1	0.5%
Doctor	1	0.5%
Nursing	1	0.5%

**TABLE 4: Annual Income**

PARTICULAR	FREQUENCY	PERCENTAGE
Upto Rs 1,00,000	47	22.9%
Rs 1,00,000 – 2,00,000	51	24.9%
Rs 2,00,000 – 3,00,000	52	25.4%
Rs 3,00,000 Above	55	26.8%

**TABLE 5: Are you aware or listen about the companies who provide Telemedicine Service in India?**

PARTICULAR	FREQUENCY	PERCENTAGE
YES	191	93.2%
NO	14	6.8%

**TABLE 6: From which source you know about the companies of telemedicine service?**

PARTICULAR	FREQUENCY	PERCENTAGE
Friends Group	70	34.1%
Instagram	50	24.4%
LinkedIn	38	18.5%
Campaigns	23	11.2%
YouTube	18	8.8%
No Company	1	0.5%
Didn't hear	1	0.5%
Television Advertisements	1	0.5%
All	1	0.5%
TV	1	0.5%
Children	1	0.5%

**TABLE 7: Which companies do you know below that who provides telemedicine services?**

PARTICULAR	FREQUENCY	PERCENTAGE
Practo	33	16.1%
THS	73	35.6%
Teladoc Health	37	18%
eSanjeevani	25	12.2%
Lybrate	17	8.3%
Medibuddy	19	9.3%
None Of The above	1	16.1%

**TABLE 8: Telemedicine saves time compared to traditional in-person visits?**

Particular	Doctor consultation	Medicine Delivery	Lab Test at Home	Radiology	Post Surgery	Home health care	Diagnostic on wheel
Strongly Agree	105	69	59	53	48	46	69
Agree	61	82	70	67	57	74	62
Natural	30	46	59	63	70	58	43
Disagree	8	7	12	17	18	19	16
Strongly Disagree	1	1	5	5	12	8	15

**TABLE 9: Do you think that only which age category of peoples more use of Telemedicine app?**

Particular	Young adult	Middle-aged adult	Older-aged adult
Strongly Agree	91	54	70
Agree	31	91	25
Natural	51	49	48
Disagree	26	9	49
Strongly Disagree	6	2	13s

## RESULT & FINDINGS

- According to the study, 61% of respondents are from Male and 39% are from Female.
- The 93.2% of respondents are aware of and use Telemedicine services, with 65.9% knowing about it via social media and 34.1% via Public Mouth.
- According to the survey, THS and Teladoc Health for 53.6% of the market in Vadodara, while other for 46.4%.
- According to the report, 81.6% family was used this telemedicine service and 18.4% has not using this services till now.
- According to the poll, customer are more prefereable for personal visits but also now days person are availing this telemedicine services. according to 62.1% people think that its less time consuming, comfort place, no need to go anywhere also its gives potential cost saving compared to personal visits.
- By accomplishing this Research aims to inform healthcare providers, policymakers, and technology developers about the specific consumer preceptions and needs of customers regarding telemedicine services

## CONCLUSION

After conducting an extensive study on consumer behaviour towards Telemedicine in Vadodara city, several key findings emerged. It is evident that there is a notable and growing acceptance of Telemedicine services among the residents of Vadodara. The convenience and accessibility offered by remote healthcare consultations have resonated positively with the participants.

Participants also expressed enthusiasm about the potential to reduce waiting times and the overall duration of medical consultations through Telemedicine. The ability to schedule appointments more flexibly and avoid crowded waiting rooms was consistently mentioned as a significant benefit.

However, it is important to acknowledge that while there is a strong interest in Telemedicine, certain concerns and reservations were raised by participants. The foremost concern pertained to data privacy and security. Many participants emphasized the need for robust encryption and secure platforms to protect their personal and medical information. Addressing these security concerns is crucial for building trust and ensuring the sustained adoption of Telemedicine services.

Additionally, participants highlighted the importance of user-friendly platforms and interfaces. Some reported difficulties in navigating the technology, particularly among older individuals. To maximize the reach of Telemedicine services providers should invest in intuitive and easy-to-use interfaces, along with offering technical support for patients who may face challenges.

In conclusion, the study indicates that Telemedicine has the potential to revolutionize healthcare delivery in Vadodara city. The positive response from participants underscores the demand for convenient and accessible medical consultations. However, the successful implementation of Telemedicine hinges on

addressing the concerns of data privacy and security, as well as ensuring user- friendly platforms that cater to individuals of all technological proficiencies. As the city moves toward a more digitally integrated healthcare landscape, providers and policymakers should collaborate to seize the opportunities and mitigate the challenges posed by this transformative shift.

### LIMITATION OF THE STUDY

- **Geographical, Cultural and Socioeconomic Factors:** Customer preferences can be influenced by cultural beliefs, socioeconomic status, and educational background, which may not be adequately addressed in the research.
- **Privacy Concerns:** Individuals might be hesitant to share personal health information or engage in telemedicine due to concerns about data security and privacy
- **Small Sample Size:** in this Research only 101 responses was collected so Limited participation or a small sample size might affect the generalizability of the research findings to the broader population

### REFERENCES

1. IOS Press Ebooks - The Future of Telemedicine
2. Consumer preferences, experiences, and attitudes towards telehealth: Qualitative evidence from Australia - PubMed (nih.gov)
3. Understanding patient satisfaction, trust, and loyalty to primary care physicians - PubMed (nih.gov)
4. A Society of General Internal Medicine Position Statement on the Internists' Role in Social Determinants of Health - PubMed (nih.gov)
5. 11606\_2022\_7785\_Article 627..633 (springer.com)
6. Telemedicine and e-Health Solutions for COVID-19: Patients' Perspective - PubMed (nih.gov)
7. Patient preferences for direct-to-consumer telemedicine services: a nationwide survey - PubMed (nih.gov)
8. Telehealth - PubMed (nih.gov)
9. Telemedicine experience of NYC Internal Medicine residents during COVID-19 pandemic - PubMed (nih.gov)
10. Survey / Customer Preference For Telemedicine in Vadodara (google.com)