TELEHEALTH SOLUTIONS FOR MENTAL HEALTH BURDEN DURING THE SARS COV 2 PANDEMIC

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Abstract

Introduction: Pandemics cause countless loss of human life and economic losses worldwide each time they appear. An often-overlooked consequence of pandemics is increased mental burden. A possible solution to this barrier comes in the face of telemedicine.

Aim: To analyze potential benefits telehealth during the course of the current SARS COV 2 pandemic.

Material and methods: A literature review. Pubmed, Scopus, Google Scholar and Medline were searched for articles.

Results: The mental strain in the population increases in two waves. First during the pandemic, itself, due to fear of infection and long-term isolation, and a second time after it, due to the following economic recession and fear of losing one's job and income. Telemedicine applications, such as videoconferencing, can offer great alternative to traditional consultations, and improve the wellbeing of the population.

Discussion and conclusion: Adoption rates of telemental health are still low. A framework is needed, so that remote mental healthcare provision can follow strict guidelines and mode of reimbursement are in place. Further training is needed for both physicians and patients to optimize the process of care delivery.

Keywords: pandemic, mental health, telemedicine, SARS COV 2

Introduction:

A pandemic is an epidemic occurring on a scale that crosses international boundaries, affecting people on a worldwide scale. [17] They occur when a new agent appears, which none has contact with and there is no immunity to. Notable causes of pandemics in human history include cholera, influenza, typhus, smallpox, measles, tuberculosis, leprosy, malaria, yellow fever. The most lethal outbreaks include the Black Death (14th century), the Spanish flu (1918), H1N1 (2009), the current HIV/AIDS [11] and Coronavirus ones (2020). They have caused millions of deaths, social disruption and severe economic losses worldwide. [26] The SARS COV 2 is a new strain of virus which spread quickly around the world. The COVID-19 was first documented as an outbreak in December 2019 in Wuhan China. It was declared a Public Health Emergency of International Concern by WHO on 30 January, and a pandemic on 11 march. As of 24 May 2020, more than 5.28 million cases of COVID-19 have been reported in 188 countries and territories, resulting in more than 340,000 deaths. More than 2.09 million people have recovered. [6] The virus is primarily spread between people during close contact, often via small droplets produced by coughing, sneezing, or talking. [18] Due to this social distancing has become a key measurement in reducing the diseases' spread. Methods include quarantines; travel restrictions; and the closing of schools, workplaces, stadiums, theatres and shopping centres. Individuals may apply social distancing methods by staying at home, limiting travel, avoiding crowded areas, using no-contact greetings, and physically distancing themselves from others. [1]

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Results:

Because of the COVID-19 pandemic, healthcare providers are changing the way they deliver care. Focus and resources have shifted from mundane everyday conditions towards the greater needs. To protect patients and staff from infection access to traditional face-to-face consultations is also restricted. The main task health care systems worldwide are now facing is how to sustain the capacity to provide service not only for those afflicted with COVID-19, but also for those suffering from other acute and chronic diseases, while protecting the health personnel. It is no surprise that health systems globally are resorting to telemedicine to provide care while keeping patients in their homes. [3]

With the onset of COVID-19 it has become obvious that a part of outpatient visits can be managed effectively through telemedicine service without compromising their health or quality of care and the requisite infrastructure for connectivity is widely available. [3]

Telemedicine is an ideal candidate to supplement the imposed restrictions and address problem which would arise from social distancing and isolation. It could be used for consultations and tracking of patients with COVID-19 and help with remote assessment and provision of care. [20] Apart from all the logistic improvements and technological advantages, the implementation of telemedicine during the COVID-19 crisis will help patients' mental wellbeing by enabling isolated individuals to receive timely information and to maintain a sense of social belonging. [16]

COVID 19 is a dangerous disease and the focus needs to be on ways to slow its' progress. Hygiene, social distancing and isolation have shown effective, but have also brought with themselves a number of consequences, which have been overlooked by the media and physicians. The lack of social contacts and support from friends and family degrade normal social support systems and cause loneliness, which risks worsening to anxiety and depressive symptoms. [20] Clinical and nonclinical staff are also at risk of psychological distress as they are expected to work longer hours with a high risk of exposure to the virus. This may also lead to stress, anxiety, burnout, depressive symptoms, and the need for sick or stress leave, which would have a negative impact on the capacity of the health system to provide services during the crisis. [14]

Isolation and spending prolonged periods with the same people in confined space, social distancing and restrictions, working from home, and the abrupt change in pre-pandemic life-style have severely increased the mental pressure and stress on most people. Levels of anxiety increase from fears of contamination, stress, grief, and depression triggered by exposure to the virus, and through influences from the consequences of the social and economic mayhem that is occurring on individual and societal levels. [24] This would lead to increased need for mental healthcare services. At the same time patients with preexisting condition also require their face-to-face therapy and are at increased risk for exacerbation due the extreme conditions. In an attempt to reduce the risk of infections, many mental health care providers in afflicted countries have closed their practices, to provide adequate care for both old and new patients a shift in mental health care provision towards online prevention and treatment will be required. [2]

While the threat of virus infection and consequences of long-term isolation will have direct effect on the mental state of the population, the expected recession following the global pandemic will lead to a second wave of mental crisis. **[8]** Research on the topic suggests, that

economic recessions are associated with negative mental health outcomes. This is especially true for psychological wellbeing, common mental disorders, substance disorders, and suicidal behavior. Mental health workers need to pay attention to high risk groups: the unemployed, those in debt or facing financial difficulties, people with pre-existing mental health problems, and families with children.

