



Research Update is published by the Butler Center for Research to share significant scientific findings from the field of addiction treatment research.

## Telehealth for Addiction Treatment and Recovery

Telehealth involves the use of technologies such as telephone-based services, videoconferencing, texting, smartphone applications and web-based tools to provide care over a distance without requiring patients to travel to a clinic or provider's office. For some, the term *telemedicine* is considered the clinical use of technology while *telehealth* refers to a more widespread approach that includes products or services aimed directly at consumers.

### Telemedicine Visits for Substance Use Disorders

A study by Huskamp et al. (2018) found that by analyzing claims data from a large commercial insurer from 2010–2017, the number of telemedicine visits for substance use disorder increased quickly from 97 to 1,989. However, despite the rapid increase, these visits accounted for just 1.4 percent of telemedicine visits for any health condition over the period. Comparatively, telemental health visits increased from 2,039 to 54,175—and accounted for 34.5 percent of all telemedicine visits for any health condition in that same time period. The researchers conclude that much work still needs to be done to get more people using telehealth for addiction treatment.<sup>1</sup>

### Is Addiction Treatment Delivered by Telehealth Effective?

Lin et al. (2019) conducted a systematic review on interventions delivering substance use disorder (SUD) treatment by videoconference that assessed clinical impacts on substance use, treatment retention, and acceptability and feasibility. Interventions were categorized by substances, including alcohol and opioids. Several of the studies suggest that telemedicine could be associated with improved treatment retention when compared to participants having to travel for in-person treatment. Despite some of the current limitations of the studies, the researchers conclude that telemedicine-delivered treatments are a promising alternative, especially when evidence-based treatments are not readily available. For specific treatment and substance use categories, particularly when treatment retention is the key outcome, it is also possible that telemedicine could result in greater treatment retention due to increased accessibility for patients.<sup>2</sup>

Results from a systematic review of 22 articles conducted in three regions (the United States, the European Union and Australia) indicate that telemedicine reduced alcohol consumption. Other common outcomes included reduced depression, increased patient satisfaction, increase in accessibility, increased quality of life and decreased cost. Interventions included mobile health, electronic health, telephone and two-way video.<sup>3</sup>

Yang et al. (2018) note that a prominent strategy proposed to ramp-up medication-assisted treatment (MAT) access is providing it via telemedicine. Telemedicine has the potential to increase access to MAT medicines and therapy that is done at the same time in underserved, remote rural areas by providing direct-to-patient or specialty consultation services remotely.<sup>4</sup>

Telemedicine can allow patients with opioid use disorder to stay in treatment and receive counseling to further their recovery. Through enhanced convenience, reduced travel time and cost savings, telemedicine offers additional benefits for patients, physicians and the greater health care system.<sup>4</sup>

### THE HAZELDEN BETTY FORD FOUNDATION EXPERIENCE

The Hazelden Betty Ford Foundation has been using technology to support and help our clients for many years. Delivered virtually, **RecoveryGo** is Hazelden Betty Ford's behavioral health service that brings our outpatient addiction and mental health care, recovery support resources and family services directly to our patients. With advances in virtual technology, our patients no longer need to live near or travel to a Hazelden Betty Ford addiction treatment center in order to access the services our patients need. The **MORE** (My Ongoing Recovery Experience) program is a web- and phone-based system of recovery support provided to those who complete their treatment care with Hazelden Betty Ford. The **Connection™** program features licensed addiction counselors who provide phone-based recovery coaching and monitoring services to those looking for relapse prevention support and accountability in their recovery. Hazelden Betty Ford's free, online social community, **The Daily Pledge**, provides a source of support and fellowship to those touched by or concerned about the disease of addiction. Also available are our mobile apps. Our daily meditation books are available as apps on iOS and Android. Hazelden Betty Ford Foundation sees telehealth as a means to advance our mission by increasing access to more people who need help. It also increases longer engagement along our continuum of care to improve successful outcomes.

### QUESTIONS

**Question:** Do the terms telehealth and telemedicine have the same meaning among providers?

**Response:** These words are often—but not always—used interchangeably. They can have different meanings depending on who you ask. It is important to ask your doctor, insurance provider, nurse or anyone who supports your health and care exactly what they mean by the term they use.

### HOW TO USE THIS INFORMATION

**For those seeking recovery:** Researchers conclude that telemedicine-delivered treatments are a promising alternative, especially when in-person treatments are not readily available. Clinical research suggests several smartphone applications and web-based interventions improve treatment outcomes. Some may require a fee to access while others may be free. You may want to ask a therapist or program director about how to access them.

**For service providers:** Consider linking your patients with free or relatively inexpensive mobile applications and web-based services that have been shown to improve patient outcomes.

## Telehealth for Addiction Treatment and Recovery

Three pilot projects have demonstrated the clinical potential for prescribing buprenorphine via telemedicine.<sup>4</sup>

An initiative in Maryland provided buprenorphine to more than 300 rural Marylanders. A chart review by Weintraub et al. showed that 59 percent of patients remained in treatment after three months and 94 percent of those patients still engaged in treatment at three months no longer used opioids illicitly.

In a West Virginia pilot study by Zheng et al. (2017), a review of two years of clinic records revealed no significant statistical difference between face-to-face and telemedicine buprenorphine MAT programs across three outcomes: additional substance use, average time to achieve 30 and 90 consecutive days of abstinence and treatment retention rates at 90 and 365 days.

An Ontario, Canada, study by Eibl et al. (2017) demonstrated that one year of buprenorphine or methadone therapy via telemedicine was strongly correlated with improved physical and mental health and reduced illicit drug use, relapse, hospitalization, mortality and illegal activity.

