



But We're Not a Psych Hospital:

Novel Improvisations In a Time of Increasing Mental Health Challenges

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Heather Kreth, Psy.D

- Licensed Clinical Psychologist and Health Service Provider
- Joined the Division of Hospital Medicine in October 2018
- Associate Professor of Clinical Pediatrics
 - Division of Psychology
 - Division of Hospital Medicine
- Clinical Director Inpatient Behavioral Health

Alison Herndon, MD, MSPH

- Received my MSPH and MD from the University of Colorado
- Completed pediatric residency and a chief resident year at the University of North Carolina
- Joined the Division of Pediatric Hospital Medicine in July 2015
- Leadership roles:
 - Section Head for Pediatric Hospital Medicine
 - Assistant Program Director of Pediatric Residency
 - Medical Director for Pediatric Medicine & Acute Care



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MCJCHV Demographics

- University Medical Center, shared license with VUMC, maintains Magnet status
- 343 inpatient beds
- 65-bed PICU, 119-bed NICU
- 42-room Pediatric ED
- 49,011 ED visits annually
- Level 1 Pediatric Trauma Center
- 16,223 total inpatient discharges annually



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What We Don't Have:

- Licensed Psychiatric Beds
- Psychiatric-safe rooms with ligature risk reduction/modifications
- “Quiet rooms” or “Calm rooms”
- Our staff are not trained in physical restraint techniques (CPI, Handle with Care, etc.)
- We do not currently cohort these patients



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What Are Children's Hospitals Seeing Nationally?

- Mental health issues in children and teens were already on the rise
- Increased emergency room visits for mental health issues
- Increased severity of depression, anxiety, agitation, and suicidal ideation
- Increased comorbid psychiatric needs in “medical” patients
- Differing models for managing “boarders”



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You Know a Child or Adolescent With Depression

- Over 2.5 million youth in the U.S. have severe depression, and multiracial youth are at greatest risk.
- 10.6% of youth in the U.S. have severe major depression (depression that severely affects functioning)
- The rate of severe depression was highest among youth who identify as more than one race:
 - 14.5%, or >1 in every 7 multiracial youth



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Mental Health Facts

- Mental health is an important part of overall health and well-being
- Mental illnesses are among the most common health conditions in the US:
 - 1 in 5 children, either currently or at some point during their life, have a seriously debilitating mental illness
 - Half of all mental illness occurs before a person turns 14 years old and ¾ of mental illness begins before age 24
- **Suicide is the 2nd leading cause of death among people ages 10-34 in the US**
- Mental illness is caused by a number of factors, including:
 - Biological influence
 - Stressful or traumatic life events
 - Long-lasting health conditions



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Sound The Alarm

AAP-AACAP-CHA Declaration of a National Emergency in Child and Adolescent Mental Health

[Home](#) / [Advocacy](#) / [Child and Adolescent Healthy Mental Development](#) / AAP-AACAP-CHA Declaration of a National Emergency in Child and Adolescent Mental Health



A declaration from the American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry and Children's Hospital Association:

As health professionals dedicated to the care of children and adolescents, we have witnessed soaring rates of mental health challenges among children, adolescents, and their families over the course of the COVID-19 pandemic, exacerbating the situation that existed prior to the pandemic. Children and families across our country have experienced enormous adversity and disruption. The inequities that result from structural racism have contributed to disproportionate impacts on children from communities of color.

This worsening crisis in child and adolescent mental health is inextricably tied to the stress brought on by COVID-19 and the ongoing struggle for racial justice and represents an acceleration of trends observed prior to 2020. Rates of childhood mental health concerns and suicide rose steadily between 2010 and 2020 and by 2018 suicide was the second leading cause of death for youth ages 10-24. The pandemic has intensified this crisis across the country we have witnessed dramatic increases in Emergency Department visits for all mental health emergencies including suspected suicide attempts.



