

NEUROPSYCHIATRY

WITH DR KYMBERLY YOUNG

Talking points

KNOWLEDGE

1. What percentage of the global adult population are estimated to be affected by MDD?
2. What are the initial treatments for MDD?
3. Which area of the brain does Kymberly's treatment focus on?

COMPREHENSION

4. According to Kymberly, what is "pixie dust for the brain", and what does she mean by this metaphor?
5. Explain the difference between MRI and fMRI.
6. How does an fMRI machine measure activity in the brain?

ANALYSIS

7. How is the amygdala of a patient with MDD different to that of a patient without MDD?
8. Kymberly realised that lots of the current treatment options available for MDD had the final goal of controlling the same thing. What was this goal? How is amygdala neurofeedback working towards something different?

EVALUATION

9. Why do you think a scientist reacted negatively when Kymberly first presented her research?
10. "There is a pressing need to research and develop novel non invasive interventions for MDD," says Kymberly. What are the risks of invasive treatments? Why are non-invasive treatments in such demand?

More resources

- Watch this video of Kymberly talking about her work: www.youtube.com/watch?v=PMKr27aPuTo. This interview is also available as a podcast on Spotify. Search for the interviewer's channel 'Only Boring People' or the name of the episode '14 fMRI Neurofeedback and Depression with Dr Kymberly Young.'
- Read this easy-to-understand article by Psych Central about how fMRI works: psychcentral.com/lib/what-is-functional-magnetic-resonance-imaging-fmri/#how-it-works.
- Watch this video on fMRI by the Wellcome Centre for Human Neuroimaging: www.youtube.com/watch?v=4UOeBM5BwdY

Activities

1. Kymberly asks her patients to come up with a few positive memories before they enter the fMRI machine. Think of three of your own positive memories, and write down some notes about each one.

Aim to recall:

- where you are in your memory
- who you are with
- what you can see
- what you can hear
- how you are feeling.

If you are in a classroom and feel comfortable sharing your memories, compare your answers to the ones your classmates have written down.

Ask yourselves:

- Is there anything in common between the memories, such as being with family, being with friends, being outside, doing something sporty, having some of your favourite food, or being creative?
- If so, do these activities often make you feel better when you are down?
- Are there activities that you have positive memories of, but others you do not? Why do you think that is?

2. Do some research online to see which activities often help people who are struggling with low moods or suffering from depression. Combining this research and your reflections from your own answers, make a self-care poster that encourages someone to do activities you think will be helpful for their mental health. Think about how you can create the poster so it is engaging and uplifting to look at. Try to think of activities that are accessible for different people in different places with different budgets – free activities are preferable!