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TITLE- HOW DOCTORS CAN USE DIGITAL IN NEW NORMAL

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ABSTRACT

It is a very well-known thing that majority of patients in developed nations are using digital means for consultation process with doctors. Many research papers have been published regarding the same but in a nation like India where technology distribution is highly uneven among the population it is difficult to understand the level of digitalization related to consultations in respect to whole population of India. This research article deals with this issue, the aim is to find out what proportion of patients are actually using digital methods to interact with doctors and if they are then what are the channels of choice and if they are not using digital means then what can be the reasons for that. Along with this, an understanding of current use of health wearables and digital appointments has also been made in this article.

It is extremely important to understand the limitations when using digital means for consultation in order to come up with better strategies for solving the same problem.

Another important problem that needs to be addressed is that till now all the research regarding digital use for consultation has been done from doctor's perception but almost negligible research could be found that are patient centred and this problem also forms the basis of this research paper.

The spread of COVID-19 pandemic has immense impact on healthcare system not only in India but also globally. The traditional approach used in healthcare is being replaced now with the help of technology. Here comes the role of digital health, where all the focus is on providing healthcare facilities to patients digitally with the help of technology by the health care providers (HCP's). This paper shall focus on how doctors engage with patients digitally.

Keywords : patient engagement, digital healthcare, doctors/physicians

INTRODUCTION

The topic of research is “To understand how Doctors can use digital in the new normal”. This is apparently a topic on which not many researches have been done previously. Although emphasis has been put on doctors during this research work but perception of patients and medical reps has also been recorded regarding the use of digital.

Here digital includes telemedicine, virtual consultation, health wearables and online internet search. A shift has been observed in terms of consultation medium from face to face physical consultations to use of digital channels for consultation even though the former overpowers the latter in India at the present time.

Not a lot of research has been done in India regarding this topic in India. At present it is believed that due to recent increase in internet availability in India along with increase in digital literacy more proportion of existing and new patients have started to use more of digital means for their consultation process than earlier. Provided the presence of COVID-19, it is highly expected that use of digital healthcare will be even increased as physical distancing has become a norm now.

According to an article in British Journal of General Practice in 2019 named “Acceptability, benefits, and challenges of video consulting: a qualitative study in primary care” patients reported good experiences of digital consultation, and said that digital consultation was particularly helpful for them as working people and people with mobility or mental health problems. Virtual consultations were considered superior to telephone consultations in providing visual cues and reassurance, building rapport, and improving communication.

This research is an attempt to know the magnitude of this change or shift from patient’s view by understanding how they actually interact with doctors at present time and what digital channels they use for that along with preference for these channels so that we can understand to what degree are patients using digital means in order to interact with doctors and finally how satisfied patients are from them.

This research is an attempt to understand how Doctors interact with MRs at the present time and how they think this method of interaction will be affected in post COVID-19 era with respect to the use of digital means during the interaction process. This research will also try to find what type of content do the doctors find most suitable for them that the MRs can or should provide them during their interaction.

There is almost negligible research available on this topic. Many authors have worked on Doctor- Medical Rep interaction but not on digital grounds. These research deals with the general perception of doctors regarding their interaction with MRs rather than the channel

they use for it.

As pharmaceutical companies spend a big proportion of their total revenue in order to deploy their MRs to interact with doctors it becomes important to understand how doctors want this interaction to take place in the new normal (post COVID-19 era) and what is the type of content they want these MRs to share with them and finally how these doctors utilize technology for the same. In the time when physical distancing is on the rise and majority of people are trying to limit physical interaction it is expected that role of digital will become more prominent even in the doctor-medical rep interaction.

The problem to be addressed here is that very little is known about the role of digital in doctor-medical rep interaction and specially when perception of people is changing regarding physical interaction it becomes even more important to understand the same. It is known that doctors are interested in meeting medical reps but how they want this meeting to take place is the answer this research wants to find.

This is a deductive research and it is based on the theory that doctors need a more digital way to interact with medical reps and they want information about the concerned products regarding effectiveness and potency and other technical information along with the cost. Doctors also want to minimize the time duration for engagement with medical reps and doctors usually obtain information regarding drugs through educational contents available online.

In order to check the accuracy in the above theory a questionnaire was designed containing similar questions for doctors to answer.