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Pediatric Mental Health Boarding

PEDIATRICS
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Fiona B. McEnany, Olutosin Ojugbele, Julie R. Doherty, Jennifer L. McLaren and JoAnna K. Leyenaar

Pediatrics September 2020, e20201174; DOI: <https://doi.org/10.1542/peds.2020-1174>

- Across the United States, psychiatric beds are in short supply, meaning that patients get “stuck” in emergency rooms or inpatient beds waiting days to weeks for appropriate facilities and treatment.
- "It's a vital issue in youth mental healthcare today, experienced by at least 40,000 to 66,000 youth admitted to hospitals each year," says The Dartmouth Institute's JoAnna Leyenaar, MD, PhD, MPH
- Comprehensive review of 222 studies; 11 met their inclusion criteria finding:
 - Among those requiring care, 26-49% boarded on inpatient medical units
 - Boarding ranges 5-41 hours in EDs, 2-3 days in inpatient medical units

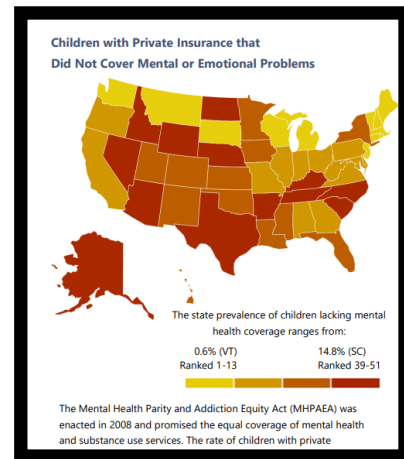
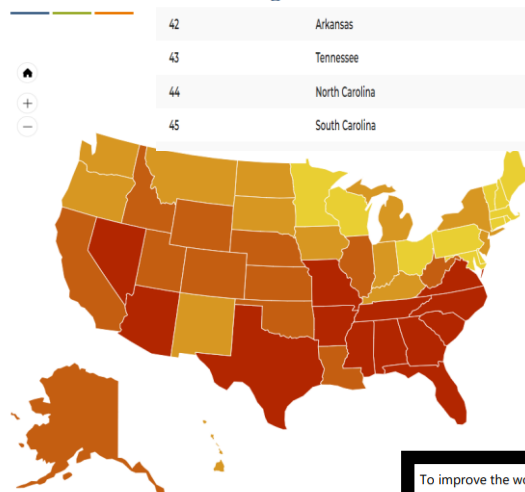
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What Are We Seeing Locally?

- Lack of evidence-based, effective outpatient resources for prevention
 - IOP/ PHP/ Covered Outpatient Therapies
 - Lack of specialized child/ adolescent providers
- Few paneled providers
- Fewer psychiatric beds than needed
 - General
 - Specialized (ED, OCD, forensic)
- Poorly resourced and supported child welfare system (DCS)

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Access to Care Ranking 2021

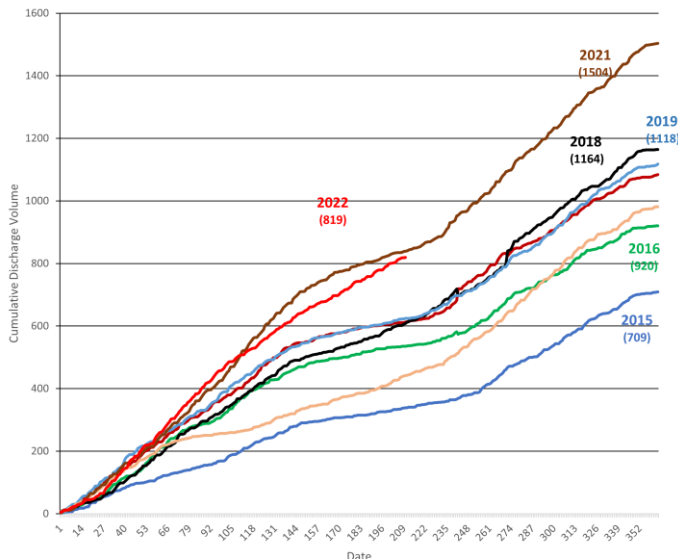


To improve the worsening mental health of children and adolescents in the U.S., insurance companies must not only achieve parity in coverage of services, but also in network adequacy, so people are able to access those services when they need them.

