

**A CROSS-SECTIONAL SURVEY OF EXPERIENCE OF
PATIENTS', CAREGIVERS' AND PSYCHIATRISTS'
UTILIZING VIDEO TELEPSYCHIATRY
CONSULTATION DURING COVID-19 PANDEMIC**



Dissertation submitted to

The Tamil Nadu Dr. M.G.R. Medical University

In part fulfillment of the requirement for

MD Branch XVIII - Psychiatry Final Examination

May 2022

Registration Number: 201928261

CERTIFICATE

This is to certify that the dissertation titled “A cross-sectional survey of experience of patients’, caregivers’ and psychiatrists’ utilizing video telepsychiatry consultation during COVID-19 pandemic” is the bonafide work of Dr. Sivakumar.P.T towards MD Psychiatry Degree Examination of The Tamil Nadu Dr M.G.R Medical University to be conducted in May 2022. This work has not been submitted to any university in part or full.

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I hereby declare that this dissertation titled “A cross-sectional survey of experience of patients’, caregivers’ and psychiatrists’ utilizing video telepsychiatry consultation during COVID-19 pandemic” is a bonafide work done by me under the guidance of Dr.Donae Elizabeth George, Associate Professor of Psychiatry, Christian Medical College, Vellore. This work has not been submitted to any university in part or full.

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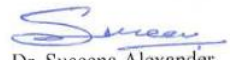
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Dear Dr. Sivakumar PT,

The Institutional Review Board (**Blue**, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project titled "A cross - sectional survey of experience of patients caregivers and psychiatrists utilizing Video telepsychiatry consultation during COVID-19 pandemic" on October 05, 2020.

The Committee review the Following Documents:

1. IRB Application Format
2. Questionnaire
3. Patient information sheet and Consent Form.
4. Cvs. Of Drs. Abhinav, Donae, Raviteja, Siva, Utkarsh, Ms. Gowri.
5. No. of Documents 1 -4.

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We approve the project to be conducted as presented.


Kindly provide the total number of patients enrolled in your study and the total number of Withdrawals for the study entitled: "A cross - sectional survey of experience of patients caregivers and psychiatrists utilizing Video telepsychiatry consultation during COVID-19 pandemic" on a monthly basis. Please send copies of this to the Research Office (research@cmcvellore.ac.in).

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Fluid Grant Allocation:

A sum of 2,600/- INR (Rupees Two thousand Six hundred only) will be granted for 2 Months.

Yours sincerely,


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ABSTRACT

Title: A cross-sectional survey of experience of Patients', Caregivers' and Psychiatrists' utilizing video tele-psychiatry consultation during covid-19 pandemic.

Introduction: Mental health is an important and integral component of the wellbeing of individuals and the society at large. Estimates from 2017 indicate that approximately one in ten people have a mental health disorder. The advent of the COVID - 19 pandemic has only added to the complexities and challenges faced by people in this regard. The pandemic has further worsened the impact on the treatment of mental health disorders. During these times of the pandemic, it is seen that more and more organizations and health care service providers are switching to a virtual model of consultations. With the need for continuing restrictions related to COVID, the changes may probably be here to stay and even become part of the services rendered in psychiatry routinely. In this context, it becomes important that the aspects of tele-psychiatry are studied with a focus on understanding experiences, felt needs, and improving services. This study was conducted to explore the experiences of patients' caretakers and psychiatrists who had taken part in video consultation as part of the tele-psychiatry services provided in a tertiary care center.

Objectives: To evaluate patients', caregivers', and doctors' experience with video consultations as part of tele-psychiatry during the COVID-19 pandemic.

Methodology: A survey was conducted among the patients / caregivers and psychiatrists who had utilised or provided video consultation respectively. Separate online questionnaire for the two groups were formulated, validated by experts, checked for internal consistency and sent through the email. The questionnaire collected socio-demographic details, favourability regarding the access related factors of video consultation, satisfaction with the process related factors and their future willingness regarding the video consultation. After data collection, analysis was done using SPSS 21.

Results: Among the 78 respondents in patients / caregivers group, 74% were males, 66% were patients, 34% were caregivers, mean age was 35(SD \pm 11.8) years, 40% were unemployed, 35% had post high school education. Among the 19 respondents in the psychiatrist group, 58% were females, 47% had less than 10 years of experience, 32% had experience of 11 – 20 years and 21% had more than 20 years of experience. Overall satisfaction of video consultation tele-psychiatry was 81% among the patient/ caregiver group. 52% of Psychiatrist had satisfaction less than acceptable in considering the video consultation as effective as face to face consultation.

Conclusion: This study has shown significant overall satisfaction regarding the video consultation modality of tele-psychiatry among patients and caregivers. However, about 52 % of the psychiatrists reported less than acceptable satisfaction regarding video consultations as compared to face-to-face consultations for patient care. The specific factors associated with overall satisfaction, needs further research. Psychiatrists had various concerns

regarding tele-psychiatry, however, majority considered video consultation to be a viable option in their setting.

Key words: Tele-psychiatry, Video consultation, COVID – 19 pandemic, Satisfaction with tele-psychiatry

1. INTRODUCTION

Mental health is an important and integral component of the wellbeing of individuals and society at large (1). Estimates from 2017 indicate that approximately one in ten people have a mental health disorder (2). The advent of the COVID - 19 pandemic has only added to the complexities and challenges faced by people in this regard.

In response to the identified mental health gap, accessibility and availability of mental health care services have been the focus of discussion in many forums. The pandemic has further worsened the impact on the treatment of mental health disorders (3). The implementation of the lockdown and travel restrictions has not only contributed to the rise in mental health problems but also affected mental health care services.

During these times of the pandemic, it is seen that more and more organizations and health care service providers are switching to a virtual model of consultations. With the need for continuing restrictions related to COVID, the changes may probably be here to stay and even become part of the services rendered in psychiatry routinely. In this context, it becomes important that the aspects of tele-psychiatry are studied with a focus on understanding experiences, felt needs, and improving services.

This study was conducted to explore the experiences of patients, caretakers, and psychiatrists who had taken part in video consultation as part of the tele-psychiatry services provided in a tertiary care center. Online questionnaires

were used to understand the experience and satisfaction related to video consultation.

The findings from this study will help in understanding the satisfaction of patients' caregivers' and psychiatrists' in using video consultation. It will also study the experience of the above groups in specific access and process-related domains of the video consultation. Findings from the study would help in understanding factors to improve the needed services of tele-psychiatry by video consultations and plan specific interventions suitable to our population to improve services.

2. REVIEW OF LITERATURE

2.1 MENTAL HEALTH

2.1.1 INTRODUCTION

World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (1) It is noteworthy that the definition acknowledges all three realms of human existence, namely the physical, mental and the social.

World Health Organization (WHO), defines mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”(1). This definition further captures mental health as not just the absence of illness but also as a foundation for well-being and effective functioning of the individual within the community. Mental, Physical and Social health are not aspects that can exist in isolation but are interdependent. So nuanced is their relationship that even health and illness may coexist. Overall, we are brought to understand ‘health’ as a state of balance including the self, others, and the environment, within the aspects of physical, mental and social realms. This perspective is helpful to the individual and the community to understand how to seek its improvement.(1)

Mental health is an important contributing factor to all aspects of human life. It has tangible and intangible values for the individual, society, and culture. There is a reciprocal relationship between mental health and the well-

being and productivity of a society and its members. Mental health concern has its impact on everyone as it affects everyday life across all domains like home, schools, workplaces, and also in leisure activities. Positive mental health comprises a set of key domains, which encompass well-being and a positive state of mind. This can influence the onset, course, and outcomes of both mental and physical illnesses.(1)

2.1.2 MENTAL DISORDER

A mental disorder is defined as “a syndrome characterized by clinically significant disturbance in an individual’s cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning”. Mental disorders are usually associated with significant distress or disability in personal, social, occupational, and biological activities(4)

Mental Illnesses or mental health disorders includes anxiety disorders, mood disorders, psychotic disorders, substance use disorders, and personality disorders. Eating disorders, obsessive-compulsive disorder, post-traumatic stress disorder, stress response syndromes, dissociative disorders, factitious disorders, sexual, and gender disorders, somatic symptoms disorder and intellectual disability are also included under the different systems of classification as disorders. The classificatory systems of DSM and ICD provide guidelines into the diagnosis of these categories. The definitions and classification have been revised periodically based on new evidence.

2.1.3 PREVALENCE OF MENTAL DISORDERS

2.1.3.1 GLOBAL PREVALENCE

Mental and Substance use disorders are very common globally and studies done in 2017 show that around one in ten people (10.7%) was found to live with a mental disorder. According to estimates made in 2017, it was found that a total of 970 million people had a mental or substance use disorder worldwide. Out of this, the largest group of people had anxiety disorders and it was estimated at around 4 percent of the population.(2)

There is a worldwide increase in mental health conditions. This is predominantly because of demographic changes and in the last decade, there has been a 13% rise in mental health conditions and substance use disorders. Mental health conditions results in 1 in 5 years lived with disability.

There is typically a low direct death rate from mental health and substance use. Direct death due to mental illness can be due to malnutrition, substance use, and related health complications. However, there is a significant number of indirect deaths through suicide and self-harm which are attributed to mental health disorders. Suicide deaths are although not always attributed to but strongly linked to mental health disorders. A focus on mortality while assessing health impacts of mental disorders can lead to underestimating the burden of mental health disorders. The health impact by mortality alone fails to capture the impact that mental health disorders have on an individual's wellbeing. So the 'disease burden' is measured in Disability-Adjusted Life

Years (DALYs) which also considers years lived with disability or health burden.(2)

BY 2016 estimate more than 1 billion people were affected by mental and addictive disorders globally. This resulted in 7% of all global burden of disease as measured in DALYs and 19% of all years lived with disability. In both sexes, depression was associated with most DALYs, with women having higher rates than all other internalizing disorders, whereas men had higher rates in other disorders such as substance use disorders (5)

2.1.3.2 INDIAN PREVALENCE

The National Mental Health Survey (NMHS) conducted by the National Institute of Mental Health and Neuro Sciences Bengaluru in 2015-2016, which was supported by the Ministry of Health and Family Welfare Government of India, showed the overall unweighted lifetime morbidity for any mental disorder was as 13.9% which included alcohol abuse and dependence and the current prevalence for the same was 10.6%. (6)

The current prevalence was 18.9% for tobacco dependence and 6.4% for the risk of suicide. For schizophrenia and other psychotic disorders (F20 to F29 of International Classification of Diseases -10/ ICD-10), the lifetime prevalence was 1.4% and for mood disorders (F30 to F39 of ICD-10) it was 5.6%, in which there was 5.1% of lifetime prevalence of depressive disorders and it is almost double the rate of current prevalence (2.7%). Schizophrenia and other psychotic disorders had the current rate of approximately one-fourth of the

lifetime prevalence which indicates the chronicity of the disorder. The neurotic and stress related disorders (F40 to F48 ICD-10) had lifetime prevalence of 3.7% and a current prevalence of 3.5%. The lifetime prevalence of Severe Mental Illness was nearly 1.9% and around 0.8% were identified to be currently affected with a severe mental disorder. The most affected population were the males in the age group of 30 to 49 years resulting in greater morbidity in the productive population. The high prevalence of all disorders in this age group will affect the productivity, earning potential, and quality of life.(6)

2.2 MENTAL HEALTH SERVICES

There is a huge burden of mental health disorders in India and also there is a shortage of qualified personnel in the field of mental health. As a response to this situation the Government of India implemented the National Mental Health Program (NMHP) in 1982. In addition to this, the District Mental health Program was implemented in 1996. This has been followed by several revisions and addition of new schemes periodically.(7) The mental health services are provided as Out-patient clinic, In-patient facility, Community clinics and health camps by the tertiary care unit.

2.2.1 PRIVATE PUBLIC PARTNERSHIP MODEL ACTIVITIES

Under this initiative, the Government can work in partnership with Non-Governmental Organizations to provide state and district level mental health services including ambulance services (7)

2.2.2 MENTAL HEALTH HELPLINE:

This is a nationwide 24 hours dedicated helpline which provides information to the public on mental health resources, crisis management, and emergency situation. This also helps in information pertaining to destitute mentally ill patients, assistance on medico-legal issues, and registration of complaints on human rights violation of mentally ill. (7)

2.3. COVID 19 PANDEMIC

2.3.1 THE COVID 19:

COVID 19 or the Corona virus disease is an infectious disease caused by the novel CORONA virus named as SARS-CoV-2 (Severe Acute Respiratory Syndrome Corona Virus 2)(8). On 31 st December 2019, the WUHAN Municipal commission, China released a report of a cluster of cases of pneumonia in Wuhan, in the Hubei province of China. Eventually, the novel corona virus was identified and confirmed with the laboratory report. As a response the World Health organization had set up the IMST (Incident Management Support Team) across the three levels of the organization: namely headquarters, regional headquarters, and country-level, putting the organization on an emergency footing for dealing with a probable outbreak.

On January 1 2020 the World health organization released a report on social media that there was a cluster of pneumonia cases – with no deaths – in Wuhan, Hubei province, and the next day, 5th January 2020, the official news of an outbreak of a new virus was published by the World health organization. This report is a flagship technical publication to the scientific and public health

community as well as global media. This included a risk assessment, advice, and reported on the information received from China about the status of patients and the public health response on the cluster of pneumonia cases in Wuhan. On 13 January 2020, the first recorded case outside China (in Thailand) was confirmed by the officials. (9)

On January 31 2020, the WHO Issued a Global health emergency as the worldwide death toll was more than 200 and an exponential jump of the number of cases to more than 9800. The human-to-human transmission was quickly occurring and the disease could then be found in multiple nations across the world including the United States, Germany, Japan, Vietnam, and Taiwan.(10) This atypical viral pneumonia produced a disabling effect all over the world, causing catastrophic health and economic losses. The initial presenting complaints of the novel corona infections were fever, chills, dry cough, fatigue, and shortness of breath. The COVID 19 infection had an incubation period between 1–14 days, a mean period of 6 days. During this incubation period, asymptomatic carriers of the virus could transmit the disease to healthy people, as proven by the evidence of human-to-human transmission via droplets or contact. As the virus started to spread at an exponential rate, the world was forced to go into a virtual lockdown and several countries initiated the strict screening of potential cases introduced in their territory.

2.3.2 COVID 19 IN INDIA

In India, the first case of COVID 19 was reported on 30th January 2020 in Kerala. The index patient was a student returning from China, and the student was isolated upon arrival. After a lag period of over a month, from the beginning of March, the number of cases started to surge, affecting more states and union territories. According to the Ministry of Health and Family Welfare, the transmission of COVID-19 was then mainly related to travel and local transmission of imported cases, and the limited community transmission was first reported on 30 March 2020 in India.

22 new cases were reported on March 22, which included around 14 infected members of a tourist group from Italy. Then the transmission rates increased over the next month when several people with a history of travel to the affected countries, and their close contacts, tested positive. On 12 March, a 76-year-old man became the first COVID-19 fatality of India, who had a travel history to Saudi Arabia. The state of Kerala announced a total Lockdown on 23 March, and the central government announced a nationwide full lockdown in the rest of the country on 25 March. In an antibody testing done in July 2020, it was estimated that at least 57% of the inhabitants of Mumbai's slums may have been infected with COVID-19 at some point.(10)

A government panel on COVID-19 established by the central government of India stated in October 2020 that the pandemic had peaked in India, and by February 2021 it could come under control. These predictions

were based on a mathematical simulation which was referred to as the "Indian Supermodel", assuming that India reaches herd immunity.

India's recoveries from COVID – 19 exceeded active cases on the 10th of June for the first time since the onset of the outbreak. In September, the infection rates started to drop along with the number of new and active cases. By mid-September the daily cases peaked with over 90,000 cases reported per day, which dropped to below 15,000 in January 2021.

The vaccination program in India was started on 16 January 2021 with the AstraZeneca vaccine (Covishield) and the indigenous Covaxin developed in India. Later in the year, the Sputnik V and the Moderna vaccine were approved for emergency use in India.

In March 2021, the second wave of COVID -19 began and it had a much more devastating effect than the first wave. There was an acute shortage of vaccines, hospital beds, oxygen cylinders, and other medical supplies in parts of the country. India had the most number of new and active cases in the world by late April. On 30 April 2021, India became the first country in the world to report over 400,000 new cases in a 24 hour period. Experts in the country stated that the virus may reach an endemic stage in India rather than completely disappear. In late August 2021, a leading epidemiologist said India may be in some stage of endemicity where the country learns to live with the virus.

By 17 August 2021, India had administered over 550 million vaccine doses, and on 21 October 2021, India crossed 100 crores (1 billion) doses according to the Co-WIN portal.

2.3.3 LOCKDOWN IN INDIA

In mid-March 2020, the Epidemic Diseases Act of 1897 and the Disaster Management Act of 2005 were activated. In March, all commercial domestic and international flights were canceled. To slow the spread of COVID-19, a number of towns and states declared that they would prohibit public meetings, dine-in restaurants, and order the closure of different non-essential enterprises until March 31. The Prime Minister of India issued an order on March 19, 2020, for all Indians to observe a 14-hour Janata curfew ("people's curfew") on March 22. The curfew was used to see if a countrywide lockdown was feasible.

With 519 confirmed cases and 9 deaths in the country, India's Prime Minister said on March 24 that the country will be put on "complete lockdown" for at least three weeks, which was further extended later. Except for hospitals, food stores, and pharmacies, all non-essential businesses and services were ordered closed, and there was a "complete restriction" on leaving the house for non-essential activities. All public transportation means were shut down.

On April 16, districts were categorized as "Red" (hotspot), "Orange," or "Green" (little to no transmission) zones using a color-coded tier system based on incidence rates. Red zones erupted in all of India's major cities. Beginning

on April 20, agricultural enterprises and retailers selling farming supplies, as well as public works programs, cargo transportation, banks, and government centers disbursing benefits were allowed to reopen. Phases 3 and 4 of the lockdown were extended until May 31st, with gradual relaxations and modifications. On June 8, the country began a phased removal of prohibitions. This gradual removal of restrictions was carried out in a series of "unlocks" that lasted until November 2020(11).

2.4. IMPACT OF COVID-19 ON MENTAL HEALTH

The Corona virus disease 2019 (COVID-19) caused by the novel corona virus has turned the world upside down. For the last 2 years it has gripped the entire world in threat of danger. Starting at the end of 2019 at a small market area in Wuhan, China, it has spread rapidly affecting almost every corner of the world. The number of the affected were rising every day and there was this widespread panic and anxiety related to this new crisis. Mis-infodemics is the term used for misinformation that contributes to the spread of any illness. This has been quite common for COVID-19.

2.4.1 IMPACT OF COVID – 19 ON GENERAL POPULATION

A pandemic is more than just a medical emergency. It affects people and society, causing chaos, anxiety, stress, stigma, and xenophobia. Individual conduct as a unit of society or a community has a significant impact on the dynamics of a pandemic, including the intensity, flow, and after-effects. (12) The rapid human-to-human transmission of SARSCoV2 necessitated the imposition of regional lockdowns to prevent the disease from spreading further.

Isolation, social alienation, and the shutdown of educational institutions, employment, and entertainment venues forced people to stay at home to assist break the transmission cycle. (13) The restrictive measures, on the other hand, have had a negative impact on people's social and mental health.