OBJECTIVE

The objective of this research was to find out how doctors can use digital in the new normal. As we are aware that the rise of technology is taking place at a humongous pace and its use is visible in almost all the industries. Healthcare industry is no exception here. Also, the pandemic (COVID-19) is playing a big role in increasing physical distancing which may affect the consultation process and the way of interaction between doctors and medical reps.

The new normal is now, as conditions have changed drastically due to COVID-19, therefore it is important to understand how doctors are incorporating this change in their profession with the use of technology. Along with that the perception of patients and medical reps have also been taken into account regarding the same matter.

LITERATURE REVIEW

Although rise of telemedicine has been on some other level since last 4-5 years but its history goes way back into the past, the National Aeronautics and Space Administration (NASA) played an important part in the early development of telemedicine. NASA's efforts in telemedicine began in the early 1960s when humans began flying in space. Physiological parameters were transmitted from both the spacecraft and the space suits during missions. In 1962, Ross Perot forms Electronic Data Systems, Inc. EDS uses mainframe computers to automate administration of US Medicaid and Medicare programs. In 1965 Medicare was launched in USA, in 2014 USA achieves 80% penetration in HER, today around 80 % of patients in USA search about their health condition through internet before meeting their doctors.

It is undeniable that technology has risen to a great height and its presence in healthcare sector is no surprise. But the important thing here to get answer to questions like –

To what extent is this technology intervening between a patient and doctor interaction and are patients positive for digital healthcare? How willing are patients to share their digital data with HCPs? How many patients actually get to use digital healthcare? And those who are unable to use digital healthcare, what exactly are the limitations?

Some notable research work has been done by a number of researchers regarding the same problems. Similar researches have been done to understand if patient's perception towards use of digital is negative or positive. In most of the researches it was found that patients are positive towards the use of digital in consultation process and they are likely to use it in future. In a research conducted by Apollo Tele Health Services, India [2] it was found that 90% of the participants which were all patients says that they would like to use telemedicine as it was cost effective for them, saves time and even the doctors agreed that patient volume has increased due to the use of telemedicine. The limitations found through this research are that 31% of the patients said they were uncomfortable while facing the camera for telemedicine. But this research certainly tells us that telemedicine can be extremely beneficial in India for patients in distant and rural regions and to rural doctors, telemedicine can become an alternative to face to face patient care.

[3] Even patients suffering from chronic diseases have said that they trust digital healthcare

and in experiments carried out it was seen that in some cases these patients were actually able to manage their health in a better manner. The reason for that is the fact that through the use of health wearables tracking is now efficient as never before and hence timely customised treatment can be administered effectively.

[4] "Acceptability and Satisfaction with a Telecare Approach to the Management of Type 2 Diabetes" is another research proving the same point.

When it comes to health wearables, there are a number of them today such as fitness trackers, smart watch, closed loop insulin delivery(automated), smart continuous glucose monitoring (CGM) and insulin pens, connected inhalers, ingestible sensors, ADAMN asthma monitor etc. and there are a good number of patients who are using these devices in order to monitor health or timely detection of symptoms as prophylaxis. This means that a big amount of data is being generated each second throughout the globe of a number of diseases. And many researches have been done regarding patient's consent to provide their health wearables data. In a similar research [5] named "Patients' willingness to share digital health and non-health data for research: a cross-sectional study" published in 2019, it was observed that 50.4% patients out of 206 were ready to share their health data immediately while 78% patients were ready to share their data after their death so it can be used by health care professionals. 72% of the total patients wanted to get information about the analysis made through the use of their shared data which is a clear mark of concern from patient's side.

Availability of appropriate technology is something India is excelling now. There were more than 627 million internet users in India in 2019 which is around 47.5% of the total population of India. Affordability, lack of digital literacy and unavailability are the biggest factor for people without technology needed for digital healthcare. This part of the population forms one limitation when it comes to use of digital in patient-doctor interaction the other main reasons for this are comfort of patient and lack of personal touch. In case of mobile health applications also resistance from patients have been observed in a research [6] named "Perceptions on mobile health in the primary healthcare setting in Belgium" in 2018, it was concluded that resistance to mobile health services persists in the general population and among family physicians. The quality of the apps and the impersonal nature of the contact are major issue in the future use of mobile health applications.

