

ASSESSMENT OF ATTITUDE AND KNOWLEDGE OF TELEMEDICINE IN IPD CANCER PATIENTS

Submitted by: Dr. Sneha Basnet

Roll no.: 1625

Stream: HOM 27

Guided by: Dr. Sandesh Kumar Sharma
(Associate Professor, IIHMR University, Jaipur)



ABOUT ORGANIZATION



Rajiv Gandhi Cancer Institute and Research Centre, Rohini, Delhi, is a non-profit cancer treatment and research center established by the Indraprastha Cancer Society to provide world-class oncological care.



The Institute is governed by the not-for-profit society, and came into being as a legal, independent entity under The Societies Registration Act 1860.



The Institute began with 152 beds on 1st July 1996, now has expanded to 498 beds.



The Institute offers super specialized tertiary care services in Medical, Surgical and Radiation Oncology, streamlined into dedicated Site-Specific teams.

VISION, MISSION AND VALUES



VISION

To provide affordable oncological care of international standard and help eliminate cancer from India through research, & patient care.



MISSION

To be the premier cancer care provider in India and be the preferred choice of Patients, Care givers, Faculty and Students.

- By offering comprehensive services at an affordable price
- And excellence of our personnel leveraging best technology



VALUES

- We hold our patients in high esteem and work with ethics and compassion
- We care and function with mutual respect, trust and transparency
- We deliver accurate diagnosis, correct advice and effective treatment

INTRODUCTION

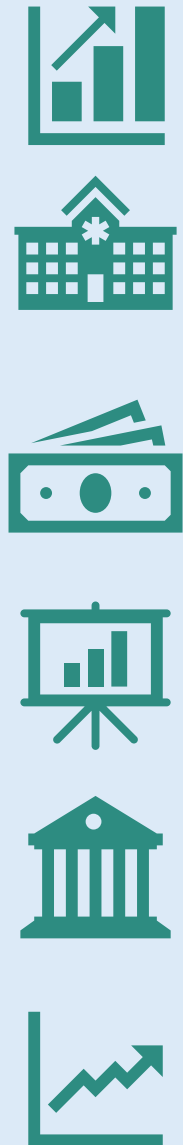


- Telemedicine has been defined by the World Health Organization as "the delivery of health care services using information and communication technologies for the exchange of valid information for diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, where distance is a critical factor"

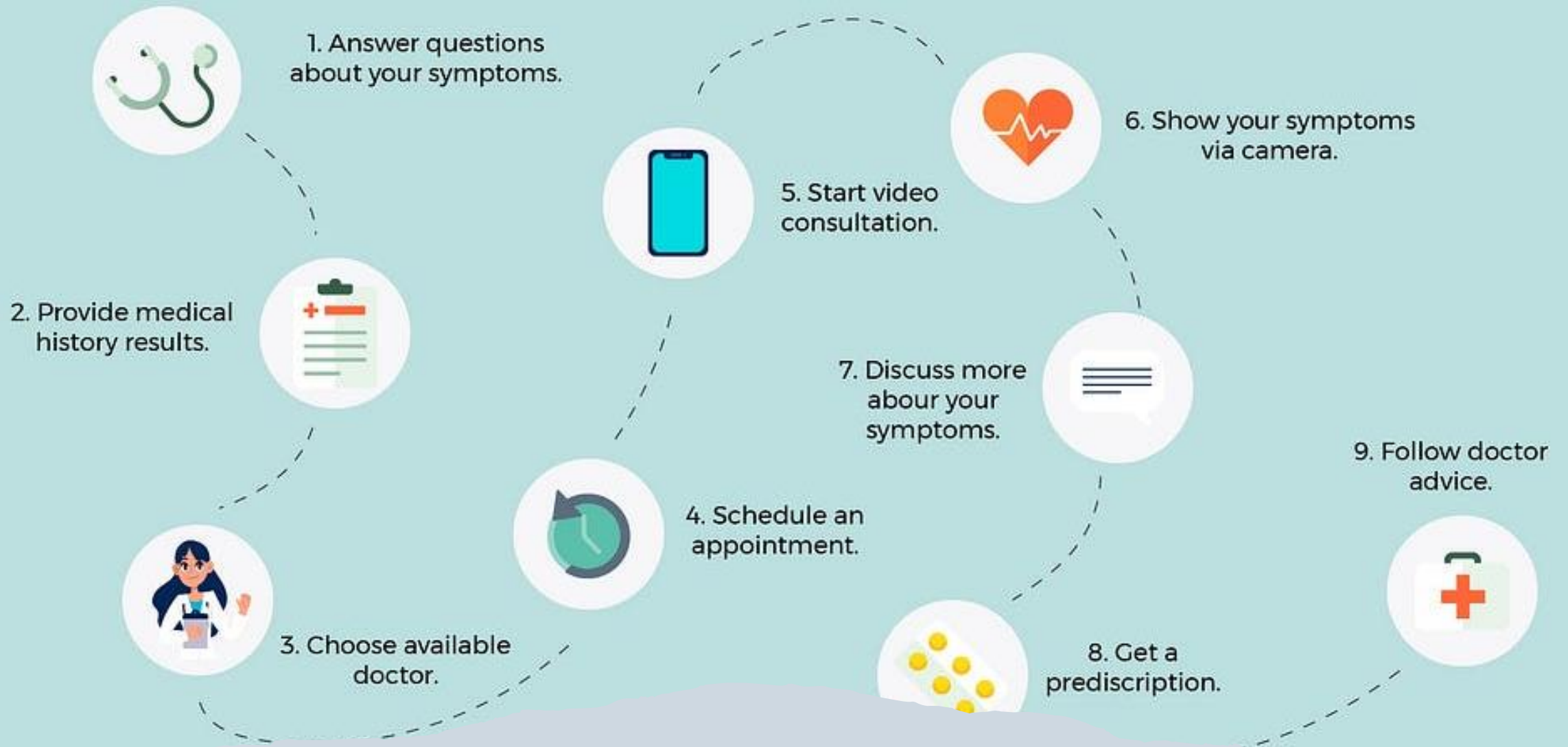


- In simpler words, Telemedicine is the utilization of media transmission and data innovation to give clinical medicinal services from a distance.