As more people are forced to stay at home in self-isolation to prevent the infection from spreading further at a societal level, the governments must take the required steps to give mental health care as recommended by specialists. Professor Tiago Correia wrote in his editorial that health systems around the world are assembling only to combat the COVID19 epidemic, which has the potential to have a significant impact on the treatment of other diseases, including mental health, which normally worsens during pandemics. (14) An individual's psychological state as it relates to community health differs from person to person and is dependent on his history, professional and social standings. Self-isolation and quarantine are likely to have a negative impact on one's mental health. Separation from loved ones, loss of independence, boredom, and uncertainty, according to an analysis published in the Lancet, can lead to a decline in an individual's mental health.(3) Individual and societal-level measures are required to overcome this impact. Both children and adults are experiencing a range of emotions as a result of the current world scenario. They may be placed in an unfamiliar position or environment that is possibly harmful to their health. Children, who are at home, away from school and friends, may have many questions regarding the outbreak, and they turn to their parents or caregivers for answers. Children and parents do not react to stress in

the same way. Anxiety, distress, social isolation, and an abusive environment can all affect a child's mental health in the short or long term(15). People who have recently been freed from quarantine may feel stigmatized and suffer a range of emotions. When people come out of quarantine, they may feel differently and receive a different reception from society. Because of the extraordinary viral nature, those who have just recovered may need to maintain social distance from their family members, friends, and relatives to guarantee their family's safety. Distinct age groups have different reactions to this social activity, which can have both short and long-term consequences. (12)

2.4.2 IMPACT OF COVID – 19 ON VULNERABLE POPULATION

Elderly adults are particularly vulnerable to the COVID19 outbreak for both clinical and social reasons, such as a weakened immune system or other underlying health concerns, as well as the distance from family and friends due to their busy schedules. Medical specialists say that people aged 60 and up are more likely to contract SARSCoV2 and develop a serious and life-threatening disease, even if they are otherwise healthy. Physical separation caused by the COVID19 outbreak can have a significant negative impact on the mental health of the elderly and disabled. Physical seclusion among family members might jeopardize the mental health of the elderly and disable them. It can give them anxiety, distress, and perhaps put them in a horrific scenario. Elderly individuals rely on their children for their everyday needs, and isolation can be detrimental to a family system. Nursing home residents, especially the old and incapacitated, might suffer from severe mental health problems. During a

pandemic, however, something as basic as a phone call can assist to calm older folks. COVID19 may cause increased stress, worry, and depression in older adults who already have mental health problems(15). Any of the following changes in the conduct of older relatives may be seen by family members, which includes embarrassing and yelling conduct, change in sleeping and eating patterns, emotional outbursts. According to the World Health Organization, family members should check on elderly individuals at home and in nursing homes on a frequent basis. Younger family members should spend time talking with elder family members and, if possible, being engaged in some of their daily routines.(15)

2.4.3 IMPACT OF COVID – 19 ON HEALTH CARE WORKERS

Doctors, nurses, and paramedics who are on the front lines of the COVID 19 pandemic may be more vulnerable to mental health issues. Long working hours, a lack of protective gear and supplies, a high patient load, a lack of effective COVID 19 medication, the death of a colleague after exposure to COVID 19, social distancing and isolation from family and friends, and the dire situation of their patients may all have a negative impact on health workers' mental health. As the pandemic spreads, health workers' productivity may steadily deteriorate. Workers in the health care field should take short pauses in between shifts and deal with the issue calmly and relaxed.(16)

Health workers who are striving to save lives and safeguard society may face social alienation, changes in family members' behaviour, and stigmatisation as a result of being suspected of carrying COVID 19. Friends or

loved ones of previously infected individuals and health professionals (handling pandemic) may experience despair, anger, or irritation as a result of mistaken fears of catching the disease from interaction with them, despite the fact that they have been declared not to be contagious.(15)

2.5. TELEMEDICINE

Telemedicine is the use of electronic information and communication technologies to provide and support healthcare when distance separates the participants.(17)

"Tele" comes from a Greek word that means "distance," and "mederi" comes from a Latin word that means "to heal." Telemedicine has been dubbed "healing by wire". Telemedicine, formerly thought to be "futuristic" and "experimental," is now a reality and here to stay. In patient care, education, research, administration, and public health, telemedicine has a wide range of uses.(18) People in rural and distant places around the world struggle to get timely, high-quality specialty medical care. Residents of these places frequently have poor access to specialty healthcare, owing to the fact that specialist physicians are more likely to be found in densely populated urban areas. Telemedicine offers the ability to overcome this gap and make healthcare more accessible in these rural locations.

2.5.1 DEFINITIONS

2.5.1.1 TELEMEDICINE

The World Health Organization (WHO) defines Telemedicine as “The delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment and prevention of disease and injuries, research and evaluation and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities.”

2.5.1.2 TELEHEALTH

Tele-health is the use of electronic information and telecommunications technologies to support long-distance clinical healthcare, patient and professional health-related education and training, public health, and health administration.(19)

2.5.1.3 TELEMEDICINE CONSULTATION CENTRE (TCC)

Telemedicine Consulting Centre is the site where the patient is present. In a Telemedicine Consulting Centre, equipment for scanning / converting, transforming, and communicating the patient's medical information must be available.(17)

2.5.1.4 TELEMEDICINE SPECIALTY CENTRE (TSC)

Telemedicine Specialty Centre is a site, where the specialist is present. He can interact with the patient present in the remote site and view his reports and monitor his progress.(17)

2.5.1.5 TELEMEDICINE SYSTEM

The Telemedicine system consists of an interface between hardware, software, and a communication channel to eventually bridge two geographical locations to exchange information and enable teleconsultancy between two locations.

The hardware consists of a computer, videoconferencing equipment, printer, scanner etc. The software enables the acquisition of patient information (images, reports, films etc.). The communication channel enables the connectivity whereby two locations can connect to each other.(17)

2.5.2 TYPES OF TECHNOLOGIES USED IN TELEMEDICINE

The majority of telemedicine applications in use today are made up of two types of technologies. The first method, known as store and forward, is used to move digital photographs from one place to another. A digital image is captured with a digital camera, 'stored,' and then delivered ('forwarded') to another location by a computer. This is often utilised in non-emergency situations if a diagnostic or consultation may be completed and returned within the following 24-48 hours. A few examples include tele-radiology, tele-pathology, and tele-dermatology.(20)

When a 'face-to-face' consultation is required, the second extensively utilised technology, two-way interactive television (IATV) is used. At the originating site, the patient and their provider, or more typically a nurse practitioner or a telemedicine coordinator (or any mix of the three), are present. The referral site, which is usually an urban medical facility, is where the specialist is located. Both locations include videoconferencing equipment, allowing for 'real-time' consultation. (15) Psychiatry, internal medicine, rehabilitation, cardiology, paediatrics, obstetrics and gynaecology, and neurology are among the medical disciplines that have been shown to be amenable to this type of consultation.

2.5.3 USES OF TELEMEDICINE

- Remote regions are easily accessible.
- In peripheral health settings, telemedicine can drastically cut the time and expense of patient transportation.
- Used for both home care and ambulatory monitoring.
- Improves communication between health practitioners who are separated by a large geographical distance.
- When a patient cannot be transferred, used for critical care monitoring.
- Clinical research and continuing medical education
- A public awareness tool
- A disaster-prevention tool
- Second thoughts and a variety of interpretations

Once connectivity has been established, the greatest hope for telemedicine technology is that it will be able to offer knowledge to medical procedures.

2.6. TELE-PSYCHIATRY

2.6.1 WHAT IS TELE-PSYCHIATRY

Tele-psychiatry, a subset of telemedicine, can include mental examinations, treatment (individual, group, and family therapy), patient education, and medication management, among other things(21).

Direct engagement between a psychiatrist and the patient is possible with tele-psychiatry. Psychiatrists who give mental health care consultation and expertise to primary care doctors are also included. Live interactive communication can be used to give mental health care. It can also entail capturing medical data (pictures, videos, and so on) and sending it to a remote location for further review.(21)

2.6.2 HISTORY

Tele-psychiatry can be traced back to the 1960s in the United States, when closed circuit, two-way television was used for clinical, academic, and emergency services(22). The Internet era and the age of sophisticated far reaching communication tools such as e-mail, instant messaging, online forums, websites, and blogs dedicated to addressing users' mental health issues followed. Attempts have been made in various parts of the world to use community-based projects to take advantage of developments in communication technology. Tele-psychiatry has grown in the breadth over

time, allowing psychiatrists to reach out to clients in remote locations while also educating primary care providers in rural areas thus giving potential for offering consultation-liaison services in primary healthcare. It is a useful instrument for providing individual and group psychotherapy in addition to accurate assessment and diagnosis(23).

2.6.3 BENEFITS OF TELEPSYCHIATRY

Patients' needs for convenient, inexpensive, and easily accessible mental health care are met through video-based tele-psychiatry. It can help patients in a variety of ways, including(21):

- Improving access to specialised mental health care that may otherwise be unavailable (e.g., in rural areas)
- Taking care of the patient where he or she is.
- Assisting the integration of behavioral health and primary care, resulting in improved outcomes.
- Reducing the need for emergency room visits.
- Reducing the time taken for patients to receive care.
- Continuity of care and follow-up improvement.
- Reducing the need for time off work, daycare, and other services to attend far-flung appointments.
- Reducing potential mobility hurdles, such as a lack of transportation or the need to drive for lengthy distances.
- Reducing the stigma barrier

While some people may be hesitant or uncomfortable chatting to someone on a screen, experience has shown that the majority of people are fine with it. Some persons may feel more at ease and willing to open up in the privacy of their own home or a nearby facility. Also, as individuals become more used and comfortable with video communication in regular life, this will likely become less of an issue.

Tele-psychiatry enables psychiatrists to treat more patients from afar. Psychiatrists and other clinicians must be licensed in the state(s) where the patient is located. The location of the patient is viewed by state licensing boards and legislatures as the site where "the practice of medicine" takes place(21).

Despite the fact that the patient and psychiatrist are not in the same room, tele-psychiatry can give many patients a greater sense of safety, security, and privacy. Private practice, outpatient clinics, hospitals, penal facilities, schools, nursing homes, and military treatment centres are among places where tele-psychiatry is used.

Patients can make individual appointments with a psychiatrist or therapist for a live video consultation. This can be done with a traditional practitioner if they provide the service, or through one of a variety of companies that conduct video appointments with mental health specialists. Patients should prepare themselves as if they were going to an in-person appointment. Have all pertinent records and information on hand, including medications, as well as a list of questions to ask(21)

Telepsychiatry is assisting emergency departments in providing more rapid psychiatric care. According to the Agency for Healthcare Research and Quality, one out of every eight emergency room visits is due to a mental health or substance use disorder. Many emergency rooms are unprepared to deal with persons who are suffering from significant mental illnesses and lack psychiatrists or other mental health experts on duty to examine and treat mental illnesses(21).

In nursing homes, tele-psychiatry is being used to provide both continuing psychiatric evaluation and care as well as emergency crisis intervention when finding a local psychiatrist is problematic. In correctional facilities where offenders commonly require continuing mental health care, many states in the United States use tele-psychiatry.

2.6.4 TELEPSYCHIATRY IN PSYCHOTIC PATIENTS

The question of whether telepsychiatry is a good choice for assessing and treating psychotic individuals has been debated. To address this issue, Sharp et al(24) performed a thorough examination of 33 various categories of papers in 2011. Their goal was to see if video consultation is a good alternative for psychotic patients in terms of evaluation and clinical intervention, as well as safety, satisfaction, and acceptance. The studies in the review that explored clinical intervention through video consultation found that the majority of doctors/residents had favourable experiences with video consultation and thought it was a safe and effective technique to reach out to patients, particularly those in remote and difficult settings.

Many people believe that the method will render many abilities used in assessing psychotic patients meaningless. "I was happily delighted to realise that this was not true," commented T F Dwyer et al(25) Patients had higher rates of attendance and follow-up, and video consultation was seen as a more convenient mode of communication (this was particularly true for patients with schizophrenia). "Even schizophrenics with conceptions of reference including TV (e.g., being spoken about on public programmes) accepted the video consultation interaction extremely well, and no amplification of their delusions was detected," according to M Dongier et al.(26)

"Based on the research reviewed, patients with psychosis can be consistently interviewed and evaluated by video consultation, including using symptom severity scales (e.g., BPRS) and diagnostic, clinical, and psychiatric interviews," Sharp et al(24)concluded. When discussing safety concerns, the reviewers stated that the policies and standards for the management of telepsychiatric patients should always be evolving in order to provide the best services to the patients. "The physical distance given by telepsychiatry has allowed patients to express strong effects that may have resulted to early termination of in-person sessions," according to one key study.(27) The reviewer noted excellent levels of satisfaction and acceptability among both professionals and patients, with video consultation sessions frequently rated better than face-to-face sessions, particularly among children.(28)

2.6.5 TELE-PSYCHIATRY ACROSS CULTURES

Culture has a significant impact on mental health. As a result, recognising and acclimating to a specific culture is critical for comprehending symptoms and formulating a diagnosis. Savin et al.(29) gave some fundamental criteria for modeling tele-psychiatry services for proper implementation in their article.

Comfort and training: Before beginning any tele-consultation, the psychiatrist should inquire about the patient's and carers' comfort levels, as well as provide appropriate information to make the process as comfortable as possible. This is necessary for the development of a proper rapport.

Learn local nonverbal communication styles: A professional who provides tele-psychiatry services to people from different cultures is expected to become familiar with the colloquial style of language and nonverbal communication, as well as the technical aspects that may affect this form of communication. These factors will invariably affect the acceptance and the satisfaction of patients using tele psychiatry consultations.

In a culturally diverse country like India, sensitivity to cultural aspects of interactions is significant. Engagement with telepsychiatry must take into consideration these aspects for effective implementation.

2.6.6 EFFECTIVENESS OF TELE-PSYCHIATRY

Studies have found that patients, psychiatrists, and other professionals had high satisfaction with it. In terms of diagnostic accuracy, treatment effectiveness, care quality, and patient satisfaction, tele-psychiatry is

comparable to in-person care. In-person care has the same level of privacy and confidentiality as online care(21). A review of 134 studies by Hubley et al(30) in 2016 found that tele-psychiatry is comparable to face-to-face delivery of mental health interventions.

Some research has indicated that all age groups have had positive experiences with telepsychiatry. In terms of assessment and treatment, there is evidence of positive results in children, adolescents, and adults.

"Is Tele-psychiatry Effective?" has been a common worry stated by both patients and service providers from the beginning of tele-psychiatry. Tele-psychiatry is clearly effective, according to the available literature. Garcia-Lizana et al(31) performed a systematic review of the literature in 2010 that included ten randomised controlled trials (RCTs) that all addressed the same subject. They discovered that no statistically significant difference in symptom rating between those receiving tele consultations and those receiving face-to-face interviews was detected in seven of the included studies. Chipps et al.(32) conducted a systematic review of ten systematic reviews on Tele-psychiatry, and the findings revealed that Tele-psychiatry is certainly reliable for diagnosis and assessment, with reasonable evidence of patient improvement. Tele-psychiatry via video consultation is also helpful for giving neuropsychiatric exams, prescribing psychiatric drugs, and establishing rapport, according to evidence. "Remote psychiatric therapy was proven to be not inferior compared to in vivo settings in diagnosing and treating common psychiatric diseases," said Drago et al(33) (2016) in a systematic evaluation of 26 RCTs.

2.6.7 FEASIBILITY AND ACCEPTABILITY

There are studies indicating that tele-psychiatry is both feasible and acceptable as a viable alternative to traditional face-to-face consultations. In 2002, Harley et al.(34) did an observational study in the United Kingdom to investigate the potential benefits of Tele-psychiatry. He concluded that video consultation is a realistic and acceptable medium that can increase the provision of mental health care. In 2007, Pesämaa et al.(35) conducted an observational research among children and adolescents to determine the purpose and experience of the video consultation. He came to the conclusion that video consultation was not widely used, despite positive experiences and views towards it, and that the activity of service providers, rather than the quantity of persons engaging in the service, affect its adoption.

2.6.8 TELEPSYCHIATRY IN INDIA

When Aragonda, a remote town in Andhra Pradesh, was connected via distant communication technology with a tertiary centre 200 kilometres away in the South Indian metropolis of Chennai at the turn of the century, India began its foray into telemedicine. To make this ambitious project a reality, it took the collaboration of a number of different institutions, including the Ministry of Health and Family Welfare, the Department of Space, and the Indian Space Research Organisation. Mr. Bill Clinton, the then-President of the United States of America, formally established telemedicine in India and commissioned the first telemedicine unit in the village of Aragonda on March 30th, 2000, while on a visit to India.(36) The advancement of communications

technology has benefited a variety of medical specialties in recent years, including psychiatry. The Schizophrenia Research Foundation (SCARF), a nongovernmental organisation (NGO) based in Chennai that provides mental healthcare services, is credited with pioneering tele-psychiatry services in India. Their groundbreaking attempt to provide telepsychiatry services to tsunami victims in the coastal districts of Tamil Nadu in December 2004 has received worldwide attention. This has sparked a wave of excitement about the possibilities of providing high-quality mental health care via telepsychiatry, assuming a well-defined approach and attainable goals are established.(36)

There is a plethora of literature that demonstrates India's insufficiency in providing high-quality mental health care. (37) (38) It is estimated that 7% of the population suffers from mental diseases, with nearly 90% of those suffering going untreated.(36) The problem is exacerbated by an equally worrying scarcity of qualified mental health specialists in professions such as psychiatric nursing, psychiatric social work, and clinical psychology. To combat this public health threat, the Indian government created efforts such as the National Mental Health Programme and the District Mental Health Programme(39). However, as the number of people suffering from mental diseases continues to rise, the results of these endeavors have been far from ideal. Despite an ongoing wave of migration from villages to cities, India's demographics remain rural, with around 74 percent of the country's population living in rural areas.(36) Although urban India has witnessed a plethora of inventions and institutions addressing the need for effective mental healthcare, replicating them in

agricultural rural India has been difficult due to deep-seated prejudices and misconceptions about mental health. In Indian society, the stigma associated with mental illness is ubiquitous, and it has disastrous consequences in all parts of life - personal, social, and vocational. Telepsychiatry emerges as a beam of hope at the end of a dreadful tunnel in this situation. One encouraging element is that, in comparison to the complex technological know-how necessary for other medical specialties, telepsychiatry simply uses the rudiments of distant communication technology that are required for VC.

2.6.9 SATISFACTION WITH TELE-PSYCHIATRY

2.6.9.1 STUDIES FROM ABROAD

There are several studies in other countries that found tele-psychiatry to be a cost-effective alternative treatment modality with a good patient and provider satisfaction. The oldest study, which set out to analyse its usefulness from Norway(40), revealed an 87 percent satisfaction score among its users, with the majority of them rating the facility as "satisfied" or "very satisfied".

The study by Jacqueline et al(34) in the state of New Jersey, USA concluded that predominantly positive and high satisfaction levels were reported from all participants who took part in the video conferencing sessions and supported its future development for service provision to the island. Early indications suggest that this is a cost-effective service. The project also raised the awareness of telemedicine and its potential in the delivery of mental health services in Jersey.

The study by Doyle C et al(41) published in 2016 showed the tele-psychiatry program received a lot of positive feedback among the elderly with dementia. The case conference method aided in the perception of better outcomes for clients, their families, and employees. Clinicians reported less stress among family caregivers and staff caregivers, as well as increased confidence in handling dementia patients with behavioural and psychiatric symptoms (BPSD).

In the systematic review done by Hubley et al(30) published in 2016 it was concluded that tele-psychiatry services are generally well received by both patients and providers. Providers, on the other hand, are more concerned about telepsychiatry's potential negative impacts on the therapeutic rapport. Patients are less likely to express concerns about a deterioration in their relationship with their doctor. Despite the fact that few trials use non-inferiority designs properly, the evidence suggests that telepsychiatry is equivalent to face-to-face treatments in terms of clinical assessment reliability and treatment outcomes. Telepsychiatry performed as good as, if not better than, face-to-face delivery of mental health care when non-inferiority designs were employed effectively. Telepsychiatry is not more expensive than face-to-face delivery of mental health care, according to studies employing both rudimentary and more complex approaches for evaluating cost-effectiveness. In the majority of studies analysed, telepsychiatry is actually more cost-effective.

2.6.9.2 STUDIES FROM INDIA

In a study done in India by Acharya V et al(42) it was concluded that about 80% of patients and all the doctors reported their satisfaction on the quality of treatment given through telemedicine. Approximately, 90% of the participants found telemedicine cost-effective and 61% of the doctors found an increase in patient's inflow apart from their regular practice. Problems encountered in telemedicine were 47% in technical issues and 39% in time scheduling for doctors and 31% of patients were uncomfortable to face the camera, and 24% had technical issues.

A retrospective cohort study in New York during COVID 19 pandemic by Ashwin Ramaswamy et al.(43) concluded that patient satisfaction with video visits is excellent and therefore a paradigm shift away from traditional in-person clinic visits is not a problem. To advise and implement the wider usage of telemedicine, more studies comparing various clinic visit quality metrics are needed.