46	Nebraska	12.6	10,000
47	Idaho	12.7	10,000
48	North Dakota	13.5	5,000
49	Tennessee	13.5	27,000
50	Arkansas	14.4	13,000
51	South Carolina	14.8	23,000

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Cumulative Annual Primary Mental Health Admissions 2015-2022



- ADC for behavioral health team is 5-25 patients depending on time of year.
- On the day the Emergency Declaration (10/2021) was released our census was 34... an entire floor of our hospital

Rethinking the Boarding Behavioral Health Plan of Care

Everyone has "feelings" about the borders

Behavioral Health Team 1.0

- Admitted to Pediatric Hospital Medicine (do not typically board in our ED)
- Pediatric hospitalist attending (rotates weekly)
- Child & Adolescent Psychiatry Consult Team
 - Psychiatry attending (rotates weekly)
 - Psychiatry residents
 - No psychologist
- Dedicated Case Manager
- Hospital-based Psychiatric Nurse Practitioner (version 1.5)
- Minimal patient interaction with contracted sitter services for 1:1 observation



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Behavioral Health Team 2.0

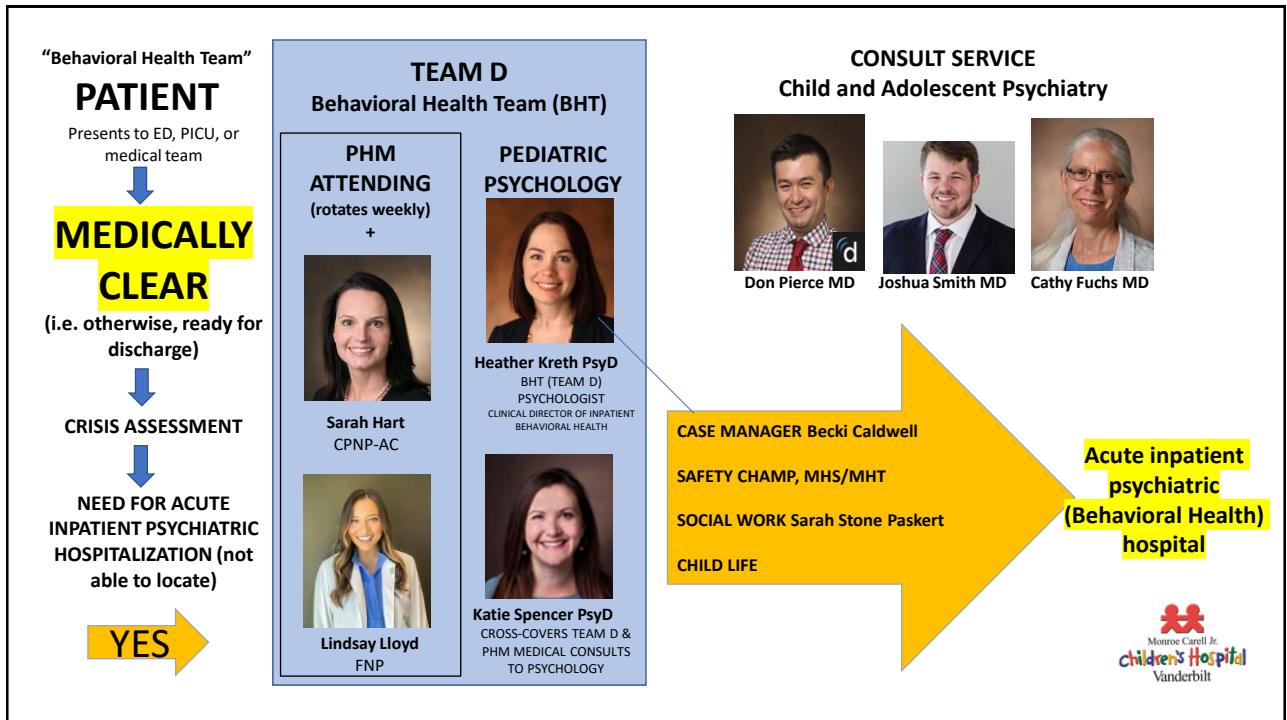
Launched October 2018

- Admitted to Pediatric Hospital Medicine
- Pediatric hospitalist attending (rotates weekly)
- **Dedicated Pediatric Hospital Medicine Nurse Practitioner***
- **Dedicated Child Psychologist***
 - Member of the Pediatric Hospital Medicine team NOT C/L service
- Child & Adolescent Psychiatry Consult Team
 - Psychiatry attending (rotates weekly)
 - Psychiatry residents & child fellows
- Dedicated Case Manager
- Patient Safety Team (development across 2019)
- Multiple systems level changes

