



Utilizing Cognitive Behavioral Therapy, Token Economy Technique to Positively Impact Boarding of Pediatric Psychiatric Patients



DukeHealth

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Annual Census 80,000

Duke University Hospital Emergency Department is a Level One Emergency Department and Trauma Center located on the campus of Duke University in Durham, North Carolina. We are a 78-bed department which includes treatment areas dedicated to Adult, Pediatrics, Trauma, Psychiatry and an 11 bed observation unit.

PURPOSE

Recent US data estimates 5% to 7% of pediatric ED visits are related to mental health. The most common mental disorders diagnosed in childhood are Tourette syndrome, attention-deficit/hyperactivity (ADHD), behavior, mood, anxiety, autism spectrum (AS), and substance use disorders (SUD). Between 2011 and 2015, psychiatric ED visits per 1000 youth increased by 28%. Disposition is the major issue; the wait for outpatient psychiatry is long and inpatient psychiatric beds are a limited resource. This negatively impacts patient behavior, overall ED throughput and patient/family/staff satisfaction. This ED sought to develop an evidence based, proactive, consistent approach to improving pediatric patient behavior management during prolonged boarding.

DESIGN

Using the five-step process improvement model of define, measure, analyze, improve, and control, an interdisciplinary team developed strategies to implement the use of Cognitive Behavioral (CBT) utilizing the Token Economy (TE) technique while working with boarding pediatric patients.

SETTING

Level 1 Emergency Department, Level 1 Trauma Center in an Urban Quaternary Care Teaching Hospital with 80,000 annual visits

PARTICIPANTS/SUBJECTS

Emergency Medicine and Child Psychiatry Clinical Staff (Physicians, Nurses, Social Workers), Child Life Specialist (CLS), Patients, Families