In a study by Aashima et al(44) on 'A Review of Patient Satisfaction and Experience with Telemedicine' published in 2021, which studied results of 48,144 patients and 146 providers from 12 different countries, including India, virtual encounters were found to be quite popular across a wide range of conditions. This study showed that various outcome metrics, such as resolving patients' problems, communicating with health care providers, usefulness, and reliability, were determined to be satisfactory. Time saved owing to reduced traveling and waiting time, greater accessibility, convenience, and cost

efficiency were the most prevalent benefits. The satisfaction levels were unaffected by age or gender. Physicians and patients alike expressed a strong desire to continue using telemedicine and felt that it has the ability to supplement traditional health care services even beyond the pandemic.

A research paper on Psychiatrist attitude in telepsychiatry during COVID 19 in India by Nileshwar(45) showed that the majority of respondents (63 percent) stated that telepsychiatry has many beneficial elements, and they were more inclined to recommend it to their colleagues. The majority of respondents agreed that telepsychiatry will assist in providing mental healthcare in remote areas of the country (78 percent), reduce the cost of public health delivery (68 percent), reduce patient waiting time (82 percent), and thus make psychiatric follow-up services more convenient (68 percent) for both patients and providers.

A study conducted in Northern India by Singh A et al (46) on Telemedicine and published in 2020 found that only 20% were willing to use telemedicine, 33% would sometimes be willing, 28% were unsure, and 19% were not willing. There was a significant relationship between willingness with age and gender

A study by Shalini Lal et al(47) in Canada assessing the perspective of young adults attending Tele-psychiatry services concluded that more than half of the 51 participants (59 percent, n = 30) said they utilised mainstream video chat only seldom or never (e.g., Facetime). The majority of people (78 percent,

n = 40) said they had trouble keeping appointments, with some (37 percent, n = 19) saying they had two or more. Almost half of the respondents (49 percent, n = 25) were very positive about telepsychiatry, whereas a quarter (25 percent, n = 13) were moderately positive. Telepsychiatry has raised various issues among participants, including the loss of human touch and confidentiality.

In a study conducted in South India during COVID 19 regarding patient satisfaction for telepsychiatry in a neuropsychiatry hospital by Anjana rathan et al.(48) found that 28% of persons who consulted psychiatrists said they were satisfied with the teleconsultation service, while 71% of people who consulted psychologists said they were very satisfied. According to this study, some people still prefer physical engagement with psychiatrists, as illustrated by the fact that 72 percent of respondents are dissatisfied with teleconsultation.

2.7 CONCERNS WITH TELEPSYCHIATRY

Overall, there are many studies which indicate a positive response towards the use and benefits of Telepsychiatry. Since many of the factors which are responsible for the effectiveness of the modality are heavily reliant on context, further studies are required to clarify specific elements in different contexts.

Studies have highlighted domains of concern within the process and access stages of telepsychiatry. Lack of physical engagement, Loss of in-person human connection, problems in therapeutic alliance, privacy, confidentiality,

technical problems, connectivity issues and cost-affordability would be a few to name.

2.8 RATIONALE FOR THE STUDY

The corona virus pandemic is a landmark event that is precipitating radical transformative change globally to healthcare systems. It has been shown even before the onset of the pandemic that there is evidence of feasibility, acceptability, and positive outcomes with utilisation of tele-psychiatry (49). Now with the pandemic, it is seen that more and more organisations and health care services are switching to the virtual mode of consultations. With the need for continuing restrictions related to COVID, it is probable that the changes may be here to stay and even become routine parts of the services rendered in psychiatry (50). It is important that psychiatric organisations and clinicians begin to strategically plan for these scenarios.

Evidence does indicate that video conferencing based tele-psychiatric interventions have outcomes that are reliable and comparable to regular care, but the evidence base is relatively limited on the multiple aspects of effectiveness(51) . Though there are studies which indicate that satisfaction with video consultations is similar to that with face-to-face consultations, it is seen that in some groups acceptance of this mode of treatment has been poor with questions raised regarding issues including feasibility, confidentiality, privacy, and cost effectiveness (52) (53) (54).

Patients and doctors have positive and negative experiences with telemedicine which are context dependent. Exploring the experiences of the service users and providers would help in understanding the variations brought on by the contextual factors, diagnoses and the specific population catered to (55). Reports from India are few and suggest constraints related to software usage and awareness, problems in digital connectivity, difficulty in establishing a therapeutic relationship and lack of assessment of satisfaction in the patient population as some of the features observed (46) (36). Considering telepsychiatry as an upcoming area which has the potential to fill a significant need, it is important to understand the contextual details contributing to the experiences in video consultation. Perspectives from patients and clinicians will be valuable in helping to develop a comprehensive understanding of the same.

This is a study that plans to explore the experiences of patients and clinicians with video consultations in psychiatry in a tertiary care centre in Tamil Nadu. Findings from this study would help in understanding the factors needed to improve the services of telepsychiatry, and plan interventions suitable to our population to improve acceptability and effectiveness.

3. AIMS AND OBJECTIVES

3.1 AIM

To evaluate patients', caregivers' and doctors' experiences with video consultations as part of telepsychiatry during the COVID-19 pandemic.

3.2 OBJECTIVES

3.2.1 PRIMARY OBJECTIVE

1. To determine the level of satisfaction with video teleconsultation in patients, caregivers, and doctors during the COVID-19 pandemic
2. To study the access and process-related factors contributing to the experience with teleconsultation.

3.2.2 SECONDARY OBJECTIVES

1. To assess the relationship between satisfaction with tele-consultation services and relevant socio-demographic and technology-related factors
2. To assess willingness to use video consultation in future

4. STUDY METHODOLOGY

4.1 STUDY DESIGN

This is an observational study

4.2 STUDY SETTING

This study was carried out in patients who already attended the outpatient clinic at the Department of Psychiatry, Christian Medical College Vellore, and now utilizing the video tele-psychiatry services. This 122-bed hospital provides short-term care for patients with all types of psychiatric diagnoses from the town of Vellore and a wider rural area beyond. It also functions as a tertiary referral center for the management of patients with mental and behavioral disorders from different parts of India. The emphasis is on a multidisciplinary approach and eclectic care using a wide variety of pharmacological and psychological therapies. The hospital has a daily outpatient clinic in which 450–500 patients are seen. Patients were recruited for the study over six months.

4.3 PARTICIPANTS

There were two sets of participants for the study – Patients/Caregivers and Psychiatrists

4.3.1 PATIENTS AND CAREGIVERS

Consecutive, consenting patients or caregivers who had attended the outpatient services of Department of Psychiatry unit 1 and unit 2 previously and utilized the video tele-psychiatry services provided during the study period at least once were recruited.

4.3.2 PSYCHIATRISTS

Consecutive consenting Psychiatrists (both senior resident and consultant) working in the Department of Psychiatry Christian Medical College and had provided the video telepsychiatry services at least once were recruited.

4.3.3 INCLUSION CRITERIA:

- All adult patients or their caregivers who had attended at least one video teleconference consultation and gave valid informed consent.
- All Psychiatrists who had provided at least one video teleconsultation and gave valid informed consent.
- Language of communication - English, Tamil, and Hindi

4.3.4 EXCLUSION CRITERIA

- Patients, Caregivers, or Psychiatrists who refuse to give a valid informed consent

4.4 PROCEDURE

4.4.1 SAMPLING

4.4.1.i Patients and Caregivers

Patients' details which include the hospital number and the date of video tele-psychiatry appointment was obtained from the Psychiatry unit 1 and 2 office after the institutional review board clearance and obtaining prior permission from the Unit Chief. The basic demographic data and contact information were linked to their hospital number and stored in the Clinical Work Station (CWS). After obtaining the list of Hospital Numbers registered for teleconsultations, the basic demographic information was accessed and their email IDs were retrieved from the CWS. Patients with a complete e-mail ID registered in the clinical workstation were selected and the patients with incomplete or no e-mail ID were not included in the study. Then these patients were assigned a unique identification number which was mentioned as Participant Identification Number (PIN) in the questionnaire, to ensure anonymity and reduce the risk of data leak through the online platform. The link for the online questionnaire was sent to the corresponding email IDs, along with the PIN. The email also contained PDF attachments for the Patient Information Sheet and a brief Introduction about the Study details. We used Google Forms as the online platform for our questionnaire, This will be discussed in detail.

Individual mails with a unique PIN for each participant were sent through the official Institution email ID of the principal investigator to ensure

the safety and minimize the concerns of spam or online fraudulent activities in the minds of the participants. If no reply was received after one week, then a remainder mail was sent along with all the details mentioned above.

4.4.1.ii Psychiatrists

All the psychiatrists, including Senior Residents and Consultants (assistant professors, associate professors, and professors) working in the Department of Psychiatry and who fulfilled the inclusion criteria were sent the online questionnaire in the form of Google forms to their e-mails which were obtained from the concerned unit office. The e-mail contained a brief introduction to the study, a link for the online Google Form, and a PDF attachment of the Participant Information Sheet with information regarding the study.

4.4.2 Instruments used:

- i. Questionnaire for Patients and Caregivers
- ii. Questionnaire for Psychiatrists

4.4.2.i Questionnaire for Patients and Caregivers:

A literature review was done to check if validated questionnaires were used in previous studies to assess the satisfaction of video tele-psychiatry. Even though there were studies available in tele-psychiatry, the questionnaire suitable for our study of satisfaction and the factors affecting the patients'

experience of video tele-psychiatry during the COVID 19 pandemic was not available at the start of the study. So a new questionnaire was designed by the investigators. In discussions regarding the formulation of a new questionnaire, it was decided to add the socio-demographic details, hardware, and software-related factors, accessibility-related factors, and the process and access-related satisfaction questions. The questionnaire was designed as six sections and the participants could proceed to the subsequent sections only after completing the previous sections. The percentage of completed questions was made available at the end of the form so the patients could have a visual cue of the time needed to complete the form. This helped in getting the completed forms, as participants tend to close the questionnaire before completing it if the form was lengthy.

The first section of the form contained a brief introduction about the principal investigator and the details of the study. A PDF file of the participant information sheet, which had the complete details of the study including the names of all investigators, contact number, and e-mail id of the principal investigator for any queries, was attached as a link.

Section 2 was dedicated to obtaining Informed Consent from the participants for this study. It included the consent form link and a checkbox question for giving or denying their consent for the study. If the participants gave consent, the form will proceed to the next section and if they refused to give consent, the form was devised to close automatically without proceeding further.

Section 3 included the Participant Information Number (PIN) which was uniquely assigned to each participant and sent through the mail. A small hint saying ‘PIN is given in the mail you have received’ was added so that the participants were able to enter it correctly. Then this section contained the questions to determine who the participant is, whether the patient or the caregiver of the patient. If the participant was a caregiver, then questions regarding the relationship to the patient and if they were living in the same household was asked. This was followed by questions regarding the gender and age of the participant, questions regarding the socio-demographic profile including the occupation, highest educational qualification, and monthly income of the family.

Section 4 contained questions regarding the device (Mobile, Laptop, Desktop) and the internet service used (WIFI or Cellular) for the video consultation, ownership of the device (self, family, others), and the place of the video consultation. Questions were added regarding whether it was the first time the participants were using the tele-psychiatry service and if they have already used it, what mode (Email, Telephonic, video consultation) of tele-psychiatry was used. A question regarding the reason to choose video consultation was also added with options given as travel restrictions due to lockdown, cost-effectiveness, and ease of access to health services. An option of ‘others’ was also included where the participant could write their reasons apart from those mentioned above. The questionnaire was designed to allow the participants to choose multiple options for this particular question, as there can

be multiple reasons to choose a video consultation over face-to-face consultation. The questions in this section were designed to see the availability of devices/technology, participants' previous experience with tele-psychiatry, and their reasons to choose the same.

Section 5 comprised of questions to assess the experience of the participants related to accessing (access related factors) the video tele-psychiatry. There were nine questions designed to assess the participants'. A final question of overall satisfaction with the technology used for the video consultation was asked to see whether the participants were able to easily use the technology which is a significant factor determining their experience in using the services. All these questions were given a Likert scale response ranging from 1 to 10. The response of 1 was assigned to completely disagree with the question and 10 to completely agree with the question.

Section 6 contained questions assessing the participants' experience regarding the process of the video consultation in comparison with face-to-face consultation which the participants use regularly. The responses for these questions were given on a Likert scale ranging from 1 to 10. The response of 1 corresponded to 'much worse than face-to-face consultation', the response of 10 corresponded to 'much better than the face-to-face consultation', and the response of 5 corresponded to 'similar to the face-to-face consultation'. The questions were structured to assess the level of comfort while sharing private concerns, both auditory and visual clarity of connection, the duration of consultation, ability to understand the information, understand the plan of

treatment as discussed by the doctor, and overall satisfaction with the process and outcome. Issues related to confidentiality were also discussed in this section. The final two questions addressed the willingness to try the video tele-consultation service again and the willingness to recommend it to others.

4.4.2.i (a) Validation of the questionnaire for patients/caregivers.

As the questionnaire was newly designed, validation was done before the study. The questionnaire was validated for the clarity, relevance, and how essential it was to the study. The questionnaire was sent to four subject experts (professors with more than 20 years of experience in the field) working in the Department of Psychiatry. Each subject expert rated every question individually for their relevance, clarity, and essentiality on a Likert scale of 1 to 4.

| | | |
|---------------------|---------------------------|-------------------------|
| <u>Relevance</u> | 1- Completely Irrelevant | 2- somewhat Irrelevant |
| | 3-Somewhat Relevant | 4-completely Relevant |
| <u>Clarity</u> | 1- Completely Unclear | 2- Somewhat Unclear |
| | 3-Somewhat Clear | 4-Completely Clear |
| <u>Essentiality</u> | 1- Completely Inessential | 2- Somewhat Inessential |
| | 3-Somewhat Essential | 4-Completely Essential |

The scores of all the four experts were compiled and the content validity index (CVI) was calculated. The Content Validity Index for Patients/caregivers questionnaire – Item CVI (for each item in the questionnaire) – 0.992, Overall CVI for the Scale was 0.968.

The reliability of both scales is assessed using Cronbach's alpha. The reliability coefficient of patient questionnaire is 0.9177.

4.4.2.i (b) Translation of the patient/caregiver questionnaire.

Once the questionnaire was validated and finalized in English, it was translated to Tamil and Hindi for the ease of understanding of the questionnaire for the participants speaking the respective languages. For translating the questionnaire first, it was given to the native speakers of Tamil and Hindi who could read and write the languages respectively. This translated Tamil and Hindi questionnaire was given to the second set of native speakers who back-translated them to English. Now the original validated English version of the questionnaire was compared by the principal investigator, with the back-translated English questionnaires from Tamil and Hindi. This comparison showed a similar meaning for both the questionnaire, hence the translated Tamil and Hindi questionnaires were finalized.

4.4.2.ii Questionnaire for Psychiatrists:

A literature review was done to check if any validated questionnaires were used in previous studies to assess the satisfaction of video tele-psychiatry. Even though there were studies available in tele-psychiatry, the questionnaire suitable for our study of satisfaction and the factors affecting the Psychiatrists experience of Video tele-psychiatry during the COVID 19 pandemic was not available at the start of the study. So, it was decided to design a new questionnaire. Questions regarding the participant's information, the process, and access-related satisfactions were added. The questionnaire was designed as

six sections and the participants could proceed to the subsequent sections only after completing the previous sections. The percentage of completed questions was made available at the end of the form so the participants could have a visual cue of the time needed to complete the form. This helped in getting the completed forms, as participants tend to close the Google form before completing it if the form was lengthy.

The first section of the form contained a brief introduction about the principal investigator and the details of the study. A PDF file of the participant information sheet, which had the complete details of the study including the names of all investigators, contact number, and e-mail id of the principal investigator for any queries, was attached as a link.

Section 2 was dedicated to obtaining Informed Consent from the participants for this study. It included the consent form link and a checkbox question for giving or denying their consent for the study. If the participants gave consent, the form would proceed to the next section and if they refused to give consent, the form was devised to close automatically without proceeding further.

Section 3 had questions regarding the information of Psychiatrists like age, gender, designation (Senior Resident / Consultant - Assistant Professors, Associate Professors, and the Professors), and the number of years of experience in Psychiatry.

Section 4 contained questions regarding the device (Mobile, Laptop, Desktop) used and whether they have changed their views on video tele-psychiatry after they provided the service. If the psychiatrist responded that they have changed their view on video consultation then a separate question of whether the change of view was favorable or non-favorable was asked.

Section 5 comprised of questions to assess the experience of the psychiatrists related to accessing (access related factors) the video tele-psychiatry. There were thirteen questions designed as statements to assess the psychiatrists' experience in terms of the level of comfort while using the software, connectivity-related factors, patient care, legal aspects, and financial aspects. All these questions were given a Likert scale response ranging from 1 to 10. The response of 1 was assigned to 'completely disagree' with the question and 10 to 'completely agree' with the question.

Section 6 contained questions assessing the psychiatrist's experience regarding the process of the video consultation in comparison with the face-to-face consultation which the psychiatrist provides regularly. For this section also the responses were given on a Likert scale ranging from 1 to 10. The response of 1 corresponded to 'much worse than face-to-face consultation', the response of 10 corresponded to 'much better than the face-to-face consultation', and the response of 5 corresponded to 'similar to the face-to-face consultation'. The questions were in the form of statements in comparison with face-to-face consultation assessing the audio and video clarity, level of comfort with the process, patient confidentiality, assessment of the patient, treatment plan, and

effectiveness of video consultation. The final two questions were on whether the psychiatrist considered video consultation as a viable mode of providing treatment in their setting and whether they would recommend it to their patients.

4.4.2.ii (a) Validation of the questionnaire for psychiatrists

As the questionnaire was newly designed, it was validated before starting the study. The questionnaire was validated for the clarity, relevance, and how essential it was for the study. The questionnaire was sent to four subject experts (professors with more than 20 years of experience in the field) working in the department of psychiatry. Each subject expert rated all the questions individually for their relevance, clarity, and essentiality on a Likert scale of 1 to 4

| | | |
|---------------------|---------------------------|-------------------------|
| <u>Relevance</u> | 1- Completely Irrelevant | 2- somewhat Irrelevant |
| | 3-Somewhat Relevant | 4-completely Relevant |
| <u>Clarity</u> | 1- Completely Unclear | 2- Somewhat Unclear |
| | 3-Somewhat Clear | 4-Completely Clear |
| <u>Essentiality</u> | 1- Completely Inessential | 2- Somewhat Inessential |
| | 3-Somewhat Essential | 4-Completely Essential |

The scores of all the four experts were compiled for each question, the content validity index was calculated (CVI)(56) and overall, the question had good Content Validity Index. The content Validity index for the Doctors questionnaire – Item CVI (for each item in the questionnaire) – 0.948, Overall

CVI for the Scale was 0.823. This Questionnaire was not translated to Tamil or Hindi as all the psychiatrists had good proficiency in English. The reliability of both scales is assessed using Cronbach's alpha. The reliability coefficient of doctor's questionnaire is 0.837.

4.5 ETHICAL CONSIDERATION:

This study was initiated only after clearance from Institutional Review Board. All the participants were sent a separate email to their registered ID. A detailed information sheet was provided to the participants and caregivers in the language they could best understand and a detailed consent form was attached and participants gave their consent. The information collected was available only to the research team and the data collected was processed only for research purposes. Separate Gmail ID and Google drive were used for the study and the Gmail account had two-step password authentications for the safety of the data. Each participant was assigned a unique Participant Identification Number (PIN) to ensure that patient's hospital number is not shared on the online platform.

4.6 STATISTICAL METHODS

4.6.1 SAMPLE SIZE:

This was a cross-sectional survey. We expected 120 participants in the patient/caregiver section during the study period and planned to do a complete

enumeration for them. We planned to include all the consultants in the study setting who satisfied the inclusion criteria.

