

TECH & MENTAL HEALTH

II. TREATMENT



by The Brainstorms Scientific

50

Up to 50% of mentally ill people don't receive any treatment in high-income countries (2)

85

Up to 85% of people with mental disorders don't receive any treatment in low- and middle-income countries(2)

Many suffer from poor quality of social support & care (1)



Traditional mental health treatments often consist of unspecific medications & talking therapy.

Less than 2\$ is spent per person annually on mental health

2



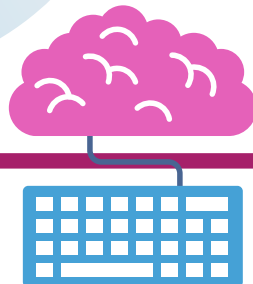
Is this real?

Virtual Reality (VR) and Augmented Reality (AR) have been proven successful tools in treating PTSD and anxiety by confronting patients with their fear in a safe environment. (3)

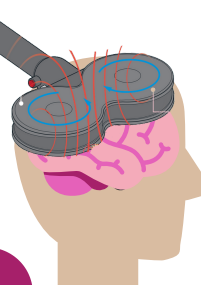


The rhythms of my brain

Brain-computer-interfacing uses the electrical activity of the brain to control a computer.



Neurofeedback teaches you to produce specific (potentially healthier?) frequencies in your brain. This has mainly been proven successful in treating concentration problems in e.g. ADHD. (4)



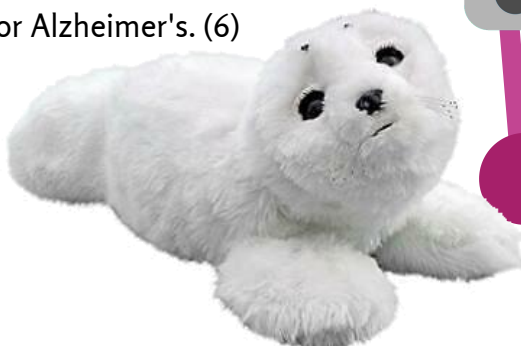
Please disturb!

tDCS and tACS are methods to stimulate the brain by applying electric currents to the head, TMS does the same thing but more mildly with an electromagnetic field. This can have great (short term) effects on e.g. treatment resistant depression. (5)

Isolation is not good for me...

Artificially intelligent, companion-like robots can treat loneliness and lower blood pressure. Pato, for example, is an interactive therapeutic pet seal designed for patients with cognitive disorders like Dementia or Alzheimer's. (6)

Chatbots can often do the trick for people who feel stigmatised and refuse to visit a therapist in person (7)



References

- 1) WHO, 2020
- 2) Wang P., et al., The Lancet, 2007
- 3) Opris D., et al., Depression and Anxiety, 2012
- 4) Marzbani H., et al., Basic and Clinical Neuroscience, 2016
- 5) Mutz, J., et al., BMJ, 2019
- 6) Riek, L., ArXiv.org, 2015
- 7) Abd-Alrazaq, A., et al., International Journal of Medical Informatics 2019