PEDIATRIC (AGE <18) ED VISITS - ALL DIAGNOSES



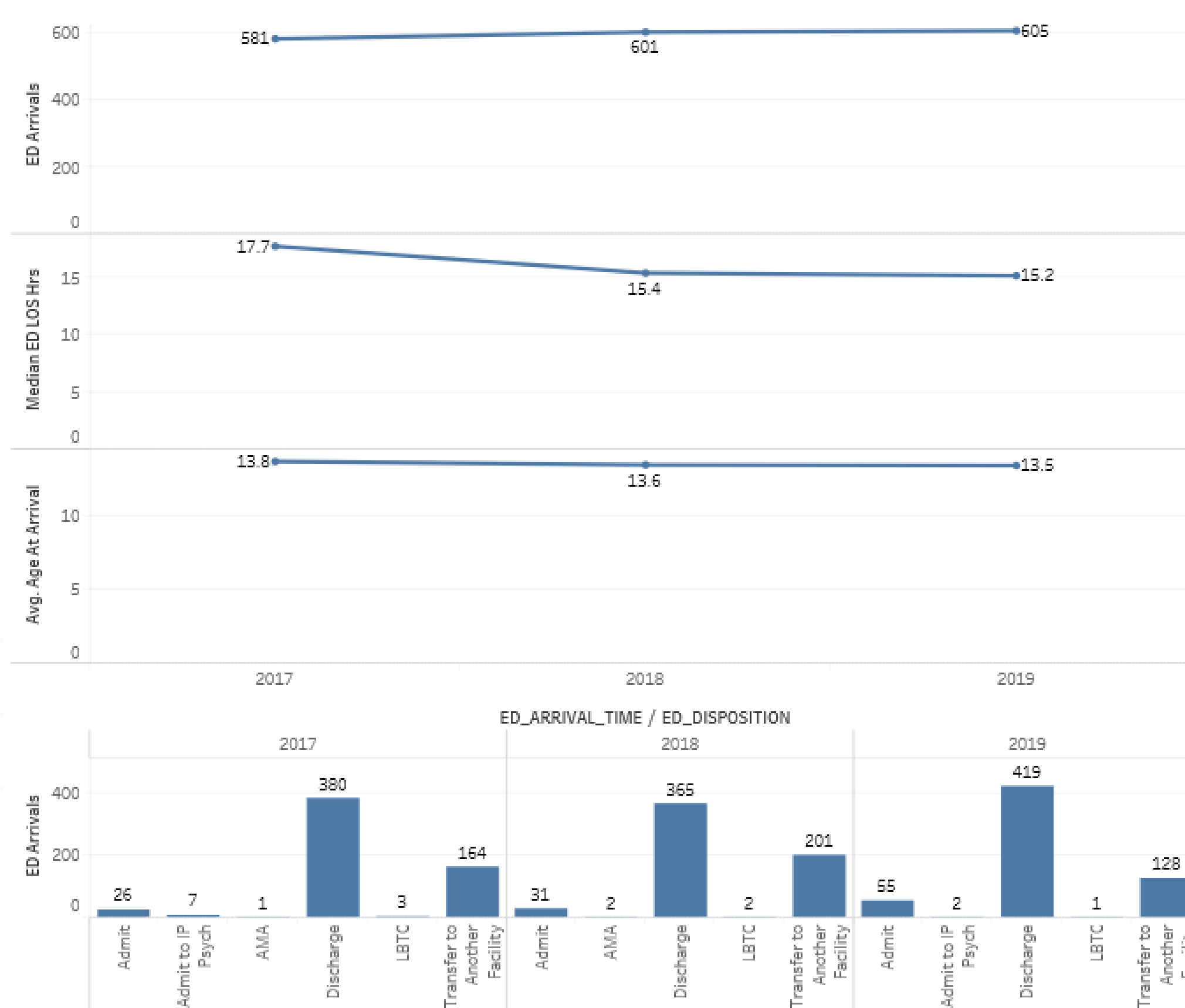
METHODS

Using CBT and TE concepts, a three leveled list of social/symbolic/tangible activities was created to outline consistent, appropriate, safe reward options. Behavior expectations for the child to earn "tokens" included timely completion of tasks, following directions, respecting rights/space/property, appropriate language and self-control. Staff were educated on CBT/TE and reward activities prior to implementation. Patients started with Level 1 rewards. Depending on the patient's length of stay, their ability to progress to Level 2 and 3 was re-evaluated daily.

RESULTS/OUTCOMES

Demographic data from 2017/2018/2019 was reviewed. Of the 14,800 yearly pediatric visits, this ED annually cares for 600 behavioral health pediatric patients. Approximately 65% were discharged home, 5-9% were admitted to a medical inpatient unit and 30% were transferred to a pediatric inpatient psychiatry facility. The average age was 13 years; median length of stay (LOS) was 16 hours. Not infrequent, outlier LOS was 30 to 45 days. TE was softly implemented in 9/2019. A post implementation survey highlighted initial effects of TE: 40% of respondents were aware of TE initiative; 23% consistently used the technique; 64% observed others use TE; 32% felt comfortable explaining TE to patient/family; 64% felt TE was somewhat helpful in managing behavior; 19% felt that TE reduced the need to call a Behavioral Emergency Code; 46% felt TE lead to greater patient satisfaction; TE was most effective for 8-10 year old's (42%); with behavioral disorder (41%) and ADHD (21%); least helpful with AS (28%) and SUD (22%); 89% of respondents requested more education on TE.