4.6.2 STATISTICAL ANALYSIS:

For convenience, the 10 item likert scale was changed to 4 item scale for the access related factors and 5 item scale for process related factors. All categorical variables are reported as frequency and percentage, whereas all continuous variables are reported using mean (SD) or median (IQR). Pearson chi square test or Fisher's exact test is used to check the association of categorical variables with access, process and satisfaction from tele-consultation. All p value <0.05 is considered as statistically significant. All analyses are done using software SPSS version 21.0.

5. RESULTS

This study was designed to study the access and process-related factors contributing to the experience with tele-consultation, to assess the satisfaction towards video consultation in tele-psychiatry among patients, caregivers, psychiatrists, and their willingness to use video consultation in the future. The results discussed will be discussed under two groups, Patients / Caregivers and Psychiatrists.

5.1 PATIENTS / CAREGIVERS

5.1.1 STUDY SAMPLE

A total of 475 patients were registered for the Video teleconsultation during the six months of the study period. Out of these many registrations were repeat consultations, many had missed the appointment as they were unable to attend the video call when initiated and few didn't have a complete/correct email ID registered. Finally, 240 were selected and an email was sent to each one of them. The initial response rate was around 10-15% so weekly remainder emails were sent after which, the response rate increased.

84 responses were received in comparison to the 120 expected and in those 84 responses, 6 participants submitted the form by not consenting to the study, which were incomplete and 78 participants gave the consent and completed the form.

So finally, 78 responses were taken for analysis.

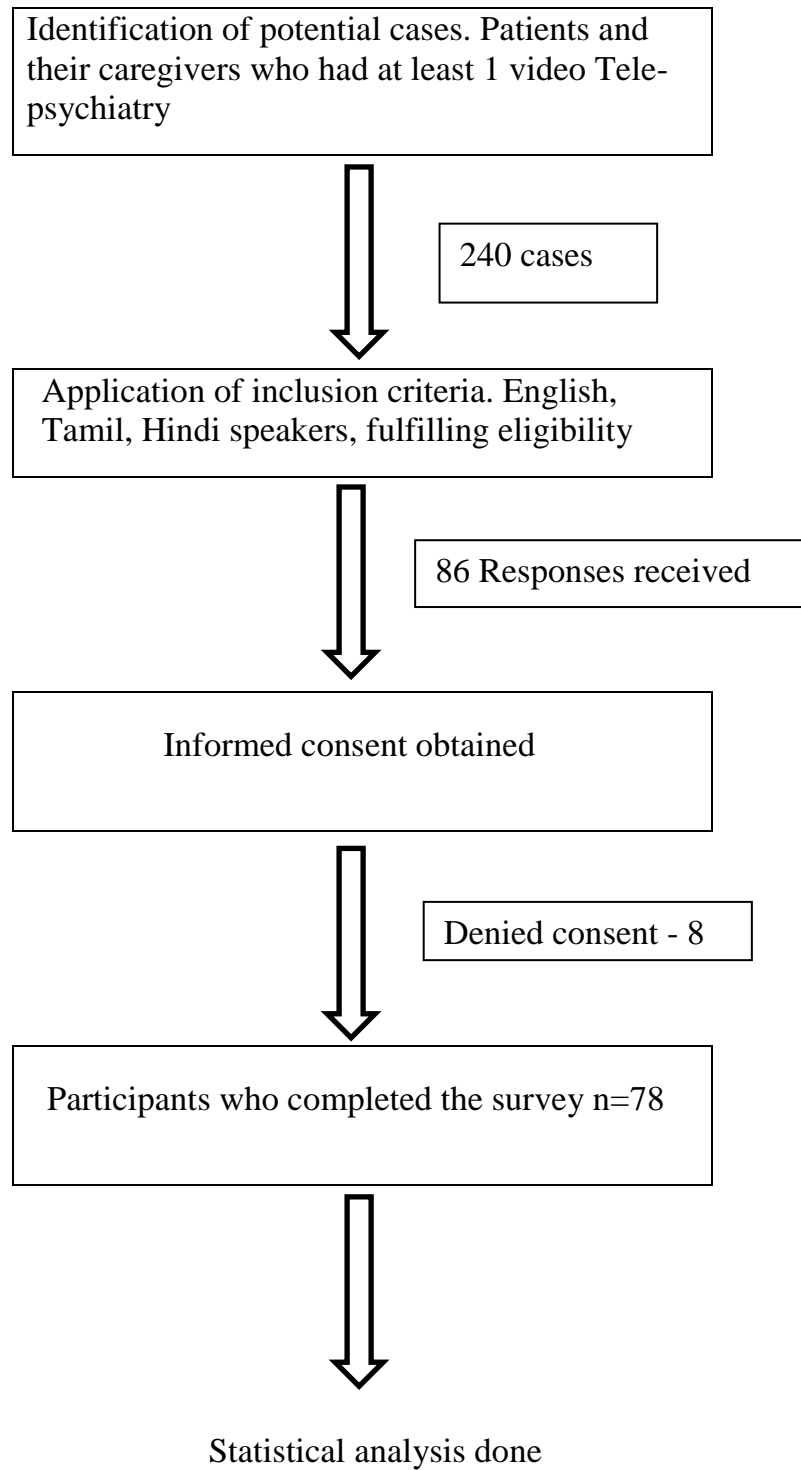


Figure 1 : Flow chart of the study

5.1.2 DESCRIPTIVE STATISTICS

5.1.2.i Socio-Demographic profile

Among the 78 participants of the study, 66% (n-51) were patients and 34% (n-27) were care givers. Among the caregivers majority were spouse (n-10) and children (n-10) of the patient. This was followed by parents (n-5) and siblings (n-2) [Table1]. The mean age of the participants was 35 years. The maximum age of the participants was 62 years and the minimum was 18 years [Table 2]. Out of the total 78 participants, 74% (n-58) were males and 26% (n-20) were females [figure 2]. In our study population, 35% (n-27) were diploma holders, 27% (n-21) had professional degree, 18% (n-14) were either graduates or post graduates, 6% (n-5) had middle schooling and 1% (n-1) was illiterate [Table 2]. Among the participants, 40% (n-31) were unemployed, 24% (n-19) were professionals, 22% (n-17) belonged to the category of shop owners, farmers, clerks, 13% (n-10) were semi-professionals and 1% (n-1) was semi-skilled workers [Table 2]. 37% (n-29) had income of rupees 30,001 to 50,000, 23% (n-18) had income of Rs.10,000 to 30,000, 17% (n-13) between 50,001 to 75,000, 12% (n-9) less than 10,000, 5% (n-4) had income between 75,001 to 1 lakh and 6% (n-5) had above 1 lakh[figure 3].

Table 1: Participants - Patient or Caregiver

| | No. of participants (%) | | |
|-------------------|----------------------------------|----------|--------|
| Patients | 51 (66) | | |
| Caregivers | 27(34) | Parent | 5(7) |
| | | Sibling | 2(1) |
| | | Spouse | 10(13) |
| | | Children | 10(13) |

Table 2: Socio-demographic details

| Age | Years |
|----------------------------------|----------------------------------|
| Mean age | 35 |
| Std. Deviation | 11.8 |
| Maximum | 62 |
| Minimum | 18 |
| Educational qualification | No. of participants (%) |
| Illiterate | 1 (1) |
| Middle schooling | 5 (6) |
| High schooling | 10 (13) |
| Intermediate/ diploma | 27 (35) |
| Graduate/ postgraduate | 14 (18) |
| Professional degree | 21 (27) |
| Occupation | No. of participants (%) |
| Unemployed | 31 (40) |
| unskilled | 1 (1) |
| clerical, shop owner, farmer | 17 (22) |
| Semi professional | 10 (13) |
| Professional | 19 (24) |

Figure 2: Gender of the participants

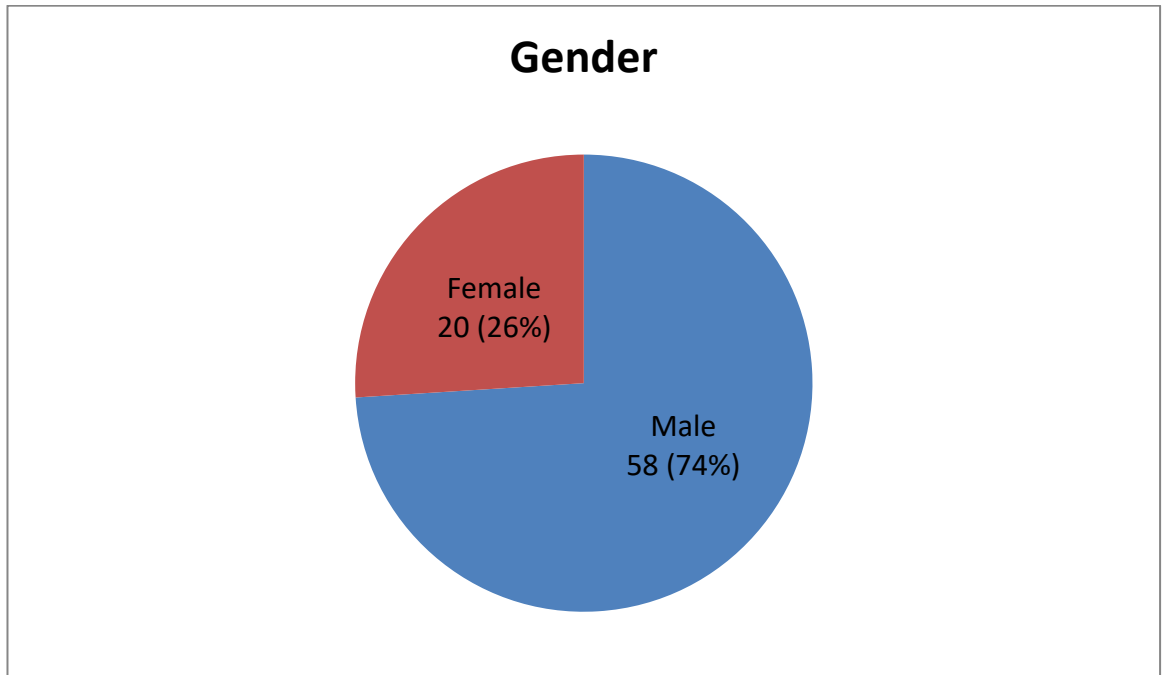
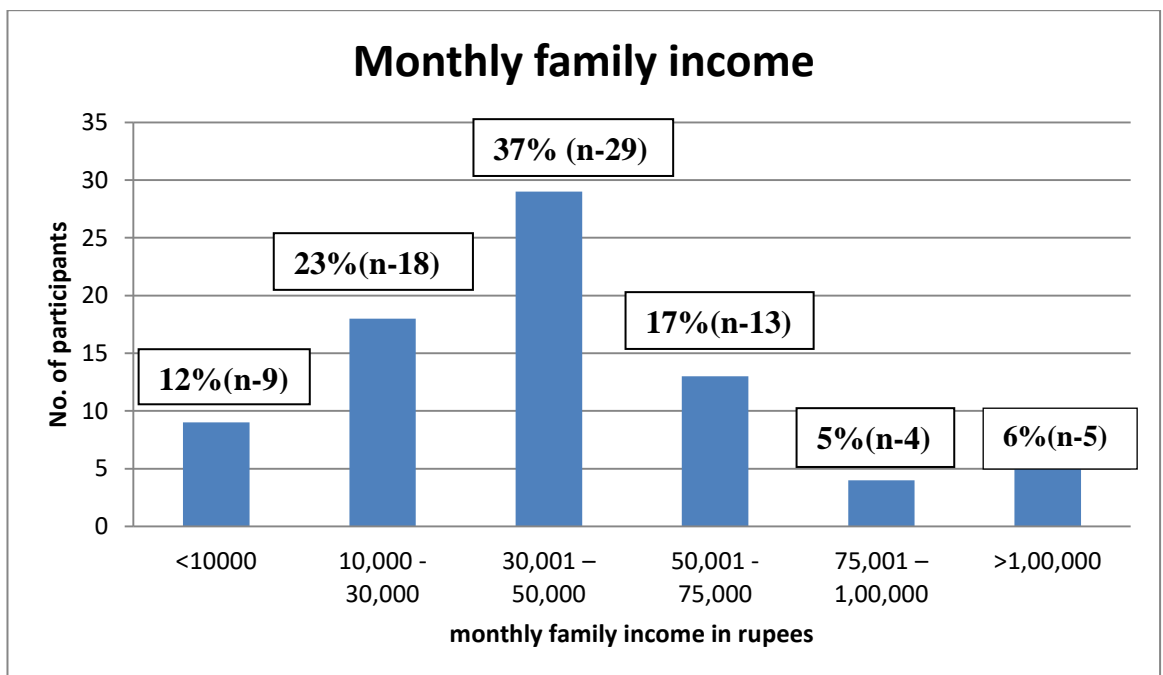


Figure 3: Monthly family income of the participants



5.1.2.ii Access related factors

81% (n-64) of the study population used mobile phones for video consultation and 19% (n-14) used laptops [figure 4]. Among the 78 participants, 74% (n-58) used mobile internet and 26% (n-20) used WIFI for video consultation [Table 3] and 78% (n-61) were first time users and 22% (n-17) had past experience of using Video Consultation [Table 4]. Out of the total study population 70% (n-55) used Emails as an alternate telemedicine method to contact the psychiatrist and 30% (n-23) did not use any other methods of telemedicine before [figure 5]. For the reason for utilizing the video consultation, majority of the participants 28%(n-22) responded as travel restrictions, 14% (n-11) responded as cost effectiveness, 5%(n-4) responded ease of access, 3% (n-2) had psychiatric emergencies and 50% (n-39) had more than one of the above reasons for choosing Video Consultations [Table 5]. 97% (n-76) reported to have attended the Video consultation from home and 3% (n-2) attended from office [figure 6].

Figure 4: Device used for Video consultation

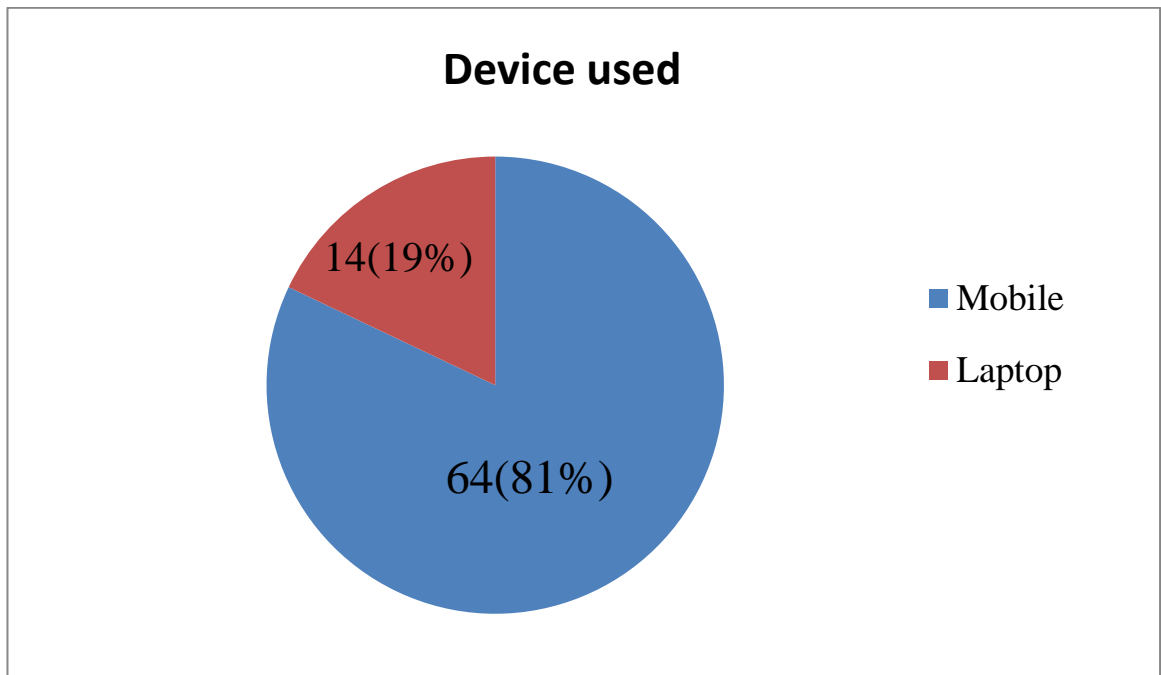


Table 3: Type of connectivity used

| Internet used | No. of participants (%) |
|---------------|-------------------------|
| Cellular | 58 (74) |
| WIFI | 20 (26) |

Table 4: First Time for VC

| First time VC | No. of participants (%) |
|---------------|---------------------------|
| Yes | 61(78) |
| No | 17(22) |

Figure 5: Other means used to contact psychiatrist

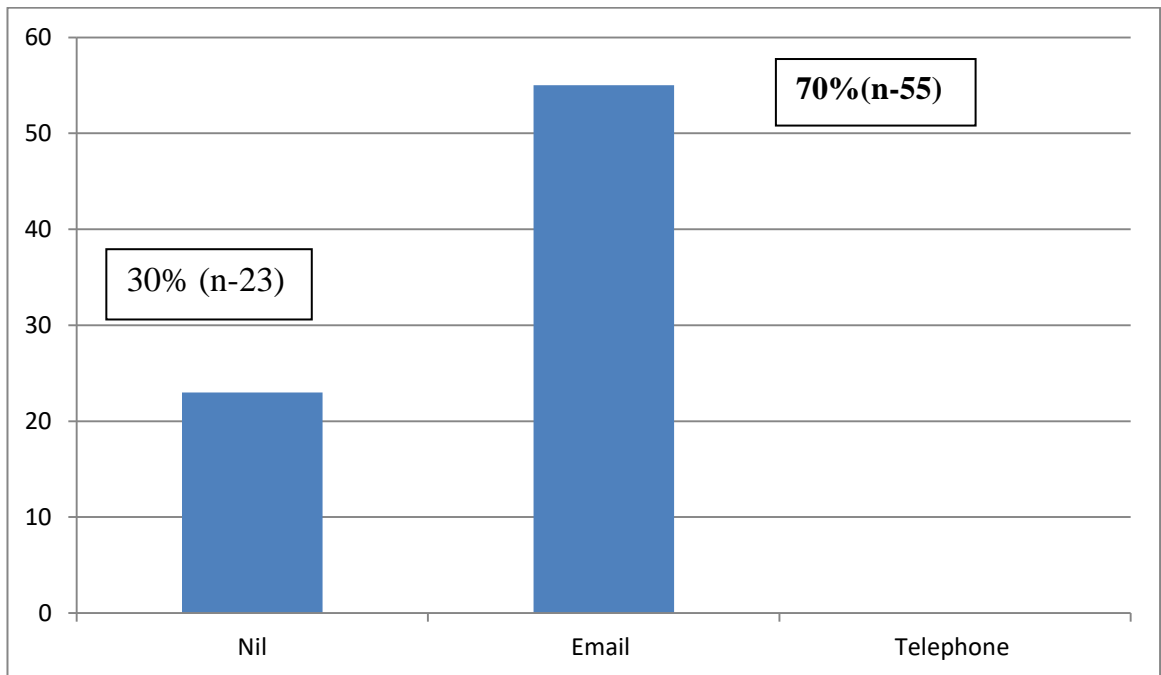
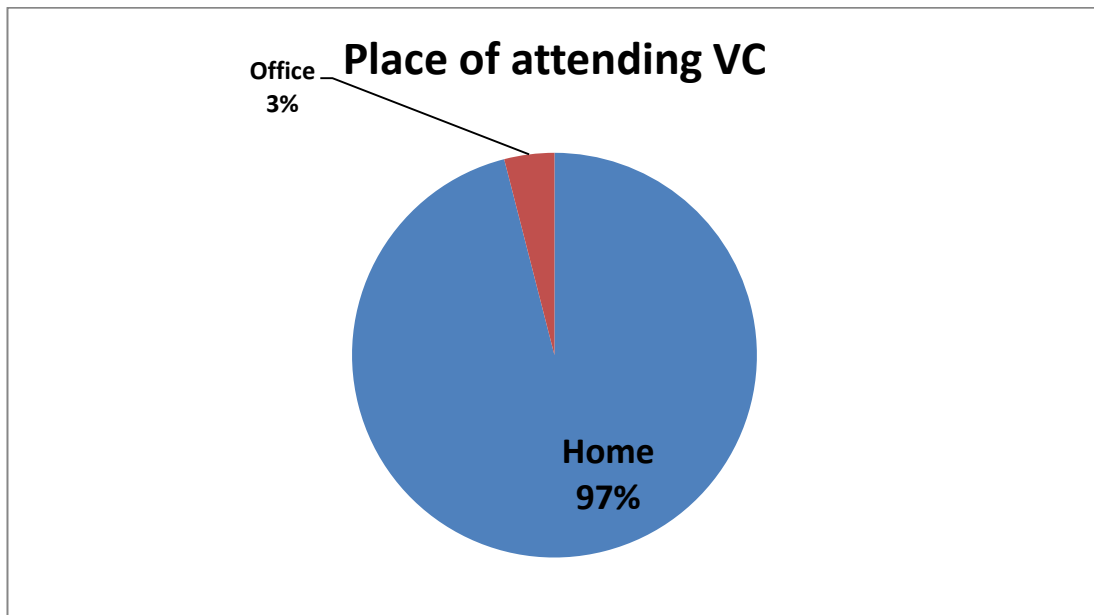


Table 5: Reasons for choosing VC

| Reason | No. of participants (%) |
|------------------------------------|----------------------------------|
| Travel restrictions | 22(28) |
| Ease of access | 4(5) |
| Cost effectiveness | 11(14) |
| Psychiatric Emergency | 2(3) |
| More than one of the above reasons | 39(50) |

Figure 6: Place of attending VC



The mean responses for the various access related factors were, 77% had very favourable views, and 15% had slightly favourable views. 7% and 1% of the participants responded as slightly unfavourable and very unfavourable respectively as their views on access related factors [Table 6]. The individual responses for each access related factors are listed in the table 6.

