THE UNIVERSITY OF CHICAGO

# Attending to Trauma in Diagnosis: a case study of the REACT Clinic at the University of Chicago Medical Center

By:

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**Abstract**

Racial segregation deeply diminishes the wellbeing of communities of color in myriad ways, including affecting mental health, yet mental health services to those communities are inadequate and often delivered without context. Beginning with diagnosis, mental health professionals have historically provided children of color with biased and stigmatized diagnoses, which are then followed by treatments that may be inappropriate to the child and the situation. This study aimed to explore how attending to trauma that often results from racial segregation impacts diagnoses and needs assessments. Using a chart review of patients at the REACT Clinic at the University of Chicago Medicine, this study looked at what mental health professionals attend to in the diagnostic process and how that impacts patient diagnoses. The results showed that, when patients received other mental health services before going to the REACT Clinic, their previous mental health encounters did not attend to their full trauma histories. Additionally, this study illustrated that an incomplete understanding of patients' trauma histories decreased the likelihood that patients received trauma-related diagnosis. It also increased the likelihood patients received more stigmatized diagnoses such as conduct disorder or a psychosis-related disorder. These results suggest that a detailed trauma history should be taken in psychiatric diagnostic settings to ensure that children of color can receive appropriate diagnoses and treatment.

Structural racism, such as racial and economic segregation, is closely linked to exposure to violence. Scholars have asserted that the tools used to uphold racial segregation, such as redlining and disinvestment in communities of color, increase neighborhood disadvantage and in turn escalate violent crime (Krivo, Peterson, & Kuhl, 2009; Massey & Denton, 1993; Eitle & Eitle, 2003). In fact, Krivo, Peterson, and Kuhl (2009) highlighted that racial neighborhood segregation in cities across the United States was strongly correlated with both neighborhood disadvantage and instances of violent victimization. As a result, Black people living in segregated communities face higher levels of violence. A recent study found that residents in a primarily Black neighborhood in Baltimore had high levels of exposure to widespread violence such as shootings, high levels of break-ins, and incessant shouting (Turney et al. 2013). Additionally, compared to those in more affluent communities, children growing up in low-income neighborhoods report a greater likelihood of witnessing stabbings and shootings in their communities (Buka, Stichick, Birdthistle, & Earls, 2001). In some areas of segregated Chicago, exposure to violence is pervasive. According to the Chicago Police Department's Annual Report 2010 Year in Review (2011), Black residents, who make up 35% of the population of Chicago, made up 62.8% of victims of violent crime in Chicago, compared to White and Hispanic Chicago residents who make up 13.9% and 20.8% of the victims of violent crimes respectively. This disparity is even more pronounced for homicides, with Black Chicago residents comprising 76.1% of murder victims, White residents comprising 4.4%, and Hispanic residents comprising 19.3%. These numbers reflect the grim reality and consequences of structural racism.

Violent interpersonal acts, such as those discussed above, are commonly referred to as community violence (National Child Traumatic Stress Network, n.d.). Community violence exposure (CVE) can lead to traumatic stress symptomatology and can be especially detrimental

to the mental health of children (Sanders-Phillips, 2009; Carter, 2007; Buka, Stichick, Birdthistle, & Earls, 2001). In a study of pediatric patients admitted to the University of Chicago Burn Center, Stolbach et al., (2007) found that 65% of the pediatric patients reported a history of prior trauma exposure, including 52.5% who had experienced two or more prior traumas. Community violence accounted for the three most common types of prior trauma: 47% of patients had experienced loss through violent death, 33% had witnessed street violence, and 18% had been direct victims of neighborhood violent crime. Prior trauma exposure predicted patients' level of trauma-related distress while other variables (e.g., type or size of burn injury) did not. Cooley-Quille (2001) found that adolescents exposed to high levels of community violence reported more constant worrying and fears than their counterparts experiencing low CVE. Additionally, the author found that these fears remained constant across settings, regardless of context and children with higher CVE experienced higher levels of separation anxiety and PTSD symptoms than their counterparts.

CVE can be so impactful on a person's physical and mental health that the Centers for Disease Control and Prevention now recognize CVE as an Adverse Childhood Experience (Lee, Larkin, and Esaki, 2017; Walling et al. 2011; Center for Disease Control, 2020). A landmark (1998) study coined the term Adverse Childhood Experiences (ACEs) to describe ten early life experiences that impact development and disease susceptibility. These experiences were: physical abuse, sexual abuse, emotional abuse, untreated mental illness in the home, addiction in the home, incarcerated family member, parental loss or separation, witnessing domestic violence, and neglect. Further, Feletti et al. (1998) found a dose-dependent relationship between the number of childhood ACE exposures and the prevalence of a range of adult diseases such as cardiovascular disease, diabetes, depression, and PTSD.

Despite the evidence showing that Black children in segregated communities can experience high levels of violence and trauma, very few mental health settings attend to CVE or many other adverse life experiences in mental health assessment of Black children, and they often misdiagnose psychiatric disorders in those same patients. Past studies have documented higher rates of stigmatizing diagnosis in Black patients receiving psychiatric care (e.g., Mizock and Harkins, 2011). For example, one study found that African Americans were overdiagnosed with schizophrenia as compared to their White counterparts (Neighbors, Trierweiler, Ford, & Muroff, 2003). In fact, Black patients are four times as likely to receive the diagnosis of schizophrenia than White patients with the same, psychosis-like, symptomology, and some studies show that race is a large predictor of the probability of diagnosis of schizophrenia (Canyon, 2015; Barnes', 2008). In addition to overdiagnosis of schizophrenia, Black children are disproportionately diagnosed with behavioral disorders. One study found that while White Americans were more often diagnosed with mild adjustment disorders, Black Americans with the same behavioral symptomology were diagnosed more frequently with severe behavior disturbance disorders (Feisthamel & Schwartz, 2009). One such behavior disorder is conduct disorder, which has been over-diagnosed among urban, low-income, children of color (Mota-Castillo, 2004). This is especially striking considering White children exhibiting the same symptoms tend to be diagnosed with mood or developmental disorders over conduct disorder (Mandell et al., 2007), suggesting that racial bias, rather than patient symptoms, play an important role in the diagnosis of Black children.

Canyon (2015) posited two explanations for the overdiagnosis of stigmatizing psychiatric disorders in African Americans: clinician bias during assessment and inappropriate/ineffective assessment tools for non-White patients. Numerous studies have shown that healthcare workers,

including those in the field of psychiatry and psychology, exhibit the same amount of unconscious racial bias as the wider population (for a review, see Fitzgerald and Hurst, 2017), and these biases can adversely affect medical decisions (Fadus et al., 2020; Fitzgerald and Hurst, 2017; Hall et al, 2015). Furthermore, assessment tools for diagnosing mental illnesses are lacking when it comes to psychiatric assessment of people of color (Canyon, 2015). Many scholars have argued that it is important to understand the political, social, and cultural context that a person is in when doing psychiatric assessment (Canyon, 2015; Carter, 2007; Jernigan and Henderson Daniel, 2011), and that using a standardized assessment tool across contexts is often ineffective (Baker and Bell, 1999).

The consequences of clinicians over-pathologizing children of color can be substantial. In particular, the diagnosis of schizophrenia is often associated with a treatment plan that is largely pharmacological (Canyon, 2015). These pharmacological interventions can make substantial changes in brain chemistry by blocking the neurotransmitter dopamine (Canyon, 2015). Furthermore, anti-psychotic drugs have numerous adverse side effects including metabolic syndromes (such as type II diabetes), cardiac hypotension, cardiac arrythmia, parkinsonian syndrome, and other movement-related syndromes (Muench and Hamer, 2010). In short, misdiagnosing schizophrenia can cause unnecessary risks associated with changes in brain chemistry and the substantial side effects of antipsychotic drugs. Likewise, the overdiagnosis of behavioral disorders can have damaging consequences. Black adolescents with a conduct disorder diagnosis are more likely to face forced hospitalization (Lapointe et al., 2010), or, when they have been convicted of a crime, children with conduct disorder diagnosis are more likely to be transferred to adult courts and ordered to serve longer prison sentences (Petrila and Skeem, 2003). In addition to those bad outcomes, incorrect diagnosis, or lack of attention to trauma often

means that children do not adequately receive treatment for the underlying causes of their symptoms. Thus, children of color (who are disproportionately exposed to violence and are therefore in need of mental health services) are often at risk of diminished access to mental health services that adequately meet their needs. Further, these children face racist structures within psychiatric services that focus on punishment and dangerous and/or ineffective drug regimens. Further investigation into how these consequences may manifest, and potentially be countered, is urgent and warranted.

This study examines the Recovery & Empowerment After Community Trauma (REACT) Clinic at the University of Chicago to understand the practical implications of attending to trauma and community violence-related trauma when assessing children from racially and economically segregated communities affected by high levels of violence. The REACT Clinic at University of Chicago aims to focus on community trauma to reduce behavioral health disparities and provide structurally competent care to children and families in South Side Chicago. The clinic provides trauma-informed psychological and psychiatric needs assessment and is part of the REACT Program, a Community Treatment & Services (CTS) Center in the National Child Traumatic Stress Network (NCTSN). At the time of this study, the REACT Program is the NCTSN's only CTS Center focused specifically on community violence, and the only one established specifically to serve urban Black children and families. The REACT Clinic is an interdisciplinary psychology and psychiatry clinic that gathers extensive trauma histories before making diagnosis and treatment recommendations.

