



Riding the Trauma Wave of Pediatric Care

By: Erica Danielle Martinez-
Cristan, LMSW

Disclosure

All individuals in control of content (planners and speakers) for this educational activity have no relevant financial relationship(s) with ineligible companies* to disclose.

An **ineligible company is any entity whose primary business is producing, marketing, selling, re-selling, or distributing health care products used by or on patients.*

Real-Life Experiences



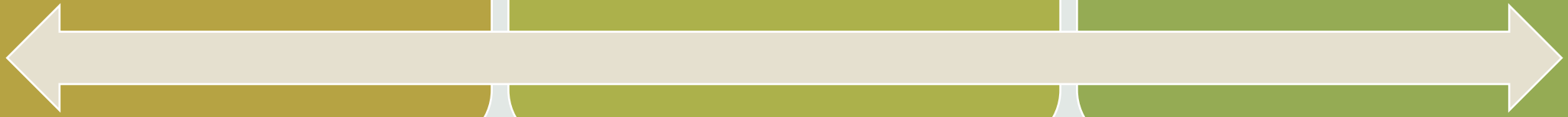
“Eric”- Adoption,
Aggression, Lack
of resources



“Alexis”- SI, HI,
Financial strain,
Several siblings



“Christina”- CPS
conservatorship,
autism, aggression





Behavioral Health

Information on Discharged
Behavioral Health Patients



Trending

Year Month

- 2020
- 2021
- 2022



Last Refresh:
4/6/2023 10:01:28 AM

630

Visits

gray represents 6 month trending

5.35

ED AVG LOS Hours

517

3.58

IP AVG LOS Days

38

1.20

OBS AVG LOS Days

75

14.71

Average Age

Total Visits

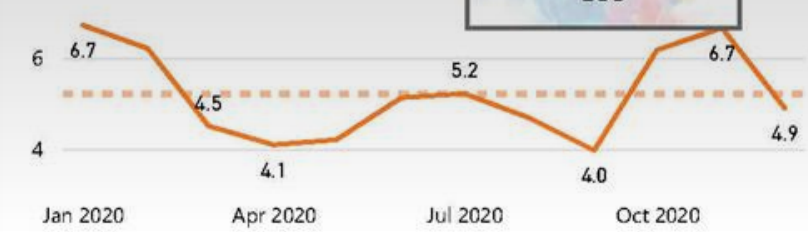