Digital health technologies—ranging from wearable sensors and portable diagnostic technologies to telemedicine tools and mobile health care apps—have the potential to

transform the health care delivery system by empowering consumers to play an active role in their care and define what services are important to them (Hostetter M, Klein S, McCarthy D,2014) Healthcare organizations (from here on are referred as hospitals, even though the discussion applies to any care delivering clinic) have started to engage in digital transformations to take advantage of advanced digitization opportunities in order to improve care quality and patient satisfaction (Patak L, Wilson-Stronks A, Costello J,2009). In a study conducted (Aberger E. W., Migliozzi D., Follick M. J., Malick T., Ahern D. K. (2014)on group of patients reporting self-monitored blood pressure, A tele-health system that incorporates electronic blood pressure (BP) self-monitoring by the patients, uploading to a patient portal and a Web-based dashboard.75% of patients monitored themselves at least once, and 69% achieved the minimum of six readings and obtained a BP average. A tele-health medication counselling session showed that the eHealth tool was effective in improving the quality of patient-provider dialog (Saberi P., Yuan P,2013). Patients low information technologies literacy, interaction problems related to the illness conditions and technical limitations (Schrader G., Bidargaddi N., 2014) onstitute barriers to the technology enhancing patient engagement. Physicians are motivated to use technology in order to increase patient safety and adherence as well as to improve current ways of working. Digital health would have to work well with current data and liability systems and be easy to use (American Medical Association; 2016)

Physicians are affected when they interacat with the medical reps of pharmaceutical companies. (J Lexchin, 1993). This research done by J Lexchin in 1993 was mainly a secondary research based on the data collected from 227 research article from Medline and Health searches and about 2000 items from author's library. The prescription pattern gets affected due to the interaction that doctors have with medical reps.

37% doctors said that they interacted with MR once a week whereas 25.9% told that they interact with MRs twice a month. (Sandeep Kumar Gupta, Roopa P Nayak, R Sivaranjani, 2016), taking these figures into account it is quite evident that pharmaceutical companies actually spend a lot of revenue on deploying their medical reps to various doctors in order to get their brand drugs get prescribed. This research done by Sandeep Kumar Gupta, Roopa P Nayak and R Sivaranjani in 2006 was a cross-sectional study. This study was carried out using a pretested questionnaire containing 10 questions between June and September 2014. The doctors working in the Dhanalakshmi Srinivasan Medical College and Hospital, Perambalur (Tamil Nadu) during the study period was included.

Total spending in USA on marketing for condition awareness, health services, lab testing,

and drugs ballooned from $17.7 billion annually in 1997 to almost $30 billion in 2016. (Lisa M. Schwartz, MD, MS, Steven Woloshin, MD, MS, 2019). This research conducted by Lisa M. Schwartz and Steven Woloshin on the topic “Medical Marketing in the United States” was a secondary research and it was qualitative and inductive in nature.

74% doctors prefer interacting with medical reps. 34% of the doctors wish to spend 5 minutes or less while 54% wants to spend 5-10 minutes with medical reps and only 2% are interested in spending more than 10 minutes. (Docplexus Editorial Team, 2016).

It is evident from the above presented figures that doctor and medical representative interaction is very essential. In India this interaction used to be physical (face to face) but with the rise in availability of technology this trend is changing and COVID-19 is playing a big role in enhancing this change even further.

This means doctors are moving towards a digital mode of interaction with medical reps specially in the new normal.

RESEARCH PLAN

TYPE OF RESEARCH

This is an inductive and exploratory type of research while the data type is quantitative.

Both, Primary and Secondary data was collected for this research.

As the topic of this research is “To understand how doctors can use digital in the new normal” 4 questionnaires were made, 2 for doctors, 1 for patient and 1 for Medical Reps, questions were related to the involvement of digital means used by them while making consultations and processes thereafter, this method was used to collect the Primary data.

For collecting secondary data, research articles were reviewed along with thorough evaluation of journals and websites.

The study involves patients of India. The response obtained have been collected, tabulated and statistically analysed.

METHODOLOGY

In order to conduct this research, questionnaires were prepared that contained questions related to IoT, health wearables, appointment making process, time given to social media and studying about drugs and conditions etc which were then circulated to doctors, medical reps and patients. There response were collected and using google

SAMPLING METHOD

For sampling, random sampling was done to obtain a more scientific result that can be used to represent the entirety of the population. Random doctors, patients and MRs were the participants.