The REACT Clinic assessment typically takes place over two sessions during which patients meet with a psychologist, or psychology trainee, and a psychiatrist. REACT providers use a combination of clinical interview and structured measures to gather information from

patients and care givers in order to inform diagnosis and treatment recommendations. Trauma histories are typically gathered using the UCLA PTSD Reaction Index and the Life Events Checklist. The UCLA PTSD Index is broken into three parts, and the first of the three parts is a trauma history screen in which exposure to several traumatic events is coded as "present" or "absent". The rest of the trauma history is gathered by the Life Events Checklist which is a checklist possible of stressful life events that patients either endorse or deny (for full list of trauma categories explicitly attended to by REACT during the interview process, see Appendix A). In addition to screening for trauma histories REACT clinicians also use a variety of other tools such (e.g., The Strengths and Difficulties Questionnaire, PTSD Checklist for DSM-5) to assess the symptomology of the patient. Between the first and second sessions, REACT clinicians meet and discuss the patients results, discuss diagnosis, and decide on treatment recommendations. They compile their diagnosis, recommendations, and referrals in to feedback document called "How to REACT" and discuss this document with the patient in their second session.

This study employed a retrospective chart review to understand how taking an interdisciplinary trauma-informed approach affected diagnoses and medication recommendations, and whether diagnosis and recommendations made through the REACT Clinic differed from those provided in prior mental health encounters. We hypothesized that 1) patients receiving services would have high levels of exposure to multiple types of traumas, 2) the REACT Clinic would identify past trauma more extensively than that identified in prior mental health encounters, 3) the REACT Clinic would be less likely than previous mental health settings to diagnose children with potentially stigmatizing diagnoses such as conduct- and

psychotic- related disorders, and 4) the REACT Clinic would be less likely to prescribe medication and to give children multiple diagnoses than prior mental health encounters.

## Methods

### *Subjects*

We reviewed charts of 124 children and adolescents who participated in psychological and psychiatric needs assessment services from the REACT Clinic between January 17, 2017, and November 27, 2020. The exclusion criterion for this study was patients not seen by both a psychiatrist and a psychologist within the REACT Clinic. Parents provided consent for treatment and acknowledged that the information collected could be used for research purposes as well. This study was approved by the Institutional Review Board of the University of Chicago Biological Sciences Division.

### *Procedure*

Data was collected from University of Chicago Medicine's electronic health records and clinic charts. The health records included detailed clinician reports of their time with the patients, REACT documents, and measures collected by REACT staff during patient interviews. From these reports basic demographic data was collected for all subjects including (1) age, (2) gender, (3) residential zip code, (4) race, and (5) insurance type. Additionally, descriptive information reviewed included (1) prior University of Chicago Medicine encounters with mental health professionals and diagnoses, hospitalizations, or treatment recommendations as documented in medical record, (2) patient and caregiver reports of prior mental health encounters and diagnoses, including past psychiatric hospitalizations and medications, as documented by REACT staff, (3) patient- and caregiver-reported main concern at time of the REACT visit, (4) patient- and caregiver-reported trauma histories documented by REACT staff, and (5) REACT Clinic

diagnoses and treatment recommendations as written in the "How to REACT" feedback document.

*Previous Encounters with Mental Health Professionals*

There were two sources of information about previous mental health encounters. First, if the provider was in the University of Chicago Medicine system or sent their information to the university to collaborate on patient care, their diagnosis and encounter information was uploaded into the electronic health records software and could be accessed for the purposes of this study. Second, previous diagnoses and medication management were reported to REACT clinicians by the patients at intake and their responses were input to the electronic health record by REACT staff. Any prior mental health encounters in the University of Chicago electronic medical record were reviewed, and any information on diagnosis, treatment recommendations, medications recommended or prescribed, and types of traumas reported, if any, was recorded.

*Data Analysis*

The statistical analysis included descriptive statistics of patients in the REACT Clinic and comparisons of the services received at the REACT Clinic and those received from mental health encounters that happened prior to patients coming to REACT. To understand the types and frequencies of the trauma experienced by patients, descriptive statistics and count data were run. This study wanted to particularly understand the types of traumas REACT patients experienced, so trauma types were categorized into ACE, traumatic stressor, and CVE categories and analyzed in those categories. To compare trauma attention between the REACT Clinic and previous mental health settings, our study determined if a provider attended to or missed certain aspects of trauma history by reading the encounter narrative of non-REACT providers and comparing it to the information discerned from the REACT trauma history measures. This allowed us to

understand what traumas, if any, prior mental health encounters missed. It should be noted that many patients came in with more than one prior mental health encounter, for the sake of this comparisons one previous provider with the most information was chosen for each patient. Diagnosis and medication management was compared in two ways. One was by the number of diagnosis and medications given; they were compared via t tests. The other was by comparing the type of diagnosis and medications given, and whether clinicians agreed on the types of medications and diagnosis given for each patient.

## Results

### Overview of patients at the REACT Clinic

This study reviewed the records of 124 patients seen by both a psychologist and psychiatrist in the REACT Clinic. Patient age ranged from four to twenty-three years old (M=13.69 years, SD=4.23 years), and 46% of the patients were female. Further, the patients seen at REACT were from various parts of Illinois and Northern Indiana: 87 patients (70%) were from the Southside of Chicago, 12 patients (10%) were from the West and Northwest sides of Chicago, 4 (3%) were from the North side of Chicago, and 21 patients (17%) were from towns outside Chicago in Illinois and northern Indiana. Of the 124 children, 78% were Black, 11% were Latinx, 8% were Biracial, and 3% were White. Most of the patients were insured through Medicaid (58% of patients), followed by patients who were uninsured (27% of patients), and a few patients (15% of patients) who were insured through private insurance.

When asked about the main reason they came to the REACT Clinic, patients' answers tended to fall into 12 discrete categories: witnessing gun violence, being a victim of gun violence, neglect, being a victim of physical assault, CVE (not related to gun violence), bullying, victim of sexual assault/abuse, traumatic encounters with police, behavioral or emotional

dysregulation, death of a loved one, other (fire, accident, stabbing). Additionally, some answered that they experienced multiple types of traumas, and that not one of those experiences was more pressing than the others. Of note, the most frequent reasons patients said they were at REACT was that they were victims of gun violence or that they had experienced multiple traumatic instances (see Figure 1 of Appendix B for frequency of patients' main concern categories).

*Trauma Histories*

REACT clinicians identified to a total of 47 different types of traumatic stressors and other adversity (for the complete list of stressors, see the Appendix C). Of the 124 children seen at the REACT Clinic, the number of stressor types any one child experienced ranged from 1 to 22 unique stressor types. The average number of stressor types experienced was 8.94 with a standard deviation of 4.29. Additionally, there were 122 patients with two or more stressor types, 106 patients with five or more, and 53 patients with ten or more.

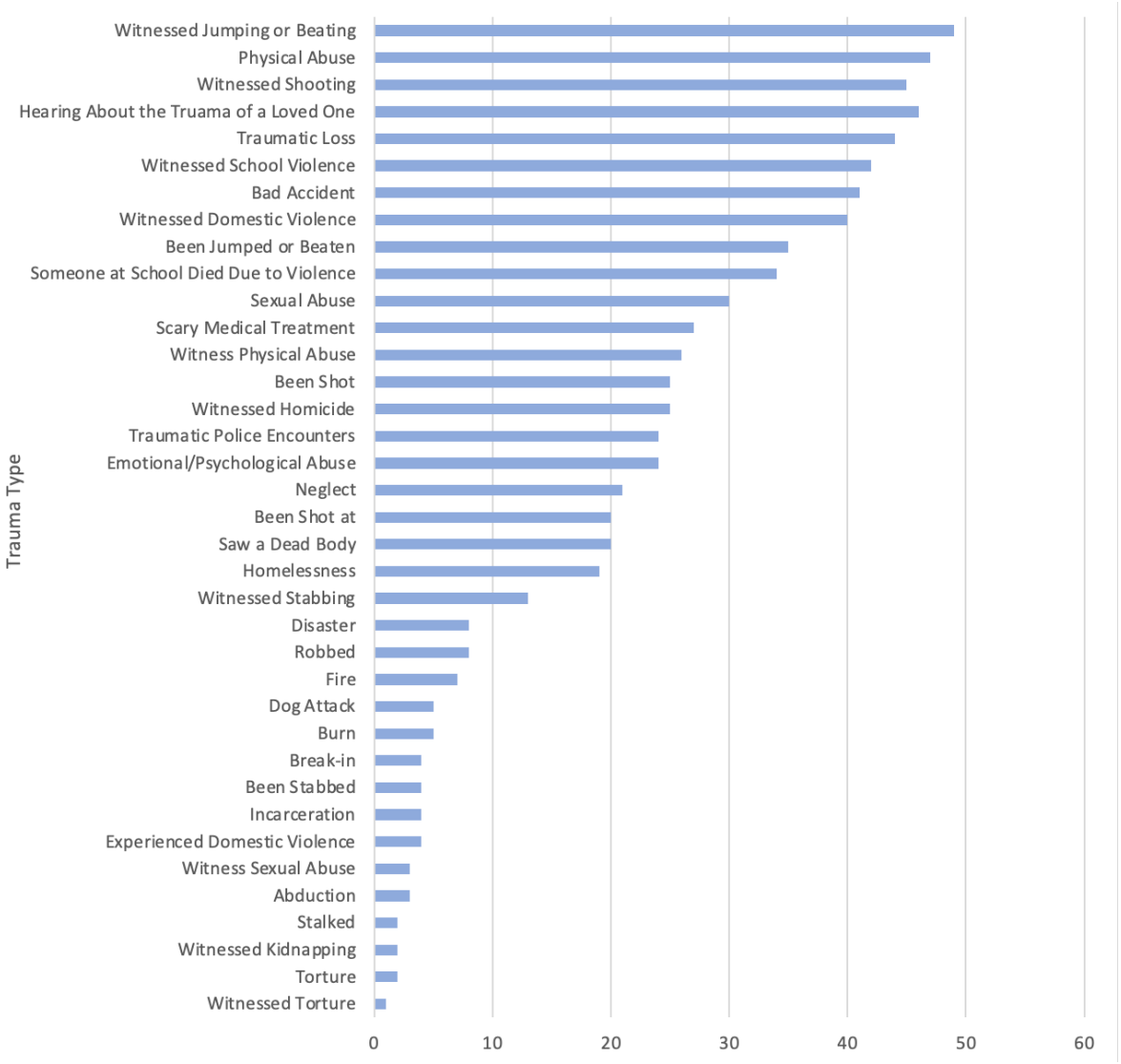
**Table 1**
Cumulative Adversity Experienced by REACT Clinic Patients
n=124; m=8.94