TELEMEDICINE IN INDIA



- India telemedicine market size to reach \$10.7 billion by 2028.
- According to IBEF, India's healthcare is a major employer and income generator.
- Healthcare costs rise due to aging, chronic illnesses, and technology advancements.
- Telemedicine adoption surged during the COVID-19 pandemic for healthcare access.
- India telemedicine market size reached \$1.9 billion in 2022, growing rapidly.
- It is projected to grow to \$10.7 billion by 2028.



PROCESS OF TELEMEDICINE

RESEARCH QUESTION



- To what extent, the IPD patients are aware of telemedicine?
- What are the attitudes of IPD cancer patients towards using telemedicine for consultations with their health care providers?

AIM



- To access the Attitude and Knowledge of Telemedicine in IPD Cancer Patients.

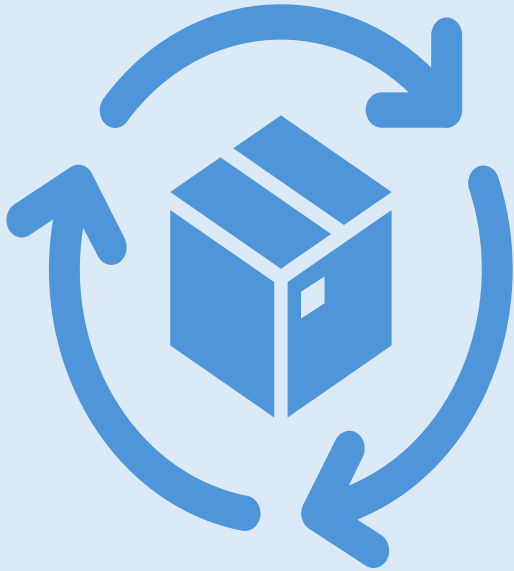


OBJECTIVES



- To evaluate the IPD patients' attitude and knowledge of telemedicine services offered within the hospital.
- To explore the key barriers and facilitators to telemedicine adoption in inpatients.
- To identify areas for improvement and enhance service quality.
- To identify factors influencing patient comfort and willingness to utilize telemedicine services.

METHODOLOGY



- **Study Design:** Cross-sectional survey
- **Study Tool:** A self-administered questionnaire or interview.
- **Setting:** Rajiv Gandhi Cancer Institute and Research Centre, Rohini, Delhi
- **Duration of the study:** March 18,2024 –June 17,2024
- **Sample size:** 50 IPD cancer patients
- **Sampling Technique:** Convenience Sampling

- **Study population**

Inclusion Criteria

- Diagnosed with cancer
- IPD Cancer patients
- 18 years or above
- Potential cognitive ability
- Informed written consent

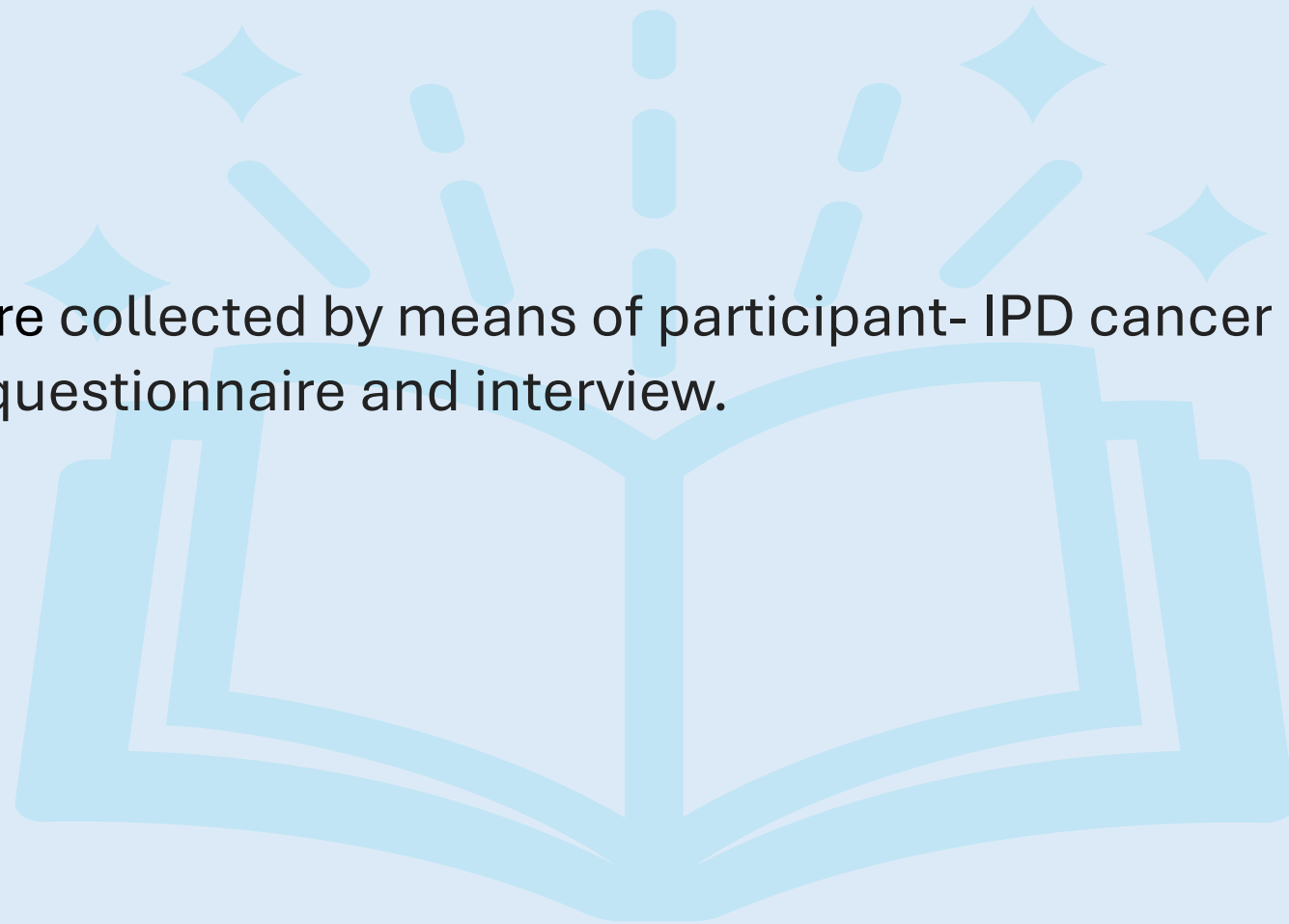


Exclusion Criteria

- Terminal Illness
- Acute Medical condition
- Language Barrier
- Prior negative experience

DATA COLLECTION PROCEDURE

- Data were collected by means of participant- IPD cancer patients using a questionnaire and interview.



