


**Research Article**

## The Experience of Palliative Care Patients Who Underwent Telemedicine in the State of Qatar during the COVID-19 Pandemic

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### Abstract

**Introduction:** The COVID-19 pandemic is the major global health catastrophe and an extreme challenge since World War II. The aim of the study is to analyze the patient's satisfaction regarding the telemedicine experience in comparison to the face to face clinics even after the pandemic times with respect to the palliative care services.

**Methods:** We surveyed 104 participants who attended the palliative telephone clinic and explored their experience and the efficacy of telemedicine compared to the face to face physician encounters. The survey was conducted by the palliative care physicians and the clinical nurse specialists.

**Results:** In the survey 69 (67%) patients said telephone clinic was convenient and effective. 95 (91%) patients answered time allotted for the clinic was sufficient. 96 (92%) of patients were satisfied with the phone clinics. When given the options in telephone clinic, 77 (74%) patients opted for phone clinics. 97 (93%) patients received the medications on time. 63 (61%) wanted to have a mix of both face to face and phone clinics even after the pandemic. 86 (83%) of the participants said they would recommend the telemedicine to the concerned health authorities. The open-ended question had most of the responses (above 80%) to be positive feeling regarding the telemedicine consultation and the palliative care services.

**Conclusion:** Most of our patients are satisfied and prefer a mix of face to face and phone clinics even after COVID 19 pandemic. Future of medicine should consider a significant space for the telemedicine across all specialties.

**Keywords:** COVID-19; SARS-CoV-2; Telemedicine

### Introduction

The coronavirus COVID-19 pandemic is the major global health catastrophe of our time and the extreme challenge we have faced since World War II. Since its arrival in Asia late 2019, the virus has spread to almost every part of the world. We have now reached the tragic milestone of one million deaths and the human species is suffering an excruciating burden of loss.

The intensity of the affection has a tremendous stress on the entire globe. The crisis of coronavirus disease (COVID-19) was declared a pandemic by the World Health Organization (WHO), whose director-general expressed concerns about the "alarming spread and severity" as well as the "alarming levels of inaction" [1]. The outbreak of severe acute respiratory syndrome

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(SARS) which affected total number of 8,439 cases out of which 21% were healthcare workers, the case fatality rate (CFR) was 9.6%.

Similarly, the Middle East respiratory syndrome (MERS) which affected 2519 cases had even higher case fatality rate (CFR 34.4%). Both the above outbreaks caused a significant fatality among the population it affected. In contrast the current COVID-19 pandemic has led to more fatalities due to the huge number of entities infected. The human transmission of the SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) virus has become the main transmission route of the disease [2]. The healthcare system was overwhelmed across the world and the situation for health care providence was becoming challenging as hours and days went by.

The health care leaders and law makers started to look in to alternate methodologies for providing health care for those people who need imminent clinical consultations. Along with the pandemic itself which was naturally extracting the demand for medical care. The aim was to reduce the risk associated with the exposure of patients to the hospitals and the health care professionals (who were among the highest risk groups) and vice versa. These factors pushed the health care system across the world to its limits. Telemedicine (Also regarded as Telehealth) can be broadly defined as the exchange of medical information from one location to another using electronic communication and technologies, which improves patient health status. Even before the COVID-19 pandemic the telemedicine has been a in the lime light as the W.H.O itself has been promoting and exploring the possibilities of telemedicine to make the health care services reach the rural undeveloped areas of the globe. Even before the COVID-19 the utilization of telemedicine has been rapidly increasing in the USA. From 2010 to 2017, the percentage of US hospitals that connect with patients using video and other technology has increased from 35% to 76% [3].

It can undoubtedly sustain remote medical care, medical education as well as the health care management and its use has amplified intensely over the past 10 years. The advantage of telemedicine during the current COVID-19 pandemic status has been recognized internationally. There are numerous likely benefits to implement telemedicine, including improved access to information, provision of care not previously deliverable, improved access to services and increasing care delivery, improved professional education, Quality control of screening programs and reduced health care costs [4].

