Prompt
Research outside sources and write a stand-alone piece on a key issue in ethical behavioral design. This option lets you research and explicate a single larger issue or entire product(s) in behavioral design. In part, you would follow the outline above, summarizing the psychology and discussing examples. But for this paper, you would also have a chance to go deeper and search for additional research evidence that addresses some of the key questions for each issue.

Technology and Mental Health

The Fight For Mental Health

With around 43.8 million adults experiencing mental illness in a given year (National Alliance on Mental Health [NAMI], n.d.), the need for mental health help is at an all-time high. Despite knowing this, the government has made it almost impossible for those seeking help, to find it. From 2009 to 2012, states cut $5 billion from mental health services, along with 10% of psychiatric hospital beds (Szabo, 2014). Discriminatory laws and the stigma surrounding mental illness have prevented individuals from receiving the help they need. In an age where access to mental health resources is scarce, and laws are working against them, how do those that need it, find help and relief for their mental illnesses?

The Case For Technology

Although technology to help those with mental illnesses is not a new concept, it has improved drastically during a time when government attention and funding are lacking. Virtual reality technology is being used around the world to manage symptoms of different illnesses. One of the most profound breakthroughs in mental health technology, was the creation of the computer program ELIZA, created between 1964 and 1966 by a computer scientist named Joseph Weizenbaum at MIT. ELIZA was created to mimic an empathetic psychotherapist. ELIZA's responses were so intelligent, that many individuals forgot they were conversing with a computer, and grew attached to ELIZA (Oettinger, 1983). Despite the simplicity of ELIZA, this technology changed the way we used technology as well as dealt with mental illness. Now, with

improved knowledge and an increase in resources, we have been able to shift our technological advances towards virtual reality.

At the Duke University Virtual Reality Treatment Program, patients with anxiety are able to attend six to twelve virtual reality sessions. These sessions use the virtual reality technology to allow patients a presence in a computer-generated three-dimensional world. From there, the patients can interact with their therapists to face different anxiety-inducing fears such as heights, public speaking, and thunderstorms (Staff, 2017).

Using virtual reality has been shown to make a difference in patients' lives outside of therapy as well. A study was done on fourteen different clinical trials covering multiple phobias. The results after using virtual reality exposure therapy, were outstanding. The results showed that patients undergoing virtual reality exposure therapy did significantly better on behavioral assessments following treatment than before treatment and performed better on behavioral assessments at post-treatment than patients on the wait-list (Morina, Ijntema, Meyerbröker, & Emmelkamp, 2014). Overall, scientists and psychiatrists believe that virtual reality exposure therapy is just as beneficial as in-person therapy.

Virtual Reality is not the only technology to take off in the mental health field. App creators have been working tirelessly to create beneficial apps for those suffering from depression, anxiety, post-traumatic stress disorder, and etc. As of now, there are around 10,000 mental health apps on the market. While these apps are not meant to replace therapy, their purpose is to aid in the management of mental illness symptoms.

The app MoodMission focuses on cognitive behavior therapy to help users suffering from stress, anxiety, and depression. With this app, users select how they feel at a particular time, how distressing their feelings are, and then choose from a range of options to describe their problem.

Based on the user's answers, MoodMission selects five missions with objectives and an explanation on why the objectives are useful. These objectives range from behavior-based to physical-based. Once the objective is marked as completed by the user, they rate how distressed they feel. As users progress through the app, they are given achievement recognition as well as an increased rank (MoodMission, n.d.).

Beyond using technology to help with mental health, these advances also help clients from a convenience and financial standpoint as well. Doctors have begun diagnosing clients over the internet in the comfort of their home. The cost of using technology compared to in-person visits, is astounding as well. The average cost of a therapist in the Bothell, Washington area is about $100 an hour. Most therapists recommend seeing their clients once a week. Per month, someone can spend up to $400 for four in-person therapy sessions (Average Cost, n.d.). With apps such as Talkspace, clients can spend $49 a week, to text, video, and audio message a licensed therapist five days a week. This comes to about $196 a month for unlimited contact with a professional therapist. That's over a $200 difference. The cost alone is enough to persuade people to try online therapy. While these services positively impact clients, they also are beneficial to providers as well.

In addition to clients benefiting from technology, providers face an advantage when utilizing technology as well. Providers can use technology to contact their clients located in underserved and rural areas, via video chat. Providers can also tap into their younger clienteles by being available through online technology alongside in-person technology due to younger individuals having more access to more technology (Technology in 2017, 2017).