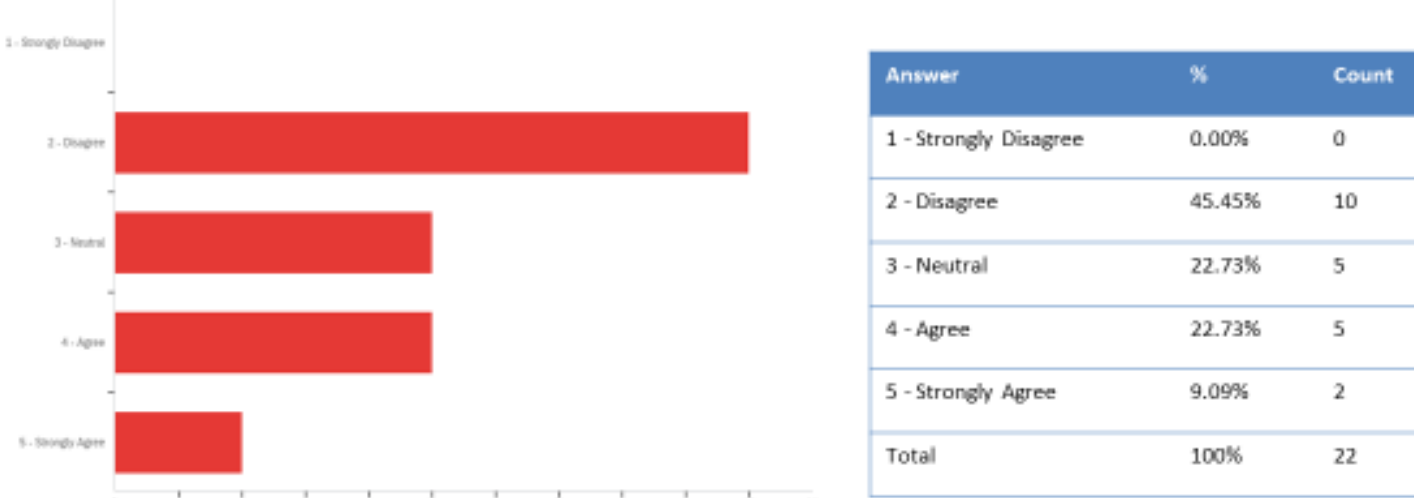
PEDIATRIC (AGE <18) ED VISITS - PSYCHIATRIC DIAGNOSES Volume, Mean Length of Stay, Average Age, Disposition



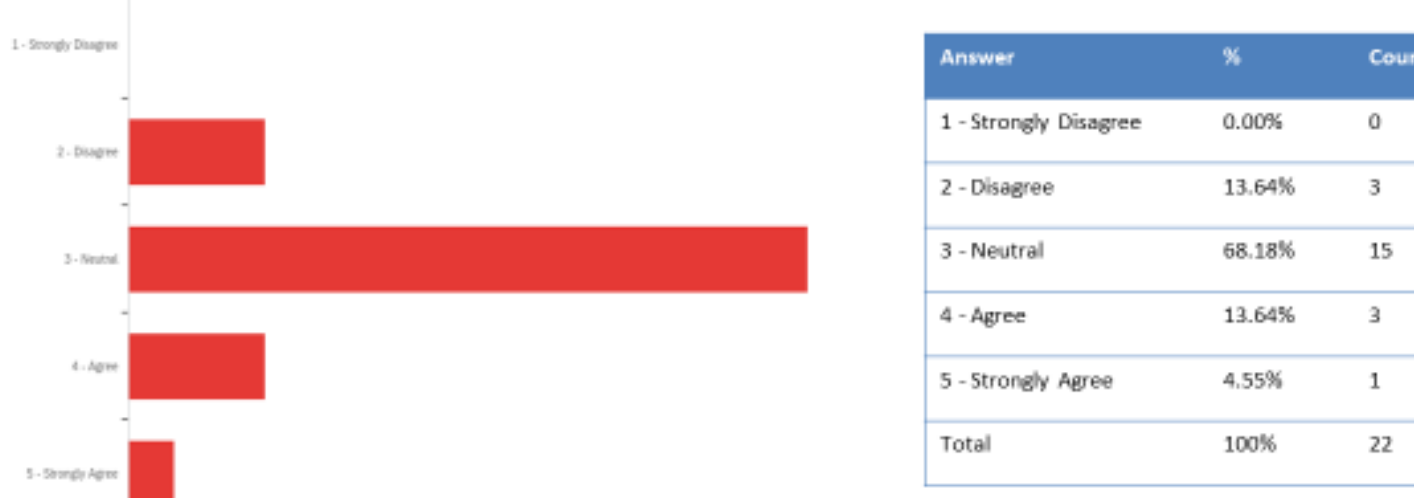
SURVEY RESULTS

Answer Choices	Responses	%
Nurse	33	56.90%
ED Tech	14	24.14%
Physician	9	15.52%
Physician Assistant	1	1.72%
Child Life Specialist	1	1.72%
Social Worker	0	0.00%
Total	58	100%