Table 6: Access related factors for VC

| Access related Factors | Very Favourable No. of Participants (%) | Slightly Favourable No. of Participants (%) | Slightly Unfavourable No. of Participants (%) | Very Unfavourable No. of Participants (%) |
|---|--|--|--|--|
| Understanding the instructions to book appointment | 64 (82) | 10(13) | 4(5) | 0 |
| Availability of hardware | 73(94) | 4(5) | 1(1) | 0 |
| Comfort in using the website | 67(86) | 6(8) | 5(6) | 0 |
| Online payment | 65(83) | 10(13) | 2(3) | 1(1) |
| Choosing convenient time slot | 40(51) | 20(26) | 14(18) | 4(5) |
| Initiating connection | 56(72) | 16(20) | 6(8) | 0 |
| Connectivity during the call | 50(64) | 22(28) | 6(8) | 0 |
| Cost | 68(87) | 7(9) | 3(4) | 0 |
| Mean % | 77 | 15 | 7 | 1 |

5.1.2.iii Process related factors

For the various process-related factors, overall 37% and 33% of the participants responded as much satisfied and slightly satisfied for the process-related factors respectively. 21% responded as the process of VC was similar to face-to-face

consultation. The participants who responded the process related factors to be slightly unsatisfied and much satisfied were 8% and 1% respectively [table 7].

Table 7: Process related factors of VC

| Process related factors | Much Satisfied No. of Participants (%) | Slightly satisfied No. of Participants (%) | Neutral No. of Participants (%) | Slightly Unsatisfied No. of Participants (%) | Much Unsatisfied No. of Participants (%) |
|--|---|---|--|---|---|
| Ability to understand doctor's language | 33(42) | 27(35) | 16(20) | 2(3) | 0 |
| Doctor visibility | 21(27) | 23(30) | 23(30) | 11(13) | 0 |
| Audibility of the doctor | 22(28) | 26(33) | 20(26) | 9(12) | 1(1) |
| Comfort of the place | 44(57) | 22(28) | 5(6) | 7(9) | 0 |
| Ability of the doctor to understand the problem | 30(38) | 25(32) | 20(26) | 3(4) | 0 |
| Ability to clarify patient's doubts | 23(30) | 37(47) | 11(14) | 6(8) | 1(1) |
| Ability to share private concerns | 36(46) | 19(24) | 8(10) | 13(17) | 2(3) |
| Confidentiality | 41(53) | 21(27) | 16(20) | 0 | 0 |

| | | | | | |
|--|--------|--------|--------|--------|------|
| Adequate time to discuss | 17(22) | 28(36) | 24(30) | 6(8) | 3(4) |
| Process of obtaining medicines | 24(31) | 16(20) | 23(30) | 11(14) | 4(5) |
| Explanation regarding treatment plan and review | 33(42) | 32(41) | 12(16) | 1(1) | 0 |
| Instructions regarding handling emergency | 27(34) | 31(40) | 14(18) | 4(5) | 2(3) |
| Mean % | 37 | 33 | 21 | 8 | 1 |

5.1.2.iv Overall satisfaction

For the overall comfort in using the technology for video consultation among the participants, 83% (n-64) were much favourable, 13% (n-11) were slightly favourable and 4% (n-3) were slightly unfavourable with the access to video consultation [Table 8]. Regarding the overall satisfaction with the process of the video consultation, 38% (n-30) responded as much satisfied, 36% (n-28) responded to be slightly satisfied, 9% (n-7) responded it to be slightly unsatisfied and 17% (n-13) responded it to be similar to face to face consultation [Table 9]. 50% (n-39) responded that they were much satisfied with the result / outcome of the video consultation, 31% (n-24) responded as slightly satisfied, 8% (n-6) slightly unsatisfied and 11% (n-9) responded it to be similar to the face to face consultation [Table 9].

Table 8: Overall comfort in using the technology

| | Much Favourable No. of Participants (%) | Slightly Favourable No. of Participants (%) | Slightly Unfavourable No. of Participants (%) | Much Unfavourable No. of Participants (%) |
|---|--|--|--|--|
| Overall comfort using the technology | 64 (83) | 11 (13) | 3 (4) | 0 |

Table 9: Overall satisfaction with process and results of VC when compared to face to face consultation

| | Much Satisfied No. of Participants (%) | Slightly Satisfied No. of Participants (%) | Similar No. of Participants (%) | Slightly Unsatisfied No. of Participants (%) | Much Unsatisfied No. of Participants (%) |
|--|---|---|--|---|---|
| Satisfaction with process of VC | 30 (38%) | 28 (36%) | 13 (17%) | 7 (9%) | 0 |
| Overall satisfaction with results of VC | 39 (50) | 24 (31) | 9 (11) | 6 (8) | 0 |

5.1.2.v Future willingness

Table 10: Future willingness of participants to try VC

| | Yes No. of Participant (%) | No No. of Participant (%) |
|--|---------------------------------------|--------------------------------------|
| Willing to try VC again | 71(91) | 7(9) |
| Willing to recommend VC to others | 73(94) | 5(6) |

Among the 78 participants, 94% (n-71) were willing to try and 9% (n-7) were not willing to try video consultation in the future. 94% (n-73) were willing to recommend and 6% (n-5) were not willing to recommend video consultation to others.

5.1.3 Analytical statistics

5.1.3.i Access related factors

There was no significant association between the device used, internet service used and the connectivity. Among those who used mobile for VC, 8 % (n-5) responded as unfavourable for connectivity and similarly 7% (n-1) of laptop users responded slightly unfavourable for connectivity [Table 11]. 15% (n-3) of wifi users responded as slightly unfavourable for connectivity whereas 5% (n-3) of cellular data users responded as unfavourable for connectivity. 65% (n-13) of wifi users and 64% (n-37) of cellular data users responded much favourable for connectivity [Table 11].

Table 11: Comparison of connectivity with device and internet used

| | | Connectivity | | | P value |
|-----------------------|----------|-----------------------|---------------------|-----------------|---------|
| | | Slightly Unfavourable | Slightly favourable | Much favourable | |
| Device used | mobile | 5(8%) | 19(30%) | 40(62%) | 0.808 |
| | laptop | 1(7%) | 3(21%) | 10(72%) | |
| Internet service used | Wifi | 3(15%) | 4(20%) | 13(65%) | 0.285 |
| | Cellular | 3(5%) | 18(31%) | 37(64%) | |

(percentage calculated row wise)

There was no significant difference in comfort of technology based on age [Table 12]. 3% (n-2) of 1st time VC users and 6% (n-1) of those who had already used VC had slightly unfavourable response whereas 85% (n-52) of first-time users and 76% (n-13) of those who had used VC earlier gave much favourable response for comfort of technology used in VC [Table 12]. Among the 3 participants who had responded slightly unfavorable for with the comfort of technology, 1 belonged to the income group of less than 30,000 rupees and 2 belonged to the income group of 30,000 to 50,000 rupees. All the participants above the income of 50,000 per month reported much favourable response for the comfort in using the technology [Table 12].

Table 12: Comparison of Overall comfort with technology to Age, Income and First time VC users

| | | Overall comfort with the technology used | | | P value |
|--------------------------|----------------|--|---------------------|-----------------|---------|
| | | Slightly Unfavourable | Slightly favourable | Much favourable | |
| Age | <=30 | 2(7%) | 3(10%) | 25(83%) | 0.895 |
| | 31-40 | 1(4%) | 5(17%) | 23(79%) | |
| | 41-50 | 0 | 0 | 6(100%) | |
| | >50 | 0 | 2(15%) | 11(85%) | |
| First time video consult | Yes | 2(3%) | 7(12%) | 52(85%) | 0.401 |
| | No | 1(6%) | 3(17%) | 13(77%) | |
| Income | <30,000 | 1(5%) | 4(14%) | 22(81%) | 0.716 |
| | 30,000-50,000 | 2(7%) | 1(3%) | 26(90%) | |
| | 50,000- 1 Lakh | 0 | 2(12%) | 15(88%) | |
| | >1 Lakh | 0 | 0 | 5(100%) | |

(Percentage calculated row wise)

Among the 6 participants who completed only middle schooling or lesser, 17% were slightly unsatisfied and 83% were much satisfied with understanding the instructions for VC. Among the 10 participants who had done their high schooling, none were unsatisfied, 20% were slightly satisfied and 80% were much satisfied in understanding the instructions of VC. Among the 27 who completed their diploma or intermediate, 7% were unsatisfied, 26% were slightly satisfied and 67% were much satisfied with the instructions. Among the 35 who completed graduate or higher level of education 3% were slightly unsatisfied whereas 3% and 94% were slightly and much satisfied with the instructions for VC. The statistical analysis of ability to understand the

instruction and education showed statistically significant association (p=0.036), which signifies that less people with higher education had unfavourable view regarding understanding the instruction.[table 13]

Table 13: Comparison of education of the participants with the ability to understand the instructions for VC

| | | Ability to clearly understand the instructions | | | P value |
|-------------------------|---|--|---------------------|-----------------|---------|
| | | Slightly Unfavourable | Slightly favourable | Much favourable | |
| Education Status | Middle schooling or below | 1(17%) | 0 | 5(83%) | 0.036 |
| | High schooling | 0 | 2(20%) | 8(80%) | |
| | Post high school diploma or intermediate | 2(7%) | 7(26%) | 18(67%) | |
| | Graduate or above | 1(3%) | 1(3%) | 33(94%) | |

(Percentage calculated row wise)

5.1.3.ii Process related factors

Among the participants who used mobile for VC, 17% were much satisfied, 34% were slightly satisfied, 34% were neutral, and 14% were slightly unsatisfied in visibility of the doctor whereas among those who used laptop 72% were much satisfied, 7% were slightly satisfied, 7% were neutral and 14% were slightly unsatisfied in the doctor's visibility. A statistical analysis of the ability to see the doctor among the Mobile and Laptop groups showed a statistically significant association [p<0.001], which means that a significant

proportion of the Laptop group were much satisfied with the ability to see clearly as compared to the mobile group. [Table 14]

Table 14: Comparison of device used for VC with the ability to see the doctor clearly

| | | Ability to see the doctor clearly | | | | P value |
|-------------|--------|-----------------------------------|-----------|--------------------|----------------|---------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Device used | Mobile | 9(14%) | 22(34.5%) | 22(34.5%) | 11(17%) | <0.001 |
| | Laptop | 2(14%) | 1(7%) | 1(7%) | 10(72%) | |

(Percentage calculated row wise)

Among those that reported to be slightly unsatisfied with the process of VC, 33% (n-2) had education of middle schooling or below, 10% (n-1) completed high schooling, 3% (n-1) completed diploma, and 9 % (n-3) completed graduation. None of those who did professional courses reported worse satisfaction with process of VC [Table 15]. 10% (n-6) of 1st time VC users and 6% (n-1) of those who had already used VC had slightly less satisfaction with VC when compared to face to face consultation, whereas 36% (n-22) of 1st time users and 47% (n-8) of those who used VC earlier felt much better satisfaction with VC [Table15].

Table 15: Comparison of Overall satisfaction of process with Education, First time users of VC

| | | Overall satisfaction with the process | | | | P value |
|---------------------------------|---|---------------------------------------|---------|--------------------|----------------|---------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Education | Middle schooling or below | 2(33%) | 0 | 1(17%) | 3(50%) | 0.240 |
| | High schooling | 1(10%) | 2(20%) | 3(30%) | 4(40%) | |
| | Post high school diploma or intermediate | 1(3%) | 8(30%) | 8(30%) | 10(37%) | |
| | Graduate or above | 3(9%) | 3(9%) | 16(45%) | 13(37%) | |
| First time video consult | Yes | 6(10%) | 11(18%) | 22(36%) | 22(36%) | 0.891 |
| | No | 1(6%) | 2(12%) | 6(35%) | 8(47%) | |

(Percentage calculated row wise)

5.1.3.iii Overall satisfaction

Among those who reported slight dissatisfaction with result of VC, 2 completed middle schooling, 1 completed high schooling 1 completed diploma, and 2 completed graduation. The 1 participant without any formal education had much better satisfaction with results of VC compared to face to face consultation. Among those completed only schooling, most (8 out of 15) felt much better satisfaction with VC when compared to face to face consultation. None of those who completed professional degree had bad experience with the result of VC [Table 16]. 8% (n-5) of 1st time VC users and 6% (n-1) of those who had already used VC had slightly less satisfaction with VC when compared to face to face consultation, whereas 51% (n-31) of 1st time users and

47% (n=8) of those who used VC earlier felt much better satisfaction with VC [Table16].

Table 16: Comparison of Overall satisfaction of VC with First time users and education

| | | Overall satisfaction with the result/outcome | | | | P Value |
|--------------------------|--|--|---------|--------------------|----------------|---------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| First time video consult | Yes | 5(8%) | 6(10%) | 19(31%) | 31(51%) | 0.847 |
| | No | 1(6%) | 3(18%) | 5(29%) | 8(47%) | |
| Education | Middle schooling or below | 2(33%) | 0 | 0 | 4(67%) | 0.336 |
| | High schooling | 1(10%) | 1(10%) | 3(30%) | 5(50%) | |
| | Post high school diploma or intermediate | 1(4%) | 5(18%) | 10(37%) | 11(41%) | |
| | Graduate or above | 2(6%) | 3(9%) | 11(31%) | 19(54%) | |

(Percentage calculated row wise)

5.1.3.iv Future willingness to try VC

Among the participants who said they were unwilling to try VC again, 29% (n=2) had slightly unfavourable response for comfort of using the technology. There was a statistically significant ($p < 0.001$) finding, which implies, participants with much favourable response for the comfort of using the technology tend to try VC again [Table 17]. Among the participants who said they were unwilling to try VC again, 43% (n=3) had poor satisfaction in

process related factors of VC and 57% (n=4) were not satisfied or satisfied. More number of participants, who were much satisfied with the process of VC, opted to try VC again, which was statistically significant ($p < 0.001$) [Table 18]. Among the participants who were not willing to try VC again, 43% (n=3) had poor satisfaction in the result of VC. Participants with much satisfaction to the outcome of VC, were willing to try VC again ($p < 0.001$) [Table 19].

Table 17: Future willingness of participants to try VC based on comfort with technology

| | Overall comfort with Technology | | | P value |
|-----------------------------|---------------------------------|---------------------|-----------------|-------------------------|
| | Slightly Unfavourable | Slightly favourable | Much favourable | |
| Willing to try VC again | 1(1%) | 8(11%) | 62(88%) | <u><0.001</u> |
| Not willing to try VC again | 2(29%) | 2(29%) | 3(42%) | |

Table 18: Future willingness of participants to try VC based on satisfaction with process of VC

| | | overall satisfied with the process | | | | P value |
|-------------------------|-----|------------------------------------|---------|--------------------|----------------|-------------------------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willing to try VC again | Yes | 4(6%) | 9(14%) | 28(28%) | 30(42%) | <u><0.001</u> |
| | No | 3(43%) | 4(57%) | 0 | 0 | |

(Percentage calculated row wise)

Table 19: Future willingness of participants to try VC based on satisfaction with result of VC

| | | Overall, satisfied with the result/outcome | | | | P value |
|-------------------------|-----|--|---------|--------------------|----------------|-------------------------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willing to try VC again | yes | 3(4%) | 5(7%) | 24(34%) | 39(55%) | <u><0.001</u> |
| | no | 3(43%) | 4(57%) | 0 | 0 | |

(Percentage calculated row wise)

Among the 71 participants who were willing to try VC again, 51% were much satisfied, 26% were slightly satisfied, 11% were neutral, 10% were slightly unsatisfied and 2% was much unsatisfied with ability to share private concerns. Similarly, among them 62%, 68%, 86%, 24% and 34% were much satisfied and 30%, 28%, 11%, 37% and 24% were slightly satisfied with the place, connectivity, ability to understand instructions, time to discuss and the process of obtaining medications with regard to VC respectively. [Tables 20 - 26]

There was statistically significant findings with p – value <0.05 [Tables 20-26], for association between willingness to try VC again and satisfaction about sharing private concerns, comfort of the place of attending VC, connectivity, ability to understand the instruction, adequate time to discuss the problems, doctors ability to clearly explain the treatment plan and the process of obtaining medicines. Participants, who had satisfaction with the above factors, had more willingness to try VC in the future.

Table 20: Comparison of willingness to try VC again with the ability to share private concerns during VC

| | | Willing to try VC again | | P value |
|---|-----------------------------|-------------------------|--------|---------|
| | | Yes | No | |
| Ability to share my private concerns | Much Unsatisfied | 1(2%) | 1(14%) | < 0.001 |
| | Slightly Unsatisfied | 7(10%) | 6(86%) | |
| | Neutral | 8(11%) | 0 | |
| | Slightly Satisfied | 19(26%) | 0 | |
| | Much Satisfied | 36(51%) | 0 | |

Table 21: Comparison of willingness to try VC again with the connectivity during VC

| | | Willing to try VC again | | P value |
|---------------------|------------------------------|-------------------------|--------|---------|
| | | Yes | No | |
| Connectivity | Slightly Unfavourable | 4(4%) | 2(29%) | 0.026 |
| | Slightly favourable | 19(28%) | 3(42%) | |
| | Much favourable | 48(68%) | 2(29%) | |

Table 22: Comparison of willingness to try VC again with the ability to understand the instructions for VC

| | | Willing to try VC again | | P value |
|--|-----------------------|-------------------------|---------|---------|
| | | Yes | No | |
| Ability to clearly understand the instructions | Slightly Unfavourable | 2(3%) | 2(29%) | 0.011 |
| | Slightly favourable | 8(11%) | 2(29%) | |
| | Much favourable | 61(86%) | 3(42 %) | |

Table 23: Comparison of willingness to try VC again with the comfort of the place of attending VC

| | | Willing to try VC again | | P Value |
|------------------------|----------------------|-------------------------|--------|---------|
| | | Yes | No | |
| Comfort with the place | Slightly Unsatisfied | 4(5%) | 3(43%) | <0.001 |
| | Neutral | 2(3%) | 3(43%) | |
| | Slightly Satisfied | 21(30%) | 1(14%) | |
| | Much Satisfied | 44(62%) | 0 | |

Table 24: Comparison of willingness to try VC again with the availability of sufficient time to discuss the problems during VC

| | | Much time to discuss the problem | | | | | P value |
|-------------------------|-----|----------------------------------|----------------------|---------|--------------------|----------------|---------|
| | | Much Unsatisfied | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willing to try VC again | Yes | 3(4%) | 3(4%) | 22(31%) | 26(37%) | 17(24%) | 0.025 |
| | No | 0 | 3(42 %) | 2(29%) | 2(29%) | 0 | |

(Percentage calculated row wise)

Table 25: Comparison of willingness to try VC again with the process of obtaining medicines after VC

| | | Satisfaction with the process of obtaining medicine | | | | | P value |
|-------------------------|-----|---|----------------------|---------|--------------------|----------------|---------|
| | | Much Unsatisfied | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willing to try VC again | Yes | 4(6%) | 7(10%) | 20(28%) | 16(22%) | 24(34%) | 0.007 |
| | No | 0 | 4(57%) | 3(43%) | 0 | 0 | |

(Percentage calculated row wise)

Table 26: Comparison of willingness to try VC again with the satisfaction with explanation of the plan of treatment by the doctor during VC

| | | Clearly explained the plan | | | | P value |
|--------------------------------|------------|----------------------------|---------|--------------------|----------------|---------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willing to try VC again | Yes | 1(2%) | 8(11%) | 30(42%) | 32(45%) | 0.026 |
| | No | 0 | 4(57%) | 2(29%) | 1(14%) | |

(Percentage calculated row wise)

5.1.3.v Willingness to recommend to others

Among the 73 participants who were willing to recommend VC to others, 56% were much satisfied, 25% were slightly satisfied, 19% were neutral and none were unsatisfied with the confidentiality in VC [Table 27]. Among them 52% were much satisfied, 33% were slightly satisfied, 10% were neutral and 5% were slightly unsatisfied with the overall result or outcome [Table 28]. Similarly, 40% of them were much satisfied, 39% were slightly satisfied, 15% were neutral and 7% were slightly unsatisfied with the overall process of VC [table 29]. Among those 5 participants who were not willing to recommend VC to others, none were unsatisfied with confidentiality of VC, 40% were unsatisfied with the overall result or outcome of VC and process of VC [tables 27-29].