**New FTEs*



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What We Can and Can't Do in a Children's Hospital

- We are not a psychiatric hospital; we do not have licensed psychiatric beds and we are not providing robust therapy services
- We can provide:
 - Brief behavioral interventions
 - Risk assessments
 - Disposition recommendations
 - Crisis oriented family interventions
 - De-escalation education and support at bedside M-F
 - Behavior plans that are evidence-based
 - Cohesive communication through multidisciplinary, twice daily meetings

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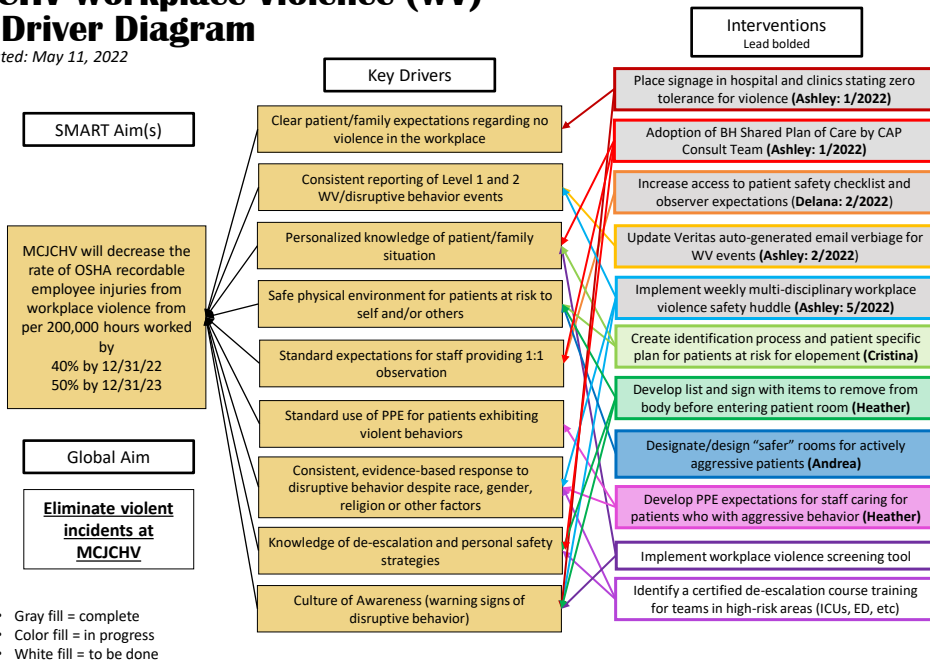
Systems Level Interventions



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MCJCHV Workplace Violence (WV) Key Driver Diagram

Last Updated: May 11, 2022



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Education

General education via online module

- Provided annually to all licensed and unlicensed staff
- Focus on verbal de-escalation, suicide safety

Live, didactic class

- 8-hour class
- Focus on child and adolescent development, Child Life, trauma informed care, caring for the agitated patient, and working with the patient on the autism spectrum

Suicide safety with video demonstration

- Supplemental online module with tips on providing direct observation, especially when the patient needs privacy



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Patient Safety Team Development



- Patient Safety Team Manager
Delana Vallery
- 24/7 Senior Mental Health Tech/ Specialist "Champ"
- Frequent communication with AC for staffing needs

Traditional Sitter Model

- Contract service
- Minimal training for behavioral health patients/ verbal de-escalation
- Does not provide clinical support
- Reactive

Mental Health Specialists

- Piloted in 2019
- 10 FTEs
- Largely focused on verbal de-escalation, therapeutic communication & care
- Provides clinical support to nursing
- Preventative

Patient Safety Team

- Phase out use of "sitters"
- In house team with advanced training and focus on BH patients
- **Introduction of Mental Health Technician role**
- Layer in clinical practice changes to further improve outcomes



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Pediatric Behavioral Health Order Set

- Medical Hold
- Suicide Precautions
 - Restrict Visitors
 - Environmental checks
 - Room & Personal belongings search
 - Paper Scrubs
 - Patient Location
 - Disposable dishes/trays, no metal or glass containers, no plastic knives
- 1:1 Visual Observation
- Vital Signs Frequency & Parameters
- Stoplight Safe Activity Level
- PRN Medications associated w/ BVC score
- Consults
 - Pediatric Psychiatry, Pediatric Psychology, Social Work, Child Life, Art Therapy, Music Therapy, Occupational Therapy

