2021

Comparing Outcomes of Online Application Therapy Versus Standard Psychotherapy in Patients Suffering from Mental Illness

Jenna Zwiers
University of North Dakota

Comparing Outcomes of Online Application Therapy Versus Standard Psychotherapy in Patients Suffering from Mental Illness

Author: Jenna Zwiers, PA-S & Co-author/Advisor: Jay Metzger, PA-C
Department of Physician Assistant Studies, University of North Dakota School of Medicine & Health Sciences
Grand Forks, ND 58202-9037

UND School of Medicine & Health Sciences
University of North Dakota

Abstract

The purpose of this research was to determine the effectiveness of internet-delivered cognitive behavioral therapy (iCBT) in comparison to standard cognitive behavioral therapy in the treatment of depression and anxiety. The quality, safety, therapist-response, and cost of internet-delivered cognitive behavioral therapy was also studied. This review utilized multiple databases including PubMed, CINAHL, Clinical Key, Cochrane Review, and PsychINFO from 2015 to 2020. The literature reviewed consisted of peer-reviewed studies, randomized controlled trials, and systematic reviews. Sources that were excluded from the study included those prior to 2015, studies with small sample sizes, and those that involved children. Thirteen resources were selected for review. Much of the research suggested that iCBT is as effective as standard face-to-face therapy. Many authors thought it would be most useful as an adjunct to standard therapy which could ease accessibility issues. Other factors in considering the use of iCBT include therapeutic alliances, cost-effectiveness, and the varying qualities of the many different options. Internet-delivered cognitive behavioral therapy could be a viable alternative for cognitive behavioral therapy, but further research is needed.

Introduction

Mental illness is a growing problem in medicine. It is estimated that 18.7% of adults in rural America will have a mental health condition with limited access to a behavioral health professional (Addressing the Mental and Behavioral Health Needs of Underserved Populations, 2017).
The stigma surrounding seeking treatment for possible mental health problems is not as prevalent as it has been historically. Mental illness is typically first noticed in primary care clinics and it has become common for primary care providers to diagnose and prescribe medications to treat diseases like depression and anxiety. These patients are then referred to a psychologist for psychotherapy. Cognitive behavioral therapy is a mainstay of treatment for depression and anxiety. It is important for patients to attend therapy to provide them with their best quality of life.

https://economictimes.indiatimes.com/magazines/panache/dealing-with-depression-internet-based-therapy-may-offer-a-solution/articleshow/67077782.cms

Research Question

In patients with anxiety and/or depression, are outcomes of cognitive behavioral therapy delivered through a variety of online therapies comparable to the standard approach to psychotherapy?

Literature Review

Outcomes

- Ahmedani et al. (2016) found symptom improvement of anxiety and depression when patients used an internet-delivered cognitive behavioral therapy (iCBT) when compared to no intervention at all.
- A meta-analysis performed by Andrews et al. (2018) studied 64 trials that compared iCBT to a control group with no treatment of face-to-face therapy . They also analyzed the long-term effect of iCBT. Researchers found that iCBT showed improvement in depression and anxiety symptoms compared to the control group and symptom improvement was similar to the outcomes of face-to-face therapy.
- It is important to study the potential harm associated with any new type of therapy. Karyotaki et al. (2017) performed an individual participant data (IPD) analysis wit 3805 participants and gathered information regarding change in depression and anxiety scores when using iCBT, then calculated clinical change via a reliable exchange index (RCI). They found that it was much safer for patients to complete iCBT, with a RCI of 7.2% when compared to the control group that displayed a significant deterioration in symptoms with an RCI of 9.1%.
- Olthuis et al. (2016) performed a Cochrane review comparing symptom improvement between iCBT versus standard face-to-face therapy which found that there was no significant difference in anxiety symptom improvement between the two..
- The NHS implemented a stepped approach to behavioral health therapy that included iCBT in their 2nd step. Duffy et al. (2020) studied this program and found that 58% of participants showed symptom improvement with iCBT.

https://www.silvercloudhealth.com/us/blog/online-cbt-program-supporters-their-training-and-experiences

Patient-Provider Relationships

- When implementing iCBT it will be imperative to have therapists' support. Duffy et al. (2020) also measured therapeutic alliance which showed a positive increased of 3.9 points from the patients' perspective of the relationship. From the provider perspective, there was no change in the alliance.
- Hadjistavropoulos et al. (2019) performed a randomized controlled trial (RCT) to determine what level of therapist support was best for patients and found people with anxiety were 2.7 times more likely to prefer a higher level of therapist support.