Emergency Inpatient Observation



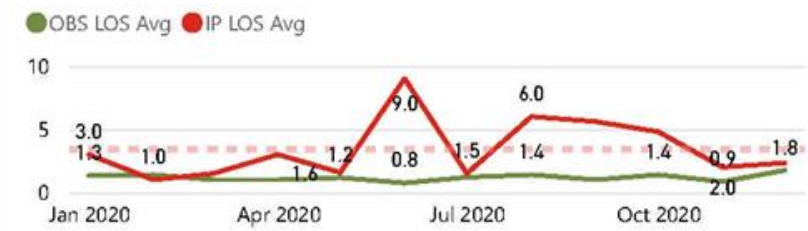
Demographics

ED LOS - Hours

LOS

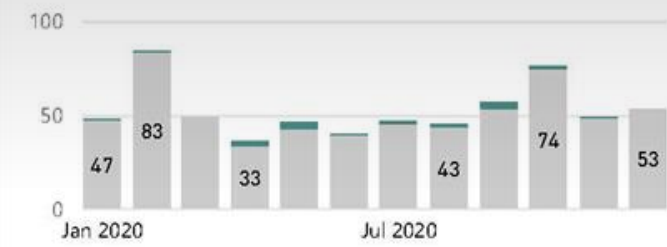


IP / Obs - LOS Days



Touched by PICU

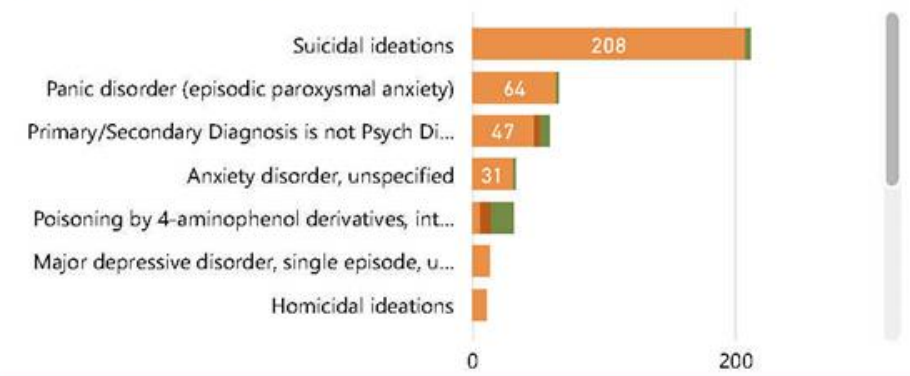
No Yes



PICU

TOP 10 Primary Diagnosis

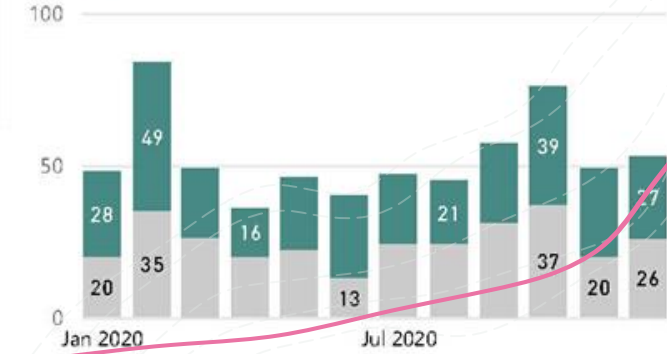
Emergency Inpatient Observation



Diagnosis

Psych Facility Transfer

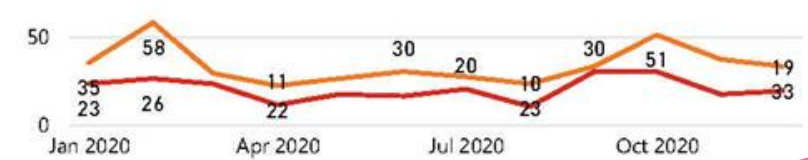
No Yes



Discharge Disposition

1:1

ED 1:1 Floor 1:1





Behavioral Health i

Information on Discharged Behavioral Health Patients

Trending

Year Month
✓ 2020
✓ 2021
✓ 2022



Last Refresh:
4/6/2023 10:01:28 AM

843

Visits

gray represents 6 month trending

6.96

ED AVG LOS Hours

Visits
697

3.13

IP AVG LOS Days

Visits
45

1.22

OBS AVG LOS Days

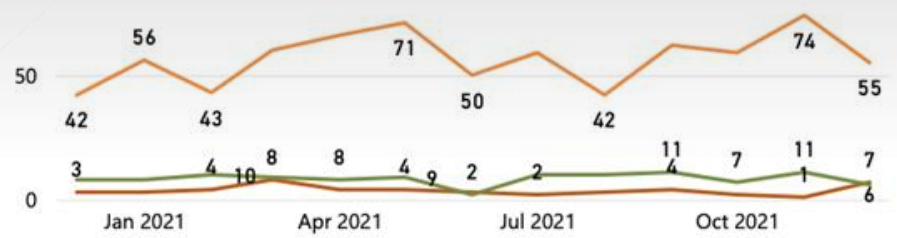
Visits
101

14.69

Average Age

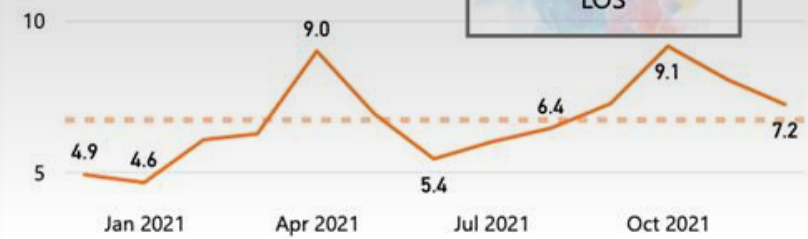
Total Visits

Emergency Inpatient Observation

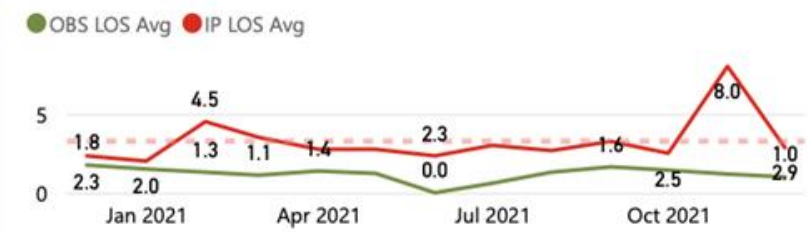


Demographics

ED LOS - Hours

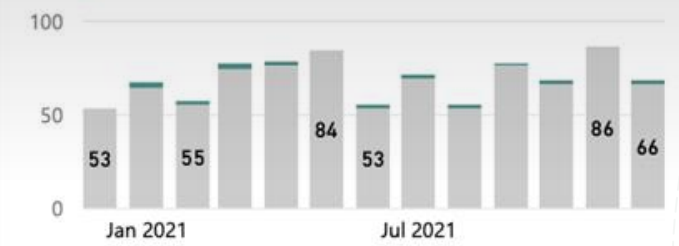