▼ Diet

▼ Diet / Nutrition

☒ Pediatric Diet Disposable dishes, trays, utensils-no metal or glass containers, no plastic knives
Diet effective now, starting today at 1143, Until Specified

☐ Select: Disposable dishes, trays, utensils-no metal or glass containers, no plastic knives
No sharp objects

▼ Medications

▼ Mild Agitation (Brosset score 1-2)

Use Hydroxyzine if paradoxical reaction to diphenhydramine is present

☐ diphenhydramine

☐ hydroxyzine (ATARAX) tablet
0.5 mg/kg, oral, Every 6 hours PRN, agitation, for Brosset Score 1-2, NHO when administered

▼ Moderate Agitation (Brosset 3-4)

☐ OLANzapine zdis (ZYPREXA) disintegrating tablet
0.1 mg/kg, oral, Every 2 hours PRN, agitation, for Brosset Score 3-4, NHO prior to administration, Max dose: 30 mg/day

☐ risperidone (RisperDAL M-TABS) disintegrating tablet
0.025 mg/kg, oral, Every 1 hour PRN, agitation, for Brosset Score 3-4, NHO prior to administration, Max dose: 6 mg/day

▼ Severe Agitation (Brosset 5-6)

☐ OLANzapine (ZYPREXA) injection
0.1 mg/kg, intramuscular, Every 2 hours PRN, agitation, for Brosset score 5-6, NHO prior to administration, Max dose: 30 mg/day

☐ haloperidol lactate (HALDOL) injection
0.025 mg/kg, intramuscular, Every 1 hour PRN, agitation, for Brosset score 5-6, NHO prior to administration, Max dose: 20 mg/day

☐ haloperidol (HALDOL) and lorazepam (ATIVAN) intramuscular injection



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Stoplight Safe Activity List

- Robust collaboration with Child Life and nursing
- Proactive utilization of adaptive coping mechanisms are key to safety and regulation
- Quick and easy access to items imperative

Green Activities Safe For All	Yellow Activities Safe with Evaluation by Psychiatry/ Psychology in conjunction with nurse/ MHIS	Red Activities Not Generally Indicated
Games: <ul style="list-style-type: none"> • Card based games (Uno, playing card deck, apples to apples, etc) • Puzzles • Word Games (mazes, word searches, crosswords, sudoku, etc) Manipulatives: <ul style="list-style-type: none"> • Play Doh (no cutting toys) • Model Clay/ Model Magic • Stress Balls • Soft Blankets • Stuffed Animals (without hard eyes) Arts & Crafts: <ul style="list-style-type: none"> • Stickers/ Sticker Scenes • Crayons and Coloring pages • Oil Pastels • Finger/ Sponge Painting Other: <ul style="list-style-type: none"> • Paper Back Books • Non-spiral journals 	Games and Toys: <ul style="list-style-type: none"> • Board games with larger pieces • Rubix Cube • Fidget items • Bubbles • Action figures • Toy dolls • Dinosaurs • Small amounts of legos • Toy cars Arts & Crafts: <ul style="list-style-type: none"> • Jewel Mosaics • Crayola Markers • Paint brushes/ accessories without metal • Hardback books With explicit order and plan: <ul style="list-style-type: none"> • Pen/ Pencils • Movies • Video Games • Personal electronic device (cell/ tablet for viewing movies/ games) • Music on WOW (controlled by staff, kept at door) • Permission for regular clothing • Sensory items i.e Vectors, weighted blankets, body brushes, etc. (*if Psychiatry/ Psychology orders OT consult and OT indicates appropriate) 	<ul style="list-style-type: none"> • Scissors • Rope (any length) • Cords • Paint brushes With Metal Pieces • Pipe Cleaners • Spiral notebooks • Social Media access



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My Health Passport

My Health Passport
Patient Completed Information
My Health Passport

Dear Parent or Caregiver,
Please take a few moments to fill out this form so we can get to know your child better. This information will be used to better care for your child during their time in our hospital and clinic. Thank you.

