



# Self-Injurious Behaviors

**Eric MacMaster, MD**

Assistant Professor of Psychiatry & Behavioral Sciences and Pediatrics

SUNY Upstate Medical University





Speaker:

Eric MacMaster, MD

Assistant Professor of Psychiatry & Behavioral Sciences  
and Pediatrics

SUNY Upstate Medical University

Contact: [macmaste@upstate.edu](mailto:macmaste@upstate.edu)



# Disclosures

I have no relevant financial relationship with a commercial interest to disclose

This topic deals with situations that may make participants uncomfortable. There will be no images of SIB shared.





# What is SIB?

- Defining self injury?
- Self injury exists on a spectrum: NSSI vs suicidality
- Social/cultural aspects of cutting
- Neurobiology of self injury



# Self Injury

- For the purpose of this discussion, we will focus on SIB as it pertains to depression/anxiety/social phenomenon.
- However, SIB can also result from conditions such as psychosis, OCD, Intellectual Disability, intoxication, or genetic disorders.
- Similarities stem from pain/injury leading to some stimulation of the reward system...



# NSSI or SIB

- Although not categorized in DSM5, can be part of the clinical picture/experience in many common, typically adolescent mental health concerns.
  - Depression
  - Substance Use Disorders
  - Trauma
  - maladaptive coping /personality disorders
- Social contagion behavior → more awareness of self harm in the community.





## Rates of Non-Suicidal Self Injury in Youth: Age, Sex, and Behavioral Methods In a Community Sample- *Pediatrics* (2012)

- Youth recruited for the study from school, letters sent home to families with child in 3<sup>rd</sup>, 6<sup>th</sup>, or 9<sup>th</sup> grades
- 60% participation rate
- Of the 40% nonparticipants (some families/children excluded) –1% autism spectrum disorder, 3% non-english speaking (the structured interview was in English), 71% declined
- Assessment: Self Injurious Thoughts and Behaviors Interview. (Research tool).
  - Methods of NSSI included: “cutting/carving skin,” “hitting oneself,” “inserting sharp objects into the skin or nails,” “burning oneself,” or “picking one’s skin”





# Associated MH Diagnoses

- Borderline Personality Disorder
- PTSD
- Dissociative Disorders
- Depression
- Eating Disorders





# What Puts Them at Higher Risk<sup>1</sup>?

- In descending level of significance:
  - Prior NSSI
  - “Cluster B” personality traits
  - Feelings of hopelessness
  - Prior SI/actions
  - Exposure to peer NSSI
  - Depression
  - Eating Disorder pathology
  - Female
  - Externalizing psychopathology
  - Internalizing psychopathology
  - General psychopathology
  - Affect regulation





# We Need to be Screening!

- Between 2010 - 2020, Emergency Dept. visits for self injury tripled in the child & adolescent population.
- Anecdotal, but likely given rise in ED presentations during COVID for associated concerns, that rate is likely higher now.





# How Does SIB Help?

Negative experience/emotion



Self Injury



Feelings of satisfaction/relief, possibly guilt/anger



# Neurobiological Feedback

- SIB releases dopamine & endogenous opioids locally and in the brain.
- Can have a calming effect, and behavior is reinforced- emotional and physical distress reduces.
- For many though- that hurt & didn't help- behavior not reinforced & stops.