The State of Qatar is a country located in Western Asia, occupying the small Qatar Peninsula on the north-eastern coast of the Arabian Peninsula. Its current population is 2,906,583 as of January 2021, based on World meter elaboration of the latest United Nations data. Qatar along with the rest of the entire world was also a part of the worldwide pandemic

of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case in Qatar was confirmed on 27 February 2020. A total of 166,949 confirmed cases, 156,001 recoveries, and 262 deaths have been reported in the country till date (As of 7th March 2021). As such, there are 10,686 active cases under treatment. A total of 1,578,949 people have been tested in the country so far.

The number of deaths in Qatar has been low comparative to the number of reported cases internationally, which may be considered due to the country's adequate healthcare system as well as the strict implementation of preventive measures early on. Considering the COVID-19 situation many regulations were implemented to the method of providing medical care at Hamad Medical Corporation (HMC) in its entirety which is the national tertiary health care provider. National Center for Cancer Care & Research (NCCCR) which is a part of HMC also swiftly implemented the new modifications. As per hospital regulations, all non-urgent services have either been restricted or continued via phone including the pain and symptom management clinic (Palliative care clinic).

Cancer patients are the most vulnerable patients who are susceptible to infections and other ailments as they are mostly immune suppressed and their visit to the oncology, hematology clinics are usually vital for the continuity of cancer care. During the COVID-19 crisis, most of the cancer patients couldn't have another choice other than visiting the hospital for taking their lifesaving therapies (Chemotherapy, immunotherapy, radiation etc.). Meanwhile the clinics at NCCCR accepted to take a new route of telemedicine to reduce the risk of exposure for the cancer patients. Hospital staffs along with patients and their families have been working hard to adapt to these changes including telemedicine to connect over phone/video with a healthcare provider who is in a different location.

To explore the experience of patients attending Palliative telephone consultation, palliative care team started conducting a survey study to evaluate the efficacy of telephone consultation compared to conventional face to face visit, measuring patient's satisfaction, exploring patient's preference to continue using telephone clinic when COVID crisis is over and lastly to explore areas of improvement or changes that would be added to improve services in the Palliative care clinic. The study included 104 surveys from the patients or their relatives who attended the palliative telephone clinic and explored their new experience attending telephone consultations for pain and symptom control, the efficacy of telephone consultation compared to the conventional face to face physician consultations. The survey was conducted using a questionnaire with 12 questions. The study also took a response from the participating patients or their families or the caretaker who participated in the survey

regarding the needs of improvement with respect to telephone consultations. The study also explored the limitations involved in telephone consultations concerning patients with palliative care needs and the efficacy of continuation using telephone consultations among patients with Palliative care needs as a modality of healthcare even after COVID-19 crisis is over.

## Methodology

### The Questionnaire

The questionnaire had a total of 12 questions, and it includes 11 objective questions and was designed to capture some of the main dimensions of the experience of the palliative care patients. The questions gradually start from patient's introduction and then move on to the core topic of phone clinic. It measures the convenience and effectiveness of telephone consultations and at the same time the causes of inconvenience if any. The questions also cover satisfaction and effectiveness of phone clinics. The patients are given an option of selecting the convenient mode for phone clinics. They are questioned on their ability in receiving palliative medicines on time.

The questionnaire ends with the preference of clinics for the patients post covid and their intentions to recommend to the authorities regarding the present model of clinic. Then there is a final question which is open ended which facilitates to us to know about any suggestion to improve our palliative care service. This open part is considered of great importance for a Survey of this kind as it contributes to improving the interpretation of its overall results and provides additional valuable material.

### Survey Sample

The survey was conducted over the telephone by the palliative care physicians and clinical nurse specialists (CNS). A total of 104 surveys were done. All the people interviewed were cancer patients with palliative care needs or their family members representing them. The surveys were done after the telephone consultation session is finished. Out of 104 people interviewed, 60 were patients themselves, 43 were immediate family members and 1 was a private nurse.