I like to be called: _____

COMMUNICATION
I communicate my needs by:
☐ Using words
☐ Using my hands/signs/language
☐ Using communication boards/pictures
☐ Other: _____

TRIGGERS
When I am upset, I:
☐ Yell
☐ Cry
☐ Hurt myself/others
☐ Try to run away
☐ Get really quiet
☐ Become restless
☐ Other: _____

THINGS THAT REALLY UPSET ME:

THINGS THAT HELP ME CALM DOWN:

PAIN
When I am hurting, I:
☐ Use words
☐ Yell
☐ Cry
☐ Hit/kick
☐ Become restless
☐ Other: _____

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My Health Passport
Patient Completed Information
My Health Passport

MEDICAL TESTS
I have a hard time with:
☐ Needles
☐ Blood/BP cuffs
☐ Medications
☐ Other: _____

WAYS TO HELP WITH MY TESTS

FOOD/DRINK
I like these food(s)/drink(s):

 I do not like these food(s)/drink(s):

FAVORITE THINGS
Here are some things I like to read/play/watch:

ADDITIONAL INFORMATION
Additional things to know:

Patient Legal Representative Print Name: _____
 Patient Legal Representative Signature: _____ Date: _____ Time: _____
 or staff
 Print Name: _____ Title: _____
 Signature: _____ Date: _____ Time: _____

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EHR Behavioral Care Plan

Active Shared Plan of Care FYI Flag Details

Flag Type	Author	Status	Filed
Patient Has A Behavioral Plan in Chart		Active	
<p>_____ has a history of _____ _____ presents as impulsive and can be verbally and physically aggressive, seemingly unprovoked. Common behavioral outbursts include, hitting, kicking, posturing, occasional pinching, scratching, and biting. When presents to the ED, please request MCRT full evaluation (rather than call through). Proactive techniques to reduce behavioral dysregulation: Child Life involvement ASAP, with soft doll, small fidget item, playdoh, and other items to be checked in an out of room one at a time. Please see mental health passport. _____ prefers Lucky Charms, Lays potato chips, and sprite. Talk with _____ at _____ level, calmly with soft voice, slow and simple language, checking for understanding, informing _____ of what is happening or any plans. If admitted to the floor, strip room prior to pt arriving, keep bed in room (so restraints can be used if necessary). PRN plan, pt will typically take oral medications when offered. If _____ requires IM, _____ often asks for a band-aid and/or ice after. _____ sometimes has urinary incontinence and benefits from use of pull-ups. Waking up in a wet bed in the morning can be a trigger for behavioral dysregulation. Please have clean scrubs and linens available.</p>			

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New Initiatives

- Behavioral Health Task Force
 - Standardize admission criteria including bed placement and unit location
 - Optimize care of the patient with aggression
 - Optimize care of the patient with suicidal ideation
- Weekly Safety/ Violent Events Review



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Rethinking Resident Education

Development of a Formal Resident Rotation on our Behavioral Health Team



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VUMC/MCJCHV Pediatric & Combined Pediatric Residencies

- Size of Categorical and Combined Pediatric Residency Programs
 - 24 Categorical Pediatric residents/year (expanding)
 - 4 Child Neurology residents/year
 - 6 Med/Peds residents/year
 - 1 Combined Peds/Genetics residents/year
 - Chief Residents: 3 Peds, 1 Med-Peds, 1 (PGY-4) Child Neuro
- Most interns complete 3-4 wards rotations; med/peds complete 2-3
- Trends for graduates fluctuate, but close to equal numbers will go into general pediatrics vs subspecialty training



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Rationale for Developing a Mental/Behavioral Health Curriculum

- ABP Entrustable Professional Activity #9 – Assess and Manage Patients with Common Behavioral/Mental Health Problems
 - “Pediatricians must be able to assess behavioral wellness and address prevention as well as anticipate, identify, and manage the behavioral and mental health needs of patients through young adulthood, recognizing when further consultation from a mental or behavioral health specialist is needed.”
 - Identify and manage common issues: low mood, inattention and impulsivity, disruptive behavior and aggression, anxiety, learning difficulty, substance use, and social- emotional issues in young children
 - Refer and co-manage patients, provide developmentally appropriate and culturally competent care, etc.