| Number of Stressor Types Experienced | |
|---|---|
| 1 | 2 (1.6%) |
| 2-4 | 16 (12.9%) |
| 5-9 | 53 (42.7%) |
| 10 or more | 53 (42.7%) |

*Note. Counts refer to the number of unique types of stressors reported, not how many incidents a child had experienced. A child can experience one stressor many times. For example, a child could have been sexually abused on multiple occasions, but the stressor type of sexual abuse would only be counted once. This table includes all types of stressors identified in the REACT Clinic including CVEs, ACEs, other traumatic stressors, and other types of adversity.*

Of the 48 different types of stressors noted in the patient charts at REACT, 37 of those are considered traumatic stressors (e.g., witnessing a stabbing, physical abuse, being shot). The average number of traumatic stressor types was 6.33 with a standard deviation of 3.53 (range= 0-16). Every patient at REACT experienced one or more traumatic stressors, 119 experienced two or more traumatic stressors, 80 experienced five or more, and 27 experienced ten or more (see Figure 1 for the breakdown of the counts of the traumatic types).

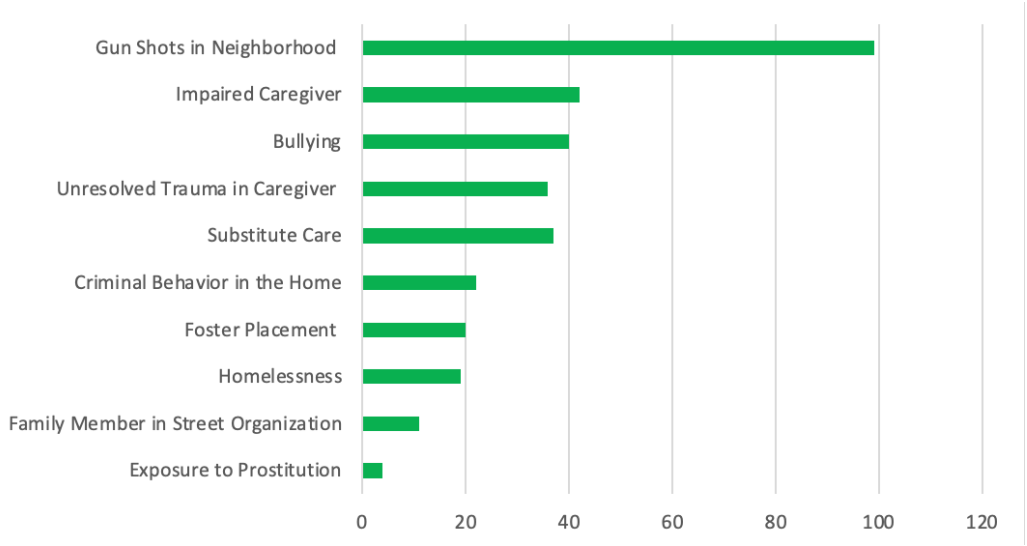
**Figure 1**
Traumatic Stressors Experienced by REACT Clinic Patients
n=124




In addition to the types of traumatic stress identified above, REACT clinicians gathered information about ten other types of adverse life experiences: impaired caregiver, bullying, exposure to prostitution (or other developmentally inappropriate sexual materials), exposure to criminal behavior in the home, foster placement, substitute care, homelessness, family member belongs to a street organization, unresolved trauma in a caregiver, and gun shots in neighborhood. The average number of these stressor types was 2.37 stressor types with a standard deviation of 1.66 (range= 0-9). Additionally, 115 (93%) of the 124 patients experienced

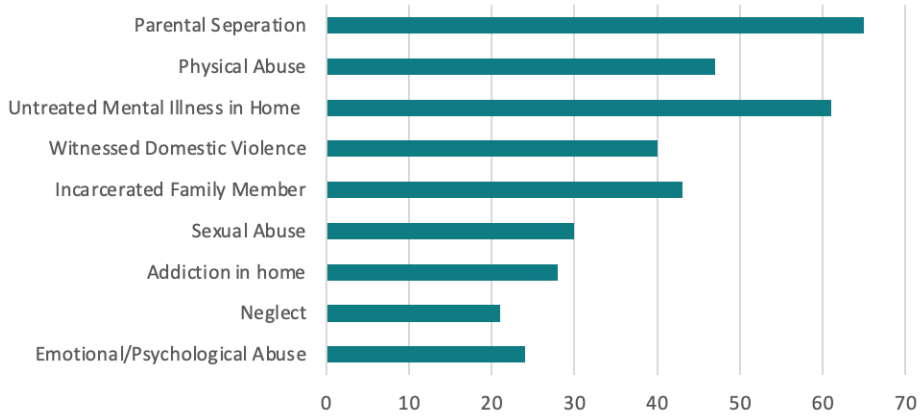
one or more adverse life experience type, 79 (64%) experienced two or more, and 13 (10%) experienced five or more (see Figure 2 for the breakdown of the counts of the traumatic types).

**Figure 2**
Other Adversity Types Experienced by REACT Clinic Patients
n=124



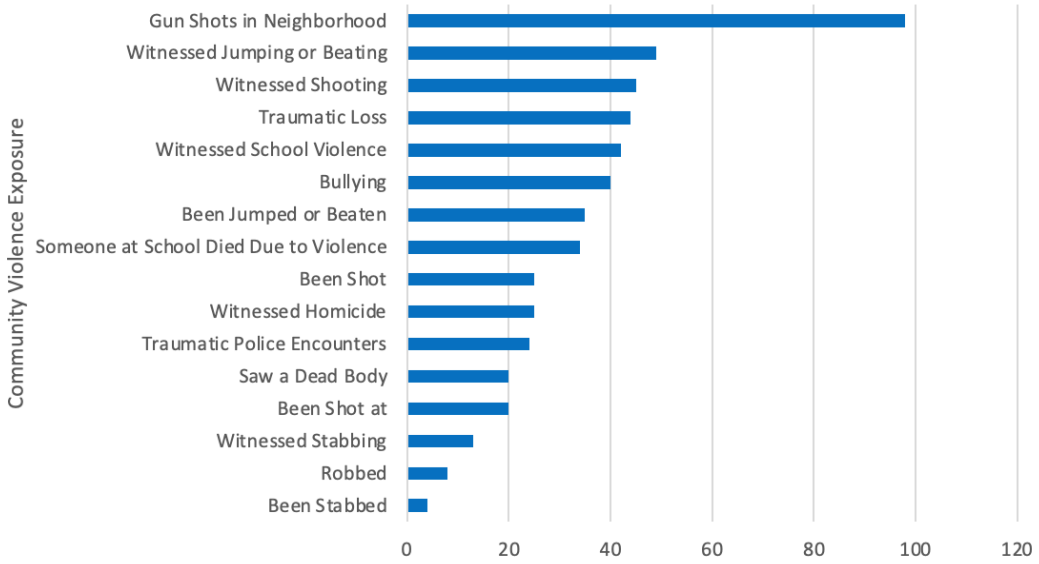

Nine of the types of stressors identified in the REACT Clinic corresponded to those identified in the Adverse Childhood Experiences study (Felitti et al, 1998): physical abuse, sexual abuse, emotional abuse, untreated mental illness in the home, addiction in the home, incarcerated family member, parental loss or separation, witnessing domestic violence, and neglect. Of the 124 patients seen at REACT, 108 patients had experienced at least one ACE. Furthermore, 83 (77%) of the patients had two or more ACES, 62 (57%) had three or more, 44 (41%) had four or more, 30 (28%) had five or more, and 17 (16%) had six or more. The most frequently reported type of ACE was parental separation or loss, experienced by 60% of the REACT patient population. The least reported ACE was neglect, yet 19% of the children at REACT reported that they had, at one point in time, been neglected (see Figure 3 for a full summary).

