

Telebehavioral Health:

Clinical Applications, Benefits, Technology Needs, and Setup

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Mental health disorders are common and are associated with high levels of distress, disability, morbidity, and mortality [1]. However, many people with these disorders do not have access to mental health services. It is often difficult to recruit and retain mental health providers in rural and underserved communities, and this lack of access can sometimes force patients to travel long distances in order to obtain mental health services or to forgo such services altogether. Primary care or other medical providers are often placed in the position of serving patients with severe mental health conditions, with little or no specialty support. These factors reduce the quality of mental health services available to patients in rural and underserved communities.

A growing body of literature suggests that the use of live interactive videoconferencing to provide mental health care has the potential to mitigate the workforce shortage, especially in remote and underserved areas [2, 3]. With such an arrangement, a provider at a distant location evaluates and treats a patient at their local clinical site via live interactive videoconferencing. This practice has been referred to by various terms: telebehavioral health, telepsychiatry, telemedicine, e-behavioral health, telemental health, e-care, telehealth, and telecare. Telebehavioral health can also be used for consultations between providers, education of providers and patients, and the integration of science-based treatment practices into routine clinical care.

Clinical Applications

Telebehavioral health has diagnostic and therapeutic uses across the lifespan. Common applications include diagnostic assessment, prehospitalization assessment, posthospitalization follow-up care, medication management, psychotherapy, and consultation. Telebehavioral health can also provide health workers in remote areas

with continuing education on mental health topics. Points of delivery for telebehavioral health may include hospitals, emergency departments, clinics, offices, homes, nursing homes, schools, and correctional settings. Finally, it is possible to perform commitment hearings, evaluations of competence, and forensic evaluations via telebehavioral health.

Benefits of Telebehavioral Health

Telebehavioral health has a number of important benefits for patients, clinicians, provider organizations, and communities. In addition to enabling patients and their families to receive treatment closer to home, demonstrated benefits of telebehavioral health include increased access to mental health services, greater consumer convenience, improved recruitment and retention of mental health professionals in underserved areas, better consumer compliance, improved education of mental health professionals, better coordination of care across the mental health system, less professional isolation, decreased geographic disparities in health, and reduced stigma associated with mental health services [3].

Technology

Telebehavioral health primarily uses interactive audiovisual conferencing systems that run over high-bandwidth networks [4]. The central component of interactive telebehavioral health is the codec (coder/decoder), which provides compression, decompression, and synchronization of audio and video signals. Both the patient's site and the clinician's site need codecs. A codec can be a separate device, but personal computer-based codecs are being used more frequently. A typical setup also includes a video camera, microphone, speakers or headset, and 1 or 2 display monitors at both the clinician's site and the patient's site.

Historically, interactive telebehavioral health applications have used point-to-point network connections. However, the rapid diffusion of Internet and Ethernet networks has led to the development of videoconferencing systems that can work over Internet protocol (IP) networks. When using an IP network, security must be ensured by using encrypted codecs or by setting up a virtual private network and/or a virtual local area network (LAN). The principal advantage of IP networks is that, with proper security solutions, they can be shared by several applications—eg, Internet, e-mail, LAN, etc. This means that the telecommunications network costs can be shared.

Setting Up a Telebehavioral Health Service

Setting up a telebehavioral health service requires systematic attention to several details. As is the case with any clinical service, the first step is doing a needs assessment for the service. This assessment should address 3 questions: Is the telebehavioral service needed? Is it feasible? Finally, is it sustainable? The next step is to determine which specific partnerships are going to implement and sustain the telebehavioral health service. In essence, this includes the partnership at the site(s) where the patients are going to be located at (eg, primary care clinics, health department clinics, hospital emergency departments, or other provider-based clinics) and the partnership at the providers' site (eg, practice groups, academic practices, and employed providers). The third step is to conduct a detailed assessment of the existing technological, organizational, and programmatic infrastructure, both at the patient's site and the provider's site. The fourth step is to identify the equipment and network infrastructure that will be needed for the telebehavioral health service, both at the patient's site(s) and the provider's site.

Next, it is necessary to establish the model of care (eg, direct care, patient-centered consultation, provider-focused consultation, or hybrid). Specific protocols, clinic policies, and procedures should be established. It is usually helpful to have an operations manual that contains all such information. Such a manual should also contain information regarding available providers, technical and user support, the transfer of personal health information and/or the creation of medical records, follow-up to the referring provider, the protocol for scheduling or presentation, training of users, and a single number for the call center.

Once the model of care has been established and the protocols are in place, then the telebehavioral health service should establish a timeline for going live, and a work group or steering committee should be identified that can meet periodically to oversee a smooth implementation. At this point, it is also necessary to identify and work out problems, revise protocols, and report data. Finally, the telebehavioral service should do a small-scale trial run before going live; once the system is working, then it can be

implemented broadly. An ongoing outcomes management system—one that includes attention to quality of care—needs to be in place to ascertain that the telebehavioral health program adequately addresses the needs of patients and institutions.

Reimbursement

While reimbursement rules and regulations within health care are constantly evolving, in general there has been a gradual increase in the number of third-party payers that cover telebehavioral health services. The Centers for Medicare & Medicaid Services is a leader in determining reimbursement for telebehavioral health care, with many other payers following suit. Currently, the Centers for Medicare & Medicaid Services has approved the reimbursement of diagnostic interviews, individual psychotherapy, and pharmacologic management delivered by telebehavioral health.

Conclusion

Telebehavioral health is a viable and reasonable option for providing psychiatric care to those who are currently underserved or who lack access to services. The current technology is adequate for most uses and continues to advance. Numerous applications have already been defined, and more are ripe for exploration. Barriers to implementation are primarily of the human variety; overcoming them will require a combination of consumer, provider, and governmental advocacy. NCMJ

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