



Impacts of Telehealth on Access-to-Care for Mental Health Patients

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

The age of technology and smart devices has paved the way for a current and encouraging method to address mental healthcare that benefits from global connectivity: telehealth. According to the American Telemedicine Association, telehealth or telemedicine is defined as the usage of medical information from one site to another through electronic communication with the goal of improving a client's overall health through emails, cellular phones, two-way videos, and conference calls. With the current Covid-19 pandemic, hospitals (especially those with mental health units or free-standing psychiatry facilities) are seldomly able to keep up with the influx of mental health patients without being turned away or having to wait for an extended period of time. Through telemedicine, those barriers have been lifted providing more efficient and enhanced access to care for everyone, especially those seeking mental health services. This review paper attempts to establish that despite the observations that telehealth has a positive impact on improved access to mental healthcare, it has not flourished to the extent it could have prior to the COVID-19 pandemic. We also try to provide long-term telehealth solutions, some of which are already being implemented in the current pandemic to improve the quality of mental healthcare access to a larger majority of Americans and those in other countries as well. With people being advised to stay-at-home coupled with the fear of cross-contamination in public places, people are resorting to telehealth for psychiatric visits and follow-ups. Before this pandemic, however, certain laws and rules have been a barrier to more telehealth options becoming available or feasible to the public. Telehealth is changing the conventional standard of psychiatric medicine by enhancing access to care, reducing re-admission rates, and enhancing the quality of life. Those that have tested positive for the COVID-19 virus and are quarantined at home can still meet with their mental healthcare

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provider periodically to discuss progress and prognosis. Research has shown that telemedicine has neutralized the impacts of delayed care, hospital admissions, and complications from psychiatric conditions globally. Telehealth has proven to provide steady benefits to patients, psychiatrists, and mental health providers through round-the-clock access remotely.

Keywords: Telehealth; mental health; psychiatry; COVID-19; technology; pandemic; healthcare.

1. INTRODUCTION

Telemedicine is healthcare's new frontier as it can speed up diagnosis and therapeutic care delivery. With technology being the wave of the future, it is no surprise that virtual health is the next big thing in healthcare for both practitioners and patients [1]. Many organizations such as the World Health Organization and the United States health care systems postulate that telehealth will spur growth and provide access to high-quality care to mental health patients from the comfort of their homes. According to the American Telemedicine Association, telehealth or telemedicine is defined as the usage of medical information from one site to another through electronic communication with the goal of improving a client's overall health through emails, cellular phones, two-way videos, and conference calls [2]. Telehealth is not only for acute and minor conditions or ailments but rather complex mental health medical problems as well. There is an increasing attraction to telephone or videoconferencing between physicians and mental health patients. One of the reasons for this is mainly due to the lower costs associated with replacing brick-and-mortar mental health clinics with cost-saving virtual visits [3]. To our knowledge, telemedicine makes mental health services more accessible as it helps patients avoid stigma, and get treatment from the privacy of their homes. Different mental health problems like anxiety, depression, and substance-related disorder can be treated with telemedicine efficiently and effectively, particularly in the primary health care setting. Globally, it is seen that telemedicine has tremendous potential to improve the lives of patients suffering from depression and other mental health issues. COVID-19 has caused severe psychological impact by causing anxiety, phobia, paranoia, hoarding, posttraumatic stress disorder (PTSD), depression, mass hysteria, economic burden, and financial losses [4]. By the same token, consumers in both rural and urban areas will benefit from the convenience as well by saving on time and cost. In larger cities, traffic becomes an inconvenience for many seeking psychiatric medical care and thus prolong visiting a provider.

For those in rural areas, the cost of transportation (gas, tolls, taxis, bus service) to a mental health care facility becomes a burden. Through telemedicine, patients can stay in their own communities and avoid unnecessary travel and expense. Mental health providers more distant from the patient also avoid hindering travel obstacles [5]. Geographical circumstances as well as access to transportation are barriers that can hinder someone from seeking medical care for any mental health conditions. Through telemedicine, those barriers have been lifted providing more efficient and enhanced access to care for everyone. One of the biggest problems facing healthcare coverage to larger amounts of people is not just insurance (or lack of it), but the actual ability to access healthcare providers. Physical appointments can be time-consuming for both the recipient and the caregiver, especially for cases that are chronic or simple to diagnose. Telehealth allows this major barrier to be overcome at a lower cost by providing instant or easier access. This review paper attempts to establish that despite the observations that telehealth has a positive impact on improved access to mental health, it has not flourished to the extent it could have prior to the COVID-19 pandemic. We also try to provide long-term telehealth solutions, some of which are already being implemented in the current pandemic to improve the quality of mental healthcare access to a larger majority of Americans and to other countries as well. Existing telemedicine frameworks and policies of various countries/regions and their implementation stage are analyzed using Gladhart and Pan American Health Organization (PAHO/WHO) hat models. They found that countries all around the world have been implementing telemedicine similarly to the United States as mobile phones are becoming increasingly prevalent. Countries such as Asia, Singapore, India, China, Africa, Latin America, the Caribbean, Australia, Europe, the United Kingdom, Italy, France, Spain, and Canada have all found that telehealth is a great tool to foster community engagement, enhance healthcare availability, and provide mental health services to their communities [6].

