Telehealth in COVID-19

• Due to the COVID-19 pandemic, there has been a rapid movement to telehealth.
• For many healthcare providers, this has been their first exposure to telehealth.
• As such, it seems prudent to cover some of the basic elements of telehealth.
Telehealth – Introduction

• What is telemedicine/telehealth?
  – Telemedicine is a Medical Services Delivery System which utilizes telecommunications technology to enhance access to health care in remote and low resource settings.
• What is Telemental Health?
  – National Library of Medicine defines Telemental Health as: “the use of electronic communication and information technologies to provide or support clinical mental health care at a distance.”

Telehealth - Introduction

• History of telemedicine & Telemental Health
  – The first documented use of telecommunications technology to provide health care at a distance occurred in 1920 in Norway, where radio links were established to provide health care services to ships at sea.
  – Telemental health had its start in 1959 at the Nebraska Psychiatric Institute by using early videoconferencing to provide group therapy, long-term therapy, consultation-liaison psychiatry, and medical student training.
  – The first formal study of Telemental Health was conducted at Harvard University Medical Center’s Massachusetts General Hospital in the late 1960s under the pioneering efforts of Dr. Thomas Dwyer.

Telemental Health

• Understanding Telemental Health
  – For purposes of this presentation, we will define Telemental Health as the provision of mental health diagnostic and/or therapeutic services and/or supervision, mentoring, and collaboration via real-time encrypted interactive video-conferencing.
  – Most Telemental Health programs use a system design that resembles a “hub-and-spoke” model, with an organization, medical center or hospital, serving as the hub and community-based programs as the system’s spokes.
Telemental Health

Technology and Telemental Health
- Video Tele-Consulting, VTC, is the standard model used in Telemental Health, although other models, including "store and forward" models are in use.
- Depending on the need and availability of communications infrastructure, Telemental Health can use a variety of transmission modes, but most are using an encrypted internet protocol (IP) model. It is important to note that HIPAA requires a moderate level of encryption with patient encounters to insure patient privacy.

Telemental Health

Understanding Telemental Health
- Patient satisfaction with Telemental Health is generally comparable to face-to-face.
- Literature suggests no discernable loss of diagnostic accuracy or subsequent outcomes for services provided via Telemental Health vs face-to-face.
- One study reported that Telemental Health is, in some ways, superior to face-to-face. (Rabinowitz, et al., 2006)
Telemental Health

• Understanding Telehealth transmission
  – Bandwidth
    • Movement to IP based systems
    • Minimum of 384k
    • Faster is better!
    • Slow bandwidth can cause pixilation – very problematic during a clinical encounter!

Telemental Health

• Human Factors – (provider side)
  – Familiarity with equipment is critical!
  – Eye Contact during the session is important
  – (Downward gaze) Doctor is “not interested, sad, or depressed”
  – (Direct gaze) Doctor is “Engaged, involved, and approachable”
  – 90+% of study participants agreed that eye contact was very important.

Telemental Health

• Human Factors – (patient side)
  – Patient orientation is critical – a trial run is often useful
  – Option for staff member to accompany patient is important, if available.
  – Freedom from distractions is very important (phone, TV, other background noise).
  – Privacy assured (no recording, visitors, observers without consent). A major concern of most patients.
**Telemental Health**

- Lessons Learned:
  - Staff training and comfort with the technology is extremely important!
  - Establishment of a telehealth protocols (to be discussed in detail.)
  - Team meetings
  - Supervision & Training
  - Need for rapid tech support

**Telemental Health**

- The range of mental health services provided via telehealth is similar to those provided face-to-face, including:
  - Diagnostic evaluations/mental status examinations
  - Individual, group and family therapy
  - Medication management
  - Case management/treatment planning
  - Case conferences
  - Training and supervision - to be discussed!

**Telemental Health**

- CMS recognized mental health providers:
  - Psychiatrists
  - Clinical Psychologists
  - Clinical Social Workers
  - Clinical Nurse Specialist
  - Physician Assistant
  - Nurse Practitioner
  - Licensed Mental Health Counselors
Telemental Health

• Telemental health protocols: (Provider side)
  – Training and orientation on the use of the technology is imperative!
  – Practice runs with another staff member is prudent.
  – Seeing oneself on the screen, as the patient will see you is important – Norm Alessi example.
  – Using a neutral background is important – light blue is ideal.
  – Choice of clothing is important – plaid may cause pixilation.

