

Announcements



THE NEUROSCIENCE AXIS

STONY BROOK UNIVERSITY

Research Seminar

- Wednesday, October 11th
- 7-10 pm SAC Ballroom A

Healthcare, Research & Human Services Job and Internship fair

- Friday, October 13th
- 12-3pm SAC Ballroom A

Neuroscience of Mental Illness

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Mental Health in America

- 1 in 5 adults have a mental health condition
- ½ of chronic mental illness begins at the age of 14, ¾ by the age of 24
- 56% of people with a mental illness did not receive treatment
- Lack of access means more incarceration
 - 57,000 of those incarcerated in 3 states have mental health conditions



Depression



Affects more than 300 million people worldwide (WHO, 2017)

- Leading cause of disability worldwide

Symptoms

- Depressed mood
- Loss of pleasure (anhedonia)
- Significant changes in weight and sleep patterns
- Psychomotor agitation or retardation
- Recurrent thoughts of death

Treatments

- Psychotherapy (CBT, IPT or Psychodynamic)
- SSRIs and SNRIs
- ECT, TMS, VNS

Biological Basis of Depression

Genetics

- [Depression's "Transcriptional Signatures" Differ in Men vs. Women](#)

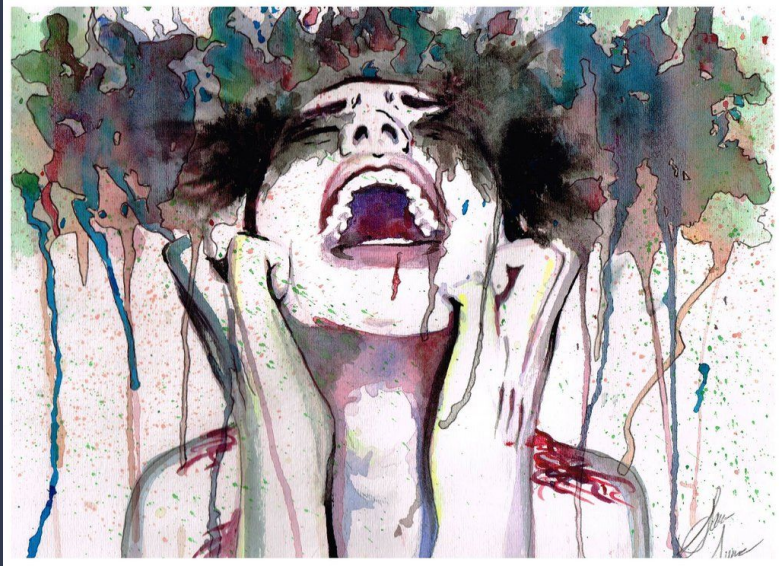
Chemical imbalances

- [Neurometabolic Disorders Could Contribute to Depression](#)

Cortical activity

- [Scan Predicts Whether Therapy or Meds Will Best Lift Depression](#)

Anxiety



Experienced by about 40 million adults in the U.S.

- Most symptoms develop before the age of 21
- Women 60% more likely to be diagnosed

Symptoms

- Feeling of apprehension or dread
- Restlessness or irritability
- Anticipation of the worst, watchful of danger
- Racing or pounding heart
- Shortness of breath
- Tremors, twitches, fatigue or nausea

Treatments

- CBT, Exposure Therapy, Psychodynamic, Pet
- Benzodiazepine

Biological Basis of Anxiety

Genetics

- [Brain Imaging Predicts Psychotherapy Success in Patients with Social Anxiety Disorder](#)

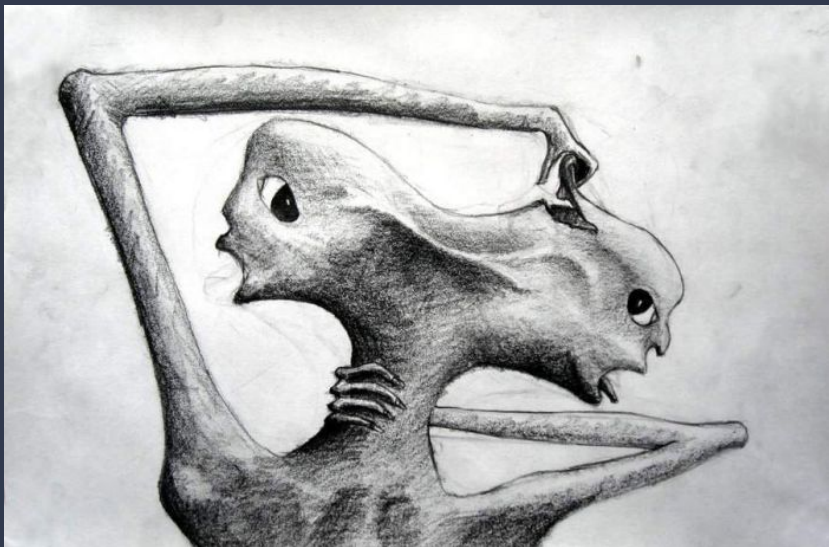
Cortical pathways

- [Light Switches Brain Pathway On-and-Off to Dissect How Anxiety Works](#)

