Implementation Study

Televisitation: Virtual Transportation of Family to the Bedside in an Acute Care Setting

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Abstract

Televisitation is the virtual transportation of a patient’s family to the bedside, regardless of the patient’s location within an acute care setting. This innovation in the Telemedicine Program at Thunder Bay Regional Health Sciences Centre (TBRHSC) in Ontario, Canada, embraces the concept of patient- and family-centered care and has been identified as a leading practice by Accreditation Canada. The need to find creative ways to link patients to their family and friend supports hundreds of miles away was identified more than ten years ago. The important relationship between health outcomes and the psychosocial needs of patients and families has been recognized more recently. TBRHSC’s patient- and family-centered model of care focuses on connecting patients with their families. First Nations renal patients with family in remote communities were some of the earliest users of videoconferencing technology for this purpose.

Introduction

Why Televisitation?

The negative consequences of isolation from family and community supports are an added burden to patients coping with illness in Thunder Bay Regional Health Sciences Centre (TBRHSC). Videoconference technology can be used to relieve this burden. According to Gerald Corey: “A sense of connectedness allows us to better adapt to life’s many challenges. Loneliness can chip away at our psychological well-being and impact our physical health. Building a support network is a great way to reduce loneliness and… its consequences.”

Objectives

The objectives of TBRHSC’s telemedicine program are to reduce the impact of geographic and climate barriers between patients and their families; to reduce the negative psychosocial consequences of patient isolation and loneliness; to achieve optimal and equal access to exceptional care; and to support TBRHSC’s patient- and family-centered care (PFCC) model by bringing together patients, their health care partners, and their families during the patient’s journey within our facility.

TBRHSC is a 375-bed regional facility on the north shore of Lake Superior in Ontario, Canada, and is the major health service provider for Northwestern Ontario. Its catchment area is 523,252 km², close to the size of France (547,030 km²). The population of this region is sparse (<250,000), with 122,000 people within and around the city of Thunder Bay and the remainder in small communities. These include 70 First Nations communities, 24 of which are accessible only by air or winter ice road. Fort Severn, 850 km north of Thunder Bay, is an example of this type of remote First Nations community. Telemedicine is a vital link to family and services outside of this remote community. As one of the largest providers of telemedicine services in Ontario, TBRHSC continues to find creative ways to deliver health care closer to home.

Methods

Technology

TBRHSC uses secure videoconferencing technology, with funding from the provincial and federal governments along with other agencies. It is supported by the Ontario Telemedicine Network and their First Nations counterpart, Keewaytinok Okimakanak Telemedicine. Televisitation is 1 of 33 clinical services delivered by more than 70 clinicians within TBRHSC. Televisits account for a few of the more than 7500 clinical telemedicine conferences at our facility in 2011. Use of a secure network is the only option at this time. Applications like Skype, although available in community settings, are often not supported on hospital networks, for privacy or security reasons.

TBRHSC uses 25 videoconferencing systems to provide televisitation. Additionally, we have installed secure network plug-in access feeds to allow connectivity in every inpatient unit. By adding laptops and Wi-Fi connections at the bedside, we will provide private-computer video conference connections, a less intrusive technology for individual patient use. Large studios can also be used to accommodate more family members and friends supporting the patient. We have investigated the opportunity for national and international connections and are confident such visits can be accomplished if requested. Multisite, simultaneous connection is also possible. For this reason, televisitation is particularly well-suited to a patient- and family-centered environment.

Patient- and Family-Centered Care

PFCC is not just a slogan to display on a wall. Our definition of PFCC, adopted from the Institute of Medicine, is “the provision of care that is respectful of and responsive to individual patient/family preferences, needs and values, and ensures that these values guide all clinical decisions.” TBRHSC created a blueprint to accomplish real, systemwide change. This organizational transformation was accomplished by engaging everyone in a challenge to enhance the care experience for our patients and their families. Our journey to PFCC began with specific corporate strategies involving our 2500 employees and hundreds of partners.

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Tools to support and promote a new culture of caring were needed. A staff handbook and resource teaching guide were created to engage patients and their families, physicians, staff, and volunteers and to explain what PFCC really means and looks like in action. The handbook discusses our philosophy of care, the definition of PFCC, core values of care, actions and attitudes, and guidelines for PFCC practices. The Board of Governors solidified their commitment to this journey by changing the organization’s mission, vision, and value statements.

Patient family advisors (PFAs) are at the heart of the PFCC model of care. When PFAs tell health care clinicians their experiences in caring for patients, it generates empathy and a passion for optimizing the experience of every patient. This is the foundation for all of our improvement efforts. PFAs provide valuable insights and give us firsthand knowledge of how our services affect patients.

Results
We have begun to develop a new culture, care, and business model that incorporates PFAs into almost every aspect of our services, including staff hiring, board committee reviews, education, program planning, and care teams. Currently, we have more than 80 actively engaged PFAs. Partnering with patients and families in more than 200 teams/committees, we have shifted the way we work and make decisions. Together, we have set out to improve our care, and after one year, our outcomes were astounding! Overall patient satisfaction improved by 12%, as measured with combined scores in all dimensions.