There was statistically significant findings with p – value <0.05 [Tables 27-29], for association between willingness to recommend VC to others and confidentiality, overall satisfaction with the process and result of the VC.

Participants with satisfaction for the above factors were more willing to recommend VC to others.

Table 27: Comparison of willingness to recommend VC to others with the satisfaction regarding the confidentiality in VC

| | | Confidentiality | | | P value |
|--|-----|-----------------|--------------------|----------------|---------|
| | | Neutral | Slightly Satisfied | Much Satisfied | |
| Willingness to recommend VC for others | Yes | 14(19%) | 18(25%) | 41(56%) | 0.024 |
| | No | 2(40%) | 3(60%) | 0 | |

(Percentage calculated row wise)

Table 28: Comparison of willingness to recommend VC to others with the overall satisfaction with the result/outcome of VC

| | | Overall, satisfied with the result/outcome | | | | P value |
|--|-----|--|---------|--------------------|----------------|---------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willingness to recommend VC for others | Yes | 4(5%) | 7(10%) | 24(33%) | 38(52%) | 0.06 |
| | No | 2(40%) | 2(40%) | 0 | 1(20%) | |

(Percentage calculated row wise)

Table 29: Comparison of willingness to recommend VC to others with the overall satisfaction with the process of VC

| | | Overall satisfied with the process | | | | P Value |
|--|-----|------------------------------------|---------|--------------------|----------------|---------|
| | | Slightly Unsatisfied | Neutral | Slightly Satisfied | Much Satisfied | |
| Willingness to recommend VC for others | Yes | 5(7%) | 11(15%) | 28(38%) | 29(40%) | 0.011 |
| | No | 2(40%) | 2(40%) | 0 | 1(20%) | |

(Percentage calculated row wise)

5.2 PSYCHIATRISTS

A total of 19 Psychiatrists responded to the questionnaire and completed the online form.

5.2.1 Descriptive Statistics

5.2.1.i Demographic characteristics:

Among the total 19 Psychiatrists 15(79%) were below 45 years and 4(21%) were above 45 years. 7(37%) were males and 11(58%) were females and 1(5%) did not prefer to mention the gender [Table 30].

Table 30: Demographic factors of the participant

| Age | No. of doctors (%) |
|-----------------------------------|---------------------------|
| < 45 years | 4(21) |
| >45 years Mean age -39.7 years | 15(79) |
| Gender | |
| Male | 7(37) |
| Female | 11(58) |
| Prefer not to say | 1(5) |

5.2.1.ii Professional details

Out of the 19 psychiatrists, 14(74%) were consultant psychiatrists and 5 (26%) were Senior Residents. 9(47%) had less than 10 years of experience, 6(32%) had 11 to 20 years of experience and 4(21%) had more than 20 years of experience [Table 31].

Table 31: Professional details of the participants

| Experience (in years) | No. of Doctors (%) |
|------------------------------|---------------------------|
| ≤10 | 9(47) |
| 11-20 | 6(32) |
| >20 | 4(21) |
| Mean (11 years) | |

5.2.1.iii Access related factors

Among the 19 participants, 58% (n-11) used mobile phones, 21% (n-4) used laptop and 21% (n-4) used desktop to provide video consultation services [Table 32]. For the question of whether the psychiatrist changed their views of VC, 63% (n-12) responded that they changed their view after providing the video consultation and among them 92% (n-11) had a favourable change of view and 8% (n-1) had an unfavourable change of view. 26% (n-5) responded that they did not have any change of views and 11% (n-2) responded that they can't say about the change of views [Table 33]. The responses of the participants to various access related factors were, a mean of 8% of respondents considered the access related factors to be much unfavourable and 14% considered as slightly unfavourable. Mean of 16% considered the access related factors to be slightly favourable and 62% considered it to be much favourable [Table 34].

Table 32: Device used

| Device used | No. of Doctors (%) |
|--------------------|---------------------------|
| Mobile | 11(58) |
| Laptop | 4(21) |
| Desktop | 4(21) |

Table 33: Change of View after VC

| | Yes | | No | Can't say |
|---------------------------|-------------------|---------------------|-----------|------------------|
| No. of doctors (%) | 12(63) | | 5(26) | 2(11) |
| | Favourable | Unfavourable | | |
| | 11(92) | 1(8) | | |

Table 34: Access related factors

| | Much Unfavourable No. of Doctors(%) | Slightly Unfavourable No. of Doctors(%) | Slightly Favourable No. of Doctors(%) | Much Unfavourable No. of Doctors(%) |
|--|--|--|--|--|
| Ability to understand instructions | 0 | 1(5) | 2(11) | 16(84) |
| Availability of Necessary technology | 3(17) | 2(10) | 2(10) | 12(63) |
| Ease of using technology | 1(5) | 2(11) | 0 | 16(85) |
| Time of consultation | 0 | 2(11) | 2(11) | 15(78) |
| Patient satisfaction with fees | 0 | 4(21) | 1(5) | 14(74) |
| Initiating the connection | 4(21) | 3(15) | 6(32) | 6(32) |
| Connectivity during VC | 3(16) | 3(16) | 7(37) | 6(31) |
| Concluding and disconnecting the call in time | 1(5) | 4(21) | 4(21) | 10(53) |
| Mean % | 8 | 14 | 16 | 62 |

5.2.1.iv Psychiatrist's Concerns regarding VC

Regarding the various concerns related to VC, 42% (n-8) Psychiatrists were slightly worried about the legal aspects of VC and 57% (n-11) psychiatrist were much worried. Similarly 21% (n-4) were slightly worried about patient care and 74% (n-14) were much worried about the patient care. 32% (n-6) were

slightly worried about the patient's acceptance of VC and 425 (n-8) were much worried about the patients acceptance. 10 % (n-2) were slightly worried about the financial aspects of VC and 32% (n-7) were much worried. 37% (n-7) were slightly worried about the technological aspects of VC and 32% (n-6) were much worried about the technological aspects [Table 35]. Regarding the chance of malpractice / misuse in the video consultation, 32% (n-6) considered the chance of malpractice suit to be slightly worser, 5% (n-1) considered it to be much worser compared to face to face consultation. 11% (n-2) considered it to be slightly better, 26% (n-5) considered it to be much better than face to face consultation. 26% (n-5) considered that the chance of malpractice suit to be similar to face to face consultation. Regarding the chance of misuse of prescription, 11% (n-2) considered it to be slightly worse and much worse, 20% (n-4) considered it to be slightly better, and 11% (n-2) considered it to be much better. 47% (n-9) considered that the chance of misuse of prescription is similar to face to face consultation [Table 36].

Table 35: Doctor's concern regarding VC

| | Not an issue No. of Doctors (%) | Not worried much No. of Doctors (%) | Slightly worried No. of Doctors (%) | Much worried No. of Doctors (%) |
|--|--|--|--|--|
| Concern regarding legal aspects | 0 | 0 | 8(42) | 11(57) |
| Patient care | 1(5) | 0 | 4(21) | 14(74) |
| Patient acceptance of VC | 3(16) | 2(10) | 6(32) | 8(42) |
| Financial aspects | 5(26) | 5(26) | 2(10) | 7 (37) |
| Technological aspects | 2(10) | 4(21) | 7(37) | 6(32) |

Table 36: Chance of malpractice / misuse

| | Much worse No. of Doctors (%) | Slightly worse No. of Doctors (%) | Similar No. of Doctors (%) | Slightly better No. of Doctors (%) | Much better No. of Doctors (%) |
|---|--|--|---|---|---|
| Chance of malpractice suit | 1(5) | 6(32) | 5(26) | 2(11) | 5(26) |
| Chance of misuse of prescription | 2(11) | 2(11) | 9(47) | 4(20) | 2(11) |

5.2.1.iv Process related factors

Regarding various process related factors in comparison to the face to face consultation, as whether the process of VC was similar, worser or better when compared, a mean of 4% considered the process of VC to be much unsatisfactory, 23% considered it as slightly unsatisfactory, 31% considered it to be similar to face to face consultation. 30 % and 12% considered VC as slightly satisfied and much satisfied than face to face consultation respectively [Table 37].

Table 37: Process related factors

| | Much Unsatisfied No. of Doctors (%) | Slightly unsatisfied No. of Doctors (%) | Similar No. of Doctors (%) | Slightly Satisfied No. of Doctors (%) | Much Satisfied No. of Doctors (%) |
|---|--|--|-----------------------------------|--|--|
| Ability to see the patient | 0 | 10(53) | 2(10) | 5(27) | 2(10) |
| Ability to hear the patient | 0 | 7(37) | 4(21) | 6(32) | 2(10) |
| Comfort with the surroundings | 0 | 2(11) | 4(21) | 8(42) | 5(26) |
| Comfort with the language of the patients | 0 | 1(4) | 6(32) | 6(32) | 6(32) |
| Ability to clarify the details | 0 | 3(16) | 8(42) | 7(37) | 1(5) |
| Patient's ability to share private concerns | 0 | 5(27) | 9(47) | 4(21) | 1(5) |
| Protection of patient's confidentiality | 0 | 6(32) | 8(42) | 3(16) | 2(10) |
| Patient or caregiver's satisfaction with VC | 1(5) | 1(5) | 7(37) | 7(37) | 3(16) |
| Confidence about reviewing in VC | 1(5) | 3(16) | 3(16) | 8(42) | 4(21) |
| Confidence about risk assessment | 1(5) | 7(37) | 5(26) | 5(26) | 1(5) |
| Confidence about prescribing medicines | 0 | 2(11) | 8(42) | 8(42) | 1(5) |
| Confidence about counseling or therapy in VC | 3(16) | 5(26) | 5(26) | 5(26) | 1(5) |

| | | | | | |
|--------------------------------------|-------|-------|-------|-------|-------|
| Effectiveness in patient care | 5(26) | 5(26) | 5(26) | 4(22) | 0 |
| Legality of VC | 1(5) | 5(26) | 8(42) | 3(16) | 2(11) |
| Mean% | 4 | 23 | 31 | 30 | 12 |

5.2.1.v Future Willingness

Regarding the future willingness, 90% (n-17) responded that they were willing to recommend and 10% (n-2) responded that they were not willing to recommend video consultation to the patients. 85% (n-16) responded that they considered video consultation as a viable mode of treatment and 15% (n-3) responded that they did not consider video consultation as a viable mode of treatment in their hospital setting [Table 38].

Table 38: Future willingness

| | Yes | No |
|--|------------|-----------|
| Willingness to recommend VC to patients | 17(90%) | 2(10%) |
| Consideration of VC as a viable mode of treatment | 16(85%) | 3(15%) |

5.2.2 Analytical Statistics

Among the Psychiatrists, 18% (n-2) and 27% (n-3) of respondents who used mobiles for the VC opined much unfavourable and slightly favourable respectively for the connectivity. 12 % (n-1) of respondents who used laptop/desktop considered the connectivity to be much favourable [Table 39]. 11% (n-1) responded as slightly unfavourable for the ability to understand the new technology and was in the age group of 31-40 years. 11% (n-1) responded

as slightly favourable for the ability to understand the new technology and they were in the 31-40 years and 41-50 years age group [Table 40]. Out of 14 consultants participated, 7% (n-1) was much worried about the patient care aspects, 29% (n-4) were not worried much and majority 64% (n-9) considered that the patient care aspect is not an issue in VC. All the senior residents (n-5) felt patient care aspect is not an issue [Table 41].

Table 39: Comparison of device used and connectivity

| | | Connectivity was good | | | | P value |
|--------|----------------|-----------------------|-----------------------|---------------------|-----------------|---------|
| | | Much Unfavourable | Slightly unfavourable | Slightly favourable | Much favourable | |
| Device | Mobile | 2(18%) | 3(27%) | 4(37%) | 2(18%) | 0.368 |
| | Laptop/Desktop | 1(12%) | 0 | 3(38%) | 4(50%) | |

(Percentage calculated row wise)

Table 40: Comparison of age group and comfort with new technology

| | | | Comfortable with the new technology | | | P value |
|-----------|-------|-------|-------------------------------------|---------------------|-----------------|---------|
| | | | Slightly unfavourable | Slightly favourable | Much favourable | |
| Age group | <30 | Count | 0 | 0 | 2(100%) | >0.99 |
| | 31-40 | Count | 1(11%) | 1(11%) | 7(78%) | |
| | 41-50 | Count | 0 | 1(20%) | 4(80%) | |
| | >51 | Count | 0 | 0 | 3(100%) | |

(Percentage calculated row wise)

Table 41: Comparison of designation with satisfaction with patient care aspects

| | | Patient care aspect | | | P value |
|-------------|-----------------|---------------------|------------------|--------------|---------|
| | | Much worried | Not worried much | Not an issue | |
| Designation | Consultant | 1(7%) | 4(29%) | 9(64%) | 0.468 |
| | Senior Resident | 0 | 0 | 5(100%) | |

(Percentage calculated row wise)

Among the 10 psychiatrists who had more than 11 years of experience, 10% (n-1) considered the confidence of risk assessment in VC to be much worser and 30% (n-3) considered it to be slightly worser. Among the 9 psychiatrists who had less than 10 years of experience 45% (n-4) considered the confidence of risk assessment to be slightly worser [Table 42]. Among the 10 psychiatrists who had more than 11 years of experience, 10% (n-1) considered the confidence of providing counseling in VC to be much worser and 20% (n-2) considered it to be slightly worser. Among the 9 psychiatrists who had less than 10 years of experience, 33% (n-3) considered the confidence of risk assessment to be slightly worser and 23% (n-2) considered it to be much worse [Table 43]

Table 42: Comparison of experience with confidence of risk assessment

| | | Confident about risk assessment | | | | | P value |
|---------------------|-----|---------------------------------|----------------|---------|-----------------|-------------|---------|
| | | Much worse | Slightly worse | Similar | Slightly better | Much better | |
| Years of experience | <10 | 0 | 4(45%) | 3(33%) | 1(11%) | 1(11%) | 0.507 |
| | >11 | 1(10%) | 3(30%) | 2(20%) | 4(40%) | 0 | |

(Percentage calculated row wise)

Table 43: Comparison of experience with confidence in providing counseling

| | | Confident about providing counseling | | | | | P value |
|---------------------|-----|--------------------------------------|----------------|---------|-----------------|-------------|---------|
| | | Much worse | Slightly worse | Similar | Slightly better | Much better | |
| Years of experience | <10 | 2(23%) | 3(33%) | 3(33%) | 1(11%) | 0 | 0.675 |
| | >11 | 1(10%) | 2(20%) | 2(20%) | 4(40%) | 1(10%) | |

(Percentage calculated row wise)

Among the 19 psychiatrists, 16% (n-3) considered VC as not a viable option in their setting. Out of the 3 psychiatrist, 1 belonged to the age group of 31-40 years and 2 belonged to the age group of 41-50 years [Table 44]. Out of the 10 psychiatrists who had more than 11 years of experience, 20% (n-2) considered that the VC is not a viable option in their setting and 80% (n-8) considered it to be a viable option. Among the 9 psychiatrists who had less than 10 years of experience 11% (n-1) considered that the VC is not a viable option in their setting [Table 44]. Among the 16 psychiatrists who considered VC as a viable option in their setting, 31% (n-5) considered the financial aspects of VC to be much worser and 25% (n-4) considered it to be slightly worser. Among the 3 psychiatrists who considered VC not as a viable option, 33% (n-1) considered the financial aspects as slightly worse [Table 45]. Out of the 16 psychiatrists who considered VC as a viable option in their setting, 6% (n-1) considered the technological aspects of VC to be much worser and 18% (n-3) considered it to be slightly worser. Among the 3 psychiatrists who considered VC not as a viable option, 33% (n-1) considered the technological aspects as much worse and slightly worse [Table 46].

Table 44: consideration of VC as a viable option based on age of the doctors and years of experience

| | | Consider VC as viable option | | P value |
|---------------------|-------|------------------------------|--------|---------|
| | | Yes | No | |
| Age group in years | <30 | 2(100%) | 0 | 0.563 |
| | 31-40 | 8(88%) | 1(11%) | |
| | 41-50 | 360(%) | 2(40%) | |
| Years of experience | <10 | 8(89%) | 1(1%) | >0.99 |
| | >11 | 8(80%) | 2(20%) | |

Table 45: Comparison between satisfaction with financial aspects of VC and considering VC as viable option

| | | Financial aspects of VC | | | | P value |
|------------------------------|-----|-------------------------|----------------|--------|-----------|---------|
| | | Much worse | Slightly worse | Good | Much good | |
| Consider VC as viable option | Yes | 5(31%) | 4(25%) | 2(13%) | 5(31%) | 0.819 |
| | No | 0 | 1(33%) | 0 | 2(67%) | |

(Percentage calculated row wise)

Table 46: Comparison between satisfaction with technological aspects and considering VC as viable option

| | | Technological aspects | | | | P value |
|------------------------------|-----|-----------------------|-----------------------|---------------------|-----------------|---------|
| | | Much Unfavourable | Slightly Unfavourable | Slightly Favourable | Much Favourable | |
| Consider VC as viable option | Yes | 1(6%) | 3(18%) | 6(38%) | 6(38%) | 0.353 |
| | No | 1(33.3%) | 1(33.3%) | 1(33.3%) | 0 | |

(Percentage calculated row wise)

6. DISCUSSION

6.1. Overall satisfaction

The primary objective of the study was to assess the level of satisfaction of the patients, caregivers and doctors using the video tele-psychiatry services during the COVID – 19 pandemic period. Overall, among patients and caregivers, 39(50%) reported that they were much satisfied with the outcome or result of the video consultation and 24(31%) were slightly satisfied. Only 6(8%) reported that they were slightly unsatisfied. 9(11%) reported that their satisfaction with the results of video consultation was similar to the face-to-face consultation.

Regarding the overall satisfaction about the process of video consultation among patients/caregivers, 30(38%) were much satisfied and 28(36%) were slightly satisfied. Only 7(9%) reported that they were slightly unsatisfied with the video consultation process. 13(17%) reported that their satisfaction with the process of video consultation was similar to the face-to-face consultation

A study (49) done in southern India have reported that the satisfaction for tele-psychiatry was only 28%, but our study shows that 50% were much satisfied and 31% were slightly satisfied. The study also showed 72% were not satisfied with the tele- consultation, but our study showed 8% were unsatisfied.