RESULTS

1. Based on Demography:

a. Gender:

Gender	No.	Percent ^P
Male	25	50
Female	25	50
TOTAL	50	100

Table 1: Patient distribution based on Gender

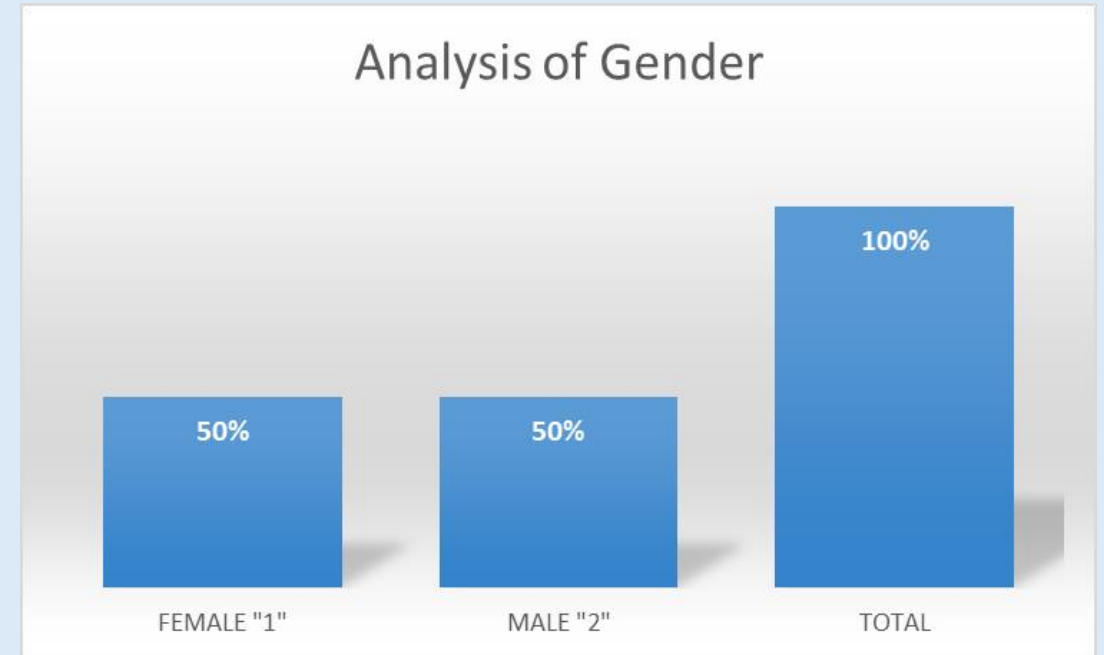


Fig:1. Bar graph of Analysis on Gender

Conclusion:

- The sample has a gender-balanced distribution, with males and females each comprising 50% of the total, as shown in the bar graph.

b. Age:

Age	No	Percent
<18	0	0
18-35	6	12
36-55	20	40
56-75	24	48
>75	0	0
Total	50	100

Table 2: Patient distribution based on Age

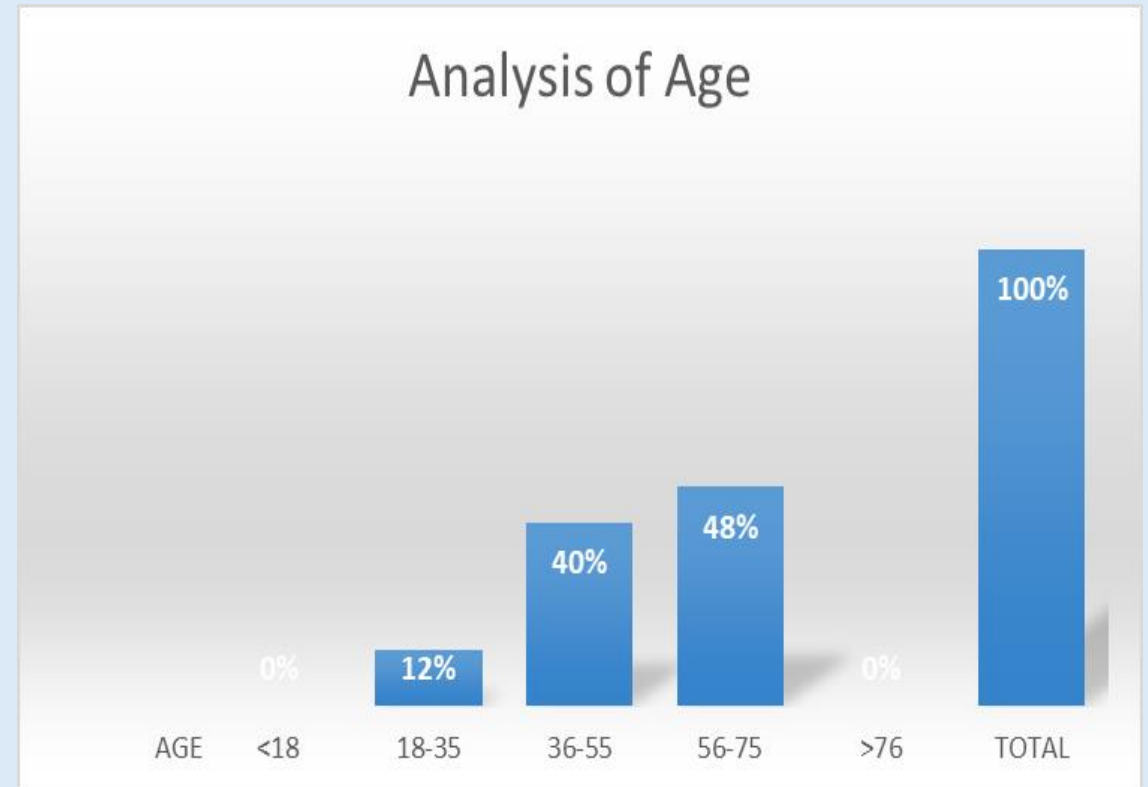


Fig: Bar graph of Analysis on Age

Conclusion:

- The sample's age distribution is dominated by patients aged 56-75 (48%) and 36-55 (40%), with smaller proportions in 18-35 (12%) and no representation in <18 and >75 age groups.

c. Nationality

Nationality	No.	Percent
Indian	38	76
Nepali	12	24
Total	50	100

Table 3: Patient distribution based on Nationality

Conclusion:

- The sample's nationality distribution is predominantly Indian (76%) with a smaller proportion of Nepali (24%), as visualized by the bar graph.