IP / Obs - LOS Days



Touched by PICU

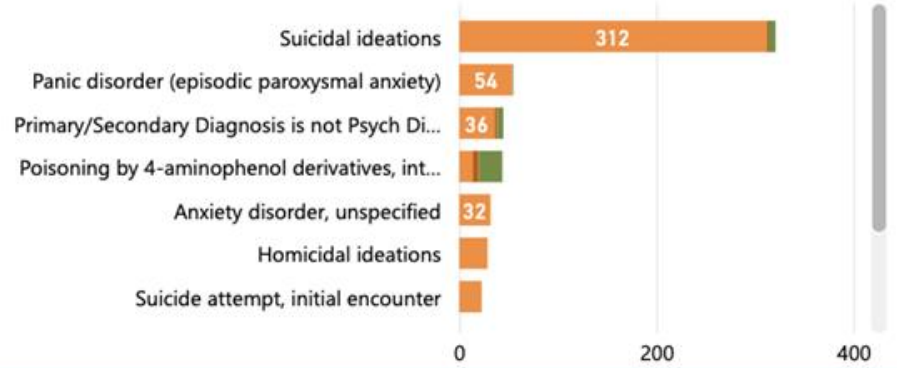
No Yes



PICU

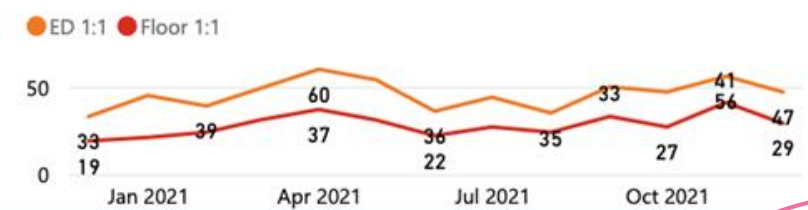
TOP 10 Primary Diagnosis

Emergency Inpatient Observation



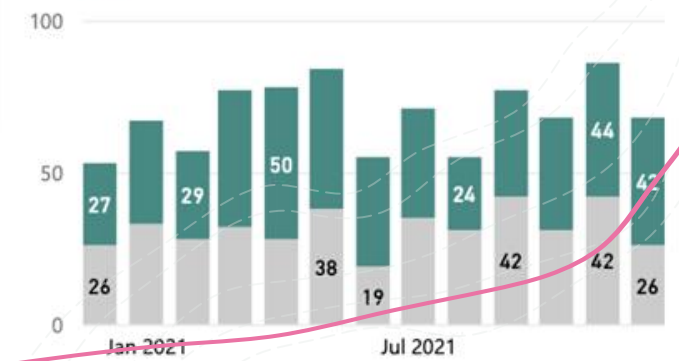
Diagnosis

1:1



Psych Facility Transfer

No Yes



Discharge Disposition

2022 and 2023 Demographics



Behavioral Health

Information on Discharged
Behavioral Health Patients



Trending

Year Month

- 2020
- 2021
- 2022



Last Refresh:
4/6/2023 10:01:28 AM

871

Visits

gray represents 6 month trending

6.97

ED AVG LOS Hours

Visits
739

4.87

IP AVG LOS Days

Visits
38

1.14

OBS AVG LOS Days

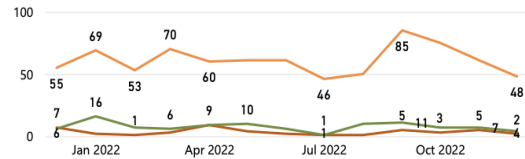
Visits
94

14.58

Average Age

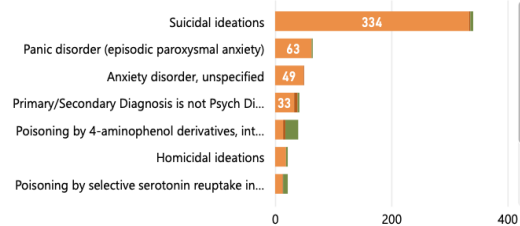
Total Visits

Emergency Inpatient Observation



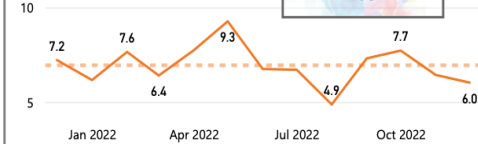
TOP 10 Primary Diagnosis

Emergency Inpatient Observation

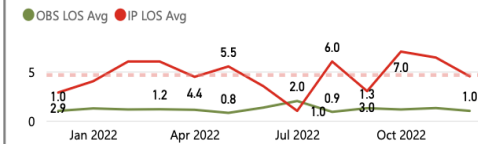


Demographics

ED LOS - Hours

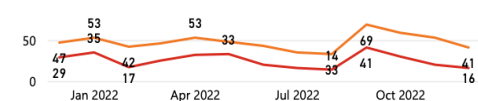