Another study done (43) in India, reported overall 80% of the patients were satisfied with the treatment given by tele-medicine and approximately

90% reported it to be cost-effective. Our study also showed similar overall satisfaction of 81% among the participants of video tele-psychiatry and approximately 95% were satisfied with the cost of VC.

Our study is similar to studies that show significant overall satisfaction, among the patients/caregivers. However there was no statistically significant access or process related factors, found associated with the overall satisfaction. This may be due to the limited numbers studied, or because the list of factors was not exhaustive. An exploratory study to identify the specific factors related to effectiveness and satisfaction with video consultation may offer more answers(57).

The satisfaction of doctors was assessed in considering video consultations as effective as face-to-face consultations for patient care. To this question, 52% of the doctors responded that their satisfaction was worse than that for face-to-face consultations.

6.2 Socio-demographic profile

There were a total of 78 participants who responded to the online questionnaire in the Patients / caregivers group. Out of which 66% (n-51) were patients themselves and 34% (n-27) were caregivers, so patients were the major participants in the study. Among the caregivers majority were either spouse 13% (n-10) or children 13% (n-10). Males (74%) were more than the females (26%) among the participants. The mean age of the participants was 35 with a std. deviation of 11.8 years. The Majority of the participants had finished high

schooling or graduation and most of them were unemployed. The family income of the majority of the participants was more than 30,000 per month.

Studies (44,49) done in tele-medicine and tele-psychiatry have shown the study population comprising of more males, majority of them being graduate and belonging to the middle socio-economic status, and the mean age around 35 years, which is similar to our study.

A study conducted in NIMHANS(58), showed that the patients who presented to the psychiatry OPD comprised 56% females and the median family income was 7000 rupees per month. 18 % were illiterate and 51% had some sort of schooling. These findings suggest that the profile of patients accessing tele-psychiatry services is different from the majority of the patients accessing OPD services.

Another study done in a tertiary care hospital in the rural part of south India(59), similar to our setting showed majority of the participants to be female (52%). Other studies done in northern India(60) also shows that majority of the study population presenting to OPD belonged to the lower socio economic status. The patient population in our study had a higher family income and better education. It is within this population that majority of patients perceived the cost to be favourable. It is significant if the profile of people opting for tele-psychiatry is different from those coming for regular services. This may require telepsychiatry to be considered as an adjunct and not a substitute to conventional services, till these questions are clarified and solutions sought (57).

6.3 Access and Process related factors

92 % from the patient/caregiver group responded that the specific access related factors assessed were favourable. Around 78 % of the doctors also agreed that the access related factors were favourable

Among the factors assessed regarding access, favourable responses to the ability to understand the instructions and connectivity were associated significantly with the decision of the patients / caregivers to use video consultation in the future.

Among the factors assessed regarding the process of the video consultation, favourable responses to questions of the comfort of the place of consultation, ability to share private concerns, adequate time to discuss the issues, the ability of the doctor to clearly explain the treatment plan, satisfaction with the confidentiality were seen to be associated with the willingness of patients / care givers to use video consultation in future and their willingness to recommend it to others.

6.4 Psychiatrist's concerns

Among the Psychiatrists, all opined that they were concerned about the legal aspects of tele-psychiatry. Majority of them considered that the chance of malpractice suit was slightly more in video consultation than the face-to-face consultation. But most of the psychiatrists considered the chance of prescription misuse to be similar to the face-to-face consultation. A Significant number of psychiatrists also expressed their concern about patient care, patient acceptance of VC, financial and technological aspects of VC.

A previous study done among psychiatrists, (48) to assess their attitude towards Tele-Psychiatry, listed out several short comings. They include poor doctor patient relationship, which is an important factor in psychiatry where empathy plays a major role, risk of cyber theft/leak of data, inability to perform a physical examination. However, psychiatrists also opined that tele-psychiatry will help in catering mental health care in inaccessible areas and help in routine follow-ups. Our study adds on to the list of concerns that Psychiatrists experience. Even though they agreed to having the above concerns, majority of them still considered VC to be a viable option in their setting. This is again similar to the findings mentioned in the study above. This finding also requires further exploration to plan specific interventions to alleviate concerns towards effective use of the services. Further changes and improvements may help in better satisfaction with the video consultation among the psychiatrists.

7. STRENGTHS AND LIMITATIONS

7.1 Strengths:

1. Our study included all the stakeholders of the Video-Telepsychiatry - Patients, Caregivers, and Psychiatrists
2. All the participants who utilized video consultation during the study period were selected to avoid bias.

7.2 Limitations:

1. The total number of participants (patient/caregiver group and doctors) were less.
2. There was a possibility of recall bias, as some respondents replied weeks after their video consultation.
3. The contextual factors assessed related to access and process were limited and not exhaustive.
4. The reasons for many of the responses in the questionnaire could not be explored further since the study was designed with a quantitative methodology alone. A mixed methods design would have yielded more detail; however, this was not possible due to practical limitations.

8. SUMMARY AND CONCLUSION

8.1 Summary

1. Overall satisfaction of video consultation tele-psychiatry was 81% among the patient/ caregiver group.
2. 52% of the psychiatrists responded that their satisfaction was less than acceptable in considering video consultations as effective as face-to-face consultations for patient care.
3. Favourable factors regarding access associated with the future willingness to utilize tele-psychiatry among the patients and caregivers were: the ability to understand the instructions and good connectivity.
4. The favourable factors regarding the process of tele-psychiatry, which are associated with the future willingness to try tele-psychiatry were: comfortable place for the consultation, ability to share private concerns, adequate time to discuss the issues, ability of the doctor to clearly explain the treatment plan.
5. The patient profile of the population utilising video consultation in this study consisted of more males, more participants being graduate or post high schooling and having the monthly family income higher than 30,000 rupees, which was similar to other tele-psychiatry / tele-medicine studies, but differed from the patient populations seeking services in the conventional in-person general OPD settings.

6. Psychiatrists were concerned about legal aspects, malpractice suits, patient care, and patients' acceptance of video consultation.

8.2 Conclusion

This study has shown significant overall satisfaction regarding the video consultation modality of tele-psychiatry among patients and caregivers. However, about 52 % of the psychiatrists reported less than acceptable satisfaction regarding video consultations as compared to face-to-face consultations for patient care. The specific factors associated with overall satisfaction, needs further research. Psychiatrists had various concerns regarding tele-psychiatry, however, majority considered video consultation to be a viable option in their setting.

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10. APPENDIX

10.1 INFORMED CONSENT FORM

Department of Psychiatry

Christian Medical College, Vellore

Informed Consent form

Study Title:

A cross-sectional survey of experience of patients', caregivers, and Psychiatrists, utilizing video telepsychiatry consultation during COVID - 19 pandemic

Name of the investigators: Dr. P.T. Sivakumar, Dr. Donae Elizabeth George, Dr. Raviteja Innamuri, Dr. Utkarsh Modi ,Dr. Abhinav Chichra.

Study Number: _____

Participant's Name: _____

Date of Birth / Age: _____

- (i) I confirm that I have read and understood the information sheet provided to me for the above study/ had this information sheet read out to me regarding this study and have clarified any doubts that I had.. []
- (ii) I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without it affecting my medical care or legal rights/ my relative's medical care or legal rights. []
- (iii) I understand that investigators, the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any way and information will not be used for purposes other than research []
- (iv) I agree not to restrict the use of any data or results that arise from this study, provided such a use is only for scientific purpose(s). []
- (v) I understand that participating in this study will not affect my clinical care nor will it benefit me directly. I also understand that I will not be given any compensation for my participation

(v) I consent to take part in the above study. []

Name of the Patient:

Signature or thumb impression :

Date:

Name of the Caregiver:

Signature or thumb
impression:

Date:

Signature or thumb impression of the Witness:

Date: ____/____/____

Name & Address of the Witness: _____

Signature of the Investigator:

Study Investigator's Name:

Date:

10.2 PARTICIPANT INFORMATION SHEET

Department of Psychiatry

Christian Medical College, Vellore

Participant Information sheet (for patients and caregivers)

Title of study:

A cross-sectional survey of experience of patients, caregivers and psychiatrists utilising video telepsychiatry consultation during COVID-19 pandemic

Name of the investigators and Institution:

Dr. P.T. Sivakumar, Dr. Donae Elizabeth George , Dr. Raviteja Innamuri, Dr. Abhinav Chichra, Dr. Utkarsh Modi: Christian Medical College, Vellore

Institution:

Christian Medical College, Vellore

Invitation to take part in a research study: My name is Dr. Sivakumar P.T. and I am a doctor working in this hospital. I am doing a research study as part of my training in MD Psychiatry. I am inviting you to participate in this study and wish to provide you information about this study.

What is Telepsychiatry Video Consultation?

Consultation using Telepsychiatry means that the doctor can provide consultation to a patient who is located at a far place. That means, the patient need not travel to his treating doctor to seek treatment. Telemedicine includes all channels of communication with the patient including Video (zoom, Jitsi, skype), Audio (telephone), Text (email, SMS, WhatsApp). So, video-conferencing is one such method to achieve this. For video consultation, doctor and patient have to use a computer with a fitted or in-built camera and mic/speakers, and internet connection so that they can see and hear each other in real-time (i.e. live). This form of consultation may help patients who come from far off places, and have to travel long distances to reach the hospital from which they are seeking treatment.

Nature and purpose of the study:

Telepsychiatry is being utilised to overcome various challenges in delivery of psychiatry services during the COVID-19 pandemic. This study is being done as part of my thesis work. You are invited to take part in this study that attempts to understand your experience and satisfaction towards video consultation for telepsychiatry services among doctors, patients and caregivers during the COVID-19 pandemic. We would like to get information about you, your experience of video consultation and different factors that may be influencing your satisfaction towards video consultation. This would be done through a self-administered questionnaire prepared by the investigators.

Procedure to be followed:

This study will be conducted by the Department of Psychiatry. With your permission, you will be given a questionnaire to answer. Through this questionnaire, we will collect information regarding your socio-demographics and experience of video consultation for telepsychiatry.

Expected duration of involvement:

The assessment will be done once after you have taken a video consultation. Each questionnaire may take you approximately 15 minutes to answer.

Possible benefits of the study:

The information which we get from this study will help us understand your satisfaction with video consultations. This will help us to identify the barriers to providing better telepsychiatry services and improve our healthcare delivery. There is no extra direct benefit for you because of the study. We hope that future patients availing telepsychiatry services will benefit from this study.

Confidentiality:

The records and details obtained in this study will remain confidential at all times. Your personal data will be collected and processed only for research purposes. You will not be referred to by name or identified in any report or publication.

Right to withdraw from the study:

Your participation in this study is voluntary and you are free to not participate or leave the study at any time. Your decision to not to participate in this study will not affect your treatment in our hospital.

In case of any doubt or question you may contact:

Dr. Sivakumar , Department of Psychiatry, Christian Medical College, Vellore 632002 Phone: 0416 228 4520, email: sivakumar.p@cmcvellore.ac.in, ptsiva.94@gmail.com

Date:

10.3 PATIENT / CAREGIVERS QUESTIONNAIRE

DEPARTMENT OF PSYCHIATRY
CHRISTIAN MEDICAL COLLEGE –
VELLORE
Patient's Questionnaire

Hospital Number of patient:

Are you a patient/caregiver:

If caregiver, specify relation:

Are you living in the same

house :

YES/NO

Please give your details below:

Age:
answer

Sex: Male/Female/Prefer not to

Occupation:

Highest

educational qualification: Monthly family income of
the Patient: (Choose one option below)

Below Rs 10000

Between Rs 10000 to 30000

Between Rs 30000 to 50000

Between Rs 50000 to 75000

Between Rs 75000 to

100000 Between Rs 1

lakh to 2 lakhs

A. Please circle the appropriate response for the following questions

1. Which device did you use for the video consultation?
Mobile / Laptop / Desktop
2. Which internet service did you use for the video
consultation? WiFi/ cellular data/ Other (specify)
3. To whom did the device belong to? Self / Family / Others
(specify relation)

4. Was this your first time using video consultation for psychiatric services? Yes / No
5. Have you used any other method to consult your psychiatrist
Email/Phone/Letter Other(Specify)
6. Please list the reasons why you chose video consult.
7. Where did you attend the video consultation from?
Home/Office/Internet cafe/others (specify)

B. Please rate the following statements based on your level of disagreement/agreement from 1(complete disagreement) to 10 (complete agreement)

(completely disagree) 1 2 3 4 5 6 7 8 9 10(completely agree) (Factors related to access to services)

8. I was able to clearly understand the instructions to book video consultation appointment
9. I had the necessary hardware (phone or computer) for video consultation available to me
10. I was comfortable using the App/ website (JITSI) for the video consultation
11. I was comfortable using the internet to pay for the video consultation
12. I was able to choose a convenient time for the video consultation
13. I was able to get connected to the doctor easily online
14. The connectivity was good during the video consultation
15. I was satisfied with the cost for the video consultation
16. Overall, I was comfortable with the technology used to provide video consultation

C. Please rate the following statements based on your level of satisfaction in comparison to face-to-face consultation from 1 to 10 . Feel free to specify the reason for your answers if you can.

1 (Much worse)

7 (Acceptable)

3 (Somewhat worse)

8 (Somewhat better)

5 (About the Same)

10 (Much better)

17. I was as comfortable with the language of the doctor during the video consultation, as compared to face-to-face consultation
Reason:

18. I was able to see the doctor as clearly as face-to-face consultation

Reason:

19. I was able to hear the doctor as clearly as face-to-face
consultation Reason:

20. I was as comfortable with the place from where I spoke to the
doctor, similar to face-to face-consultation

Reason:

21. The doctor was able to understand my problem, similar
to face-to face- consultation Reason:

22. I was able to clarify my doubts during the video consultation,
similar to face-to face-consultation]

Reason:

23. I was able to share my private concerns with the doctor
similar to face to face consultation.

Reason:

24. I was confident that information I shared would be kept
confidential, similar to a face to face consultation .

Reason:

25. I felt that there was as much time to discuss my problems,
as face-to face- consultation

Reason:

26. Overall, I was satisfied with the process of the video
consultation as compared to face to face consultation

Reason:

27. I was satisfied with the process of obtaining medicines after
video consultation, as compared to face to face consultation
 Reason:

28. The doctor clearly explained to me the plan of treatment and date
of review, similar to face to face consultation

Reason:

29. I understand what to do if I have a mental health
emergency following this appointment, as compared to a
face to face consultation

Reason:

30. Overall, I was satisfied with the result/outcome of the
video consultation, as compared to face to face
consultation

Willingness to use and recommend to others.

31. Overall, I am willing to try video consultation again for consulting a psychiatrist : YES / NO
32. Overall, I would recommend video consultation services to other patients : YES / NO

10.4 PSYCHIATRIST'S QUESTIONNAIRE

Department of Psychiatry
Christian Medical College - Vellore
Doctors Questionnaire

Age: _____ Sex: Male/Female/Prefer not to
answer

Designation: consultant/resident _____ Years of experience in
psychiatry: _____

A. Please circle the appropriate response for the following questions

1. Which device did you use for the video consultation? Mobile / Laptop / Desktop
2. Have you changed your views on video consultation after using it? Yes/No/ Can't Say
3. If yes, How has your views changed on video consultation changed? Favorable / Unfavorable

B. Please rate the following statements based on your level of disagreement/agreement from 1(complete disagreement) to 10 (complete agreement).

Please answer based on your experience based on your experience with Video Tele- Psychiatry consultation .

(completely disagree) 1 2 3 4 5 6 7 8 9 10(completely agree)

4. I was able to clearly understand the instructions to provide a video consultation
5. My work setting had necessary technology to provide video consultation
6. I was comfortable with the new technology used to provide video consultation

7. I was comfortable with the appointments given for video consultation during my working hours
8. The patients were satisfied for the fees paid for the video consultation
9. I was able to easily connect with the patients for the video consultation
10. The connectivity was good during the video consultation
11. I was able to comfortably conclude and disconnect the call after the allotted time slot (15 minutes)
12. Legal aspects of telepsychiatry are of concern to me
13. Patient care aspects of video consultation are an area of concern for me
14. Patient acceptance of video consultation is an area of concern for me
15. Financial aspects of video consultation are an area of concern for me
16. Technological aspects of video consultation are an area of concern for me

C. Please rate the following statements based on your level of satisfaction in comparison to face-to-face consultation from 1 to 10 .

1 (Much worse)

7 (Acceptable)

3 (Somewhat worse)

8 (Somewhat better)

5 (About the Same)

10 (Much better)

17. I was able to see the patient as clearly as face-to-face consultation
18. I was able to hear the patient as clearly as face-to-face consultation
19. I was comfortable with my surroundings during the video consultation similar to a face to face consult
20. I was comfortable with the language of the patients during the video consultation similar to a face to face consult
21. I was able to clarify all the details during the video consultation similar to a face to face consult
22. Patients were able to share their private concerns with me similar to a face to face consult
23. Patient confidentiality will be protected in video consultation similar to a face to face consult
24. Patients/caregivers felt satisfied with a video consultation similar to a face to face consult
25. I was confident about reviewing a patient for follow-up using video consultation similar to a face to face consult
26. I was confident about risk assessment using video consultation similar to a face to face consult
27. I was confident about prescribing medications using video consultation similar to a face to face consult
28. I was confident about providing counselling/therapy using video consultation similar to a face to face consult
29. Video consultation is as effective as a face-to-face consult for patient care
30. Chance of a malpractice suit in video consultation is similar to a face to face consult
31. The law allows me to provide ideal treatment using video consultation similar to a face to face consult
32. The chance of misuse of prescription in tele-video consultation is similar to a face to face consult

33. Overall, I would recommend video consultation services to my patients, if available :

YES /NO

34. Overall, I consider video consultation to be a viable mode of providing treatment in my setting YES /NO

10.5 TRANSLATED QUESTIONNAIRE - TAMIL

கிறிஸ்டியன் மருத்துவகல்லூரி-வேலூர்
நோயாளியின் கேள்விதாள்

மருத்துவமனை எண் :

நீங்கள் ஒரு நோயாளி / உறவினர்:

உறவினர் என்றால், உறவைக் குறிப்பிடவும்:

நீங்கள் ஒரே வீட்டில் வசிக்கிறீர்களா: ஆம் / இல்லை

உங்கள் விவரங்களை கீழே கொடுக்கவும்:
வயது:

செக்ஸ்: ஆண் / பெண் / பதில் சொல்ல
விரும்பவில்லை:

தொழில்:

அதிகபட்ச கல்வித் தகுதி

நோயாளியின் மாதாந்திர குடும்ப வருமானம்:
(கீழே ஒரு விருப்பத்தைத் தேர்வுசெய்க)
10000 க்கு கீழே

௬ 10000 முதல் 30000 வரை
௬ .30000 முதல் 50000 வரை
௬ .50000 முதல் 75000 வரை
௬ .75000 முதல் 100000 வரை
௬ 1 லட்சம் முதல் 2 லட்சம் வரை

A. பின்வரும் கேள்விகளுக்கு பொருத்தமான பதிலை வட்டமிடுங்கள்

1. வீடியோ ஆலோசனைக்கு நீங்கள் எந்த சாதனத்தைப் பயன்படுத்தினீர்கள்? மொபைல் / லேப்டாப் / டெஸ்க்டாப்
2. வீடியோ ஆலோசனைக்கு நீங்கள் எந்த இணைய சேவையைப் பயன்படுத்தினீர்கள்? வைஃபை / செல்லுலார் டேட்டா / (மற்றவை குறிப்பிடு)
3. சாதனம் யாருக்கு சொந்தமானது? சுய / குடும்பம் / பிறர் (விவரக்குறிப்பு)
4. மனநல சேவைகளுக்கான வீடியோ ஆலோசனையைப் பயன்படுத்துவது இதுவே முதல் முறையா? ஆம் இல்லை
5. உங்கள் மனநல மருத்துவர் கலந்தாலோசிக்க வேறு எந்த முறையையும் பயன்படுத்தியிருக்கிறீர்களா மின்னஞ்சல் / தொலைபேசி / கடிதம் / மற்றவற்றைக் (குறிப்பிடவும்)

6. நீங்கள் வீடியோ ஆலோசனையைத் தேர்ந்தெடுத்ததற்கான காரணங்களை பட்டியலிடுங்கள்.