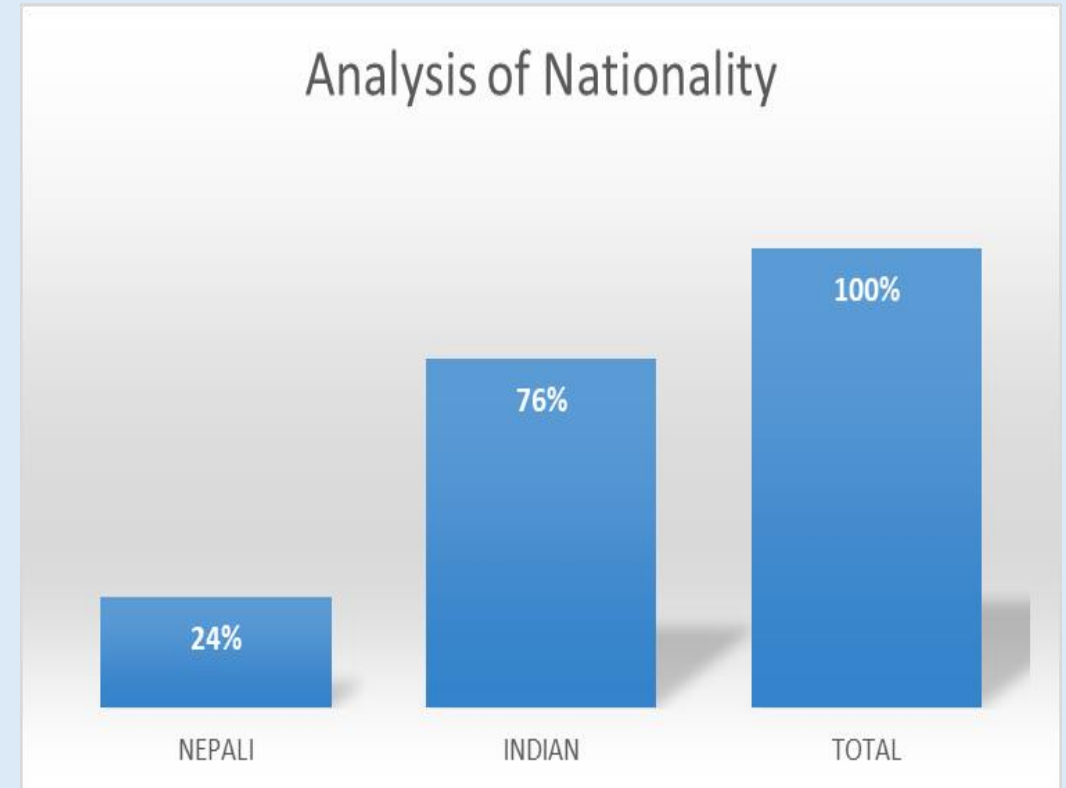


Fig: Bar graph of Analysis on Nationality

d(i). Awareness of Telemedicine

Awareness of telemedicine	No.	Percent
Yes	25	50
No	25	50
Total	50	100

Table: Patient distribution based on Awareness of telemedicine

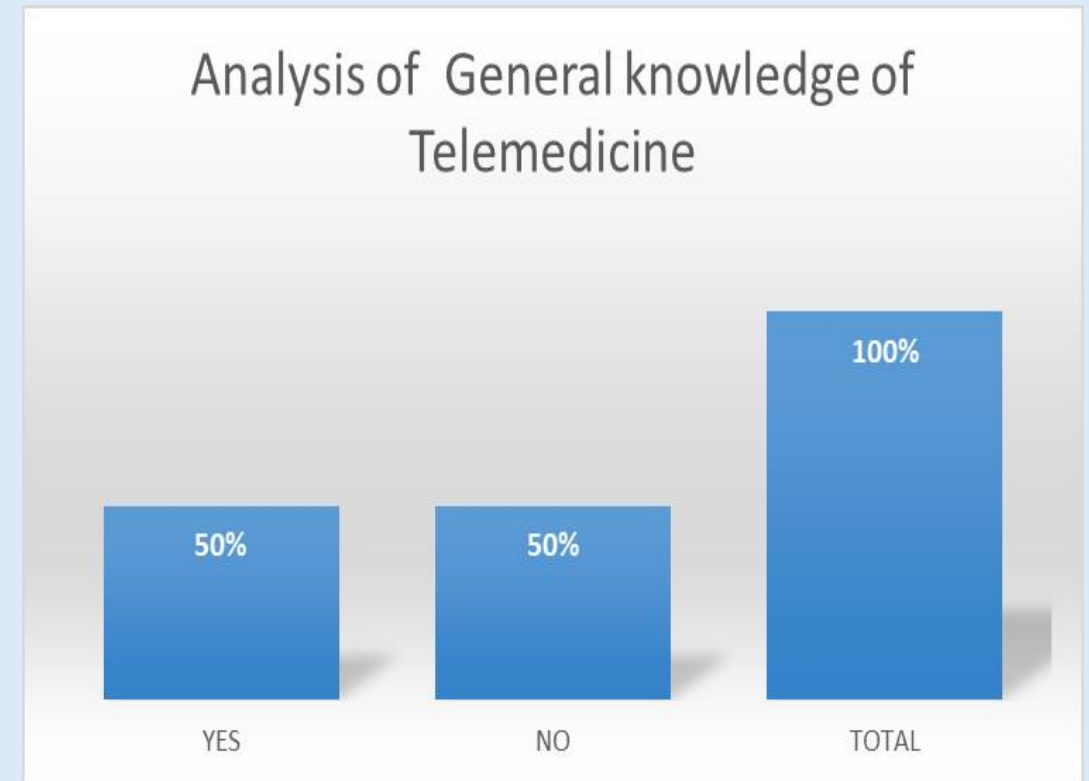


Fig: Bar graph of Analysis of General Knowledge on Telemedicine

Conclusion:

- The patients' awareness in telemedicine is evenly split, as shown by the 50/50 bar graph.

d(ii). Based on Knowledge of Telemedicine

Knowledge of Telemedicine	Response	Percent
Correct	24	48
Incorrect	26	52
Total	25	100

Table d(ii): Patient distribution based on knowledge of telemedicine

Conclusion:

- The data reveals that 48% have correct telemedicine knowledge, while 52% lack awareness, indicating a need for improved patient education.