**Figure 3**
ACEs Experienced by REACT Clinic Patients
n=108




The final category of stressor types this study examined was community violence. The REACT Clinic attended to 18 different types of CVE. REACT Clinic patients, on average, endorsed experiencing 4.13 CVE types in their lives. Furthermore, 122 (98%) endorsed one or more types of CVE, 103 (83%) endorsed two or more, 54 (44%) endorsed five or more, and five (4%) endorsed ten or more CVE type (see Figure 4 for a summary of the counts of CVE). The most frequently endorsed CVE, in which 79% of the children endorsed, was hearing gunshots in their neighborhood. The next closest CVE was 38% of patients at REACT reported being beaten or jumped in their community. Of note, a standard question in the UCLA PTSD Reaction Index asks about war to account for the experiences of immigrants and refugees. When REACT clinicians asked patients and their caregivers if they lived in a place where a war is going on around them, 12 (10%) patients answered that they did live in a warzone due to the amount of community violence they faced regularly.

**Figure 4**
CVEs Experienced by REACT Clinic Patients
n=124



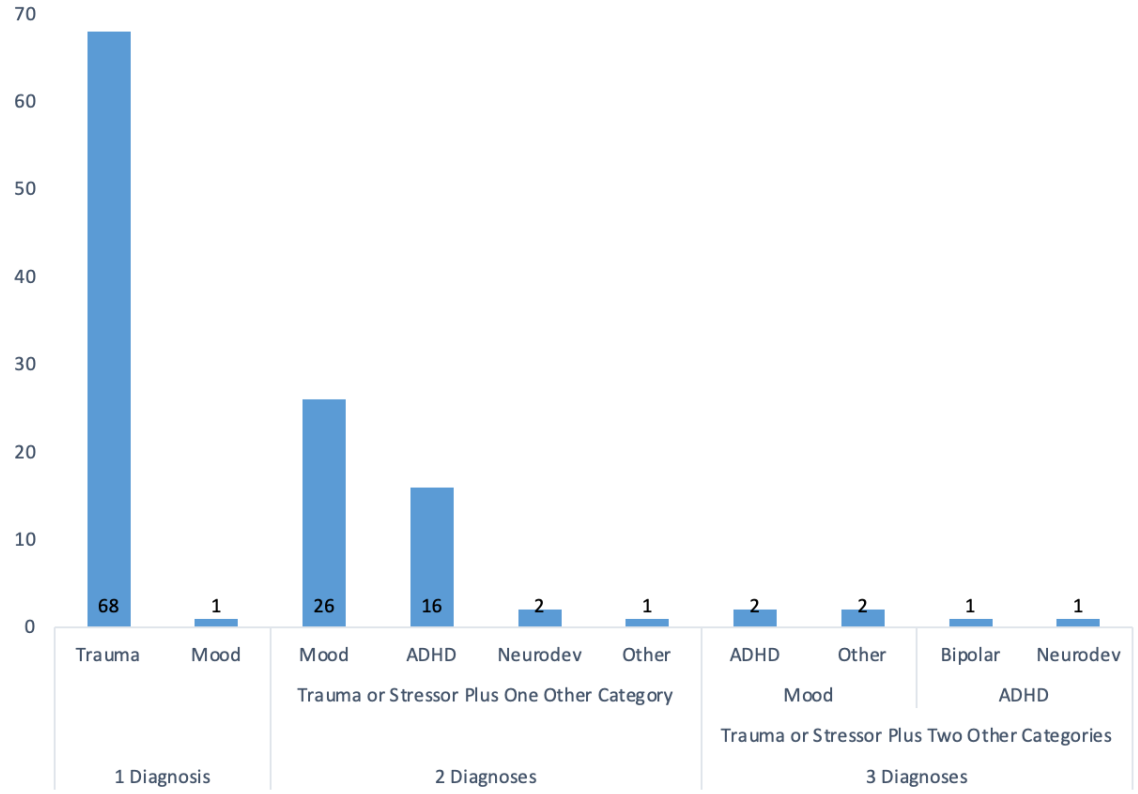

*Diagnoses from REACT*

In the analysis of REACT diagnoses, we excluded three participants due to missing chart information, which resulted in a final sample of 121 patients ($M$ = 1.60 diagnoses, $SD$ = 0.764 diagnosis). The diagnoses were grouped into eight categories: trauma or stressor-related disorders, conduct disorders, mood disorders, psychosis-related disorders, ADHD, neurodevelopmental disorders, bipolar/DMDD, and other disorders. One hundred and twenty patients received a trauma or stressor-related diagnoses at REACT. The patient who did not receive a trauma diagnosis received a mood-related diagnosis. Additionally, REACT diagnosed bipolar/DMDD disorder once, and no conduct-related or psychoses-related diagnoses were given at the REACT Clinic.

A trauma or stressor-related diagnosis was the only category of diagnosis received from REACT for 69 (57%) of the 120 patients with a trauma or stressor-related diagnoses. Of the remaining 51 patients, 45 (34%) received diagnoses in two categories and six (5%) received three. The diagnosis that most frequently accompanied a trauma or stressor-related diagnosis was

a mood-related diagnosis followed by an ADHD diagnosis (see Figure 5 for a comprehensive breakdown of the diagnostic outcomes).

**Figure 5**
Number of Patients with Each Diagnosis Types Reported by REACT Clinician
n=121




*REACT Clinic Medication Recommendations*

The REACT Clinic did not regularly recommend psychotropic medications. There were 94 patients with definitive recommendations for or against medication from the psychiatry staff at the REACT Clinic. For 50 (53%) of those 94 patients, REACT psychiatrists recommended that no medications were warranted in treatment. The average number of medications recommended overall was 0.74 medications with a standard deviation of 0.976 medications (range=0-4). For the 44 (47%) patients with medication recommendations, the average number of medications recommended was 1.59 medications (SD=0.816).

This analysis divided medications into seven categories to understand the types of medications REACT Clinic psychiatrists were recommending (see Appendix E). Antidepressants were the most recommended type of medication (recommended to 54% of the patients who received medication), followed by stimulants for hyperactivity and inattention (recommended to 30% of the patients), non-stimulants for hyperactivity and inattention (24%), antihypertensives used to treat PTSD (12%), antipsychotics (8%), and mood stabilizers (4%).

*Previous Mental Health Encounters*

Eighty-nine (72%) of the 124 children seen at the REACT Clinic had had at least one mental health encounter before coming to the REACT Clinic. The number of mental health professionals seen before REACT ranged from one to seven, with 36% of the patients only seeing one professional before their REACT Clinic encounter. Patients had most frequently seen psychiatrists (31% of the providers seen), followed by intensive case managers (23%), psychiatric hospital staff (20%), psychotherapists (11%), school counselors (9%), and neuropsychologists (5%). Due to the fact that most of the information on previous mental health encounters was from patient self-report, the professional training of the therapist was not specified for this analysis.

*Diagnosis from Prior Mental Health Encounters vs REACT Clinic*

For the patients who came into the REACT Clinic with previous mental health encounters, the number of diagnoses they carried ranged from zero to four with an average of 1.65 diagnosis (see Table 1 in Appendix D for a comparison of the number of diagnoses given to patients before and from REACT). A total of 63 patients had at least one diagnosis before coming into the REACT Clinic, and a majority of the patients (54%), did not have a prior trauma or stressor-related diagnosis. The most common diagnosis was ADHD, which was given to 54%

of the patients before their REACT Clinic encounter. At the aggregate, prior mental health encounters gave more conduct disorder (21% of patients came into REACT Clinic with this diagnosis), psychotic-related (10%), ADHD (54%), neurodevelopmental (11%), bipolar, and other (11%) diagnoses. Conversely, the REACT Clinic gave more trauma or stressor and mood diagnoses (see Table 2 for the differences in diagnosis categories given before the REACT Clinic and from the REACT Clinic).

**Table 2**
Frequency of Diagnoses Given at REACT and Prior Mental Health Encounters
n=63

| | Prior Mental Health Encounter | REACT | t value | p-value |
|---|---|---|---|---|
| Trauma or Stressor-Related | 27 | 62 | -4.172 | <0.001 |
| Conduct | 13 | 0 | 2.602 | 0.013 |
| Mood | 22 | 29 | -0.374 | 0.710 |
| Psychotic-Related | 6 | 0 | 1.000 | 0.323 |
| ADHD | 34 | 16 | 0.000 | 1.000 |
| Neurodevelopmental | 7 | 3 | 0.573 | 0.570 |
| Bipolar/DMDD | 11 | 1 | 1.000 | 0.323 |
| Other | 7 | 2 | -1.000 | 0.323 |

*Note. Each patient can have multiple diagnoses that fall into different diagnosis categories. Therefore, the total number of diagnoses given before REACT is 129, and the total number given at REACT is 111.*

Moreover, when looking at the 63 patients who had previous diagnoses, REACT clinicians often disagreed with the type of diagnosis patients were given before REACT. In fact, when patients came in with a conduct and/or psychosis-related disorder, REACT clinicians agreed with that diagnosis 0% of the time. However, REACT clinicians agreed with clinicians from prior mental health encounters 100% of the time when the previous clinicians diagnosed the patients with a trauma or stressor-related disorder (see Table 3 below to see the comprehensive list of agreeance between REACT and prior mental health encounter).