QUESTIONNAIRE

The questionnaires required information related to the use of digital by doctors,patients and MRs with the consent of each participant. Questions are related to demography and then later related to the research topic.

CONCLUSION

Based on the responses data these are the conclusions:

1) 75% of the doctors believe that the traditional approach of Doctor-MR interaction will seize to exist due to COVID-19 or in the new normal.
2) Doctors say they believe that educational content is the most preferred content while MR interact with them and information regarding safety, potency, efficacy, clinical trial update and patient support is most required from pharmaceutical MR's side.
3) 64.7% of the total patients are willing to use telemedicine and interestingly the same proportion of the patients have never used telemedicine. This shows that acceptance of this technology is more than the utilization at the present time.
4) None of the respondent is totally dissatisfied while using telemedicine but majority of the respondents (around 66.7%) are neutral in terms of satisfaction. This means that for majority of the patients the difference between practicing and not practicing telemedicine is apparently inappreciable at present
5) The major reason for those patients that do not practice telemedicine was found to be lack of personal touch (58.3%) followed by comfort level of patients (33.3%) and finally poor diagnosis (25%).

   NOTE: These are the reasons that patients believe inhibits them from using telemedicine but if these are actually valid or invalid is not concluded through this research.
6) Majority of the patients (about 63%) were willing to recommend telemedicine to others.
7) At present more than 68% of the patients do not use point of care apps, those who use it have said Practo is the most used point of care app.
8) The major reason why majority of patients don't use POC was that they prefer to visit know doctors (78.6%) followed by lack of personal touch (42.9%).
9) Nearly 95% of the patients search about their condition before visiting doctor and around 95% of them use browse search for this purpose while 38.9% of them go for peer interaction.

   That little population (about 5%) that don't search for their disease condition said that discrepancies exist between diagnosis of doctor and online search.

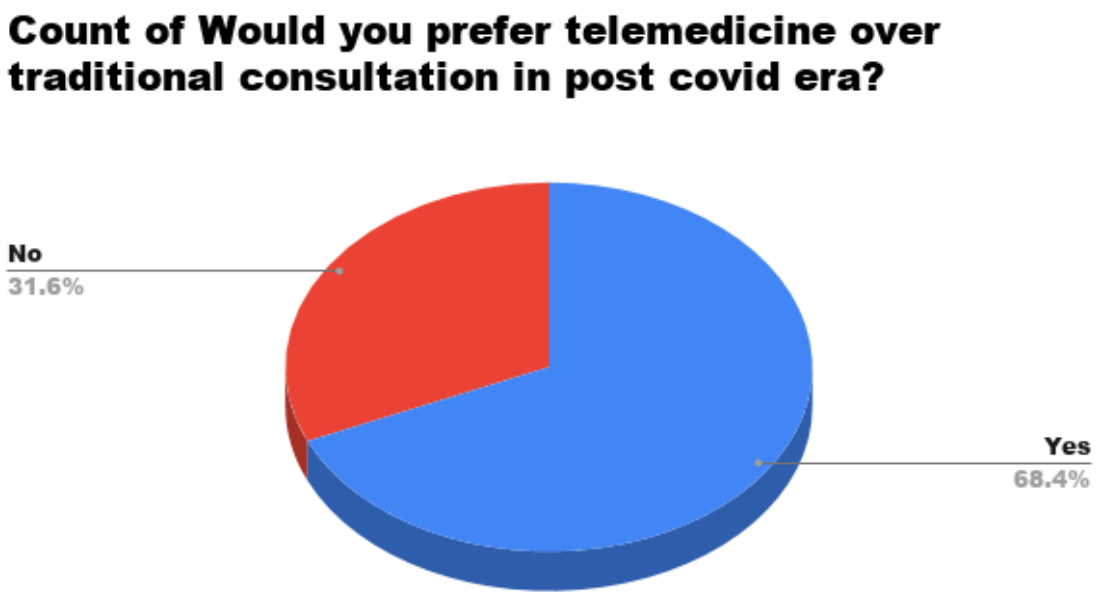
RESULT AND DISCUSSION

It was observed that doctors believe that in the new normal, during the pandemic and in the post pandemic era use of digital will be enhanced while interacting with patients and medical reps. Interestingly this change from physical to digital mode has started taking place even before pandemic initiated but COVID-19 will certainly play its role in further enhancing this effect.