IP / Obs - LOS Days



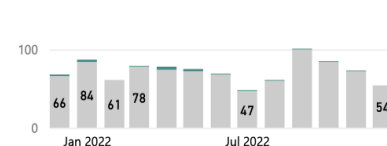
1:1

ED 1:1 Floor 1:1



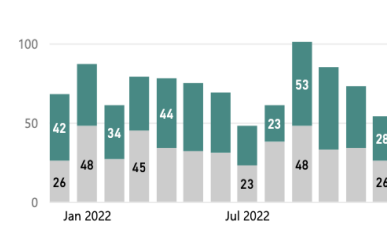
Touched by PICU

No Yes



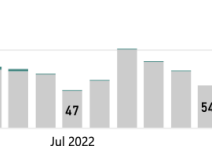
Psych Facility Transfer

No Yes



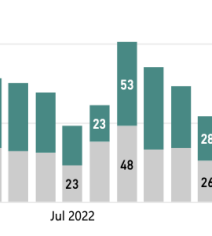
PICU

No Yes



Discharge Disposition

No Yes



Demographics

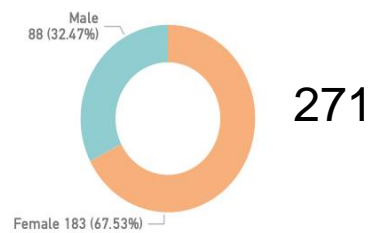
Class

All

Age Avg

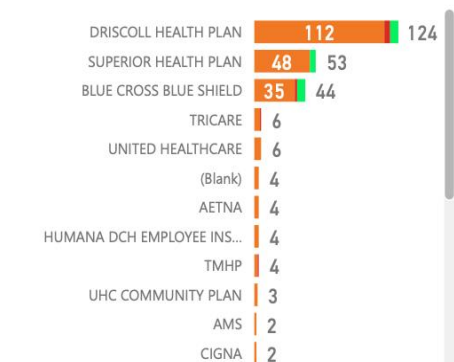


Gender



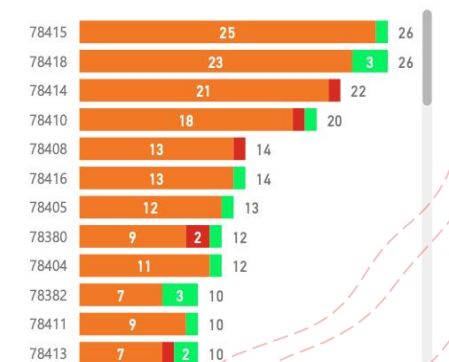
Payor

ACCT_CLASS Emergency Inpatient Observation



Zip Code

ACCT_CLASS Emergency Inpatient Observation



COVID and Mental Health Impact

Past decade, suicide has been the 2nd or 3rd leading cause of death for adolescents (14-18)

2021 Adolescent Behaviors and Experiences Survey for HS students:

- 37.1% of students experienced “poor mental health during the pandemic”
- In previous 12 months:
 - 44.2% experienced “persistent feelings of sadness or hopelessness”
 - 19.9% had seriously considered attempting suicide
 - 9.0% had attempted suicide.