**Table 3**
Diagnostic Agreement between REACT and Prior Mental Health Encounters.
n=63

| | Number of Patients Who Had That Diagnosis Before REACT | Number of Times REACT Agreed with that Diagnosis | % Agreement |
|---|---|---|---|
| Trauma or Stressor | 29 | 29 | 29% |
| Conduct | 13 | 0 | 0% |
| Mood | 22 | 12 | 12% |
| Psychosis | 6 | 0 | 0% |
| ADHD | 34 | 14 | 41% |
| Neurodevelopmental | 7 | 2 | 29% |
| Bipolar/DMDD | 11 | 1 | 9% |
| Other | 7 | 1 | 14% |

*Medication Recommendations from Prior Mental Health Encounters vs. REACT Clinic*

Of the 89 patients who had prior mental health encounters, there is evidence that 47 patients were prescribed at least one psychotropic medication. Of those 47 patients, 42 patients also received a medication recommendation from the REACT Clinic. The average amount of medication types any one patient was on was 0.89 medication types, and the most medication types any one patient had been prescribed was 10 medication types. A paired samples t-test revealed that the mean number of medications types before the REACT Clinic does not seem to be significantly higher than the number of medication types given at the REACT Clinic, $t(86) = 1.096$, $p = 0.276$. Additionally, we examined how often patients came in with certain medication types, and how often the REACT Clinic agreed with those prescribed medications. Overall, the psychiatrists at the REACT Clinic agreed with the prior medication strategy, or part of the medication strategy, 36.2% of the time (see Figure 1 of Appendix E). The most frequently prescribed medication type for these patients in prior mental health encounters were antidepressants, and the psychiatrists at the REACT Clinic agreed with that medication choice

68% of the time. REACT psychiatrics agreed with the prescriptions of antianxiety (0% agreeance), mood stabilizers (25%), and antipsychotics (44%) the least (see Table 4).

**Table 4**
Agreement between REACT and Previous Provider on Medication Recommendations
n=47

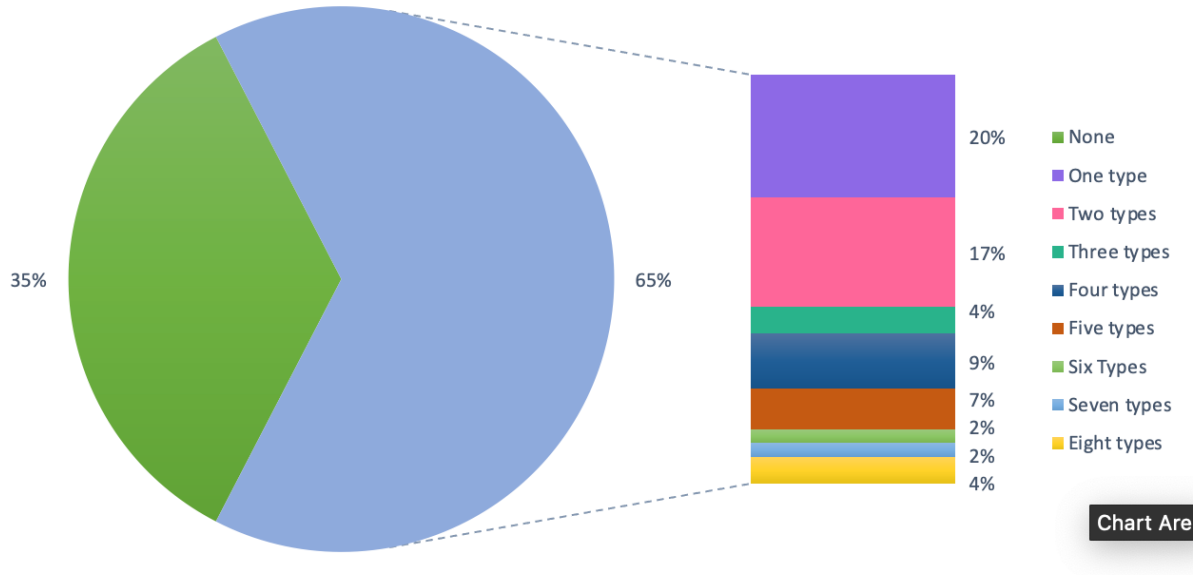
| | How Many Given? | How Many Did REACT Agree with? | % Agreeance |
|---|---|---|---|
| Antidepressant | 25 | 17 | 68% |
| Antipsychotic | 9 | 4 | 44% |
| PTSD Medication | 2 | 1 | 50% |
| Mood Stabilizer | 4 | 1 | 25% |
| Antianxiety | 4 | 0 | 0% |
| Stimulant for ADHD | 23 | 10 | 43% |
| Non-stimulant for ADHD | 15 | 8 | 53% |

*Note. The medication agreeance is calculated by the number of times REACT providers agreed with the previous provider. The percent agreeance is the number of times REACT recommended the same medication as the previous provider about a certain medication type divided by the number of times the previous provider recommended that medication type.*

*Types of Traumas Identified in Previous Mental Health Encounters vs REACT*

Of the 89 patients who had prior mental health encounters, 46 patient charts had detailed notes on the clinical interaction between the patient and practitioner which allowed for an understanding and analysis of the attention to trauma in prior mental health encounters. The average number of traumatic stressors attended to in the previous mental health encounters was 1.8 trauma types (SD=2.2). For those same patients, the REACT Clinic attended to an average of 6.1 trauma types (SD=2.6). Of the 46 patients, 89% of them had at least one clinician previously who attended to any traumatic stressor at all. However, in 65% of the interactions that were assessed, the previous provider might have attended to trauma, but they missed one or more trauma types that were identified by REACT clinicians (see Figure 6).

**Figure 6**
Number of Traumatic Stressor Types Missed in Prior Mental Health Encounters
n=46

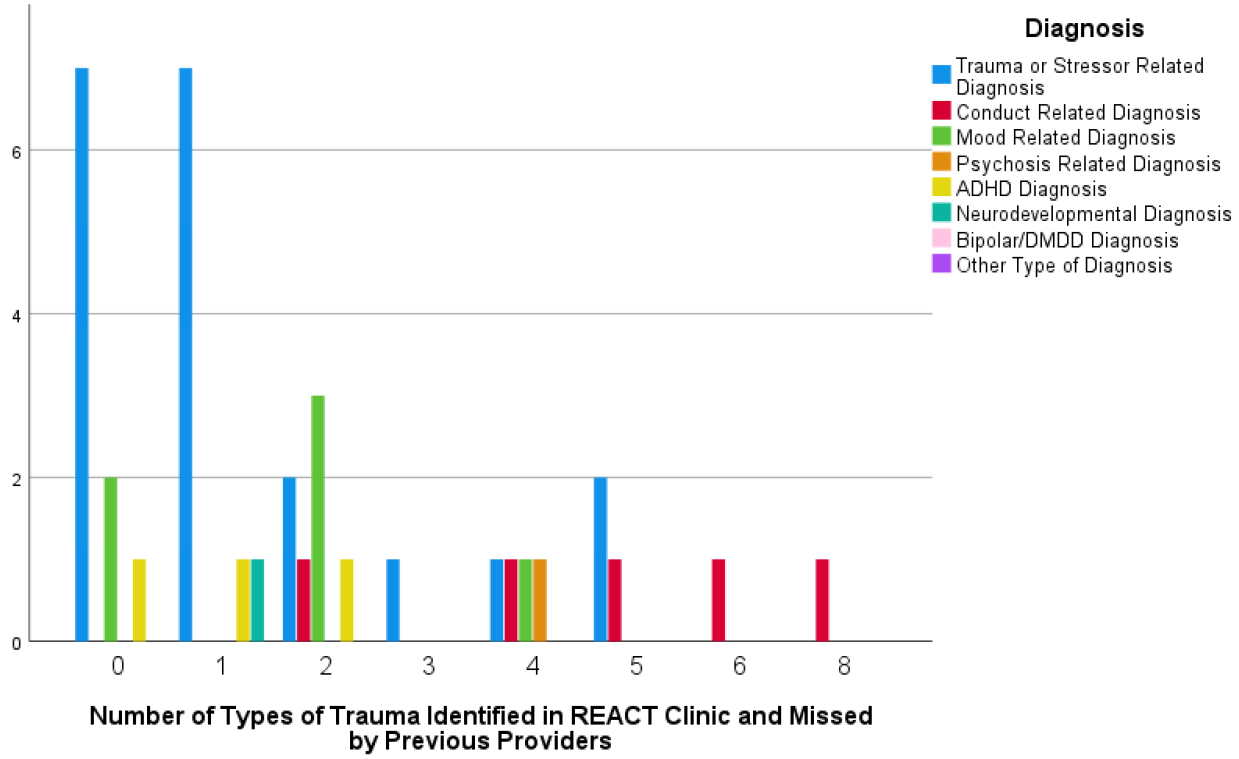



*Note. If prior mental health encounters attended to all the trauma types that REACT attended to, then the provider did not miss any trauma types. There were 15 trauma types in this analysis included: neglect/maltreatment, sexual abuse, physical abuse, emotional abuse, domestic violence, community violence, scary medical treatment, accidents, school violence, disasters, kidnapping, interpersonal violence, bereavement, separation, and impaired caregiver. The blue part of the circle represents the previous provider missing one or more trauma type that was identified at REACT.*

The trauma types most frequently missed in previous mental health encounters but identified at the REACT Clinic were CVEs (missed 35% of the time), followed by traumatic loss (missed 24%). The trauma type that was missed the least was emotional abuse (missed 2% of the time), followed by physical abuse (missed 7%), and neglect (missed 9%). However, emotional abuse was missed the least partially because it was less frequently identified at the REACT Clinic.