Quality of Services

- A critical content analysis performed by Parker et al. (2018) sought to evaluate the messages sent by prominent mental health apps and found that many apps did not present disorders in an appropriate way and failed to included different societal topics in their messages.
- Parker et al. (2019) critically analyzed prominent apps to determine how private and safe the data patients share is within the app. They discovered only 30 of these apps contained a privacy policy and many sold patients' data.

Cost and Coverage

- A meta-analysis performed by Kolovos et al. (2019) discovered that iCBT use cost was similar to that of face-to-face therapy but did not decrease societal cost associated with depressive symptoms.
- A meta-analysis performed by Paganini et al. (2018) compared iCBT to face-to-face therapy and medication therapy. It was found that guided iCBT increased quality of life and cost was comparable to the other offered therapies.

Discussion

Are Online-Based Interventions Effective?

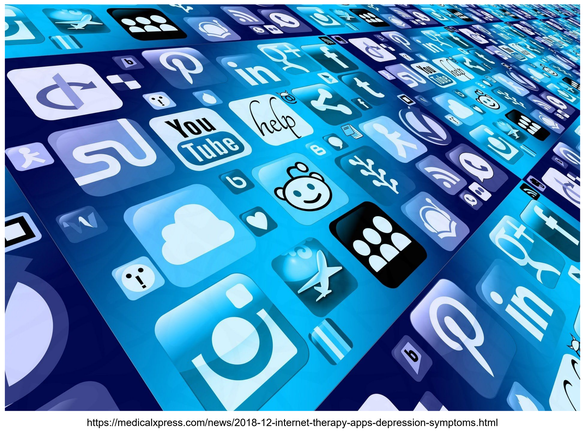
- Research performed by Andrews et al. (2018) proves that iCBT is superior to no intervention.
- Ahmedani et al. (2016) found that self-guided interventions are somewhat effective. Karyotaki et al. (2017) solidified evidence to prove self-guided iCBT interventions were as effective as face-to-face therapy when clinical deterioration was measured.
- Guided iCBT has also been studied. Olthuis et al. (2016) found that it was just as effective as self-guided iCBT but not more effective. Duffy et al. (2020) suggested that blended therapy works better for patients who feel they need the support of a therapist.

Is the Patient-Provider Relationship Affected by Using Internet Interventions and Would They Recommend it?

- Duffy et al. (2020) interview results stated that therapists appreciate the content presentation of guided iCBT and the responsiveness of patients. They believed it was a good adjunct to iCBT. The clinicians in Ahmedani et al.'s (2016) analysis also believed iCBT would be an acceptable adjunct and could increase access to therapy. Having this available could increased therapist available time, allowing them to see more patients.
- Hadjistavropoulos et al. (2019) regard patient's perspective to iCBT and amount of time spent with a therapist. It was found that patient preference for time spent with them will vary and participants appreciated the option to contact their therapist when needed.

Are All iCBT Services of the Same Quality? What Problems Might Arise when Trying to Implement iCBT into Healthcare?

- Not all mental health apps are created equally. Parker et al. (2018) discovered that some of the messages these apps sent did not align with views of mental health professionals and could possibly be damaging. The medicalized normal mental health states, tricking users into thinking their was something wrong with them and many blamed the users for their inability to deal with their thoughts, which is misleading. Vigorous screening should be performed before recommending these apps (Parker et al., 2018).
- Another prevalent issue is data security. Patients share a wealth of information in these apps and it is important to know where this data ends up. Parker et al. (2019) found that many prominent apps are lax in their data sharing and security is not very good. Many do not even have a privacy policy.
- Cost is an important barrier to address. Paganini et al. (2018) compared iCBT cost to face-to-face therapy and medication therapy. They also factored in quality of life to their equation. They determined that iCBT was about the same cost of either of these therapies. This is important because patients will not want to pay more to do therapy on the internet.



https://medicalxpress.com/news/2018-12-internet-therapy-apps-depression-symptoms.html

Applicability to Clinical Practice

There is an obvious need for more therapy options in regard to treatment of depression and anxiety. It appears that internet-based cognitive behavioral therapy has promising outcomes when it has been studied and could be a viable option. Most studies suggest using it to bridge the gap while waiting to see a behavioral health provider. This could be an excellent resource for primary care providers who want to help the patient manage some of their symptoms before they are able to see a therapist. In rural areas it can take a long time before a patient is able to see behavioral health providers due to the lack of availability.

Acknowledgements

I would like to express gratitude to my advisor, Professor Jay Metzger, PA-C for his support and encouragement throughout the whole process of this project and for offering guidance when it was needed. I would also like to thank Professor Daryl Sieg, PA-C for his guidance and feedback that he offered throughout the process of selecting a topic to the final details of the entire project. I cannot even begin to thank my fiancé and family for supporting me throughout this journey. They have been incredibly patient with me and my attempts to achieve a balance in my life between school and everything else. I would not be to this point today if it were not for them.