5. I feel comfortable explaining the Token Economy Initiative to patients and families.



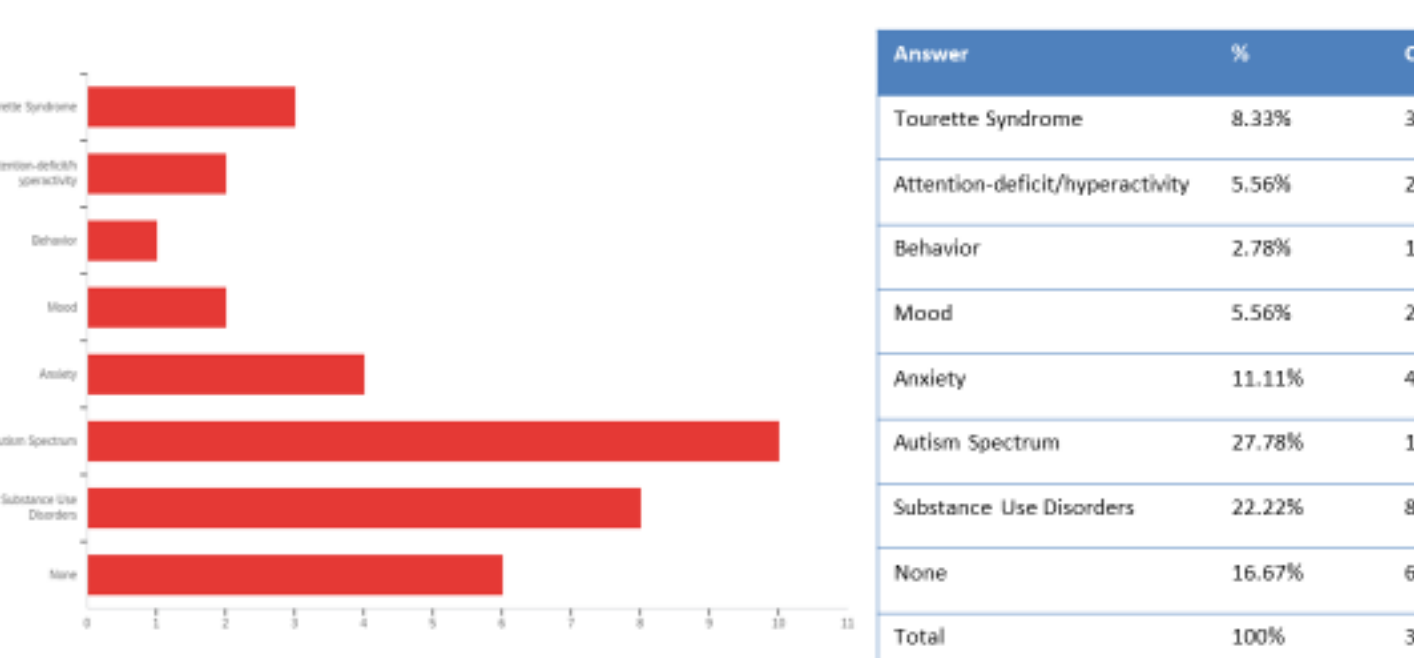
7. I feel the Token Economy Initiative has reduced the number of BETs I need to call in the Pediatric Emergency Department.