Over the course of the last two decades several methods have proven useful for providing quality mental care. These include e-mail, text messages, smartphone apps, online forums, videoconferencing **[27]**. Despite existing for decades, mental telehealth provision has met low acceptance from both physicians and patients, and still has no method of reimbursement in some countries. Telemedicine could provide agility, flexibility, and resilience - essential skills for 21-st-century institutions, particularly when unforeseen disruptive viruses and devastating events driven by climate change are likely to be increasingly common. Once mental health care institutions have developed the capabilities of serving their patients via videoconferencing and other digital technologies, there is little reason for them to give these up, in view of the many advantages. **[4]** During the COVID 19 pandemic several countries have already implemented telemental health services. China has initialized such a program, prioritizing high risk people and their families, and including counseling, supervision, training, as well as psychoeducation through a variety of platforms. **[27]** In Australia, a similar system already existed. Created for providing support in emergency situations, such as long-term drought and bushfires, by videoconference it is now used for coping with the consequences of social distancing. **[23]** The Australian Government also enabled a greater range of telehealth services, including telehealth consultations with general practitioners and specialists. These however, were restricted to special needs groups. As a side benefit of e-health implementation person-to-person contact has also been decreased, reducing the risk of exposure of noninfected but susceptible patients in waiting room areas.

Torous et al. suggest telehealth is the right solution to deliver mental health care in today's crisis. According to them the only reason for patients not to participate in it are if they are unable or unwilling to do so. Historically e-health implementation has faced many barriers, the need for decisive action has led to the temporary waiving of numerous rules and regulations around telehealth by the US government. They report high efficacy and satisfaction from patients and physicians, suggesting telemental care may become normal practice after the crisis. **[21]**

The pandemic won't just influence the mental state of the heathy, fearing infection, and mentally ill, lacking treatment. Those with chronic diseases will also have restricted access to healthcare services. A severely influenced grouped would be those with chronic pain, as chronic pain management and pain management providers face the challenge of delivering face-to-face service through different modes. **[7]** Factors such as older age, population density, socioeconomic gradient, smoking prevalence, levels of chronic disease morbidity, availability of diagnostic testing, and access to health care would also influence the mental resilience of the patients. Longer-term, healthcare workers are likely to be at higher risk of lasting psychological morbidity based on evidence from the 2002 to 2003 SARS epidemic. **[13]** With treatment not readily available will lead to increase in serious mental problem for the patients, which as mention above is also a problem. This would have serious long and short-term consequences for both the individual and the healthcare system. **[9]** To overcome this hindrance teleconsultation could be used, with variety of method: from telephone **[19]** to short messages and video conferencing **[15]**.

Discussion and conclusion:

The critical situation worldwide has led to a tide of e-health implementation and where previously it met resistance and opposition, it is now more widely accepted. Unfortunately, this has led to headfirst jump into e-health technologies without consideration for long term consequences and repercussions. Despite the urgent nature of the pandemic, we should consider which aspects of e-health are appropriate and which have not undergone enough testing or have not proven efficient enough, before implementing them.

Telemedicine has existed since the early 2000. Medical workers have been shown to feel unprepared to utilize telemedicine effectively and uninformed about the laws governing telemedicine use. Training physicians in the usage of digital health provision will not help immediately during the current crisis, but would create a competent workforce, which could react adequately in future such situations. Hilty et al. consider appropriate teaching methods case-based learning, and for content area such as Knowledge clinical decision support tools. [10] Of importance is that training begins as early as possible. The developed proficiency in core competencies in patient care, medical knowledge, and practice-based learning are higher when training begins at undergraduate level as compared to graduate or postgraduate level. [5] Currently telemedicine training in undergraduate education is showing promise, with more than a quarter of medical schools having preclinical telemedicine training in one or more diverse ways, and that almost half of medical schools have found organic ways to incorporate telemedicine exposure into students' clerkship curriculum is promising. [22]

Training physicians is only part of the equation. Many people find using modern technologies a normal part of their everyday life, on the other side of the digital divide are the elderly, the people with low socio-economic status and education. Effort must be made to educate the population so that telemental services can be used to their full potential. [21] A Digital Opportunities for Outcomes in Recovery Services (DOORS) program exists, offering 6-8 weeks of group sessions to develop smartphone skills and competences. The program has been well received by those with serious mental illness and is freely shareable for others to expand upon. [25]

Limitations

Due to the rapidly changing situation of the COVID-19 crisis and constant publications of new literature on this topic, it is likely that more has been published since the initial search was conducted.

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