References

- Addressing the Mental and Behavioral Health Needs of Underserved Populations. (2017, June). Retrieved October 29, 2020, from https://www.apa.org/advocacy/workforce-development/gpe/populations
- Ahmedani, B., Belville-Robertson, T., Hirsch, A., & Jurayj, A. (2016). An online mental health and wellness intervention supplementing standard care of depression and anxiety. *Archives of Psychiatric Nursing*, *30*(6), 666–670. http://dx.doi.org/10.1016/j.apnu.2016.03.003
- Andrews, G., Basu, A., Cuijpers, P., Craske, G., McEvoy, P., English, L., & Newby, M. (2018). Computer therapy for the anxiety and depression disorders is effective, acceptable and practical health care: An updated meta-analysis. *Journal of Anxiety Disorders*, *55*(January), 70–78. http://dx.doi.org/10.1016/j.janxdis.2018.01.001
- Andrilla, A., Patterson, G., Garberson, A., Coulthard, C., & Larson, H. (2018). Geographic variation in the supply of selected behavioral health providers. *American Journal of Preventive Medicine*, *54*(6), S199–S207. http://dx.doi.org10.1016/j.amepre.2018.01.004
- Duffy, D., Enrique, A., Connell, S., Connolly, C., & Richards, D. (2020). Internet-delivered cognitive behavior therapy as a prequel to face-to- face therapy for depression and anxiety. *A Naturalistic Observation*. *10*(January), 1–15. http://dx.doi.org/10.3389/fpsyt.2019.0090
- Hadjistavropoulos, D., Schneider, H., Mehta, S., Karin, E., Dear, F., & Titov, N. (2019). Preference trial of internet-delivered cognitive behaviour therapy comparing standard weekly versus optional weekly therapist support. *Journal of Anxiety Disorders*, *63*(July 2018), 51–60. http://dx.doi.org/10.1016/j.janxdis.2019.02.002
- Karyotaki, E., Riper, H., Twisk, J., Hoogendoorn, A., Kleiboer, A., Mira, A., MacKinnon, A., Meyer, B., Botella, C., Littlewood, E., Andersson, G., Christensen, H., Klein, P., Schröder, J., Bretón-López, J., Scheider, J., Griffiths, K., Farrer, L., Huibers, H., & Cuijpers, P. (2017). Efficacy of self-guided internet-based cognitive behavioral therapy in the treatment of depressive symptoms a meta-analysis of individual participant data. *JAMA Psychiatry*, *74*(4), 351–359. http://dx.doi.org/10.1001/jamapsychiatry.2017.0044
- Kolovos, S., van Dongen, J. M., Riper, H., Buntrock, C., Cuijpers, P., Ebert, D. D., Geraedts, A. S., Kenter, R. M., Nobis, S., Smith, A., Warmerdam, L., Hayden, J. A., van Tulder, M. W., & Bosmans, J. E. (2018). Cost effectiveness of guided Internet-based interventions for depression in comparison with control conditions: An individual–participant data meta-analysis. *Depression and Anxiety*, *35*(3), 209–219. http://dx.doi.org/10.1002/da.22714
- Paganini, S., Teigelkötter, W., Buntrock, C., & Baumeister, H. (2018). Economic evaluations of internet- and mobile-based interventions for the treatment and prevention of depression: A systematic review. *Journal of Affective Disorders*, *225*(February 2017), 733–755. http://dx.doi.org/10.1016/j.jad.2017.07.018
- Parker, L., Bero, L., Gillies, D., Raven, M., Mintzes, B., Jureidini, J., & Grundy, Q. (2018). Mental health messages in prominent mental health apps. *Annals of Family Medicine*, *16*(4), 338–342. http://dx.doi.org/10.1370/afm.2260
- Parker, L., Halter, V., Karliychuk, T., & Grundy, Q. (2019). How private is your mental health app data? An empirical study of mental health app privacy policies and practices. *International Journal of Law and Psychiatry*, *64*(April), 198–204. http://dx.doi.org/10.1016/j.ijlp.2019.04.002
- Olthuis, V., Watt, C., Bailey, K., Hayden, A., & Stewart, H. (2016). Therapist-supported Internet cognitive behavioural therapy for anxiety disorders in adults. *Cochrane Database of Systematic Reviews* 2016, Issue 3. Art. No.: CD011565. http://dx.doi:10.1002/14651858.CD011565.pub2.