## Results

The survey included total of 104 subjects. Out of 104 interviews 60 (58%) were patients themselves, 43(41%) were family members of the patients and 1(2%) was a private nurse. out of 104 patients 63 (60%) patients were known to our clinic even before COVID -19 and 41 (40%) patients were new to our clinic who started following with our services after COVID- 19. When asked about the convenience and effectiveness of telephone consultation 69 (67%) patients answered in affirmative and 34 (33%) patients

had an opposite opinion (i.e. inconvenient and ineffective). Out of the 34 (33%) patients who had opposite opinion (i.e. inconvenient and ineffective): 15 patients found it difficult to express their concerns, 12 patients found it psychologically not satisfactory as it would be with meeting the physician in person and 3 patients were facing technical issues.

When enquired whether the time allotted for the clinic was sufficient to express all needs and concerns, 95 (91%) patients answered positively and 9 (9%) patients answered negatively. The effectiveness of phone clinic as a method to revive medical care was found very effective by 44 (42%) patients, somewhat effective by 49 (47%) patients, somewhat ineffective by 6 (6%) patients and very ineffective by 5 (5%) patients. 54 (52%) patients were very satisfied with the phone clinics, whereas 42 (40%) patients were somewhat satisfied, 5 (5%) patients were somewhat dissatisfied and 3 (3%) patients were very dissatisfied. Given the options in telephone clinic, 77 (74%) patients opted for audio or phone clinics and 28 (27%) patients opted for video calls.

When questioned whether the patients received the palliative medications on time, 97 (93%) patients received it on time and 5 (5%) patients didn't receive it so. The patients preference of mode of clinic post COVID- 19 was enquired and 30 (29%) wanted face to face clinic, 11 (11%) wanted to continue phone clinic and 63 (61%) wanted a mix of both face to face and phone clinics. When surveyed about how likely would the patient recommend the telemedicine experience to the concerned health authorities, the following were the answers: 49 (47%) patients felt it very likely, 37 (36%) patients felt it somewhat likely, and 12 (12%) patients felt it somewhat unlikely and 5 (5%) patients felt it very unlikely.

The survey questionnaire had an open ended question which was "What improvements or changes would you like to see in our Palliative care clinic services? For which, over 80% of the patients or family members replied that they are very much satisfied with the service. Out of that 35% patients said that they felt that there should be both telephone and face to face clinic services. 15 % of the patients felt that telephone clinic is not effective as they feel better seeing the physician face to face. 1 person commented that the space in the clinic is not sufficient while coming directly to the clinic. 2 people were not satisfied with the service due to language barrier and prescription collection procedure and delays from pharmacy. Around 5 patients felt that there should be a greater number of palliative care clinics to address their needs.

## Discussions

The aim of this survey project was to assess the effect and experience of palliative patients who attended telemedicine in the state of Qatar during the COVID-19 pandemic. The survey also evaluated the role of telemedicine services in diagnosing, treating, and controlling symptoms of cancer patients who