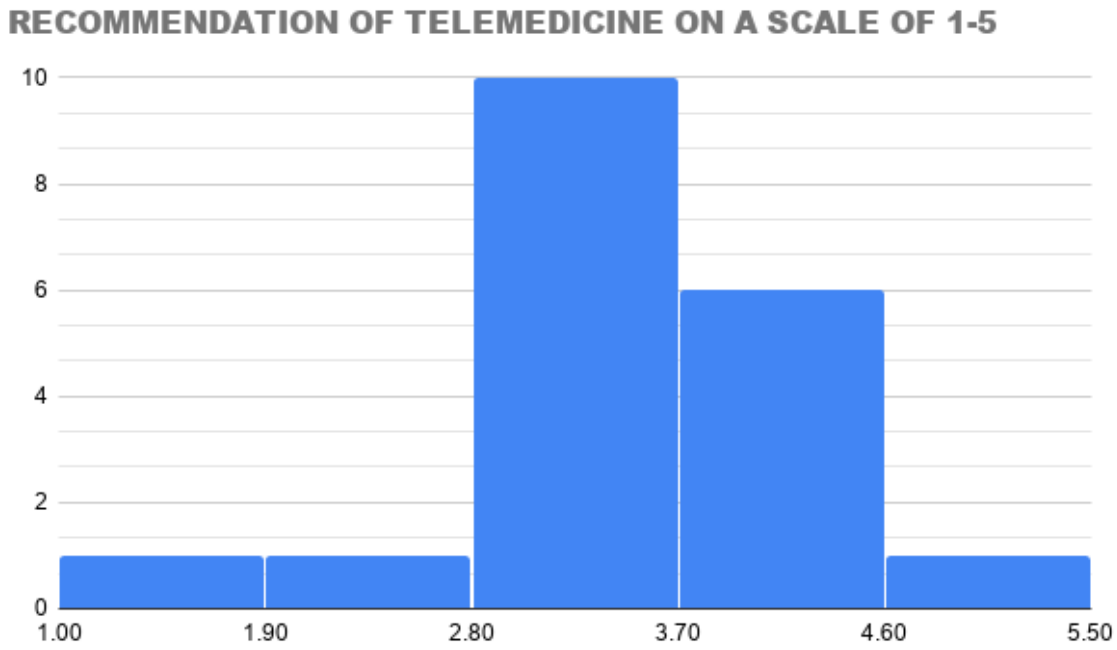
From patient's perception too it is evident through this research that they are ready for a more digital consultation and are positive towards use of technology for managing their health.

MRs have also sensed this shift and want to shape their strategies in a way that includes more digital channels in order to satisfy the demands of doctors and other customers of their products and increase their coverage.

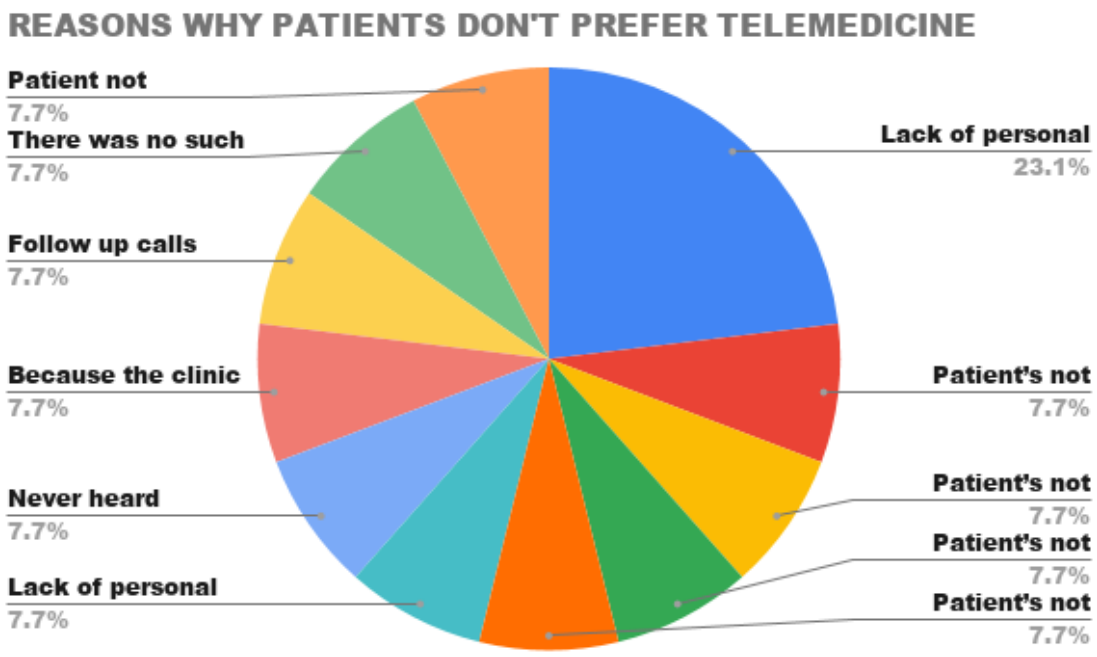
This whole effect is also due to the cause that availability of technology has also increased. In India, even in rural areas technology is not the prime limiting agent anymore as far as healthcare system is concerned.