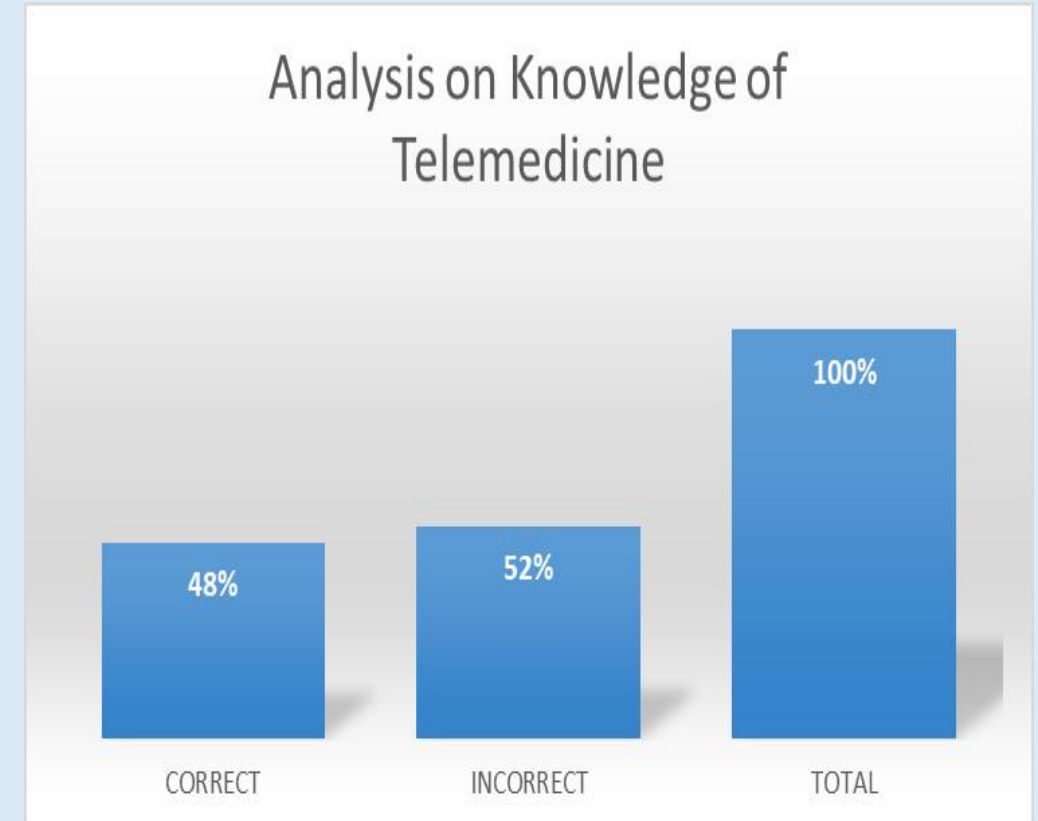


Fig: Bar graph based on Knowledge of Telemedicine

e. Based on Comfortability Using Technology

Comfortably Using Technology	Response	Percent
Yes	50	100
No	0	0
Total	50	100

Table 5: Patient distribution based on Comfortability Using Technology

Conclusion:

- This survey found that all participants (100%) were comfortable using technology such as smartphones, tablets, or video calls.

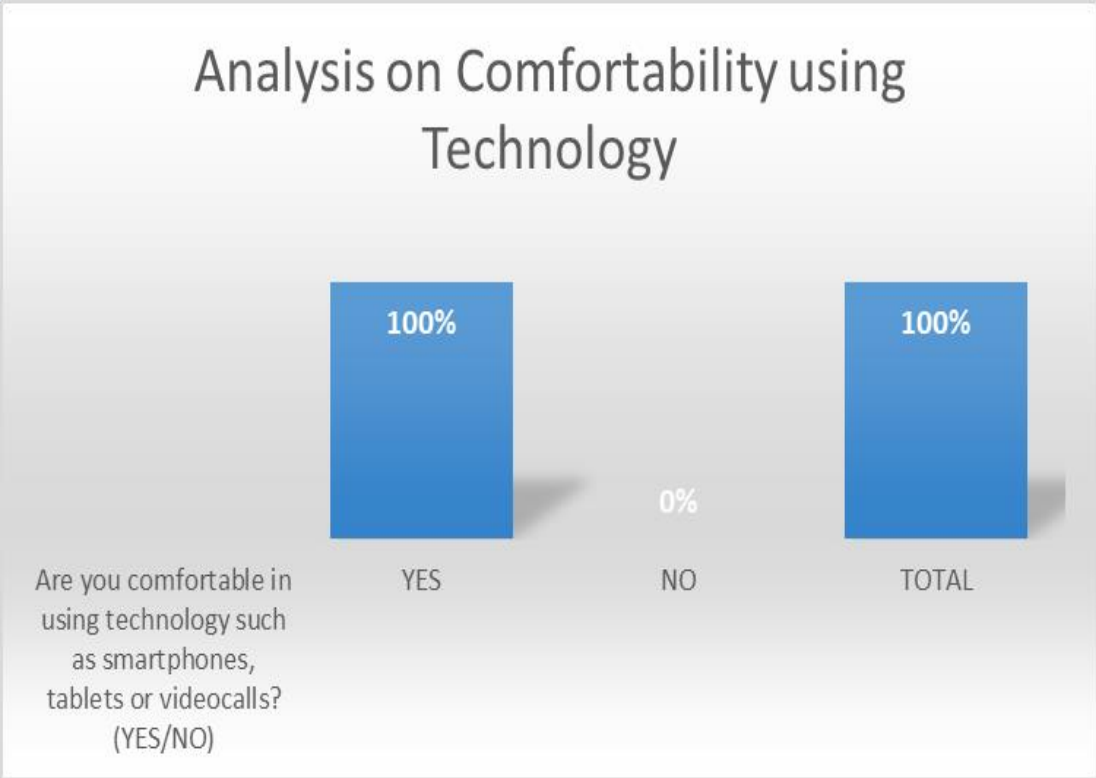


Fig: Bar graph of Analysis on Comfortability

f. Based on Accessibility:

Accessibility	Response	Percent
Yes	50	100
No	0	0
Total	50	100

Table f: Patient distribution based on Accessibility of internet

Conclusion:

- All participants (100%) reported having access to a device with internet connection, including a smartphone, tablet, or computer.