9. With what age group(s) did the Token Economy Strategy work best? Please select all that apply.



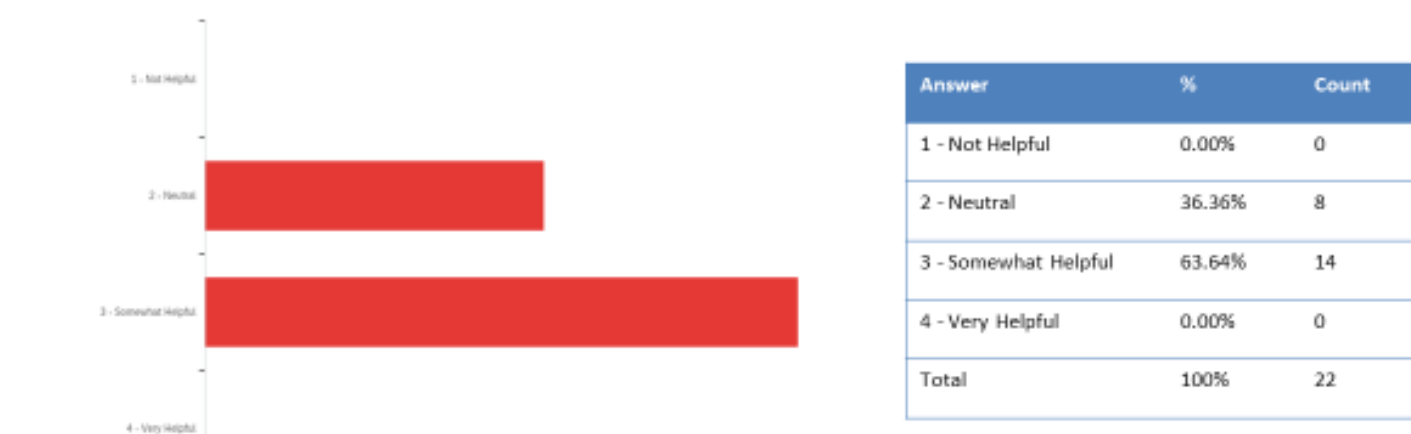
11. In which type(s) of psychiatric diagnosis was the Token Economy Strategy least effective? Please select all that apply.



4. I have observed others using the Token Economy Strategy while working in the Pediatric Emergency Department for pediatric patients awaiting transfer for mental health problems.



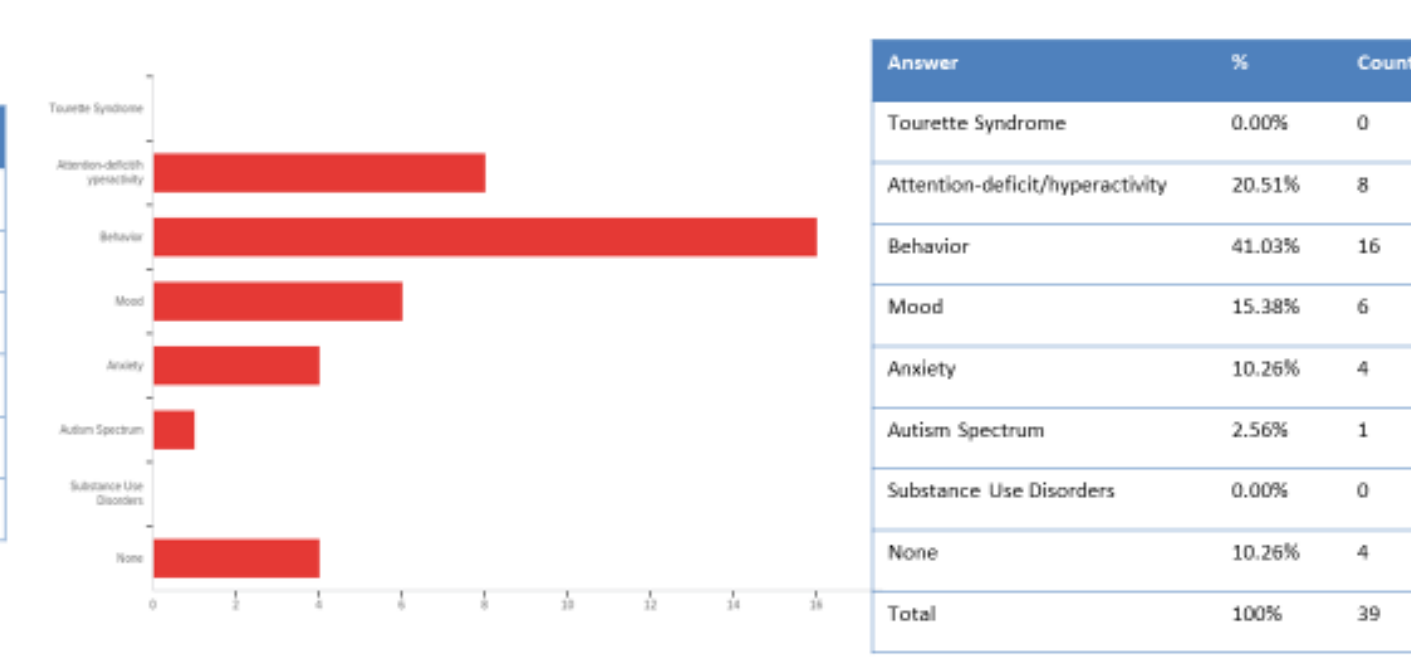
6. What is your overall impression of how helpful the Token Economy Strategy has been in managing behavior for pediatric patients awaiting transfer for mental health problems?