2. CONTENT OF PROBLEM

For many years, healthcare for psychiatric care was inaccessible to many. For the most part, distance to a mental healthcare facility, transportation, and costs were the main factors preventing many from access to care [7]. It is no surprise that telehealth evolved to bridge the gap in the global mental health crisis. Telemedicine was first introduced to the military and space technology community in the early 1960s, particularly to attend to the health concerns of astronauts in space and deployed military battalions. A decade later with the introduction of personal computers, the use of modern information and communication technologies (ICTs) helped pave the way to provide health care service and delivery. During the late 1960s, Dr. Thomas Nesbitt, M.D., had the first physician-patient telemedicine encounter. A closed-circuit television channel was introduced for physician and psychiatric patient encounters between Nebraska Psychiatric Institute and Norfolk State Hospital [8]. However, there were many challenges along the way, to say the least. Telemedicine was created with the intention to attack global health issues that posed challenges and had limited resources. The shift to tackle global health challenges emerged in the last few years with compelling advances in information and communications technology (ICT), a decrease in costs, and mobile health funding [9]. McLean is a psychiatric hospital near Boston, Massachusetts, part of the Mass General Brigham health system. McLean provides inpatient, residential, partial hospital, and outpatient care for individuals with mental health and substance use disorders; in the fiscal year 2019, there were over 45,000 outpatient visits. On March 16, 2020, several days after the governor of Massachusetts declared a state public health emergency, McLean discontinued in-person care for outpatients; the transition to telemedicine video services, which previously had not been used at McLean, occurred within 2 weeks. Outpatient encounters initially decreased during the March transition but by April 2020 rebounded to a similar volume as pre-pandemic [10].

With the plethora of people globally with limited health care and access to mental health services, telemedicine can limit steep hospitalization costs by allowing people to access a psychiatrist or mental health provider remotely at any given time via videoconferencing using smartphones, iPad, and computers. There

has been a minimum of 47 states that have granted telemedicine parity laws that authorize insurance companies to refund for any telemedicine visits. Additionally, Medicare telemedicine coverage has been expanded under federal legislation, and as a result telemedicine visits have exponentially increased from 7015 in 2004 to over 108,000 in 2018 [11].

The use of cell phones by almost every household across the world has further aided in mental healthcare delivery remotely. Today, people could reach a mental healthcare practitioner with a push of a button instantly and the complexity of need can range from mild anxiety to more complex psychiatric conditions. In a 2017 survey conducted by the American Telemedicine Association of 184 health care executives, 88% concluded that they would invest in telehealth soon and 98% found that it offered a competitive advantage [12]. Telemedicine is revolutionizing healthcare by reaching more people than ever before. It has helped people to be at the forefront of their own mental health and management as well as allowed mental health practitioners to treat patients earlier on. Although telehealth has existed for decades in some form or another, it began to receive immense attention since the COVID-19 pandemic. With people being advised to stay-at-home coupled with the fear of cross-contamination in public places, people are resorting to telehealth for doctor's visits and follow-ups. Before this pandemic, however, certain laws and rules have been a barrier to more telehealth options becoming available or feasible to the public. The Center for Connected Health Policy (CCHP) mentioned that existing policy barriers on both federal and state levels contribute to the limited use of telehealth [13]. Along with reimbursements, malpractice involving telehealth services for providers is not always covered or may be covered with higher premiums therefore many mental health providers within psychiatric hospitals and clinics are not undergoing telehealth technology because of it. Another barrier is the Health Insurance Portability and Accountability Act (HIPAA) privacy and security issues which indicate that a telehealth provider must meet the same requirements of HIPAA as would any services delivered in person. For those reasons, certain psychiatric hospital policies restrict the use of telehealth for fear of HIPAA violations that could result in a lawsuit for the hospital.

3. CONSEQUENCES OF THE PROBLEM

Although the use of telemedicine for mental health remained rare prior to the pandemic—representing <1% of visits, studies have suggested that tele-mental health produces comparable outcomes to traditional in-person care; however, these studies have focused on a limited range of diagnoses, underserved populations, or collaborative or consultative telemedicine models [14].

Since the inception of telehealth, there has been a shift in healthcare for the better. As a mental health screening tool, there has been a considerable improvement in patient outcomes by reducing suicidal rates and chronic mental conditions [15]. The National Policy Resource Center has found that mental health patients diagnosed and treated earlier have improved outcomes and less costly treatments [16]. Telehealth is changing the conventional standard of medicine by enhancing access to mental care.