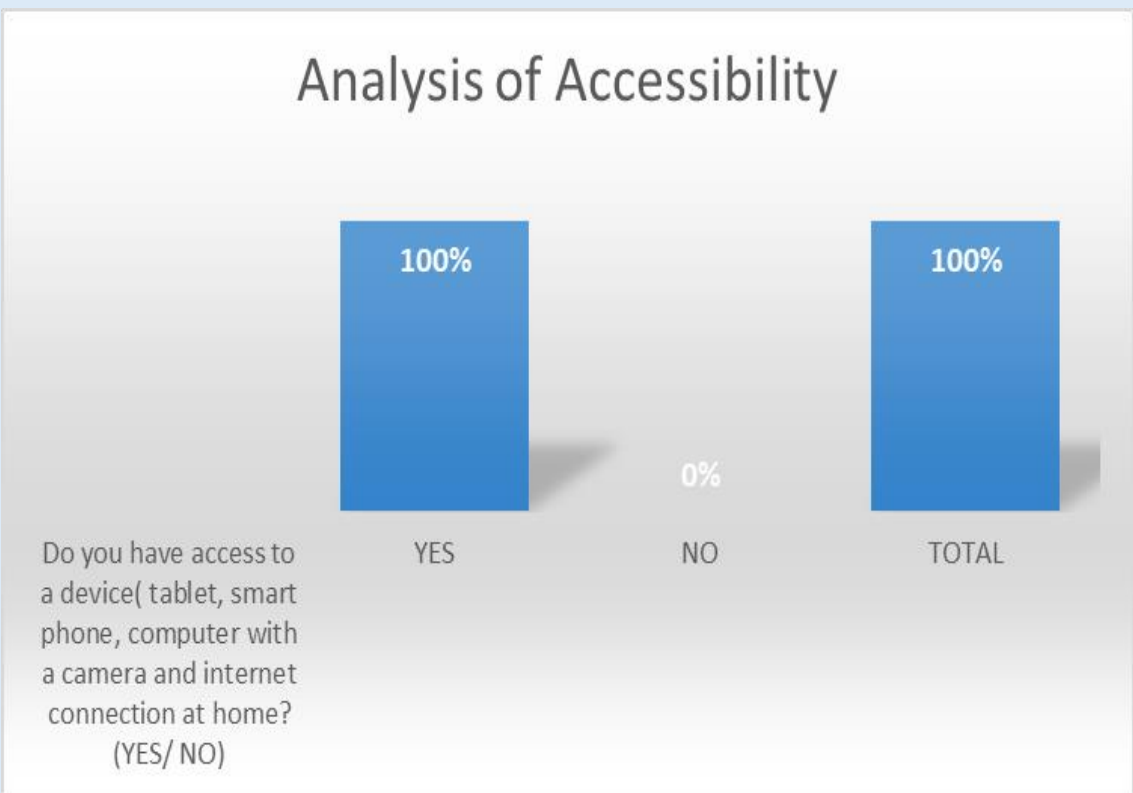


Fig: Bar graph of Analysis on Accessibility

g. Based on Future participation

Future Participation	Response	Percent
Yes	39	78
No	0	0
Maybe	11	22
Total	50	100

Table g: Based on Future Participation

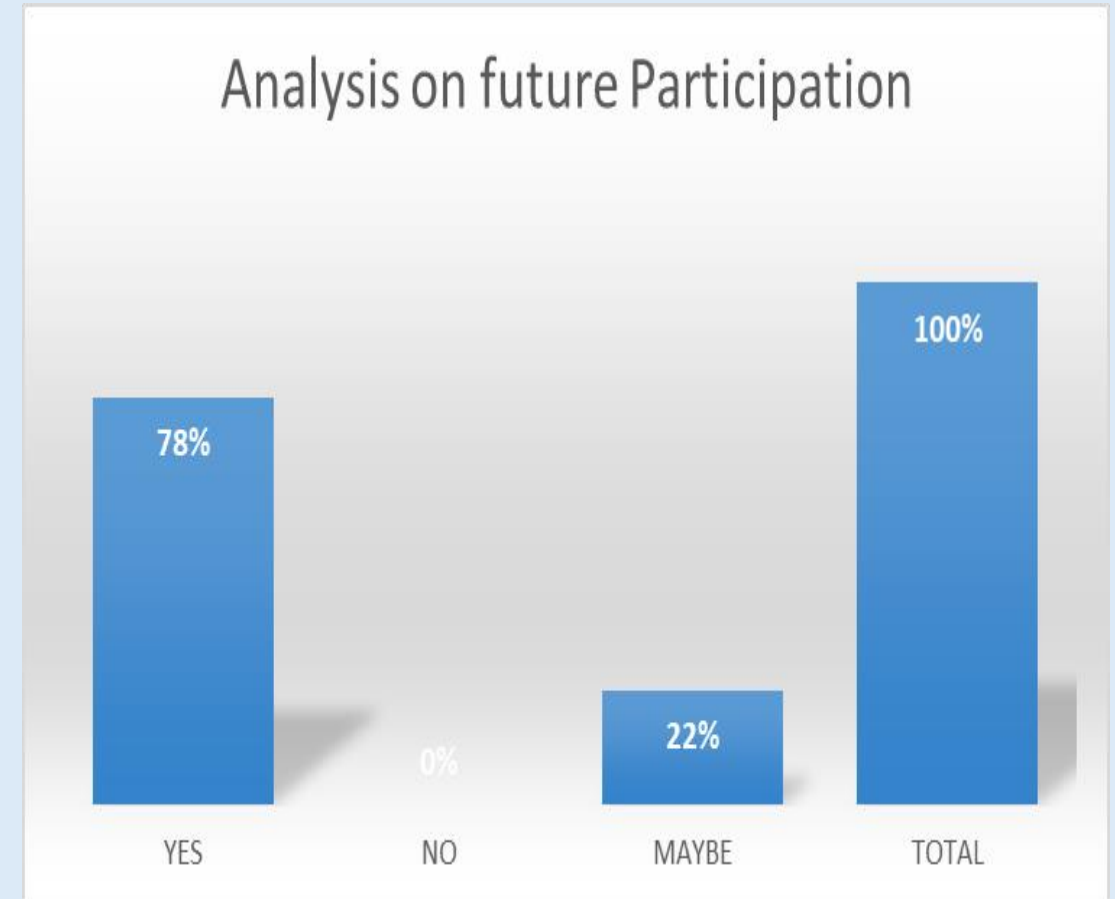


Fig: Bar graph based on future Participation

Conclusion:

- Most participants (78%) wanted to participate again, few were unsure.