Students who maintained closeness to peers showed lower prevalence of:

- Poor mental health (28.4% versus 45.2%)
- “Persistent feelings of sadness or hopelessness” (35.4% versus 52.9%)
- Considering suicide attempt (14.0% versus 25.6%)
- Suicide attempts (5.8% versus 11.9%).
- (Jones, Ethier, Hertz, et al., 2022)

3 out of 4 US high school students reported at least one ACE during COVID.

- Isolation, lack of access to services, loss/illness, financial strain

1 in 13 reported 4 or more ACEs during COVID (7.8%) -19 pandemic.



(Anderson, Swedo, Trinh, et al., 2022)

Adverse Childhood Experiences

Physical Impact of Trauma

Brain Architecture

Shrinkage in prefrontal cortex, corpus callosum, and hippocampus. Enlarged and more reactive amygdala. **Resolution:** safe and stable nurturing relationships, walk in nature, touch, exercise



Neural Pathways

Need to 'rewire' our brain from old thought patterns and habits of mind, conscious, and unconscious. **Resolution:** neurofeedback, meditation/ mindful action, positive self-talk



Hormones

Prolonged high cortisol and ghrelin creates greater reactivity to stress. Long term damage to cells, structures of the body, and other hormone glands (thyroid). **Resolution:** oxytocin



Toxin Elimination

Intestines and kidneys less able to eliminate toxins (slow gut or unbalanced flora). **Resolution:** salt baths, sauna



Nervous System

Supercharged sympathetic nervous system. Parasympathetic nervous system not engaged to bring back into balance. **Resolution:** yoga, breathing, or other physical/emotional regulation



Immune System

Resistance to cortisol or lower cortisol creates unchecked inflammation. Cause of many diseases: asthma, arthritis, etc.) **Resolution:** meditation/mindful action, walking in nature, diet, rest



Brain Waves

Predomination of wrong brain waves in wrong part of the brain leads to anxiety, unable to concentrate, and seizures. **Resolution:** neurofeedback



Neurotransmitters

Vulnerable to addiction because dopamine transmitters/receptors not developed or damaged. Reduces motivation & focus, creates fatigue. Low serotonin causes depression.



Cellular Change

Shortens telomeres which prematurely ages and reduces reproduction of cells & can cause cancer. **Resolution:** social support
Epigenetics turns genes on or off in adaptation to dangerous environments. Effect can last generations. **Resolution:** Safer environment (perception of)



Adverse Childhood Experiences-1990s research in California that linked obesity to childhood trauma.

ACEs create toxic stress that can cause harm to the development of the child, including brain development.

ACEs create survival mode: Increases heart rate, blood pressure, breathing, and muscle tension.

The ability to critically think is silenced as the brain is in protection mode.

Impacts learning ability, impacts relationships with peers, lowers immune system, lowers stress tolerance, and create health problems.

Emotional abuse has highest association with poor mental health and suicidal ideation/attempts. (Dye, 2019)

Abuse



PHYSICAL



EMOTIONAL



SEXUAL

Neglect



PHYSICAL



EMOTIONAL

Household Challenges



DIVORCE



INCARCERATED PARENT



SUBSTANCE USE



INTIMATE PARTNER VIOLENCE



MENTAL ILLNESS

Understanding ACE's

Parent ACE scores predict child ACE Scores



Children of Parents with ACE Scores ≥ 4 , are:

