

The background of the slide is a photograph of three large radio telescope dishes, likely part of the Arecibo Observatory, positioned in a row on a dark, rocky terrain. The sky above is a deep blue and black, filled with numerous stars and the bright, glowing band of the Milky Way galaxy stretching across the upper half of the frame. The text 'Mental Health and Astronomy' is centered over the middle of the image in a large, white, sans-serif font.

Mental Health and Astronomy

Cottrell Ellis


What Is Mental Health?

“A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.”

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

What Is Astronomy?

- The study of the universe that is beyond our planet's atmosphere. This includes the study of celestial objects such as planets, stars, moons and our sun.



Who is a Space Psychologist?

- Space psychologist gives focus to human behavior and mental process in outer space.
- Astronauts experience a heavy load of stressors
- Provides an understanding of how astronauts respond to their environment in space
- Help to develop mental health programs to help lessen mental issues and improve wellbeing

Can Mental Health and Astronomy Co-exist?



Astronauts

- Space Missions can pose mental health issues for astronauts such as:
 - Emotional issues
 - Interpersonal issues
 - Cognitive Impairments and functioning
 - Sleep Disturbance
 - Anorexia
- Anxiety, depression and executive function can be impacted by each issues listed above.

What Is Being Done?

- Predict Behavioral Conditions
 - Learning algorithms that predicts cognitive performance and behavioral health
- Smart Headbands for sleep improvements
 - “Emit inaudible slow waves as a way to improve sleep”
- Virtual Reality Game
 - Aim is to keep astronauts “mentally healthy”
- Radiation Protection



What About Us on Earth?

Stargazing

- Produces that “awe” feeling which promotes “prosocial and higher moral values”.
- Exposure to natural environment (stargazing) does help to:
 - Reduce anxiety and depressive levels
 - Reduce stress
 - Mental Fatigue
 - Impatience and frustration
 - Increase self awareness
 - Create Relaxation
 - Traumatic situations

Resources

- <https://www.astro4dev.org/flagship-themes/celebrating-our-common-humanity-astronomy/astronomy-mental-health/mental-health-for-development-and-astronomys-potential/>
- <http://www.space-awareness.org/en/careers/career/who-space-psychologist/>
- <https://www.sciencedirect.com/science/article/abs/pii/S2214552420300870>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8696290/>