Analysis of attitude towards telemedicine

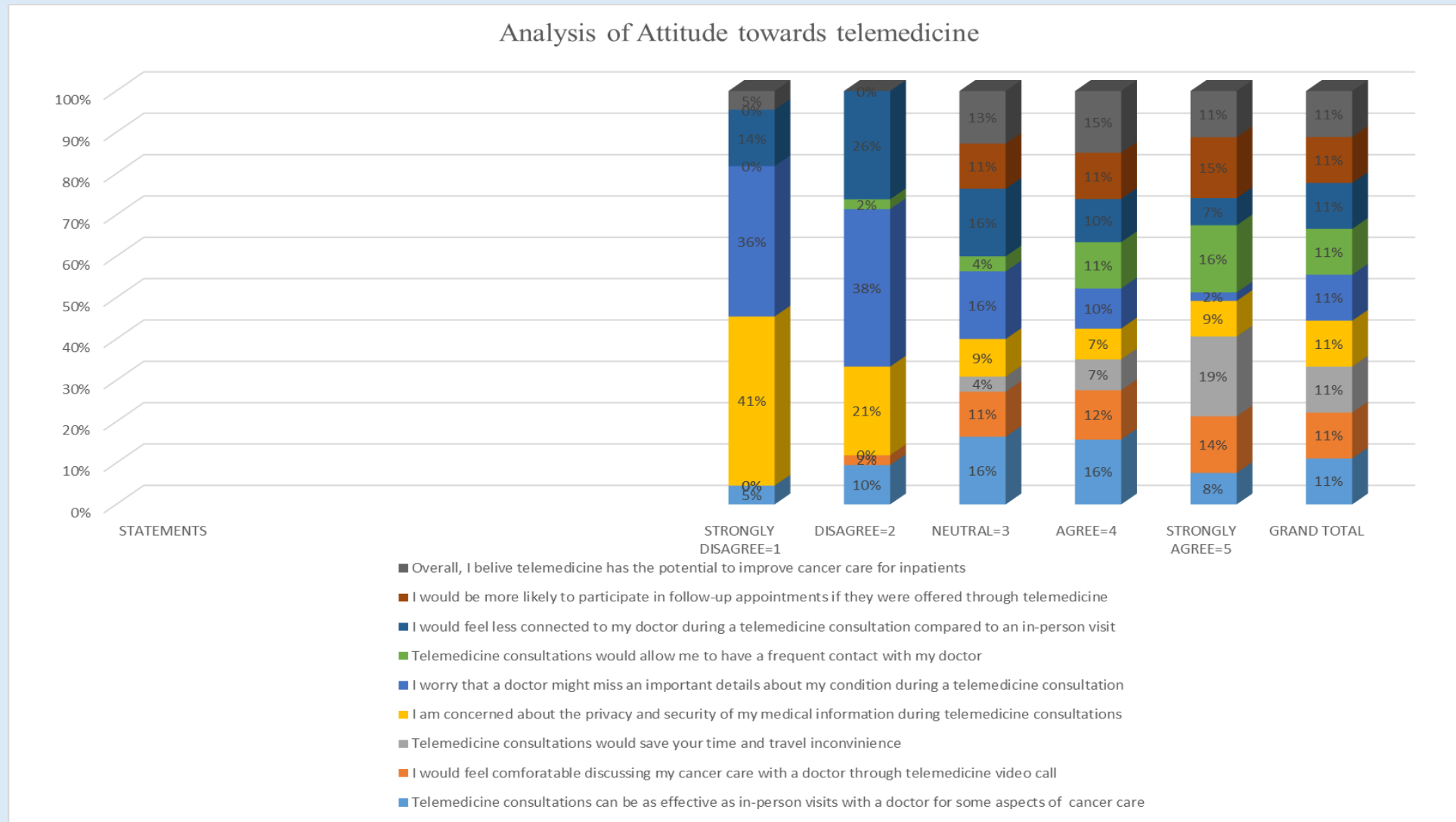
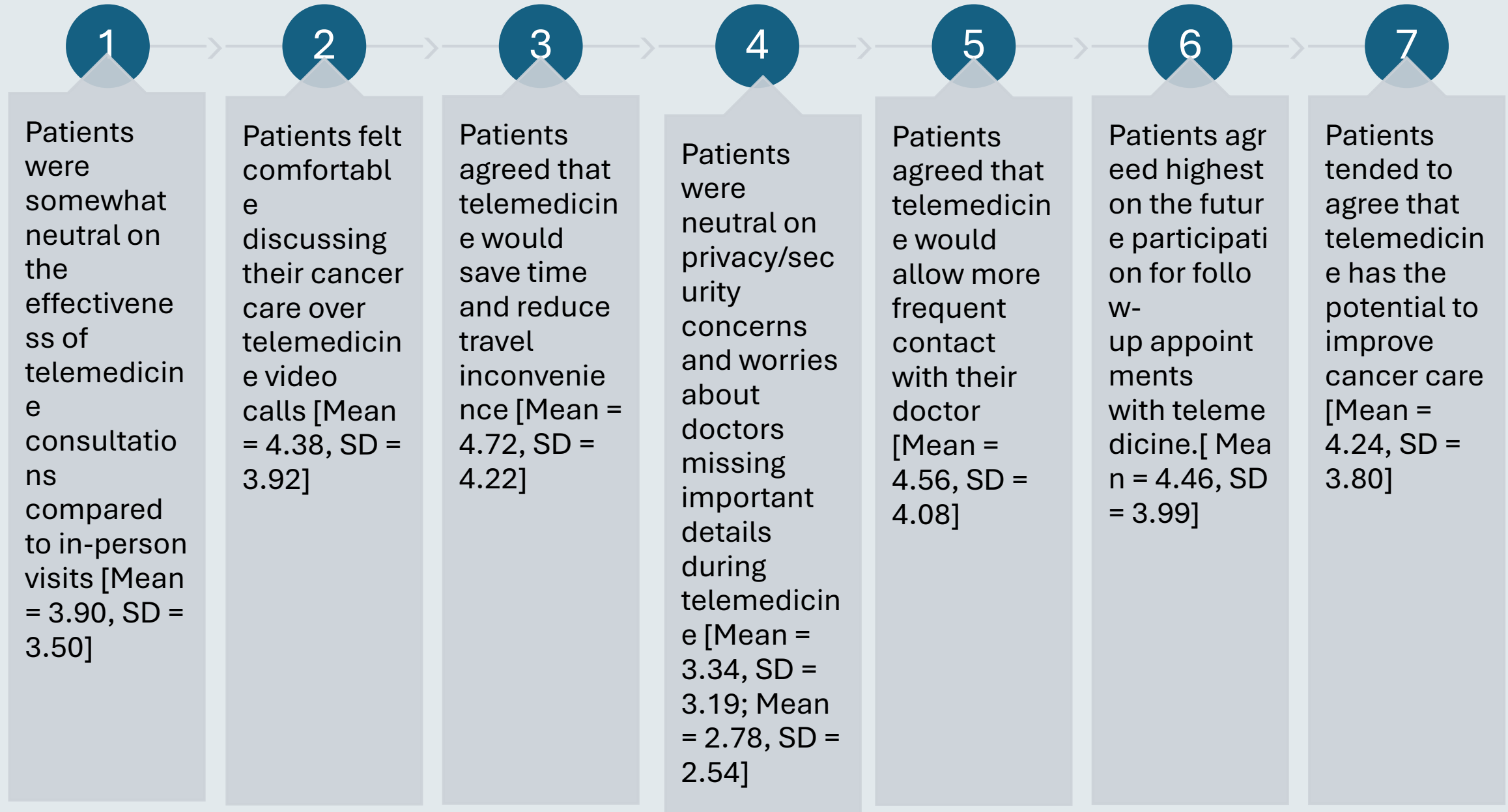