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American Board of Pediatrics Exam

- Exam weight by content domains:
 - Mental & Behavioral Health = 5%!
 - Only two domains are higher (well child/prevention & ID), shares weight with four others

Content Domain	Exam Weight
1. Preventive Pediatrics/Well-Child Care	8%
2. Fetal and Neonatal Care	5%
3. Adolescent Care	5%
4. Genetics, Dysmorphology, and Metabolic Disorders	3%
5. Mental and Behavioral Health	5%
6. Child Abuse and Neglect	4%
7. Emergency and Critical Care	4%
8. Infectious Diseases	7%
9. Oncology	2%
10. Hematology	4%
11. Allergy and Immunology	4%
12. Endocrinology	4%
13. Orthopedics and Sports Medicine	4%
14. Rheumatology	2%
15. Neurology	5%
16. Eye, Ear, Nose, and Throat	4%
17. Cardiology	4%
18. Pulmonology	5%
19. Gastroenterology	4%
20. Nephrology, Fluids, and Electrolytes	4%
21. Urology and Genital Disorders	3%
22. Skin/Dermatology	4%
23. Psychosocial Issues	2%
24. Ethics	2%
25. Research Methods, Patient Safety, and Quality Improvement	2%



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Longitudinal Mental/Behavioral Health Curriculum – Inpatient Component

- Participants:
 - Core rotation: all categorical and combined pediatrics interns are scheduled to complete one week on the Behavioral Health Team during one wards month
 - Elective: PGY-2s+ may spend one week on the team as a micro-elective
- Expectations: serve as primary provider for a panel of patients, actively participate in multidisciplinary management, attend twice daily meetings, shadow psychologists
- Observe and practice de-escalation and difficult conversations



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Longitudinal Mental/Behavioral Health Curriculum – Inpatient Component

- Annual surveys from 1- and 5-year resident graduates
 - Many would have appreciated more specific training in these topics
- Required learning modules:
 - Counseling on Access to Lethal Means (CALM)
 - Safer: Storing Firearms Prevents Harm (via AAP)
 - Pharmacology Review
 - Trauma Informed Care
 - Coming Soon: APPD modules



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Outcomes

Are We Making Any Progress?



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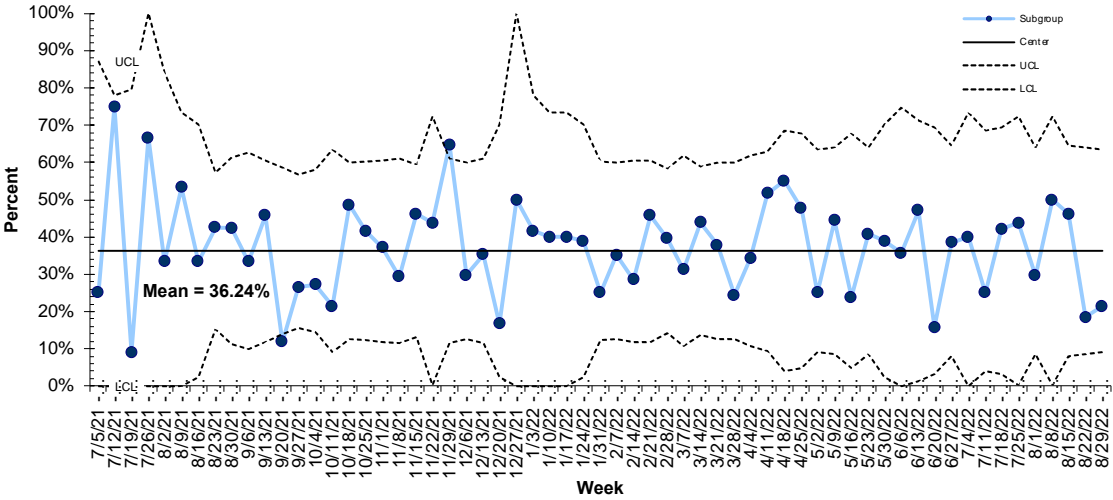
YES!

Though there are days it doesn't feel like it...