Improvements were evident in all 8 categories, with increases ranging from 6.8% to 21.6%. Scores in all PFCC dimensions were significantly higher than the Ontario averages. Staff and physician satisfaction scores also improved; the 2009 scores were 17.3% higher than the 2007 scores, bringing the rate to 82.2%. Two years later, TBRHSC had achieved improvements exceeding the Ontario Teaching Hospital averages (Figure 1).

Discussion
Televisitation from a videoconferencing studio within our organization was first offered more than 10 years ago to renal dialysis patients who had been relocated in Thunder Bay. Many renal dialysis patients were separated from their families and friends in remote communities, some of which were accessible only by air or winter ice roads. As the daughter of one dialysis patient shared, “My mother is 340 miles [550 km] from home and wanted to go home to die. With televisitation, she has agreed to stay for treatment and visits regularly with family and friends by video.” There are numerous studies of the effect of social support on survival rates in dialysis patients. In a study published in the Netherlands in 2006, Thong et al concluded that “social support affects health through behavioral, physiological and psychological mechanisms. … Feeling socially isolated can induce stress and anxiety, which in turn can produce physiological changes [that] … if prolonged, could lead to higher morbidity and mortality.”

Dialysis treatments often must continue for life and are usually offered in larger centers. There is a perception among residents of small, isolated communities that loved ones who go to the hospital in the city will never again live within their community and will die in isolation. Patients who have regular visits by video with their families and friends continue to receive support and to engage in community life.

Many patients accessing care from our regional tertiary facility come from very small and isolated First Nations communities. Frequently these patients do not speak English. With the help of a First Nations interpreter and a video connection, physicians and care teams can communicate with family at the patient’s home community and involve them in the plan of care. In a 2009 publication for the California HealthCare Foundation, Rosland noted, “Cultural background also influences how family members interact with patients’ health care providers. Cultural norms may influence who takes the lead in communicating with the provider. When patients are from a cultural background different than that of their provider, family members can assist patients in communicating their needs and values to the provider.”

Expanding the Scope of Televisitation
Teleconsultations are televisitations in which health team members, including physicians, nurses, social workers, dieticians, palliative care teams, and others, participate. Teleconsultation can inform family members of a patient’s progress and provide them an opportunity to give their input regarding the plan of care. These sessions are also useful for planning the safe return of patients to the community following discharge. When the patient is incapable of decision making, designated advocates can participate with the entire care team in end-of-life decisions.

Televisitation was also promoted during the H1N1 pandemic, when visitation restrictions separated families. Virtual visitation was successfully offered to patients in the intensive care unit, allowing multiple communities to interface simultaneously. Bedside televisitation provides members of the patient’s family the opportunity to be virtually present for sentinel events in the patient’s life, from birth to death.

Figure 1. National Research Corporation Picker data.
TBRHSC = Thunder Bay Regional Health Sciences Centre; IP = inpatient; PFCC = patient- and family-centered care.
Removing Barriers: Real-Life Experiences

Teleconferencing connections are available in every inpatient unit, enabling every patient to be reunited with supportive family and community members (Figure 2). We have effectively removed all barriers, from within our organization, to make this possible. An example is a policy for use of the equipment in acute patient care settings.

Case Presentations

1. A forensic mental health unit client reestablished a relationship with his family and community, located 600 km (373 miles) away. He had been estranged from his family and community for many years. Loneliness and alienation from one’s family and community affect both physical and mental recovery. Repper et al noted: “A common aspect of recovery is said to be the presence of others who believe in the person’s potential to recover and who stand by them. … Those who share the same values and outlooks more generally (not just in the area of mental health) may also be particularly important. It is said that one-way relationships based on being helped can actually be devaluing and that reciprocal relationships and mutual support networks can be of more value to self-esteem and recovery.”[1] Televisitation provides an opportunity to rebuild relationships with family members and facilitates return to the community upon completion of treatment and incarceration.

2. An elderly man married for more than 50 years was his wife’s primary caregiver. They had never spent a day apart, even though she required increasing services, leading to placement in a long-term care facility. When he was admitted for cardiac care, he became very distressed because he was unable to see his wife. Using video technology, the health care team was able to bring husband, wife, and daughter together, almost daily, until his discharge.

Cost of Service

TBRHSC does not charge patients for televisits. The tremendous value of family at the bedside has been accepted as an integral part of patient care and recovery. Visits may incur a charge to the family if bridging technology is required to connect with them in another province or country. These costs do not generate profit; they reflect the costs to the organization for the extended service. Many commercial companies provide secure connections for this type of service.

Conclusion

Televisitation is an example of TBRHSC’s PFCC philosophy[2] in action. It recognizes the importance of including family and friends as essential health care partners. A patient can ask any team member to initiate the process for a televisit. The opportunities are limitless, from connecting new mothers and their babies in neonatal intensive care units with family hundreds of miles away, to end-of-life visitation in the adult intensive care unit. Promoting this service for life planning is leading to the Palliative Care Team’s recognition of its usefulness. Widespread adoption of this approach is anticipated. Keeping a patient connected to their community support system is vital to health and well-being. Televisitation ensures that a patient’s health journey can include family support. PFCC has become the umbrella for all of TBRHSC’s care initiatives, integrating best practices related to patient care, flow, quality, and safety. TBRHSC was recently recognized by Accreditation Canada with the first and only PFCC Leading Practice Award, in 2011. Through our commitment to Caring Together, we will continue to be leaders in world-class PFCC.

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

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