Cognitive processing

- [It's all in the anticipation: How perception of threat is enhanced in anxiety.](#)

Schizophrenia



Affects more than 21 million people worldwide

- 1 in 2 people do not receive treatment

Symptoms

- Positive
 - Hallucinations or delusions
- Negative
 - Reduced speaking or flat affect
- Cognitive
 - Poor concentration or executive functioning

Treatment

- Antipsychotics
- Psychosocial treatments
- Coordinated Specialty Care

Biological Basis of Schizophrenia

Genetics

- [Stray Prenatal Gene Network Suspected in Schizophrenia](#)

Neurochemical imbalances

- [Brain Chemistry Behind Schizophrenia](#)

Neurophysiological dysfunction

- [The biology of schizophrenia](#)

Schizophrenia Simulation

Auditory Hallucinations

Why is this important?

Problems around mental illness today:

- Lack of support
- Lack of funding
- Lack of cohesion



Active Minds

Work towards creating positive conversation about mental health

Destigmatize and change the way mental health can be viewed

Connect students to on-campus mental health resources

Thursdays Bi-Weekly

- 8:00-9:00pm
- Frey 313
- First GBM Tomorrow 10/5!



changing the conversation
about mental health

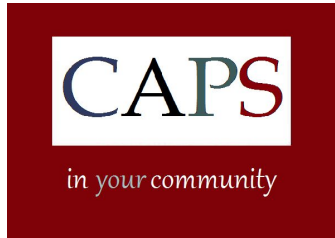
Stony Brook Resources

Counseling And Psychological Services (CAPS)

Center for Prevention and Outreach (CPO)

Student Health Advisory Committee (SHAC)

Red Watch Band



Green Dot

National Suicide Prevention Lifeline

Response Suffolk County

Victims Information Bureau of Suffolk County

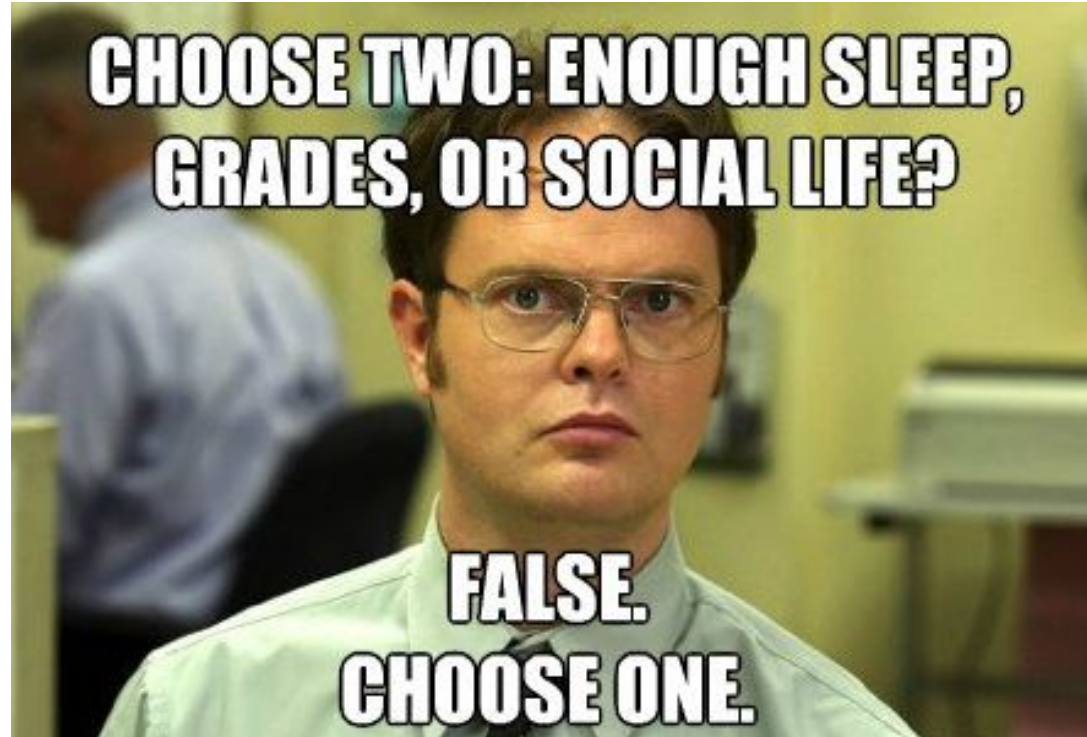


De-stress

Coloring

Painting (outside)

Clay modeling



**Join us next week at the Research
Seminar!**