6.3x more likely to experience household substance abuse

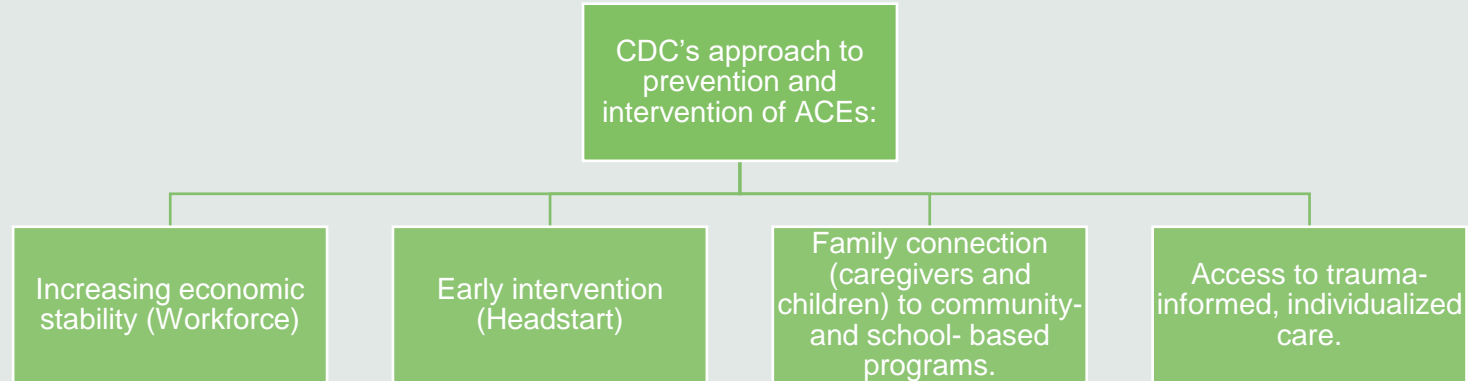
10.4x more likely to experience homelessness

12.7x more likely to experience neglect

(Randell, O'Malley, Dowd, 2015)

- + According to Dr. Chris Blodgett, children with three or more ACEs are:
 - + 5 times more likely to have “severe attendance problems”
 - + 6 times more likely to have “severe behavior problems”
 - + 4 times more likely to report poor health (Steffen, 2018)
- + According to SAMHSA, children with 2 or more ACEs are:
 - + 2 times more likely to have a special health care need

Trauma-Informed Care



Recognizes impact of trauma

Individualized and systematic solutions

Knowledgeable about programs

Recognizes signs and symptoms of trauma in clients, families, staff, and others involved with the system (Law enforcement, JJC, CPS)

Identify trauma proactively, rather than reactive

Encourage help-seeking behaviors- promote safe spaces.

Be that trusted adult and connect to supportive peers and community activities.

Education on social skills, coping skills, emotional intelligence, communication, parenting classes.



Triggers and De-escalation

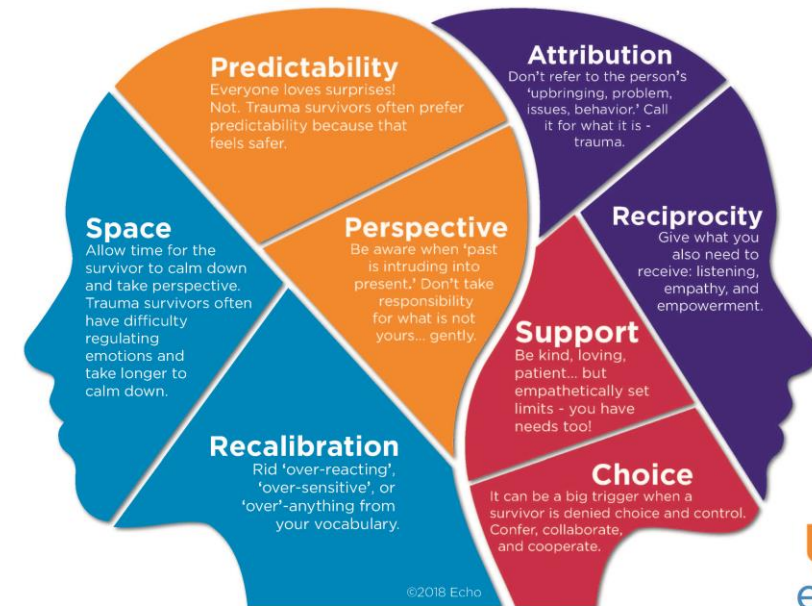
Common Triggers

- Lack of power over threatening situation
- Transition without warning
- Shame, vulnerability, fear

De-escalation

- “Learning brain” is turned off.
 - Rationalization and reasoning are higher functions that the adolescent is physiologically unable to use in moment.
- Early identification of escalating behaviors
- Positive re-enforcement
- Basic needs met?
- Connection (meet at eye level)
- Re-direction and alternatives
- Behavior plans

How to Support Someone Who Has Experienced Trauma



Parent Education and Support

Self-reflection with compassion:
Do not ask "What is wrong with you/me?"