7. வீடியோ கலந்தாய்வை நீங்கள் எங்கிருந்து மேற்கொண்டீர்கள்? வீடு / அலுவலகம் / இணைய கஃபே / மற்றவை (குறிப்பிடவும்)

பி. உங்கள் கருத்து வேறுபாடு / ஒப்புதலின் அடிப்படையில் பின்வரும் அறிக்கைகளை 1 (முழுமையான கருத்து வேறுபாடு) முதல் 10 (முழுமையான ஒப்புதல்) ஆக மதிப்பிடுங்கள்

(முற்றிலும் உடன்படவில்லை) 1 2 3 4 5
6 7 8 9 10 (முற்றிலும் ஒப்புக்கொள்கிறேன்)

8. வீடியோ ஆலோசனை சந்திப்பை பதிவு செய்வதற்கான வழிமுறைகளை என்னால் தெளிவாக புரிந்து கொள்ள முடிந்தது

9. எனக்கு வீடியோ ஆலோசனைக்கு தேவையான சாதனம் (தொலைபேசி அல்லது கணினி) இருந்தது

10. வீடியோ ஆலோசனைக்கு App / website (JITSI)

ஐப் பயன்படுத்துவது எனக்கு வசதியாக இருந்தது

11. வீடியோ ஆலோசனைக்கு பணம் செலுத்த இணையத்தைப் பயன்படுத்துவது எனக்கு வசதியாக இருந்தது

12. வீடியோ ஆலோசனைக்கு ஒரு வசதியான நேரத்தை என்னால் தேர்வு செய்ய முடிந்தது
13. ஆன்லைனில் எளிதாக மருத்துவருடன் தொடர்பு கொள்ள முடிந்தது

14. வீடியோ ஆலோசனையின் போது இணைப்பு நன்றாக இருந்தது

15. வீடியோ ஆலோசனைக்கான கட்டணம் எனக்கு திருப்தியாக இருண்ந்தது.

16. ஒட்டுமொத்தமாக, வீடியோ ஆலோசனையை வழங்க பயன்படுத்தப்படும் தொழில்நுட்பம் எனக்கு வசதியாக இருந்தது.

சி. 1 முதல் 10 வரை நேருக்கு நேர் ஆலோசனையுடன் ஒப்பிடுகையில் உங்கள் திருப்தியின் அடிப்படையில் பின்வரும் அறிக்கைகளை மதிப்பிடுங்கள்.
உங்களால் முடிந்தால் உங்கள் பதில்களுக்கான காரணத்தைக் குறிப்பிடவும்.

1 (மிகவும் மோசமானது)
3 (சற்றே மோசமானது)
5 (அதே போல்)
7 (ஏற்றுக்கொள்ளத்தக்கது)

8 (ஓரளவு சிறந்தது)
10 (மிகவும் சிறந்தது)

17. வீடியோ கலந்தாய்வின் போது மருத்துவரின் மொழி நான் நேருக்கு நேர் கலந்தாய்வோடு ஒப்பிடும்போது வசதியாக இருந்தது காரணம்:

18. நேருக்கு நேர் கலந்தாலோசிப்பதைப் போல மருத்துவரை என்னால் தெளிவாகப் பார்க்க முடிந்தது காரணம்:

19. நேருக்கு நேர் கலந்தாலோசிப்பது போல மருத்துவரை என்னால் தெளிவாகக் கேட்க முடிந்தது காரணம்:

20. நான் மருத்துவரிடம் பேசிய இடம் நேருக்கு நேர் ஆலோசனையை போல் வசதியாக இருந்தது காரணம்:

21. நேருக்கு நேர் ஆலோசனையைப் போலவே எனது பிரச்சினையையும் மருத்துவர் புரிந்து கொள்ள முடிந்தது காரணம்:

22. வீடியோ கலந்தாய்வின் போது எனது நேருக்கு நேர் ஆலோசனை போன்றா சந்தேகங்களை தெளிவுபடுத்த முடிந்தது, □ காரணம்:

23. நேருக்கு நேர் ஆலோசனையைப் போன்றா எனது தனிப்பட்ட கவலைகளை மருத்துவரிடம் பகிர்ந்து கொள்ள முடிந்தது. □ காரணம்:

24. நான் பகிர்ந்து கொண்ட தகவல்கள் நேருக்கு நேர் ஆலோசனையைப் போலவே ரகசியமாக வைக்கப்படும் என்று நான் நம்புகிறேன். □ காரணம்:

25. எனது பிரச்சினைகளை நேருக்கு நேர் கலந்தாலோசிப்பது போல விவாதிக்க அதிக நேரம்

இருப்பதாக நான் உணர்ந்தேன்
காரணம்:

26. ஒட்டுமொத்தமாக, நேருக்கு நேர்
ஆலோசனையுடன் ஒப்பிடும்போது வீடியோ
கலந்தாய்வின் செயல்பாட்டில் நான் திருப்தி
அடைந்தேன்
காரணம்:

27. நேருக்கு நேர் ஆலோசனையுடன்
ஒப்பிடும்போது, வீடியோ ஆலோசனைக்குப் பிறகு
மருந்துகளைப் பெறுவதற்கான செயல்முறையில்
நான் திருப்தி அடைந்தேன்
காரணம்:

28. நேருக்கு நேர் ஆலோசனையைப் போலவே
சிகிச்சையின் திட்டத்தையும் மறு ஆலோசனை
தேதியையும் மருத்துவர் எனக்கு தெளிவாக
விளக்கினார்
காரணம்:

29. நேருக்கு நேர் ஆலோசனையுடன்
ஒப்பிடுகையில்
இந்த சந்திப்பைத் தொடர்ந்து எனக்கு மனநல
அவசரநிலை ஏற்பட்டால் என்ன செய்வது என்று
எனக்குப் புரிகிறது,
காரணம்:

30. ஒட்டுமொத்தமாக, நேருக்கு நேர்
ஆலோசனையுடன் ஒப்பிடும்போது, வீடியோ
ஆலோசனையின் முடிவில் நான் திருப்தி
அடைந்தேன்

31. ஒட்டுமொத்தமாக, ஒரு மனநல மருத்துவரை
அணுகுவதற்காக வீடியோ ஆலோசனையை
மீண்டும் முயற்சிக்க நான் தயாராக இருக்கிறேன்:
ஆம் / இல்லை

32. ஒட்டுமொத்தமாக, மற்ற நோயாளிகளுக்கு
வீடியோ ஆலோசனை சேவைகளை நான்
பரிந்துரைக்கிறேன்: ஆம் / இல்லை

10.6 TRANSLATED QUESTIONNAIRE - HINDI:

क्रमांक

मनोरोग विभाग
क्रिश्चियन मेडिकल कॉलेज, वेल्लोर

रोगी की प्रश्नावली

रोगी का अस्पताल का नंबर

क्या आप एक देखभालकर्ता हैं:

यदि आप एक देखभाल करने वाले हैं, तो संबंध निर्दिष्ट करें

क्या आप एक ही घर में रह रहे हैं: हाँ / नहीं

कृपया अपना विवरण नीचे दें:

कृपया अपना विवरण नीचे दें:

आयु:

व्यवसाय:

लिंग: पुरुष / महिला / उत्तर नहीं देना चाहते हैं

उच्चतम शैक्षिक योग्यता:

रोगी की मासिक पारिवारिक आय: (नीचे दिए गए विकल्पों में से कोई एक चुनें)

10000 रुपये से कम

10000 से 30000 रु

30000 से 50000 रु

50000 से 750000 रु

750000 से 1000000 रु

100000 से 2000000 रु

A. कृपया निम्नलिखित प्रश्नों के लिए उचित उत्तर का चयन करें:

1. आपने वीडियो परामर्श के लिए किस उपकरण का उपयोग किया है?
मोबाइल / लैपटॉप / डेस्कटॉप
2. वीडियो परामर्श के लिए आपने किस इंटरनेट सेवा का उपयोग किया?
वाई – फाई / मोबाइल डेटा / अन्य (निर्दिष्ट करें)
3. उपकरण किसका था?
स्वयं / परिवार / अन्य (निर्दिष्ट करें)
4. क्या यह आपका पहली बार मनोरोग सेवाओं के लिए वीडियो परामर्श का उपयोग था? हाँ / नहीं
5. क्या आपने अपने मनोचिकित्सक से परामर्श करने के लिए किसी अन्य विधि का उपयोग किया है? ई मेल / फोन / पत्र / अन्य (निर्दिष्ट करें)
6. कृपया कारण बताएं कि आपने वीडियो परामर्श क्यों चुना
7. आपने वीडियो परामर्श कहां से लिया? घर / कार्यालय / इंटरनेट कैफे / अन्य (निर्दिष्ट करें)

सहमत या असहमत होने के अपने स्तरों के आधार पर कृपया निम्नलिखित कथनों को स्तरीकृत करें जहां 1 (पूरी तरह से असहमत है) और 10 (पूरी तरह से सहमत है)

(पूरी तरह से असहमत है) 1 2 3 4 5 6 7 8 9 10 (पूरी तरह से सहमत है)

(सेवाओं तक पहुंच से संबंधित कारक)

8. मैं वीडियो परामर्श नियुक्ति बुक करने के निर्देशों को स्पष्ट रूप से समझने में सक्षम था
9. मेरे पास वीडियो परामर्श के लिए आवश्यक हार्डवेयर (फोन या कंप्यूटर) उपलब्ध था
10. वीडियो परामर्श के लिए वेबसाइट या ऐप (JITSI) का उपयोग करना मेरे लिए सहज था
11. वीडियो परामर्श के लिए भुगतान करने के लिए इंटरनेट का उपयोग करना मेरे लिए सहज था
12. मैं वीडियो परामर्श के लिए एक सुविधाजनक समय चुनने में सक्षम था
13. मैं ऑनलाइन आसानी से डॉक्टर से जुड़ पा रहा था
14. वीडियो परामर्श के दौरान कनेक्टिविटी अच्छी थी
15. मैं वीडियो परामर्श की कीमत से संतुष्ट था
16. मैं कुल मिलाकर वीडियो परामर्श प्रदान करने के लिए उपयोग की जाने वाली तकनीक का उपयोग करने में सहज था

कृपया 1 से 10 तक आमने सामने परामर्श की तुलना में अपनी संतुष्टि के अपनी संतुष्टि के स्तर के आधार पर निम्नलिखित कथनों को स्तरीकृत करें यदि आप सक्षम हैं, बेझिझक अपने उत्तरों का कारण बताएं .

- | | |
|-------------------|----------------|
| 1. बहुत बुरा | 7. स्वीकार्य |
| 3. कुछ हद तक बुरा | 8. कुछ बेहतर |
| 5. कुछ वैसा ही | 10. काफी बेहतर |

17. मैं आमने-सामने परामर्श की तुलना में वीडियो परामर्श के दौरान चिकित्सक की भाषा के साथ संतुष्ट था

कारण

18. मैं चिकित्सक को आमने-सामने परामर्श की तरह स्पष्ट रूप से देख पा रहा था

कारण

19. मैं डॉक्टर को स्पष्ट रूप से सुनने में सक्षम था, आमने-सामने परामर्श की तरह

कारण

20. मैं उस जगह के साथ सहज था जहां से मैंने चिकित्सक से बात की, आमने-सामने परामर्श की तरह

कारण

21. चिकित्सक मेरी समस्या को समझने में सक्षम थे , आमने-सामने परामर्श की तरह

कारण

22. मैं वीडियो परामर्श के दौरान अपने संदेह को स्पष्ट करने में सक्षम था, आमने-सामने परामर्श की तरह

कारण

23. मैं डॉक्टर के साथ अपनी निजी चिंताओं को साझा करने में सक्षम था , आमने-सामने परामर्श की तरह

कारण

24. मुझे विश्वास था कि मेरे द्वारा साझा की गई जानकारी को गोपनीय रखा जाएगा, आमने-सामने परामर्श की तरह

कारण

25. मैंने महसूस किया कि मेरी समस्याओं पर चर्चा करने के लिए उतना ही समय

था जितना आमने-सामने परामर्श में.

कारण

26. मैं वीडियो परामर्श की प्रक्रिया से कुल मिलाकर संतुष्ट था, आमने-सामने परामर्श की तरह

कारण

27. मैं वीडियो परामर्श के बाद दवा प्राप्त करने की प्रक्रिया से संतुष्ट था , आमने-सामने परामर्श की तरह

कारण

28. चिकित्सक ने उपचार की योजना और समीक्षा की तारीख स्पष्ट रूप से बताई , आमने-सामने परामर्श की तरह

कारण

29. मैं समझता हूँ कि इस नियुक्ति के बाद मानसिक स्वास्थ्य आपातकाल होने पर मुझे क्या करना चाहिए , आमने-सामने परामर्श की तरह

कारण

30. मैं वीडियो परामर्श के परिणाम से कुल मिलाकर संतुष्ट था , आमने-सामने परामर्श की तरह

कारण

उपयोग करने और दूसरों को इसकी सिफारिश करने की इच्छा

31. कुल मिलाकर मैं एक मनोचिकित्सक से परामर्श के लिए फिर से वीडियो परामर्श की कोशिश करने के लिए तैयार हूँ

हाँ / नहीं

32. कुल मिलाकर मैं अन्य रोगियों को वीडियो परामर्श सेवाओं की सिफारिश करूँगा

हाँ / नहीं

10.7 SPSS DATA SHEET

tele psychiatry patients questionnaire raw data (1).sav [DataSet2] - IBM SPSS Statistics Data Editor

Visible: 43 of 43 Variables

| | gender | occupation | education | income | device | internet | deviceownership | firsttimevc | othermethodconsult | reason | placeofVC | Q8 | Q9 | Q10 |
|----|--------|------------|-----------|--------|--------|----------|-----------------|-------------|--------------------|--------|-----------|----|----|-----|
| 1 | 1 | 1 | 5 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 10 | 10 | 10 |
| 2 | 1 | 1 | 5 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 10 | 10 | 10 |
| 3 | 1 | 5 | 3 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | 1 | 10 | 10 | 10 |
| 4 | 1 | 7 | 7 | 6 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | 10 | 10 |
| 5 | 2 | 1 | 5 | 4 | 1 | 2 | 1 | 1 | 4 | 8 | 1 | 10 | 10 | 10 |
| 6 | 1 | 7 | 7 | 3 | 2 | 1 | 1 | 1 | 4 | 6 | 1 | 10 | 10 | 10 |
| 7 | 1 | 7 | 7 | 4 | 2 | 1 | 1 | 2 | 1 | 9 | 1 | 10 | 10 | 10 |
| 8 | 2 | 1 | 5 | 5 | 2 | 1 | 1 | 1 | 4 | 9 | 1 | 9 | 10 | 5 |
| 9 | 1 | 5 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 10 | 10 | 10 |
| 10 | 1 | 1 | 4 | 2 | 1 | 2 | 1 | 1 | 1 | 8 | 1 | 10 | 10 | 10 |
| 11 | 1 | 6 | 6 | 3 | 1 | 2 | 1 | 1 | 1 | 9 | 1 | 10 | 10 | 10 |
| 12 | 2 | 7 | 6 | 3 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 7 | 7 | 6 |
| 13 | 1 | 1 | 6 | 3 | 1 | 2 | 1 | 1 | 4 | 1 | 1 | 9 | 9 | 10 |
| 14 | 1 | 5 | 5 | 2 | 1 | 2 | 1 | 1 | 1 | 8 | 1 | 10 | 10 | 10 |
| 15 | 1 | 1 | 7 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | 10 | 10 |
| 16 | 1 | 7 | 7 | 6 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 10 | 10 | 10 |
| 17 | 1 | 5 | 4 | 3 | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 10 | 10 | 10 |
| 18 | 1 | 7 | 7 | 1 | 1 | 2 | 1 | 1 | 1 | 8 | 1 | 10 | 10 | 10 |
| 19 | 1 | 5 | 3 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 9 | 9 | 10 |
| 20 | 1 | 5 | 5 | 3 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 10 | 10 | 10 |

Data View Variable View

*doctors questionnaire data raw(1).sav [DataSet1] - IBM SPSS Statistics Data Editor

Visible: 39 of 39 Variables

| | age | gender | Designation | Yearsofexperience | Deveiceused | ChangedviewsonVC | IfyesForlastquestion | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 |
|----|-------|--------|-------------|-------------------|-------------|------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 41.00 | 2.00 | 1.00 | 11.00 | 1.00 | 1.00 | 1.00 | 10.00 | 6.00 | 10.00 | 10.00 | 10.00 | 9.00 | 10.00 |
| 2 | 34.00 | 1.00 | 1.00 | 3.00 | 1.00 | 3.00 | 1.00 | 9.00 | 9.00 | 8.00 | 8.00 | 5.00 | 3.00 | 3.00 |
| 3 | 31.00 | 2.00 | 2.00 | 4.00 | 1.00 | 1.00 | . | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 7.00 | 7.00 |
| 4 | 32.00 | 2.00 | 2.00 | 4.00 | 1.00 | 1.00 | 1.00 | 9.00 | 8.00 | 8.00 | 8.00 | 9.00 | 9.00 | 6.00 |
| 5 | 39.00 | 2.00 | 1.00 | 12.00 | 3.00 | 1.00 | 1.00 | 10.00 | 10.00 | 9.00 | 10.00 | 10.00 | 10.00 | 9.00 |
| 6 | 38.00 | 3.00 | 1.00 | 10.00 | 2.00 | 2.00 | . | 10.00 | 2.00 | 8.00 | 8.00 | 4.00 | 3.00 | 3.00 |
| 7 | 32.00 | 2.00 | 2.00 | 5.00 | 1.00 | 2.00 | . | 10.00 | 2.00 | 8.00 | 8.00 | 5.00 | 7.00 | 6.00 |
| 8 | 51.00 | 2.00 | 1.00 | 25.00 | 3.00 | 1.00 | 1.00 | 8.00 | 10.00 | 8.00 | 10.00 | 8.00 | 10.00 | 10.00 |
| 9 | 47.00 | 1.00 | 1.00 | 22.00 | 2.00 | 1.00 | 1.00 | 7.00 | 9.00 | 8.00 | 9.00 | 7.00 | 6.00 | 6.00 |
| 10 | 30.00 | 2.00 | 2.00 | 3.00 | 1.00 | 2.00 | . | 8.00 | 10.00 | 8.00 | 10.00 | 9.00 | 5.00 | 6.00 |
| 11 | 41.00 | 1.00 | 1.00 | 18.00 | 1.00 | 1.00 | 2.00 | 8.00 | 9.00 | 8.00 | 8.00 | 10.00 | 6.00 | 8.00 |
| 12 | 43.00 | 1.00 | 1.00 | 15.00 | 1.00 | 1.00 | 1.00 | 9.00 | 3.00 | 9.00 | 6.00 | 9.00 | 6.00 | 4.00 |
| 13 | 29.00 | 1.00 | 2.00 | 3.00 | 2.00 | 1.00 | 1.00 | 9.00 | 10.00 | 10.00 | 9.00 | 9.00 | 7.00 | 6.00 |
| 14 | 33.00 | 2.00 | 1.00 | 5.00 | 1.00 | 3.00 | 2.00 | 8.00 | 5.00 | 4.00 | 5.00 | 8.00 | 3.00 | 4.00 |
| 15 | 37.00 | 2.00 | 1.00 | 8.00 | 1.00 | 1.00 | 7.00 | 4.00 | 4.00 | 2.00 | 9.00 | 4.00 | 3.00 | 3.00 |
| 16 | 38.00 | 1.00 | 1.00 | 11.00 | 2.00 | 2.00 | . | 9.00 | 6.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 17 | 57.00 | 2.00 | 1.00 | 30.00 | 3.00 | 1.00 | 1.00 | 7.00 | 8.00 | 8.00 | 8.00 | 8.00 | 7.00 | 7.00 |
| 18 | 60.00 | 2.00 | 1.00 | 34.00 | 3.00 | 2.00 | . | 8.00 | 9.00 | 8.00 | 10.00 | 5.00 | 8.00 | 8.00 |
| 19 | 43.00 | 1.00 | 1.00 | 13.00 | 1.00 | 1.00 | 1.00 | 8.00 | 9.00 | 4.00 | 6.00 | 8.00 | 4.00 | 4.00 |