

Title:

Use of telehealth services among Nepali living overseas during Covid-19 pandemic: the opportunities, limitations, lessons learned and recommendations

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Abstract:

There are estimated over 8 million Nepali migrants spread across various countries around the globe. Though the majority of them enjoy good health in general, a large proportion of them suffer from non-communicable diseases, mental health issues and communicable diseases. Telemedicine services, which are organized by Non-Resident Nepali Association (NRNA), have been proven to be effective in addressing some of the medical needs of the migrant Nepali workers. The purpose of this study is to assess the use of tele-health services among Nepali migrant population and examine the limitations. During the pandemic period from March 2020 through August 2021, Nepali in different countries utilized telehealth services. Mental health issues, chronic diseases, skin diseases were the most common ailments people sought telehealth services for. Digital gap, lack of cross-border regulations and unwillingness to utilize telemedicine were the challenges the service faced in the optimal use of such services. Training and education, use of easy Apps and subsidies from the government would help in the long-term use and sustainability of telehealth services amongst the Nepali migrants.

Introduction:

From the onset of the pandemic caused by SARS-CoV-2, commonly known as coronavirus, in person visit to health care facilities has been drastically limited (1,2). Inability to visit health care providers have particularly hit hard on people with low income and those who are economically deprived (3).

The pandemic has been the precursor for the rise and expansion of telehealth services (4).

Healthcare workers, health facilities, hospitals and clinics have all acknowledged the need for telehealth services to compensate for the dwindling in-person visit and make accommodations to increase access to virtual services (4).

Through telehealth, doctors and nurses have the ability to use world wide web and electronic devices (computers, smartphones, or tablets) to connect with patients virtually while simultaneously assessing the home environment where patients reside.

Telehealth could be thought of as a spectrum. On one end of the spectrum is as simple as a doctor communicating via email with patients and providing health guidance or advising the patient telephonically over the phone. The other end of the spectrum can be as sophisticated as examining the middle ear of the patient from a remote place, using a remote otoscope and that image being assessed by an ENT surgeon to determine the cause of the painful ear, or even a cardiologist listening to cardiac murmurs of a patient using the stethoscope placed on his chest by a health assistant in a remote health care centre.

This article aims to reflect upon the utilization of the newly instituted tele health services by the NRNA for people of Nepali origin during the pandemic. We ponder upon the limitations, the lessons learnt and we provide further recommendation to improve the utilisation and sustainability of tele health services.

Service Provision and Development

There are over 8 million people of Nepali origin that reside outside Nepal in over 100 countries around the world. Whilst most are migrant workers, living in the host country on working visas, some are students. Minority of migrants are professionals and they reside in their host country as either permanent residents or, a smaller percentage, hold the citizenship of their country of residency. (5)

Latest Consensus is that over half of the Nepali diaspora are based in the countries of the Middle East, Malaysia and India. The rest reside in Europe, Americas, Asia,-Africa and Australia (5).

In accordance with the well-recognized global disease burdens, Nepali migrants suffer from several health issues that include but are not limited to heart diseases, renal diseases, mental health issues that lead to suicidal ideation and attempts (6-9). Unpublished data from the Middle East show the health seeking behaviour is low among Nepali migrants as they tend to be of younger population demographics and they do not visit a doctor or clinic until the health situation is serious.

At the onset of the global pandemic in March 2020, Non-Resident Nepali Association (NRNA) in collaboration with Danphe Care, a virtual hospital system based in Nepal, launched a telehealth service. Danphe Care has a specialised team of mental health care workers including psychiatrists and psychologists. The telehealth service also included specialists and experts in wide field of medicine, including but not limited to, Medical Specialities such as Physicians, Infectious disease specialists, intensivists, nephrologists, rheumatologists, endocrinologists, gastroenterologists as well as dermatologists. Surgical specialities represented are General surgeons as well as staff from surgical subspecialties such as ENT, Gynaecology, Ophthalmology, Orthopaedics and Urology. In order to provide holistic care, we also included allied health care professionals such as Dental health care providers (including dentists) Dieticians and physiotherapists.

Any person of Nepali origin residing in any part of the globe could access this telehealth service via phone, text or email. The health seeker used WhatsApp, Viber, Facebook Messenger, or email to communicate with the relevant health care provider.

Once a person contacted the telehealth service, a nurse registered him or her and triaged using color codes: green, yellow or red. Simple health issues that could be managed by medical officers were labelled as codes-green, medical issues that require specialist consultations were labelled as yellow and those that needed emergency referral or care were labelled as red. Telehealth service was limited to non-acute, non-emergency related health issues. The Patients labelled as red were urged to immediately contact the local emergency centre and seek emergency medical/surgical care. Many Nepali received telehealth services during the pandemic in different countries around the world.