Psychiatric hospitals are benefiting from at-home care because it avoids shortages of hospital beds [17]. Many psychiatric hospitals or psychiatric units within hospital networks have limited number of psychiatric beds so telehealth has decreased the burden of not enough beds per patient ratio. During the current Covid-19 pandemic, telemedicine has been a great solution to avoid face-to-face contact, cross-contamination, saturated psychiatric hospital admissions, and lack of psychiatric beds. Susceptible patients with pre-existing conditions or weakened immunological systems can have videoconferencing with their psychiatrist without hindering their physical health furthermore. Those that have tested positive for the virus and are quarantined at home can still meet with their mental healthcare provider periodically to discuss progress and prognosis. With the current pandemic, there has been a ten-fold increase in the last few weeks of telehealth consultations. In the face of a surge of COVID-19, psychiatrists and mental health systems worldwide are racing to adopt virtualized treatment approaches that obviate the need for physical meeting between patients and health providers [18].

Telemedicine has the power to provide family members to be active in the patient's recovery when hospitalized in mental units which have limited to little access to visit patients admitted. One of the benefits of custom-designed

telemedicine service for patients who are hospitalized in mental units is to maintain close contact (via videoconference) with family and friends. Patients (especially children) hospitalized for extended periods could videoconference with family members, classmates, and teachers when travel times were an issue [19]. Videoconferencing halts some of the obstacles than normally would prevent someone from visiting a patient at the hospital. For some, it could be the distance from the hospital, out-of-town family and friends, and the lack of visitation rights in mental health units.

4. SOLUTIONS TO THE PROBLEM

Through research, data has been able to identify ways to improve access to mental care worldwide. Research has been able to identify that telehealth can increase access to mental healthcare services, reach patients in rural areas, provide mental health providers with more scheduling flexibility and decrease costs for patients seeking consultation. Delivering care through telemedicine saves a patient an average of 145 miles, 143 minutes per visit and \$70.00 per visit [20]. Telehealth has had the ability to combat barriers that were once preventing people to seek psychiatric medical care. Research has shown that telemedicine has neutralized the impacts of delayed care, hospital admissions, and complications from psychiatric conditions. There is significant evidence that e-health delivers cost-effective, quality mental health care to people worldwide and that spending on e-health systems by government and healthcare systems is increasing nationwide [21].

According to the American Hospital Association, telehealth was associated with a 25% reduction in the number of bed days of care and a 19% reduction in hospital admissions across all psychiatric patients utilizing telehealth. For example, patients achieved significant reductions in hospitalizations; over 40% for mental health patients [22]. In general, it was found that telehealth saved around \$6,500 per patient or 1 billion dollars overall in one given year. Using telehealth for psychiatric care after patients have been discharged from hospitals reduces readmission rates and makes management of care easier for patients. It has been proven that there is a significant decrease in hospital readmission due to telemedicine consultations which save patients money and

improves the quality of care. Academic medical centers around the country had begun to ramp up their own telehealth services, including the ability to remotely triage COVID-19 patients, convert in-person psychiatric visits to telehealth visits, and in some cases, deploy sophisticated telehealth technologies to monitor the most critical psychiatric patients [23]. Telehealth has proven to provide steady benefits to patients and practitioners through round-the-clock access remotely.

5. CONCLUSION

In conclusion, this review paper attempted to establish that despite the observations that telehealth has a positive impact on improved access to mental healthcare globally, it has not flourished to the extent it could have prior to the COVID-19 pandemic. We also try to provide long-term telehealth solutions, some of which are already being implemented in the current pandemic to improve the quality of mental healthcare access to a larger majority of Americans. It is no surprise that telehealth evolved to bridge the gap of the global mental health crisis, especially during critical times as with COVID-19. What we found was that with the plethora of people with limited access to mental health services, telemedicine reduced hospitalization costs by allowing people to access a mental healthcare provider remotely. Moreover, with the current pandemic, we also found that more people are seeking telemedicine with stay-at-home mandated orders and fear of cross-contamination out in public. People could reach a mental healthcare provider with a push of a button instantly for the complexity of need, be assessed and monitored, and have medications sent directly to local pharmacies. However, certain laws and rules have been a barrier to more telehealth options becoming available or feasible to the public. We were able to determine that certain barriers and policies are still restricting offering telehealth in many psychiatric hospitals and clinics throughout the U.S. Those barriers were found to include reimbursements, malpractice, and HIPAA privacy and security issues. To overcome this, one of the biggest solutions to the problem would be fewer government policy interventions in the mental health industry. It was found that the healthcare industry has shown through time to be very resilient to loosening government control over policies. Since the start of COVID-19, some of those restrictions have

ameliorated to allow people to seek psychiatric care remotely to protect themselves and providers from the virus. The real question is however whether these measures will stay in place after the pandemic subsides in the future.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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