The patients with providers who missed more trauma types in their previous mental health encounters were also the patients who received more conduct and psychotic-related disorders. Additionally, when fewer trauma types were missed, patients tended to receive trauma or stressor-related diagnosis most frequently (see Figure 7).

**Figure 7**
Missed Trauma Types by Diagnosis




## Discussion

This study set out to understand the consequences of attending to trauma in psychiatric diagnosis and treatment recommendations. Using the REACT Clinic as the model for extensive trauma attention in diagnosis, we outlined three hypotheses. First, we hypothesized that patients who visited the REACT Clinic would have high levels of exposure to multiple types of traumas, and that the REACT Clinic would identify past trauma more extensively than that identified in prior mental health encounters. We also hypothesized that the REACT Clinic would be less likely than previous mental health settings to diagnose children with potentially stigmatizing diagnoses such as conduct- and psychotic- related disorders. Finally, we hypothesized that

REACT Clinic providers would be less likely to prescribe medication and to give children multiple diagnoses than prior mental health providers.

Overall, our findings revealed that the REACT Clinic observed more trauma types and gave more trauma diagnoses to the patients they served than the other providers who saw the same patients before REACT. Every patient at REACT had some sort of trauma history that could be attended to in psychiatric evaluations; however, from the patients on whom we have data, only about two thirds of prior mental health encounters had attended to any trauma at all. Even fewer patients had providers who attended to all the trauma types that were attended to at REACT. Subsequently, patients at REACT received more conduct, psychosis, ADHD, and neurodevelopmental diagnoses from their prior mental health encounters than from REACT practitioners.

We found, consistent with our hypothesis, that those receiving services from REACT had extensive trauma histories, and those mental health professionals that saw the patients before REACT frequently missed some, or all, of the trauma these patients have been through. Patients coming into the REACT Clinic, experienced a large number of numbers of traumatic stressors, ACEs, and CVEs, and most of the patients experienced more than one of each of these stressful life events. In fact, when compared to Felitti et al. (1998), patients at REACT experienced three or more ACES at a proportion that is more the twice the original ACES study. Past research has shown that the number of childhood traumatic experiences impacts the complexity of symptoms in patients with possible trauma-related diagnosis. In particular, Cloitre et al (2009) found a dose-dependent relationship between childhood cumulative trauma and the presentation of a

complex symptom set. Further, several studies have shown that traumatized children can exhibit dissociative symptoms as well as difficulties in modulating aggression, controlling impulses, maintaining attention, and sustaining/ cultivating relationships (for a review of said studies, see Van der Kolk, 2005). In other words, exposure to multiple or repeated forms of trauma in childhood can lead to symptoms that are not just more severe, but also ones that can potentially manifest in multiple affective and interpersonal domains outside of the traditionally accepted PTSD symptomology.

Not only does complex trauma result in a complex set of symptoms, but these symptoms will seem similar to many other diagnoses. In an analysis of the diagnostic criteria outlined in the DSM-IV, Stolbach (1997) found significant overlap between symptoms of PTSD and symptoms of other psychiatric disorders. For example, patients with PTSD can also display symptoms that are congruent with intermittent explosive disorder (a conduct disorder). In fact, patients with PTSD can act on aggressive impulses resulting in violent acts or destruction of property, and this behavior is often deemed as indicative of intermittent explosive disorder. PTSD symptoms can manifest and overlap with an additional seven other mental health disorders including ADHD, Major Depressive Disorder, Borderline Personality Disorder, and manic episodes (Stolbach, 1997). Put simply, symptoms of a trauma-related disorder will present similarly to other disorders, but they will have different etiologies and thus should lead to different diagnoses and treatments.

Despite the complex trauma histories of the REACT patients, the prior mental health encounters of these patients often missed a portion of their trauma histories. The current findings illustrate a relationship between missed trauma histories and a higher frequency of diagnosing more stigmatized diagnoses. We offer a few interpretations. It is possible that REACT may be underdiagnosing certain disorders, like conduct disorder. This possibility, however, is improbable due to the fact that, according to the DSM-5, the prevalence of conduct disorder among children is somewhere around 4% (American Psychiatric Association, 2013), which is much closer to the proportion of conduct diagnosis given at REACT than the proportion given at previous mental health encounters. Another possibility is that those previous mental health encounters are missing trauma diagnoses and instead giving patients diagnoses that only partially fit the complex symptom presentation of these patients. As stated earlier, there is a lot of symptom overlap between trauma-related disorders and other psychiatric disorders (Stolbach, 1997), and without attention to trauma in diagnosis, a trauma or stressor-related diagnosis is ruled out. This is because trauma exposure is a requisite criterion for the diagnosis of trauma-related disorders. Therefore, if trauma histories are not asked about in clinical settings, clinicians can diagnose patients with disorders that only explain some of the symptoms that patients are experiencing and do not address the root cause of the symptoms. Thus, we argue that regardless of the clinical presentation, a full trauma history needs to be collected from patients in order for

practitioners to account for the effects of cumulative trauma on complex clinical presentation in diagnosis.

Though we have evidence that CVE often results in higher rates of diseases associated with dysregulated stress responses such as anxiety, distress, behavioral disturbances, and PTSD symptomology (Buka et al, 2001), the trauma type most frequently missed by previous mental health encounters was CVE. Almost every child who visited the REACT Clinic had been exposed to community violence, and, for many of them, it was the main concern at the REACT Clinic. The results of this study, thus, reiterate the importance of including CVE screening in the process of mental health diagnosis.

Another hypothesis of this study was that patients will receive less trauma-related diagnoses and more stigmatized diagnoses, such as conduct and psychotic-related diagnosis, from the providers they saw prior to REACT than they will from the clinicians at REACT. Our findings provide evidence supporting this hypothesis. Overall, REACT gave out fewer stigmatizing diagnosis than prior mental health encounters. Additionally, this study provided some evidence of a relationship between the extent of trauma attention and diagnostic outcomes. When patients came into REACT from prior mental health encounters with stigmatizing diagnoses, REACT attended to a larger spectrum of trauma history, and the patients no longer carried the diagnosis of conduct or psychotic-related disorders. Also, the patients who had providers that missed more trauma types in previous encounter, had a higher number of conduct

and psychosis-related diagnosis, possibly illustrating a diagnostic consequence of not attending to a large spectrum of trauma exposures in diagnosis.

Considering that 97% of the REACT population were children of color, our findings also suggest that attention to trauma in diagnosis may reduce the frequency by which children of color are being diagnosed with disorders like schizophrenia, bipolar disorder, and conduct disorder. As stated earlier, clinicians often overdiagnose people of color with more stigmatizing diagnosis like conduct disorder or schizophrenia (Mizock and Harkins, 2011; Neighbors et al., 2003). Though not all children of color experience traumatic stressors, or as many traumatic stressors as this population does, the fact that some providers missed some or all of the trauma histories of these patients alludes to the possibility that some of these providers don't frequently ask about trauma histories extensively. Attention to trauma in diagnosis may reduce a portion of that inequality in diagnosis of psychiatric illnesses in children of color.

Interestingly, we found a high number of ADHD diagnoses received before and from REACT. Before REACT, a majority of the patients who received a diagnosis from previous mental health encounter received an ADHD diagnosis. REACT clinicians, however, diagnosed these patients with ADHD far less frequently. The high frequency at which traumatized patients present with ADHD symptomology is a pattern that is well documented. For example, Szymanski, Sapanski, and Conway (2011) found a high prevalence of patients with ADHD symptoms in a clinical sample of patients with extensive trauma histories. This could be because,

like ADHD, trauma affects executive function, so patients who have been traumatized will exhibit similar impairment in focus and thought organization as patients with ADHD. Thus, Szymanski, Sapanski, and Conway (2011) concluded that given the distinct overlap of ADHD and trauma, it is imperative that patients presenting with ADHD symptoms be carefully screened for trauma history. Our findings highlight support the arguments made by Szymanski, Sapanski, and Conway (2011) and highlight the fact that many providers still diagnose patients with ADHD without obtaining a detailed trauma history first.