Health care providers were of Nepali origin so as to keep the language barrier to the minimum. Majority of patients received tele health services from medical staff residing in different countries from the patients. However, some consultations occurred between doctors and patients in same country, in such instances, patients that were able to and willing to travel to the medical centre where the doctor was practising from were encouraged to do so and they received physical examination, imaging services as required. They also received relevant medications at the same visit.

Mental health related issues surrounding infections from SARS-COV-2, were the primary reasons for contacting the telehealth service. Anxiety symptoms were reported most often once the patient received a positive covid -19 diagnosis. Symptoms unrelated to Covid-19 were: fever, cough, shortness of breath as reported by patients. Other symptoms that encouraged usage of telehealth services were joint and back pain, loss of appetite and palpitations.

Majority of the consultation was asynchronous and was provided via email. The healthcare seeker contacted the telehealth program via email explaining their health condition. They left their contact details in the email. A triage nurse then contacted the individual via platforms of WhatsApp, Viber or FB Messenger or FaceTime and Zoom messenger services.

Some examples of telehealth consultations provided around the world are listed are:

1. A migrant worker in Malaysia emailed to ask the cause of his widespread itching on his body. A dermatologist provided consultations via phone.
2. A woman in Kuwait called and asked for advice on her gynaecological issue. A gynaecologist from the team provided consultations.
3. A person in Europe wrote on behalf of his friend who was mentally depressed for weeks. A psychiatrist in the team ~~service~~ provided coping mechanism education and monitored this patient until they went in to receive physical consultation in their country of residence.
4. An elderly man in Japan went to the toilet several times in the night and was unable to empty his bladder. The urologist from the telehealth services provided him with further health guidance.
5. Covid +ve patient from Kuwait was evaluated and immediate oxygen therapy was recommended for him while he was waiting for physical admission to the nearest hospital.
6. Covid+ve individual in Japan, another that required immediate ambulance transfer was successfully:-

7. A young male patient in South Africa emailed and reported having a mass in his abdomen which was reducible, he was referred to a General surgeon in the team and this patient was able to travel 260kms to get to the Surgeon that lives in South Africa as well. This patient received operative care where the surgeon works.

Limitation and Constraints

Several limitations and challenges were observed during the telehealth services. Due to various limitations placed on the doctors by the Medical councils of their respective countries, ~~regulatory bodies~~, Health care providers were hesitant to provide consultations to individuals residing in areas outside of their country or jurisdictions. Lack of regulation or certification of the telehealth services operating across the international border was another limitation of this service. Because trans-border telehealth services have yet to be regulated or formally certified, this program can not be classified as real “telemedicine or telehealth service”.

This made the doctors hesitate in consulting international patients. However Medical licensing regulating agencies in many countries provided waiver to provide ability to examine individuals across the border.

Another limitation was the inability of this service to prescribe medications or minor surgical procedures. The provider and the seeker of the telehealth being in different countries and the lack of trans border medical licensing prescriptions could not be written. Doctors in one country hesitated from prescribing medicine to patients in another country. They did however provide ‘recommendations’ for medications. This assisted the patients in obtaining the prescriptions in their country of residence.

Surgical recommendations needed to be followed up by the patient seeking advice of the telemedicine health team, and unless we were informed of the outcome by the patient we could not follow up on the patient.

Digital gap was another major challenge. Not everyone had the required internet connectivity and the preferred device for the optimal performance. Some patients have sophisticated smartphones, others may not even have the internet where they live. For a successful telehealth encounter, the individual seeking service needs to have an electronic device and a reliable internet service that is capable and efficient to download images and videos. Literacy level and language are amongst the key barriers in the widespread use of telehealth services among migrants. Most of the migrant workers have a literacy level that is below high school or 12th grade. A large majority of them are not proficient in English. English language is used in medical terminologies and in the usage of telehealth to a large extent. This deters migrants from readily using the services.

Future Development:

Affordable and user-friendly information technology are critically important in order to promote the use of telehealth services amongst the migrant workers. Language and literacy level of migrants provide the hindrances too. Development of simple Apps ~~Use of Apps~~ that can be easily operated by people with low literacy levels and that are translated in Nepali language go a long way towards the popular usage of telehealth services.

Use of artificial intelligence that is suitable for migrants needs to be explored. There are multiple private and public sector opportunities that can support in expanding the telehealth services, by creating awareness of such services and by educating the migrants on availability and utilization of such services.

Conclusions:

Economically deprived population people and migrant workers may could-benefit maximally from telehealth services that operate across the border, but internet connectivity, technical illiteracy and unwillingness to seek services pose major challenges. We need to focus on creating affordable and user friendly technologies that help overcome language and literacy barriers in the promotion of telehealth. Stakeholders and government authorities could provide encouragement to migrant workers to seek such services and help them overcome challenges towards seeking it. Once the need for tele health services is established, we can then focus on health care providers and their regulatory bodies to liaise together and form guidelines on how to refer patients that may need various in contact services such as obtaining prescription medications as well as surgical referrals.

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