The use of virtual reality, mental health apps, and video chat therapy sessions, are changing the way we help individuals manage their mental health. By implementing new

technologies, the outreach expands, and the stigma decreases. Unfortunately, despite all the indisputable evidence, new advances in technology are met with apprehension.

Questionable Results

Although technology has made great strides, some are concerned about the effects that technology may have on the mental health of individuals. In a study done by Duke University, researchers found that increased screen time leads to elevated rates of lying, fighting, and other behavioral problems. In addition, on days when adolescents used digital devices more, they had difficulty paying attention and exhibited attention deficit-hyperactivity disorder symptoms (Jones, 2017). Along with the psychological effects, researchers have also found a correlation between technology and the feeling of isolation. A study done at Pitt's Center for Research on Media, Technology, and Health found that participants who used social media for more than two hours a day had twice the odds for reporting perceived social isolation than their peers who spent less than 30 minutes on social media each day (Bergland, 2017).

The Future

Given the pros and cons of using technology, the only way to be confident that technology is helping our communities rather than hurting them, is to take extra precaution. Since the majority of concerns came from studies done based on the length of time technology is being used, creating a time limit for technology is a great solution. In fact, there are apps designed to help limit phone usage. One app called Off the Grid, allows you to block your phone for certain periods of time. Should you end the blocked session early, your credit card is charged $1 (Limit Your Screen, n.d.). This is a great incentive to spend less time on your phone and thus.

The Big Picture

Overall, in an age where mental health resources are needed most, technology has proven to be a helping hand. Despite the few downfalls, using technology to aid in mental health coverage is convenient, cheaper, and more practical than modern day in-person appointments. Those working on these newer technologies are hopeful that their programs, equipment, and apps will be the future of mental health.

References

Bergland, C. (2017, March 7). Social Media Exacerbates Perceived Social Isolation.

In *Psychology Today*. Retrieved March 16, 2018, from

https://www.psychologytoday.com/blog/the-athletes-way/201703/social-media-

exacerbates-perceived-social-isolation

How Much Does Therapy Cost?. (n.d.). In *Thumbtack*. Retrieved March 15, 2018, from

https://www.thumbtack.com/p/how-much-does-therapy-cost

Jones, A. (2017, May 3). MORE TECHNOLOGY USE LINKED TO MENTAL HEALTH

ISSUES IN AT-RISK ADOLESCENTS. In *DukeTODAY*. Retrieved March 15, 2018,

from https://today.duke.edu/2017/05/more-technology-use-linked-mental-health-issues-

risk-adolescents

Limit your screen time with these six apps for iPhone and Android . (n.d.). In *digitaltrends*.

Retrieved March 16, 2018, from https://www.digitaltrends.com/mobile/apps-to-reduce-

screen-time-iphone-android/

Mental Health Facts in America. (n.d.). In *NAMI*. Retrieved March 16, 2018, from

https://www.nami.org/NAMI/media/NAMI-Media/Infographics/GeneralMHFacts.pdf

MoodMission. (n.d.). In *PsyberGuide*. Retrieved March 17, 2018, from

https://psyberguide.org/apps/moodmission/

Morina Nexhmedin. (2015, November). Can virtual reality exposure therapy gains be

    generalized to real-life? A meta-analysis of studies applying behavioral assessments.

    In *ScienceDirect*. Retrieved March 18, 2018, from https://www-sciencedirect-

    com.offcampus.lib.washington.edu/science/article/pii/S0005796715300334

Oettinger, A. (1966, January). Computational Linguistics. In *Standford*. Retrieved March 15,

    2018, from http://web.stanford.edu/class/cs124/p36-weizenabaum.pdf

Szabo, L. (n.d.). Cost of not caring: Stigma set in stone. In *USA Today*. Retrieved March 16,

    2018, from https://www.usatoday.com/story/news/nation/2014/06/25/stigma-of-mental-

    illness/9875351/

Technology in 2017: What impact does it have on mental health?. (2017, March 28). In *Bradley*

    University. Retrieved March 15, 2018, from

    https://onlinedegrees.bradley.edu/resources/articles/technology-in-2017-what-impact-

    does-it-have-on-mental-health/

Virtual Reality Expanding Use in Mental Health Treatment (n.d.). In *psychiatry*. Retrieved

    March 15, 2018.