Finally, we predicted that patients who have seen providers in the past will come into REACT with more diagnoses and more medications than they receive from the REACT Clinic. The results suggest that that there is no difference between the number of diagnoses given before the REACT Clinic and at the REACT Clinic. Likewise, there is no evidence supporting that there is a difference in the number of medications recommended between REACT psychiatrists and prior mental health encounters. However, based on the agreeance data, REACT clinicians and clinicians from prior mental health encounters often are not in agreement on what medication types to give the patients. This could be due to differences between individual psychiatrist preferences, or it could be due differences in diagnosis. If the diagnosis of the patients differs between REACT and prior mental health encounters, then their treatment plans for the patients would differ, which would mean that the differences in medications are related to diagnosis. Many psychotropic medications have a long list of adverse side effects for children, and

physicians should use caution when subjecting children to those side-effects. This is especially true for antipsychotics, which have been shown to make patients more susceptible to motor disturbances, seizures, and sedation (Findling et al., 2005). Thus, misdiagnosing patients increases the risk that patients are put on the wrong medications and subjecting them to unnecessary and dangerous side effects.

There are several limitations to this study including the fact that there is a clear bias in diagnoses from the REACT Clinic toward trauma diagnoses. As a clinic that is focused on trauma and community violence, it would be expected that the REACT Clinic diagnosed more trauma or stressor-related disorders. However, the comparisons between the REACT Clinic and prior mental health encounters are still important. The comparisons highlight the extent to which trauma attention affects diagnosis and highlights how trauma attention can reduce the number of stigmatizing diagnoses given. Despite this limitation, these results still show a major difference between diagnosis and trauma attention that cannot be accounted for by the predisposition to make a trauma diagnosis. Therefore, we argue that an analysis focusing on a trauma clinic allows for an in-depth examination of how trauma is attended and its impact on how people are pathologized.

Another limitation of this study is the small sample size. Because the REACT Clinic was created four years before data collection started for this project, the number of patients seen at REACT was limited by the timeframe. Thus, this study was limited to analysis of 124

participants, and that sample size was reduced even further depending on what analysis was being done. To strengthen the conclusions of this study, another chart review should be done once REACT has served more patients. This will ensure that the sample is large enough to run more comprehensive statistical analyses to understand the association between attention to trauma and diagnostic outcomes.

Our findings open multiple new paths for inquiry. First, it would be beneficial to explore the perceived utility patients had about the diagnoses and treatment plans given to patients from REACT. Specifically, did patients follow up with the treatment plans given to them at REACT, and did patients agree with the diagnosis they were given? The research could ask the children and families served in the REACT Clinic about their experiences in REACT and if they believe that the diagnoses and treatment recommendations, they received from REACT were beneficial to them. Second, further research could be done to understand attention to trauma in diagnosis of psychiatric disease across different racial groups. The research could compare different racial groups across multiple providers to see if attention to trauma and diagnostic outcomes varied across groups. Finally, along the same lines, more research should be done to better understand diagnostic bias in clinical settings, specifically trauma-focused clinical settings, when working with children of color.

Although attention to trauma alone will not eliminate the racial inequalities in diagnosis and treatment of psychiatric disorders, our findings underscore the importance of attending to

trauma because of its impact on diagnostic outcomes for children with wide-ranging trauma histories. When these patients' trauma histories are not asked about, the patients receive increased numbers of ADHD, psychotic-related disorders and conduct-related disorders that can lead to a variety of adverse outcomes. Although our interpretations are limited by the analysis of only one trauma focused diagnostic center, our findings and conclusions present unprecedented opportunities for scientific investigation and the increased attention to trauma across diagnostic settings.

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## Appendix A: Questions Asked by REACT Clinicians About Trauma History

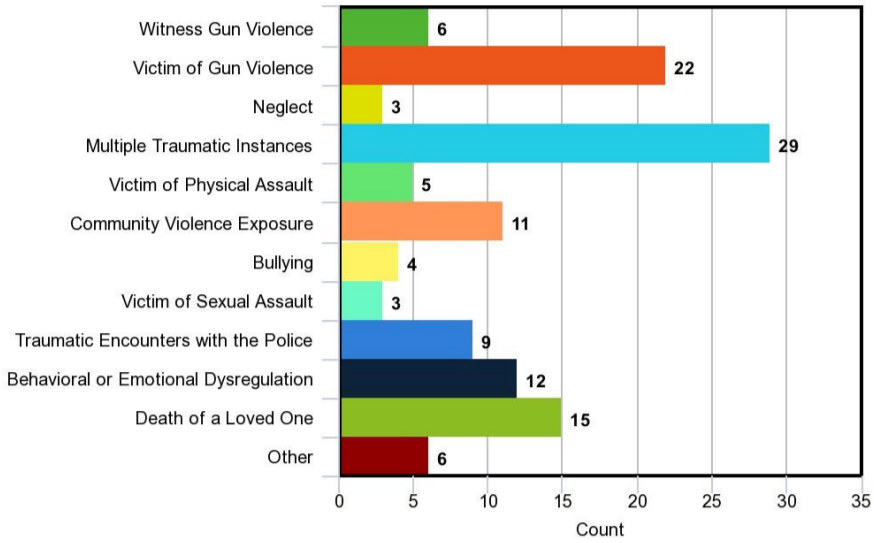
List of Stressors Explicitly asked at every REACT intake:

1) Natural disasters
2) Car accidents
3) War
4) Witness or victim of physical abuse
5) Witness or victim of domestic violence
6) Witness or victim of sexual violence
7) See a dead body
8) Heard about or witnessed violent death or serious injury of a loved one
9) Painful or scary medical treatment or medical illnesses
10) Neglect (physical, pyschological)
11) Emotional abuse
12) Parental Separation (divorce, foster care, parental deportation, incarceration, etc.)
13) Impaired caregiver (due to addiction, mental health problem, or medical illness)
14) Witness or victim of school violence (shooting, bullying, suicide, assault, etc.)
15) Terrorism
16) Kidnapping
17) Witness or victim of robbery
18) Witness homicide
19) Witness or victim of shooting
20) Witness or victim of stabbing
21) Witness or victim of beating
22) Exposure to prostitution or other developmentally inappropriate sexual behavior or material in home
23) Exposure to criminal behavior in home (drugs, weapons, etc.)
24) Incarceration
25) Burn
26) Fire
27) Dog attack
28) Gun shots in neighborhood

## Appendix B: Main Focus at REACT

**Figure 1**

Main Concern at REACT Reported by Patients at Intake




*Note. This is a bar graph showing patient responses to the question, "What is the difficulty or concern that brings you in today?" Responses were categorized into the 12 categories you see in the chart.*

## Appendix C: Stressors

List of Stressors Attended to at REACT

Full List of Stressful Experiences Documented in REACT Charts:

1) Natural disaster
2) Bad Accident
3) Physical Abuse
4) Witness physical abuse (not Domestic Violence)
5) Sex Abuse
6) Witness Sex Abuse
7) Scary Medical Treatment
8) Lost a loved one
9) Impaired Caregiver
10) Exposure to Prostitution
11) Criminal Behavior in home (e.g., drugs or weapons)
12) Neglect (physical and emotional and medical)
13) Foster Placement
14) Substitute Care
15) Homelessness
16) Incarceration
17) Family Member in Street Organization
18) Unresolved Trauma in Caregiver
19) Emotional Abuse
20) Bullying
21) Seen School Violence
22) Burn
23) Fire
24) Witnessed Homicide
25) Dog Attack
26) Abduction
27) Torture
28) Have you or someone you care about been hurt by violence
29) Been jumped or beaten
30) Witnesses jumping/beating
31) Been Stabbed
32) Witness Stabbing
33) Been Shot
34) Witnessed Shooting
35) Saw a dead body
36) Someone at school due to violence
37) Gun shots in neighborhood
38) Traumatic Police Encounters
39) Been shot at

40) Break-in
41) Witness Kidnapping
42) Witness Torture
43) Witness Domestic Violence
44) Robbed
45) Vicarious Trauma
46) Stalked
47) Experienced Domestic Violence

Adverse Childhood Experiences (ACEs):

1) Physical Abuse
2) Sexual Abuse
3) Impaired Caregiver
4) Incarcerated Family Member
5) Neglect (physical and emotional and medical)
6) Emotional Abuse
7) Untreated Mental Illness in Family
8) Addiction in Family
9) Witness DV

Traumatic Stressors:

1) Disaster
2) Bad accident
3) Physical Abuse
4) Witness physical abuse
5) Sexual Abuse
6) Witness Sexual Abuse
7) Scary Medical Treatment
8) Traumatic Loss
9) Neglect
10) Emotional Abuse
11) Bullying
12) Seen school Violence
13) Burn
14) Fire
15) Witness Homicide
16) Dog Attack
17) Abduction
18) Torture
19) Been Jumped
20) Witness Jumping
21) Been Stabbed
22) Witness Stabbing
23) Been Shot

24) Witnessed Shooting
25) Saw a dead body
26) Someone at school died due to violence
27) Gun shots in neighborhood
28) Traumatic Police Encounters
29) Been shot at
30) Break-in
31) Witness Kidnapping
32) Witness Torture
33) Witness Domestic Violence
34) Robbed
35) Vicarious Trauma
36) Stalked Experienced DV

Community Violence Exposures (CVEs):