Family systems questions:

- What has limited our ability to see our children's perspective?
- Where have I not been present?
- How are we repeating our childhood pain?

Allowing our child to be their authentic self.

Dealing with children with diagnosis. ADHD, autism, bipolar disorder.

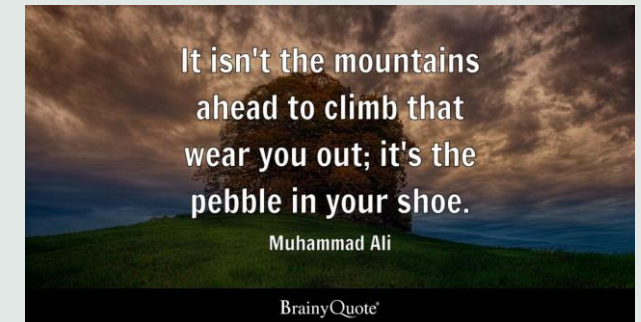
Attempt to see their behavior as not a personal attack.

Lead by example to teach self-regulation

New learning can not occur in high states of painful arousal

Children need sense of self-efficacy

Know your resources and rights! MHID, RTC, local communities (CBWF)



"Parents must surrender their point of view that there's something wrong with the child and see that it's the relationship that's in trouble and the child's behavior is just a function of that. We must stop trying to control the child's behavior."- Gabor Mate

Last Thoughts on Trauma

"Trauma is not what happens to you, it's what happens inside you as a result of what happened to you. Trauma is that scarring that makes you less flexible, more rigid, less feeling and more defended." - Dr. Gabor Mate

- Trauma is not the event, but the "wound" you sustain.

"Trauma is an inability to inhabit one's body without being possessed by its defenses and the emotional numbing that shuts down all experience, including pleasure and satisfaction." - Bessel van der Kolk

- Trauma, as a defense, prevents all feelings, including joy and happiness.

"Our major finding is that your history of relational health—your connectedness to family, community, and culture—is more predictive of your mental health than your history of adversity (see Figure 8). This is similar to the findings of other researchers looking at the power of positive relationships on health. Connectedness has the power to counterbalance adversity." - Dr. Bruce Perry

- Connectedness is key.

Trauma is a fact of
life. It does not,
however, have to be
a life sentence.

Peter A. Levine

BrainyQuote®

References

- + Anderson KN, Swedo EA, Trinh E, et al. Adverse Childhood Experiences During the COVID-19 Pandemic and Associations with Poor Mental Health and Suicidal Behaviors Among High School Students — Adolescent Behaviors and Experiences Survey, United States, January–June 2021. MMWR Morb Mortal Wkly Rep 2022;71:1301–1305. DOI: <http://dx.doi.org/10.15585/mmwr.mm7141a2>.
- + Dye HL. Is Emotional Abuse As Harmful as Physical and/or Sexual Abuse? J Child Adolesc Trauma. 2019 Dec 10;13(4):399-407. doi: 10.1007/s40653-019-00292-y. PMID: 33269040; PMCID: PMC7683637.
- + Jones SE, Ethier KA, Hertz M, et al. Mental Health, Suicidality, and Connectedness Among High School Students During the COVID-19 Pandemic — Adolescent Behaviors and Experiences Survey, United States, January–June 2021. MMWR Suppl 2022;71(Suppl-3):16–21. DOI: <http://dx.doi.org/10.15585/mmwr.su7103a3>^{external icon}.
- + Randell, K. A., O'Malley, D., & Dowd, M. D. (2015). Association of Parental Adverse Childhood Experiences and Current Child Adversity. JAMA Pediatrics, 169(8), 786. doi:10.1001/jamapediatrics.2015.0269
- + Steffen, Claire R., "Childhood Trauma in Education: Addressing the Needs of Students Who Have Experienced Trauma Through Trauma Informed Practices" (2018). All Electronic Theses and Dissertations. 603.