Fig: Analysis of Attitude towards telemedicine

FINDINGS OF ATTITUDE TOWARDS TELEMEDICINE



SWOT ANALYSIS



STRENGTH

1. Accessibility
2. Convenience
3. Cost effective
4. Enhanced communication
5. Continuity of care



OPPORTUNITY

1. Expansion of healthcare access
2. Remote monitoring and surveillance
3. Patient education and empowerment
4. Integration with traditional methods
5. Research and innovation



WEAKNESS

1. Limited physical examination
2. Technological barriers
3. Connectivity issues
4. Privacy and security concerns
5. Regulatory and reimbursement challenges



THREAT

1. Resistance to change
2. Legal and regulatory risks
3. Quality of care concerns
4. Digital divide
5. Market saturation and competition

CONCLUSION

Telemedicine increases access to cancer care, particularly in rural areas where oncologists may not be readily available.

It reduces costs associated with travel and hospital stays, allowing for more efficient use of resources.

Patients are generally satisfied with telemedicine video calls, feeling comfortable discussing their care and appreciating the convenience.

Tele-oncology services include remote supervision of chemotherapy delivery and other aspects of cancer care, such as symptom management and palliative care.

There is a strong positive outlook for future telemedicine utilization, with 78% of patients expressing interest in participating in future telemedicine opportunities.

Addressing concerns about privacy and security, as well as improving technology applications and internet accessibility, will be crucial for optimal use.



SUGGESTION

Based on the above analysis, here are the recommendations for educating inpatient (IPD) cancer patients on the use of telemedicine.

1.Pre-payment system through smart card options to accommodate diverse patients' preferences and accessibility.

2.Expand internet accessibility to enhance the reach of patients in both rural and urban areas.

3.Focus on patients' education to increase awareness and understanding of telemedicine benefits.

4.Address the privacy and security concerns to ensure patients confidentiality and trust.

5.Implementation of insurance coverage policy can improve the accessibility of telemedicine services by the patient.

6.On-the-job and off-the-job trainings should be provided to healthcare providers

7.Develop strategies to engage more patients in telemedicine use for their cancer care.

8.Improve telemedicine applications to enhance user experience and functionality.

9.Ensure that fees charged are reasonable and within the healthcare industry standards.

10.Healthcare providers providing telemedicine facility should establish clear fee structures to maintain transparency.

11.Implement easy and secure payment gateways to protect patients' financial information during transactions.

REFERENCES

- Aaron J. Katz, K. H. (November 18, 2021). Evaluation of Telemedicine Use Among US Patients With Newly Diagnosed Cancer by Socioeconomic Status. *doi:10.1001/jamaoncol.2021.5784*.
- Desai, N. (2023). *Telemedicine in India- The Future of Medical Practice*. Mumbai: Nisith Desai Associates.
- devabit. (2023). 7 *TELEMEDICINE TRENDS THAT BUILD THE FUTURE OF TELEMEDICINE*. devabit.com.
- G. Jaberethina, K. J. (February 24, 2024). *Telemedicine enhances healthcare delivery in India*. Mumbai: The Academic.
- Gupta, I. (09 April, 2024). *TRENDS IN TELEMEDICINE APP DEVELOPMENT 2024*. Mark Infotech.
- Mishra, A. A. (2023, November 19). *New trends in telemedicine technology in 2024*. Retrieved from <https://www.financialexpress.com/business/digital-transformation-new-trends-in-telemedicine-technology-in-2024-3310901/>
- Suryanarayana VS Deo, R. P. (January 9, 2023). Telemedicine and cancer care in India: promises, opportunities and caveats. *Telemedicine and cancer care in India: promises, opportunities and caveats*.
- Technology Information, Forecasting and Assessment Council. (2024). *CURRENT TRENDS IN TELEMEDICINE IN INDIA*. New Delhi: TIFAC Technology Think Tank.
- U. Venkatesh, G. P. (February 21, 2022 doi: 10.1002/wmh3.497). Telemedicine practice guidelines in India: Global implications in the wake of the COVID-19 pandemic. *World Health Med Policy*.
- wing, P. I. (15 January, 2024). *Revolutionizing Healthcare: Digital Innovations in India's Health Sector*. Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi – 110001,: Ministry of Electronics & IT.



THANK YOU..!