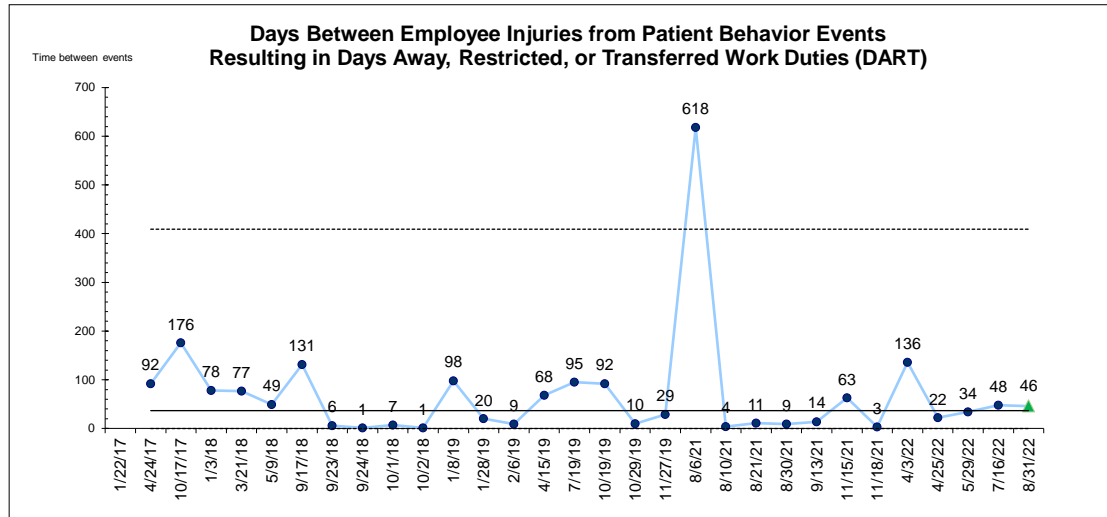
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Percent of Behavioral Health Team Discharges <24 Hour LOS



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DART Rate



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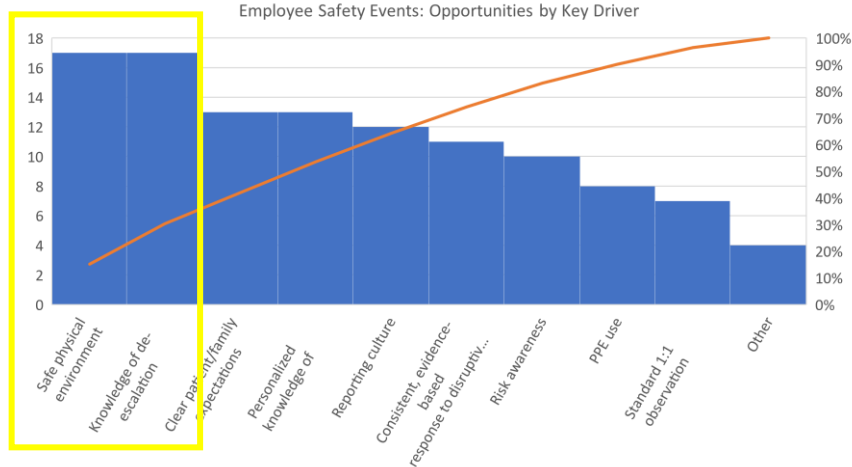
Employee Safety Huddle: Referred Actions

Behavioral Plan	<ul style="list-style-type: none"> Access in non-inpatient settings (clinic, HR/PACU) Easy access during behavioral crises Method to communicate high risk concerns that should not be visible to parent/guardian
Elopement	<ul style="list-style-type: none"> Risk identification and mitigation
Escalation Response	<ul style="list-style-type: none"> Escalation process/checklist (based on SOP) Add parent/family behavioral expectations to admission handbook
PPE	<ul style="list-style-type: none"> Kevlar sleeve availability (all areas)
Risk awareness	<ul style="list-style-type: none"> Real-time notification of events to all members of patient care team (shift leader, PST, medical team, consulting team, etc.)
VUPD	<ul style="list-style-type: none"> Criteria for engaging VUPD Response time expectations
BH Taskforce	<ul style="list-style-type: none"> Inpatient functional behavioral analysis Shared Behavioral Plan of Care criteria <ul style="list-style-type: none"> Including recommendations for children with ASD

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Employee Safety Huddle

April-August 2022



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Takeaways

- We do not foresee the number of boarding patients to decrease
 - Moving from “why” to “how”
- Embedded psychology is a unique model that offers opportunities for improved patient care and training
- Multidisciplinary partnerships are key to providing this care
- Collaboration with our partners in consult psychiatry is key

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VANDERBILT  UNIVERSITY
MEDICAL CENTER

Thank You!!

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