needed palliative care services during COVID-19 pandemic. The survey revealed that 67% of the patients who attended the palliative care telephone clinics were happy to attend and avail the services through the telephone. This is very important for all health care services especially the patients who are under palliative care service, as they usually suffer from high symptom burden. We also found that 61% of our patients who had participated in the survey wanted to have telephone clinic as well as face to face clinics in the future even after the pandemic is over. Our survey also revealed that 83% of the participants wanted to recommend in favor of telemedicine to the concerned health authorities. Also 92% of the participants were satisfied (Including very much satisfied and somewhat satisfied) with the telemedicine consultation. Overall, the model of palliative care service provided through telemedicine was very well accepted and welcomed. We feel the future researches must be more focused on the advancements and developments of new technologies and modalities which should be tailored for individual specialties. In our survey, 33% of patients had issues with telephone clinics and the problems were difficulty to express their concerns primarily due to language barrier as the people of Qatar comprises of a very multicultural, multinational and multi linguistic population. Few patients found it psychologically not satisfactory compared to as it would be when meeting the physician in person and very few patients were facing technical issues. Currently the best preventive strategy is to avoid being exposed to the corona virus, because there is no proven treatment for COVID-19. A series of strategies have been proposed for infection prevention and control (IPC) that may diminish the exposure risk, such as wearing of face masks in mass population, Covering mouth and nose with tissue when coughing and sneezing, continuous hand washing with soap and water or hand sanitizer containing at least 60% alcohol, avoidance of close contact with others, keeping true social distance and refraining from touch of unwashed hands with eyes, nose, and mouth [5]. To reduce the number of patients who receive face-to-face services of health care around the globe, healthcare workers and health care institutions are promoting the telemedicine services, where the health care providers can contact the patients through telecommunication tools for triaging, assessing and caring for all patients [6]. As per a study conducted in the USA, phone calls and electronic health records (EHR) can ease the process of screening or treating a patient without the need for in-person visits and improve decision making process among healthcare team in an ambulatory and emergency care [7]. The result of telemedicine during the COVID-19 pandemic in preventing sickness and to avoid the presence of people at high-risk areas such as hospital premises was impressive. Even the aged population can use health services by using electronic modes of communication, more conveniently a telephone or a mobile phone. The telemedicine clinics are considered as a gift during these difficult times, as the most

essential health care needs are addressed, and the vital health care follow ups are met. There was a study published on 2014 well before the pandemic times which did the assessment of telemedicine to support outpatient palliative care in advanced cancer and the study concluded telemedicine permitted better access to the healthcare system and it reduced the need to utilize the emergency services, improved assessment/control of symptoms, and provided greater orientation and confidence in the care given by family members through early and proactive interventions [8].

## Limitations

Telemedicine maybe the direction towards the future even after the pandemic times are over but it still has many limitations like the lack of the "personal touch or conversation " with the physician or the health care provider. In our survey we found out that 33% of patients expressed their concerns and were not favoring telemedicine due to the psychological disconnection with the health care provider and the difficulty to express their needs. In our study, the populations surveyed were multi linguistic, multi-cultural and multinational hence there was limitation in the mode of communication especially during a telemedicine clinic session where there may not be a translator available. Also, in our study only 58% were patients who directly participated in the survey, the remaining 41 % were immediate family members as the patients were too fragile and weak to be communicating and there was 2 % who were private nurses. The confusions regarding the laboratory tests and collection of medication from the pharmacy were also present for few patients due to the lack of personal staff guiding them during a face to face clinic visit. Advancements in technology with respect to telemedicine has not been widely explored nor made reachable to the health care community. Adequate exposure to latest technologies and training is currently lacking among the healthcare providers and institutions.

## Conclusion

The number of palliative care patients surveyed in the project is a decent number to assess the experience of our patients considering the nature of the disease which is very much debilitating. The study explores the potential and role of telephone clinic during COVID 19. Telephone clinics can address most of the key issues of palliative patients in providing health care services. It can avoid direct physical contact with the patients and vice versa, hence reduce the risk of COVID transmission and provide care to the public. Based on the findings of this survey, 67% of the palliative care patients felt telemedicine clinics to be convenient and effective. 92% of the participants were satisfied with the telephone consultation which a good satisfaction score is considering the nature of the specialty. They were happy with phone clinics as a way of providing health care services.

Also, most of the patients prefer a mix of face to face and phone clinics even after COVID 19. The future of medicine shall greatly rely upon the advancements in the field of telemedicine. All specialties should give importance to researches concerning telemedicine to equip themselves with appropriate methodologies and technologies to deliver the best health care. Health care providers and institutions should have telemedicine and face to face consultations together in providing services. Telemedicine endures to grow at an augmented rate around the globe. The field of telemedicine is expected to grow at a higher percentage and pace over the future as more hospitals and healthcare facilities bring this technology online. Telemedicine has the potential to decrease healthcare cost, improve patient reach and health results and transform the way health care providers treat their patients. As time goes on, telemedicine technology should get more advanced, anchoring its influence across all medical specialties and be a great supplement to health care system during times like COVID 19.

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