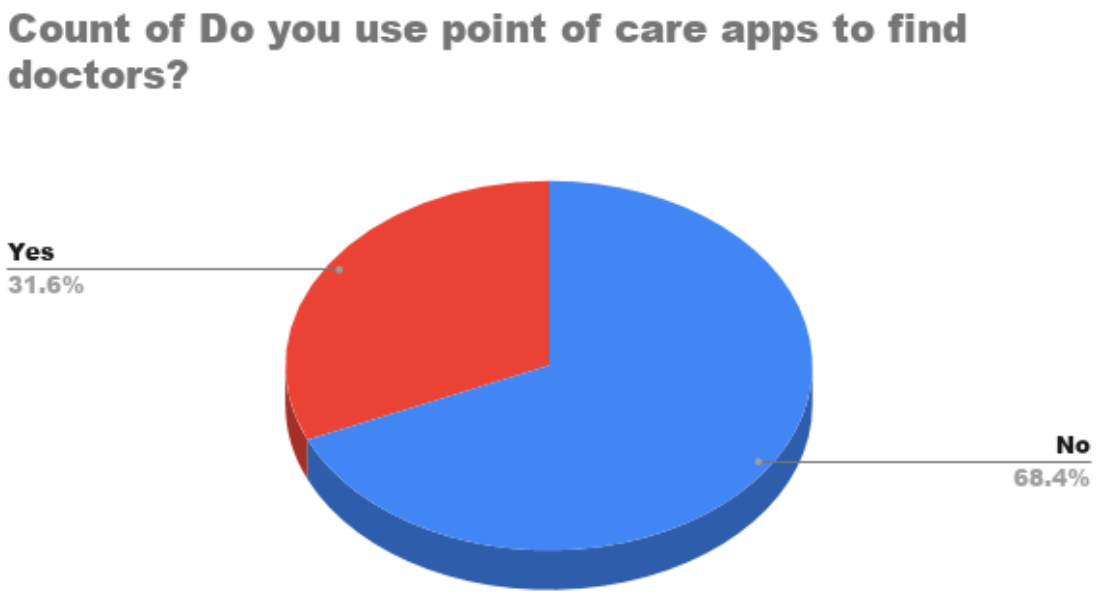
68.4% of the doctors says they would prefer telemedicine in the post COVID-19 period.