8. I feel the use of the Token Economy Strategy has led to increased satisfaction in the pediatric patients awaiting transfer for mental health problems.



10. In which type(s) of psychiatric diagnosis was the Token Economy Strategy most effective? Please select all that apply.



Survey data from all questions available upon request



CBT/TE EDUCATION

Utilizing Cognitive Behavioral Therapy, Token Economy Technique to Positively Impact Boarding of Pediatric Psychiatric Patients

DUH EMERGENCY DEPARTMENT

EDUCATION

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PowerPoint Education available upon request



IMPLICATIONS

CBT and TE concepts are well established as effective behavioral approaches to modifying children's behaviors. This project demonstrated their application to the emergency department setting is easy to do, results in more consistent staff management of undesirable behavior, can lead to improved patient, family and staff satisfaction during long boarding times, and even with limited understanding by staff, can have positive impact on managing pediatric patient behavior.

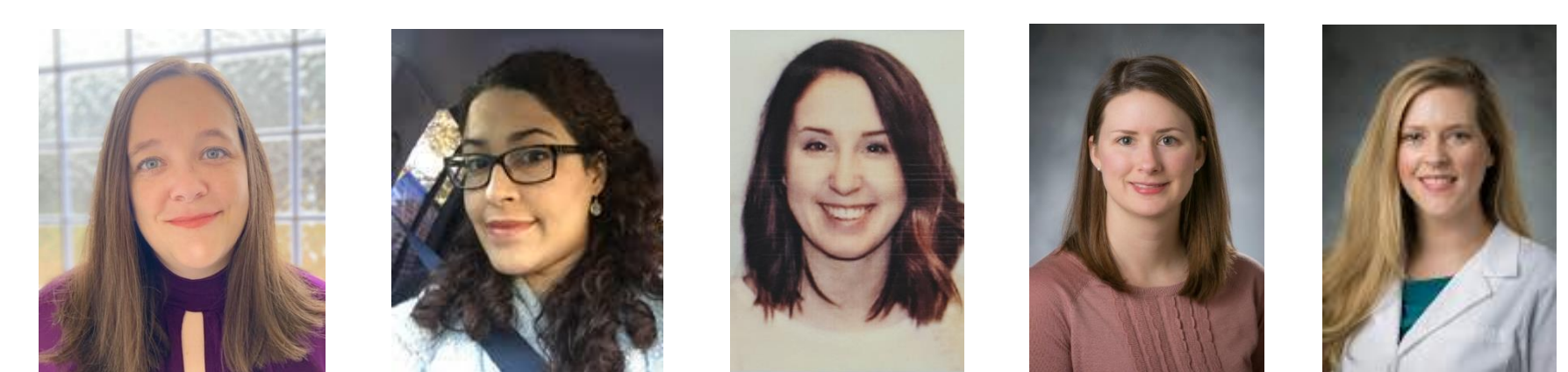
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