• Telemental health protocols: (Provider side)
  – You may need to provide more reassurance to the patient than in a face-to-face encounter.
  – Have back up telephone number in case the telemedicine encounter fails – technology is not perfect – be prepared!
  – Orient patient to the use of the technology and assure them that the same privacy rules are used as in a face-to-face encounter. Patients often express concern about privacy.

• Telemental health protocols: (Provider side)
  – Cross state licensing is a major issue! In a clinical encounter, a provider must be licensed in the state they practice in, but also in the state that the patient is in at the time of the visit. The patient site is called the “originating site”. Laws are clear on this issue and some states, such as, California and New York, are particularly strict.
  – HIPAA compliance is a must! Using an encrypted platform is required.
Telemental Health

- Telemental health protocols: (Patient side)
  - Patient safety first!
  - In a clinic setting, have on-site staff available if needed in an emergency, such as, extreme agitation, suicidal gesture or attempt, etc.
  - In a remote encounter, have emergency telephone number available in case of high-risk behavior.
  - Orient patient to the use of the technology and assure them that the same privacy rules are used as in a face-to-face encounter. Patients often express concern about privacy.

Tele-Health Efficacy

Yellowlees, et al, examined telepsychiatry in emergencies and found that telepsychiatry improved access to psychiatric care in emergencies, including one-time clinical events and public health situations associated with a mass disaster.


Tele-Health Efficacy

MSF examined 5,646 telemedicine encounters and report that time for the median time to answer a case decreased from 20 to 5 hours. The quality assurance scores were stable. User feedback was generally positive and 90% of referrers who provided a progress report stated that their case had been sent to an appropriate specialist. The study concluded that offering direct specialist expertise in low-resource settings improved the management of patients and provided additional educational value to the field physicians, thus bringing further benefits to other patients.

Tele-Health Efficacy

Augusterfer, Mollica, et al examined the role of digital health/mental health in post-disaster settings (a natural disaster and a post-conflict setting) and found that telemedicine is an effective tool to meet the need for evidence based mental health care in post-disaster and low resource settings.


Tele-Health Efficacy

Brandon et al studied the efficacy of Telehealth as a medium to train providers in distant locations and concluded that “telehealth represents a feasible avenue for training and supporting leaders of psychosocial interventions. In addition, telehealth is particularly well suited to the need for training providers in areas outside urban centers or academic communities”.


Tele-Health Models

- Blended model – a combination of face-to-face contact with distance contact.
- The HPRT model uses the blended model in support of primary care providers in varied distant locations – similar to the consultation/liaison model.
- Face-to-face – provider to patient model.
- Hub and spoke model – excellent for teaching.
Tele-Health Health

Lessons Learned
• A blended program of face-to-face training and case supervision followed by an encrypted online platform to provide distance follow-up training and case supervision has proven to be a successful model.
• Follow up surveys of participants and providers have indicated high level of satisfaction with the model.
• The model has helped create a strong global community of practice by providing ongoing support and education to clinicians working in remote and low-resource settings.

Tele-Health Health

Lessons learned
• Significantly decreased loss of work time for providers and patients,
• In a hospital setting, more appropriate referrals for hospital admissions,
• Significantly shorter wait times for psych and substance abuse evaluations in the ER,
• Improved discharge planning and better post hospital follow-ups,
• An excellent model for reaching hard to reach and underserved populations.

Tele-Health Film

[Image of a book cover]
**Tele-Health**

Conclusion and recommendations

– Training of personnel on the use of equipment, and comfort with its use is an essential component in establishing a successful program.

– Legal and regulatory issues, which vary state to state, will need to be addressed, as needed.

**Tele-Health**

Conclusion and recommendations

– Telemental Health, as stated in the introduction, utilizes technology to enhance access to specialty health care.

– After an initial orientation, provider and patient satisfaction is as good as, or better than traditional face-to-face sessions.

– Telemental Health can improve provider isolation, thus helping build a community of practice, improve self-care, and reduce the risk of professional burn-out.

**Tele-Health**

The Former Surgeon General of the United States, Richard H. Carmona, M.D., stated:

“Telemedicine is one of the key medical delivery systems that will help us address the critical medical issues facing those of us in healthcare.” Thus, leveling the field of knowledge from centers of excellence to remote and underserved areas.
Outcome

“However beautiful the strategy, you should occasionally look at the results.”
Winston Churchill

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