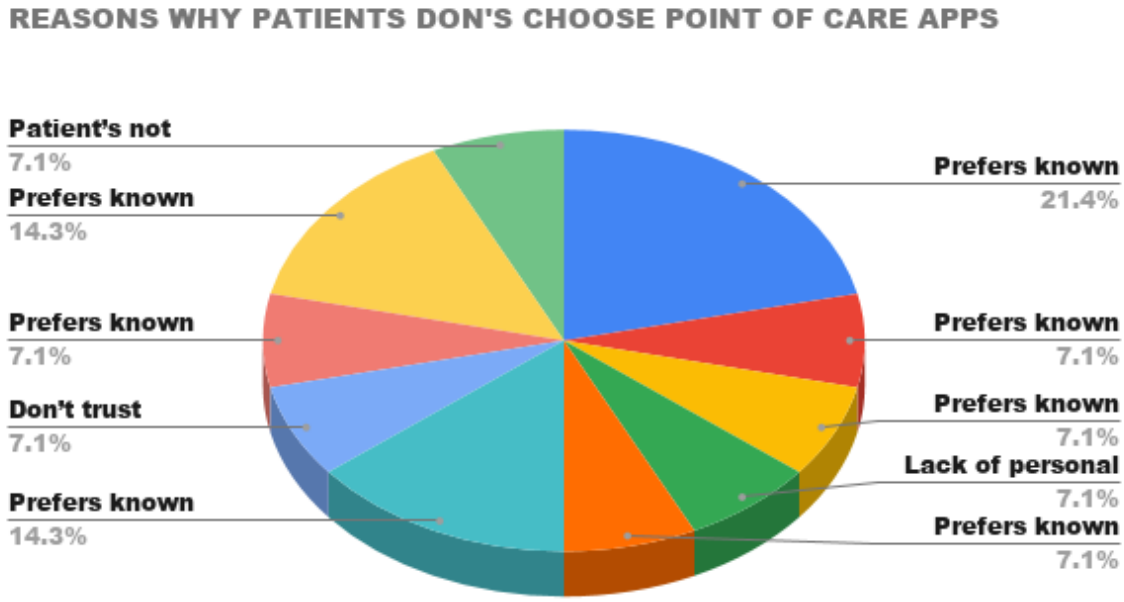
This histogram tells that about 58% of the patients are likely to recommend the use of telemedicine to others.



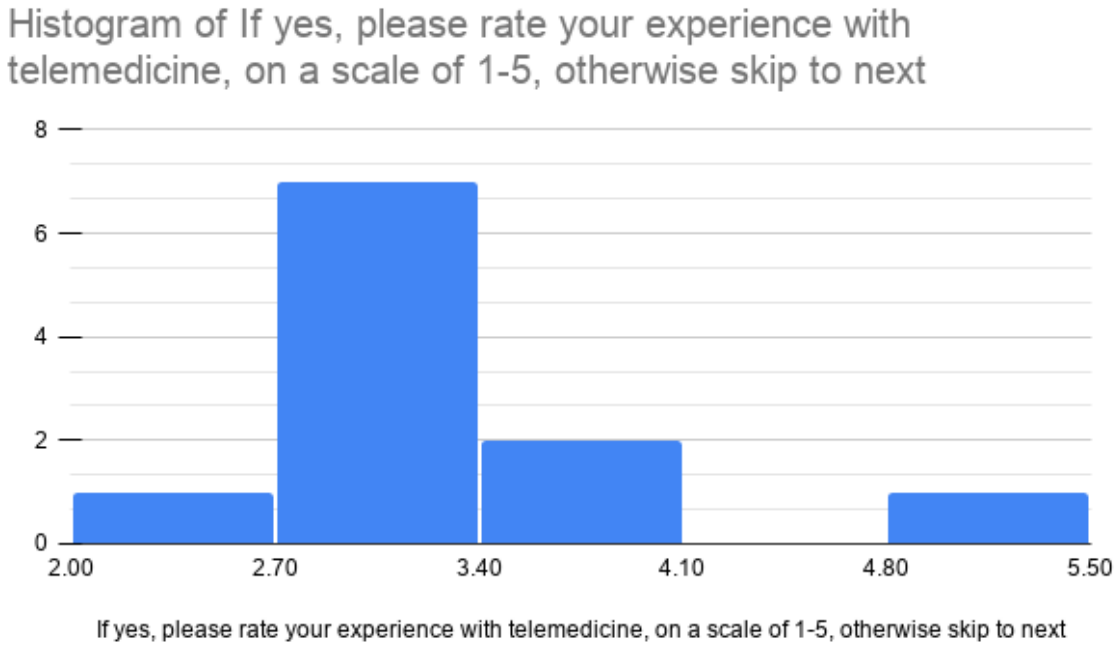
This research shows that about 23.1% of the patients don't use telemedicine because they feel there is lack of personal touch to them and this is the major issue at present.



At present time many patients have started to use point of care apps to consult doctors.



Those patients that are still not willing to use or are unable to use point of care apps reported that the reasons are they prefer known doctors.



Majority of the patients says that their satisfaction level is average when it comes to use of telemedicine.

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