### Digital Tools to Support Recovery

Digital tools, such as smartphone applications or text messaging, are also used by substance use disorder treatment professionals to supplement individual treatment plans.<sup>5</sup>

Evidence for the effectiveness of digital recovery support services is limited.<sup>6</sup> Research on one smartphone app found reduced risky drinking days and higher abstinence rates than usual care.<sup>7</sup> Research on another mobile app showed reduced hazardous drinking days and drinks per day.<sup>8</sup> And positive results have been attributed to texting interventions using mobile device apps.<sup>9</sup>

### Telemedicine Methods of Interest in Addiction Treatment

A study by Molfenter et al. (2015) looked at which telemedicine services were of most interest for purchasers of addiction treatment in five states and one county (Iowa, Maryland, Massachusetts, Oklahoma, South Carolina and San Mateo County, California). The technologies that generated the greatest interest were videoconferencing and smartphone mobile apps. The primary benefits identified for videoconferencing were greater access to services for rural patients and greater access to physicians who could prescribe Suboxone® for opioid dependence. Smartphone mobile apps greatest benefit identified was the ability to reach individuals in treatment recovery outside the treatment setting.<sup>10</sup>

### Conclusion

The chronic nature of substance use disorders calls for methods for clinicians to stay connected with patients over extended periods of time.<sup>10</sup> Telemedicine can increase access to addiction treatment services by removing the barriers of geography and stigma.<sup>11</sup> Despite having great potential for assisting recovery and treating patients with substance use disorders, telemedicine is underutilized in addiction treatment centers.<sup>12</sup>

### References

- Huskamp H, Busch A, Souza J, Uscher-Pines L, Rose S, Wilcock A, Landon B, & Mehrotra A. (2018). How is telemedicine being used in opioid and other substance use disorder treatment? *Health Affairs (Millwood)*, 37(12): 1940–1947. doi:10.1377/hlthaff.2018.05134
- Lin L, Casteel D, Shigekawa E, Weyrich M, Roby D, & McMenamin S. (2019). Telemedicine-delivered treatment interventions for substance use disorders: A systematic review. *Journal of Substance Abuse Treatment*, 101: 38–49. doi.org/10.1016/j.sat.2019.03.007
- Kruse C, Lee K, Watson J, Lobo L, Stoppelmoor A, & Oyibo S. (2020). Measures of effectiveness, efficiency, and quality of telemedicine in the management of alcohol abuse, addiction, and rehabilitation: Systematic review. *Journal of Medical Internet Research*, 22(1):e13252. doi:10.2196/13252
- Yang Y, Weintraub E, & Haffajee R. (2018). Telemedicine's role in addressing the opioid epidemic. *Mayo Clinical Proceedings*, 93(9): 1177–1180. doi.org/10.1016/j.mayocp.2018.07.001
- Nesvåg S, & McKay J. (2018). Feasibility and effects of digital interventions to support people in recovery from substance use disorders: Systematic review. *Journal of Medical Internet Research*, 20(8):e255. doi: 10.2196/jmir.9873
- Ashford R, Bergman B, Kelly J, & Curtis B. (2019). Systematic review: Digital recovery support services used to support substance use disorder recovery. *Human Behavior and Emerging Technologies*, 2(1), 18–32. doi 10.1002/hbe2.148
- Gustafson D, McTavish F, Chih M, Atwood A, Johnson R, Boyle M, ... Shah D. (2014). A smartphone application to support recovery from alcoholism: A randomized clinical trial. *JAMA Psychiatry*, 71(5), 566–572.
- Dulin P, Gonzalez V., & Campbell K. (2015). Results of a pilot test of a self-administered smartphone-based treatment system for alcohol use disorders: Usability and early outcomes. *Substance Abuse*, 35(2), 168–175. doi 10.1080/08897077.2013.821437
- Free C, Phillips G, Watson L, Gali L, Felix L, Edwards P, Patel V, & Haines A. (2013). The effectiveness of mobile-health technologies to improve health care service delivery processes: A systematic review and meta-analysis. *PLOS Medicine*, 10(1), e1001363.
- Molfenter T, Boyle M, Holloway D, & Zwick J. (2015). Trends in telemedicine use in addiction treatment. *Addiction Science & Clinical Practice*, 10(14). doi 10.1186/s13722-015-0035-4
- Baca C.T., Alverson D.C., Manuel J.K., & Blackwell G.L. (2007). Telecounseling in rural areas for alcohol problems. *Alcoholism Treatment Quarterly*, 25(4), 31–45. doi 10.1300/J020v25n04\_03
- Molfenter T, Brown R, O'Neill A, Kopetsky E, & Toy A. (2018). Use of telemedicine in addiction treatment: Current practices and organizational implementation characteristics. *International Journal of Telemedicine and Applications*, Volume 2018, Article ID 3932643. doi 10.1155/2018/3932643

The Butler Center for Research informs and improves recovery services and produces research that benefits the field of addiction treatment. We are dedicated to conducting clinical research, collaborating with external researchers and communicating scientific findings.

**Julie Moore**  
Market Researcher, Butler Center for Research  
**Quyen Ngo, PhD**  
Executive Director, Butler Center for Research

**If you have questions, or would like to request copies of Research Update, please email [ButlerResearch@HazeldenBettyFord.org](mailto:ButlerResearch@HazeldenBettyFord.org); call 800-257-7800, ext. 4347 or write BC 4, P.O. Box 11, Center City, MN 55012-0011.**