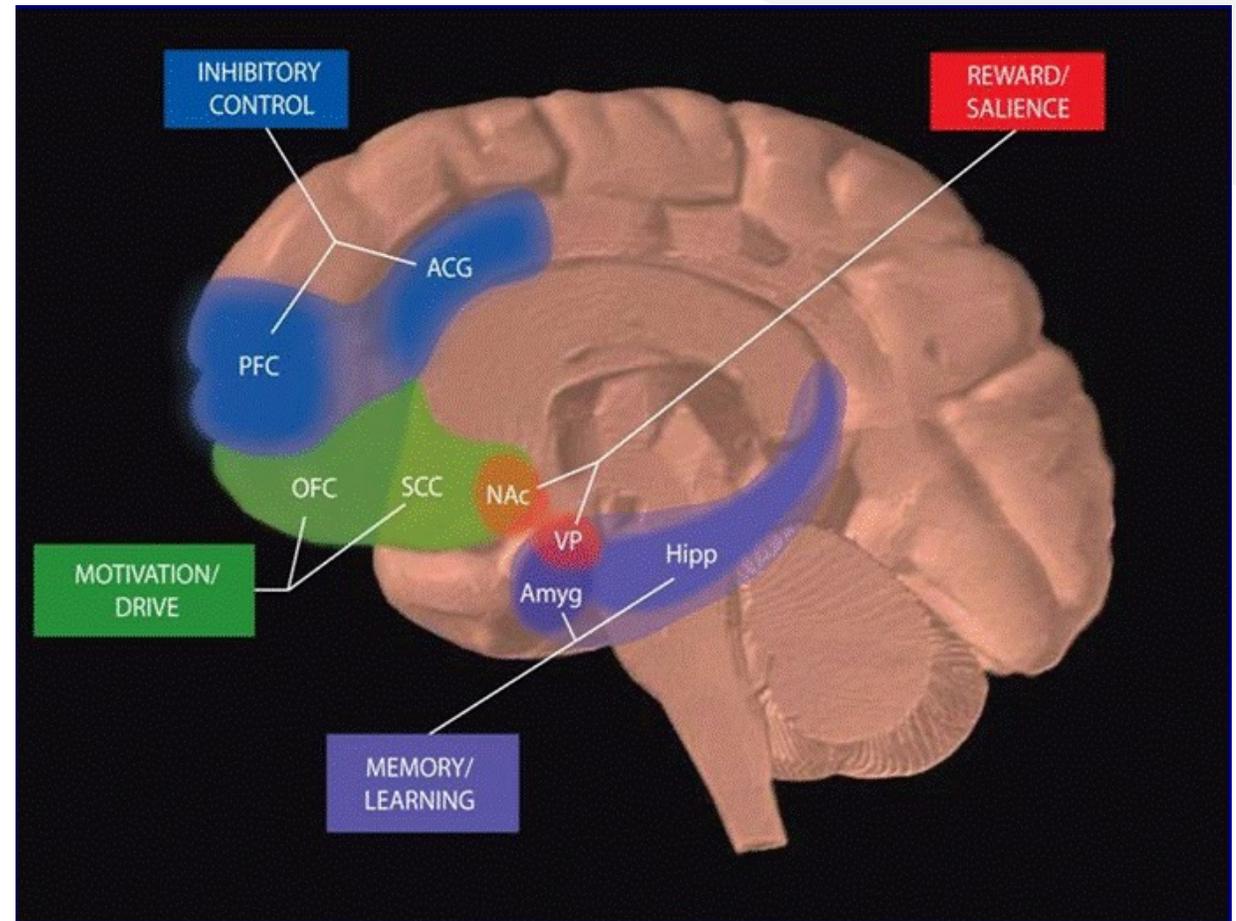
# Clinical Considerations

What experiences have participants had/seen in their practice regarding NSSI/SIB?



# Seeking System

- Why do some people keep cutting?
- Activates the dopaminergic “seeking system” and gets reinforced.
  - very similar to addiction.

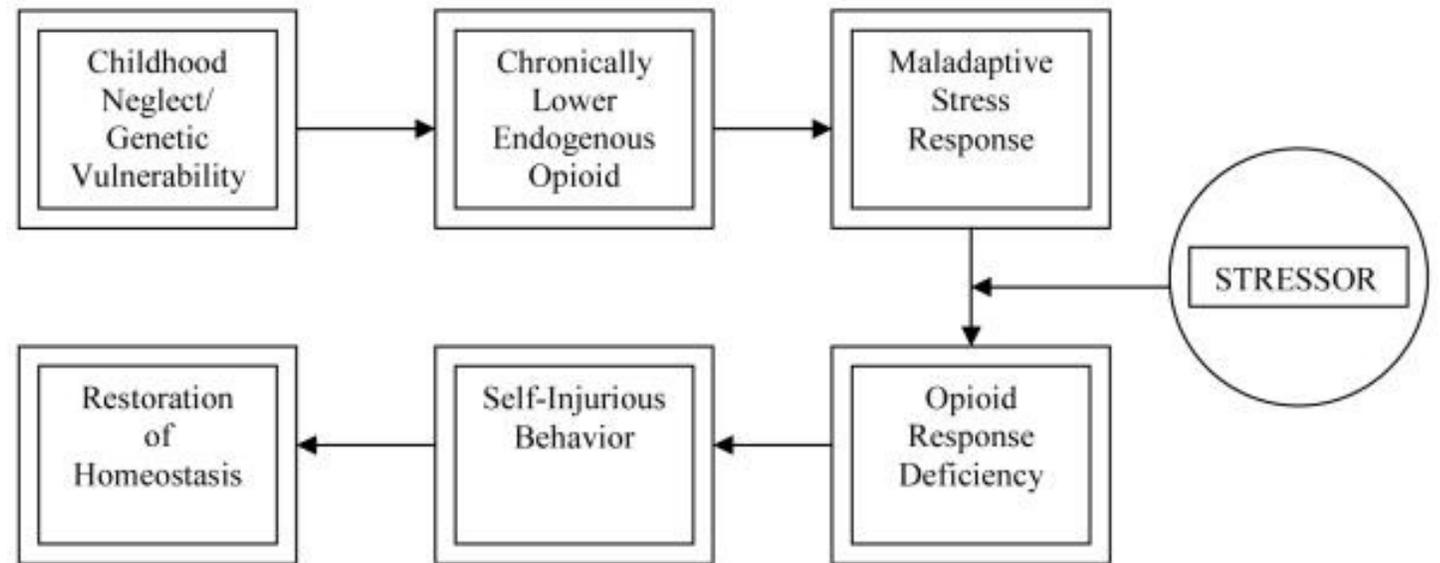




# Endogenous Opioid System

- Mu & delta receptors – B-endorphin and met-enkephalin: involved in stress induced analgesia, “pain signal blocking” effects
- Mu receptor “agonists”
  - Analgesia
  - Euphoria
  - Sedation
  - Calming effect

# Mental Health Issues = Chronic Stress



# Is it NSSI or Suicidal Ideation?

Need to ask, probe, contextualize... not all self injury necessitates psychiatric admission.



# Discussion & Questions



# References

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Slides adapted with permission from a presentation "Self injury and trauma: An overview for families and community providers" by Dr. Robert Kallinicos, MD.