1) Traumatic Loss
2) Bullying
3) Seen School Violence
4) Witnessed Homicide
5) Dog Attack
6) Been jumped or beaten
7) Witnesses jumping/beating
8) Been Stabbed
9) Witness Stabbing
10) Been Shot
11) Witnessed Shooting
12) Saw a dead body
13) Someone at school due to violence
14) Gun shots in neighborhood
15) Traumatic Police Encounters
16) Been shot at
17) Break-in
18) Robbed

## Appendix D: Diagnosis

**Table 1**

Comparison of Number of Diagnoses from Prior Mental Health Encounters and REACT.

| | One Diagnosis | Two Diagnoses | Three Diagnoses | Four Diagnoses |
|---|---|---|---|---|
| Before REACT | 31% | 42% | 18% | 9% |
| REACT | 42% | 44% | 14% | 0% |

*Note. A comparison between the REACT Clinic and prior mental health encounters of the number of diagnoses given to patients who were seen at REACT and some other mental health setting before. This is a breakdown from the 63 patients who had previously been seen in a mental health setting.*

Full List of Previous Diagnoses Given

Previous Diagnoses are listed here:

1. ADHD
2. Adjustment Disorder
3. Bipolar Disorder
4. Intermittent Explosive Disorder
5. Acute Stress Disorder
6. PTSD
7. Oppositional Defiant Disorder
8. Depression
9. Generalized Anxiety Disorder
10. Panic Disorder
11. Psychosis
12. Mood Disorder Unspecified
13. Major Depressive Disorder
14. Disruptive Mood Dysregulation Disorder
15. Trauma or Stressor-Related Disorder
16. Schizophrenia
17. Learning Disability
18. Intellectual Disability
19. “Explosive Behavior Disorder”
20. Manic
21. Conduct Disorder
22. Disruptive Behavior Disorder
23. Depressive Disorder
24. Autism Spectrum Disorder
25. Sleep Disturbances
26. Auditory hallucinations
27. Visual Hallucinations
28. Drug Abuse/ Substance use disorder

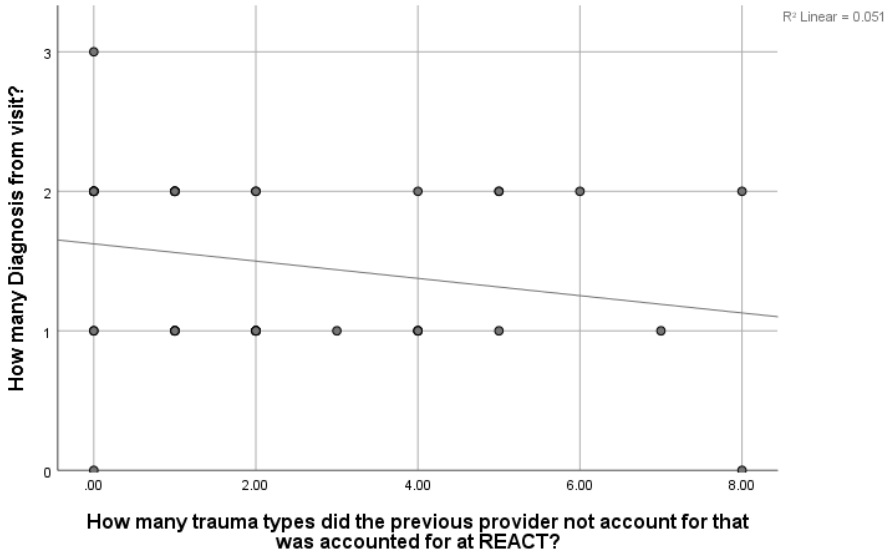
29. Emotional Disability
30. Impulse Control Disorder
31. Mood swings
32. Unspecified anxiety Disorder
33. Specialized learning disability
34. Panic Attacks
35. Global Developmental Delay
36. Speech Delay
37. Unspecified psychotic disorder
38. Cannabinoid induced hyperemesis
40. Eating disorder
41. Cannabis Use Disorder
42. “Emotional Depression”

*Note. Due to the fact that a lot of these diagnosis are based on patient report, some of these diagnoses are not actually DSM or ICD-consistent and use more colloquial language.*

The nine categories that these diagnoses were broken into are:
1. Attachment-related 2. Trauma or Stressor-related 3. Conduct 4. Mood Disorder 5. Psychosis 6. ADHD 7. Neurodevelopmental 8. DMDD/Bipolar 9. Other

**Figure 2**

Number of Diagnoses from Prior Mental Health Encounters vs Number of Trauma Types Accounted for

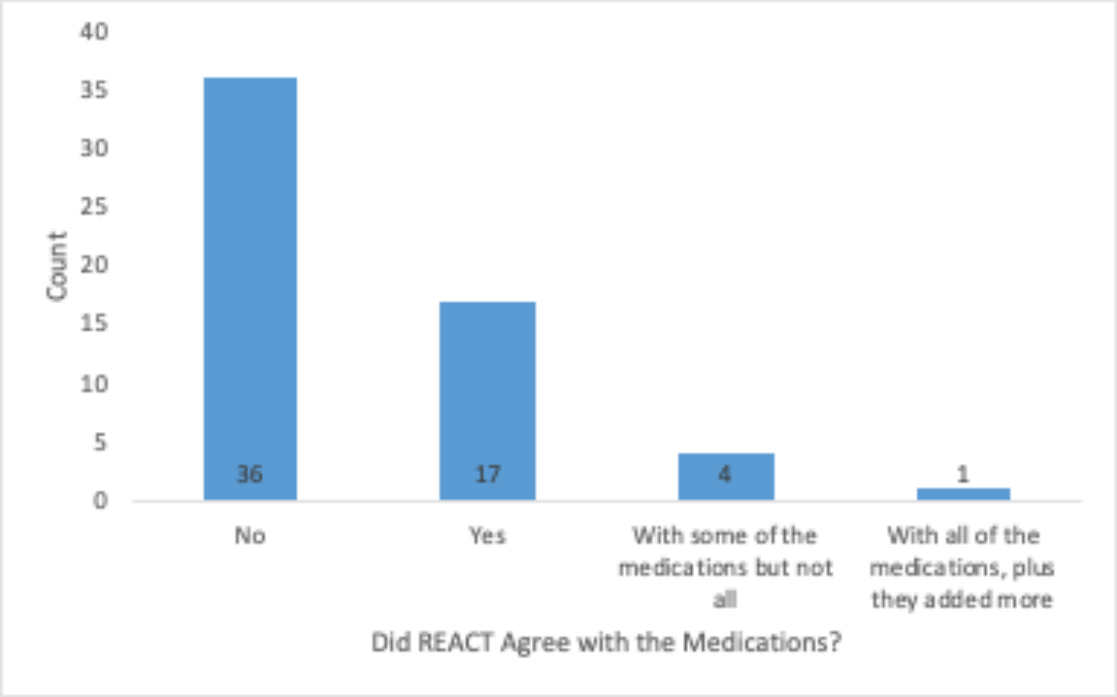



*Note. This is a scatter plot with a best fit line exploring the relationship between the number of trauma types missed by the previous provider and how many diagnoses the patients received from their visit with the previous provider. Because the points seem to be scattered in no order and the line of best fit has an $R^2$ of 0.052, there does not seem to be a significant relationship between the number of trauma types missed by the previous provider and how many diagnoses the patients received.*

## Appendix E: Medication

**Figure 1**

Agreement between REACT Clinic and the medications the patients came in with




*Note. Count of the number of times REACT psychiatrists agreed or disagreed with physicians in prior mental health encounters medication plans. When REACT recommends the same medications that the patient came in with, it is considered that REACT agrees with the previous provider.*

**Table 1**

Full List of Medications Recommended or Prescribed

| **Antidepressants** | **Antipsychotics** (for Psychosis) | **Used for PTSD** |
|---|---|---|
| Zoloft (Sertraline) | Risperidone (Risperdal) | Prazosin* |
| Lexapro | Latuda* | |
| Wellbutrin (Bupropion) | Seroquel (Quetiapine 5) | |
| Amitriptyline | Haldol | |
| Tramadol* | | |
| Trazodone | | |
| Prozac (Fluoxetine) | | |
| Effexor | | |
| Duloxetine | | |

| **Mood Stabilizers** (for Bipolar Disorder) | **Anti-Anxiety Agents** | **Stimulants** (for ADHD) |
|---|---|---|
| Lithium | Klonopin | Focalin (Dexmethylphenidate) |
| Depakote (Divalproex sodium) | Gabapentin* | Adderall |
| Lamictal | Hydroxyzine* | Methylphenidate (Ritalin, Concerta, Methylin) |
| | Xanax | Vyvanse |
| | | |
| | | **Non-stimulants used for ADHD** |
| | | Clonidine |
| | | Guanfacine (Tenex) |

*Latuda is also used for depressive symptoms of Bipolar disorder

*Gabapentin is an anticonvulsant used for seizures and nerve pain medication that is sometimes also used to treat anxiety

*Tramadol is a pain medication that also helps with symptoms of depression

* Hydroxyzine is an antihistamine also used to treat anxiety

*Prazosin is an antihypertensive used also for PTSD