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## Implementing Adverse Childhood Experience Screening in an Intensive Outpatient Mental Health Program

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# Implementing Adverse Childhood Experience Screening in an Intensive Outpatient Mental Health Program

## **Background and Significance**

Adverse Childhood Experiences (ACEs) have been well-studied for over 20 years, with the seminal research performed in San Diego, CA, through Kaiser Permanente and MD internist Vince Felitti in 1998. ACEs are potentially traumatic events that occur during childhood before 18 years of age (Felitti et al., 1998). The stress response is a normal part of life, and is the bodies response to a threat, challenge, physical or psychological obstruction (Hustedde, 2021). The stress response physiologically starts in the brain via the amygdala, hypothalamus and pituitary gland. Outside of the brain it involves the adrenal glands releasing epinephrine and cortisol. This process results in elevated blood pressure, blood sugar, and suppresses the immune system (Johnson et al., 2021). A colloquial phrase termed for this phenomenon is the “fight or flight” response. All people experience various levels of stress at different durations and intensities (Beal, 2019). ACEs are strongly associated, in dose-response fashion with many of the most common, serious, and costly health conditions our society is facing today, including nine of the ten leading causes of death in the United States, and earlier mortality expectancy due to its chronic unrelieved duration and intensity (Merrick et al., 2018). One of the principal reasons ACEs can cause extensive damage involves their relationship to the toxic stress response which develops when one is chronically experiencing unrelieved stressed (National Scientific Council, 2014). The toxic stress response leads to lasting and serious stress, which is exacerbated without support from a loved one or caregiver (Johnson et al., 2021). Some doses of stress are healthy and expected during childhood; however, the chronic exposure to high doses of adversity during sensitive and critical times of early development without caregiver support create an

environment for long term damage to occur (Beal, 2019). Increased doses of cumulative adversity lived through childhood years during early development create long term disruptions in the brain, immune, hormonal, and metabolic systems usually through genetic functions (Bucci et al., 2016). Research has demonstrated that children experiencing severe and long-term abuse have smaller brain sizes (Brown et al., 2009).

Over the years the original study has been replicated and repeated on various socioeconomic demographics given that the first study was done on mainly White, middle class, college educated adults, with private insurance. Subsequent studies have found even higher prevalence of ACEs with groups who are typically marginalized such as Black, Hispanic and Native Americans (Liu et al., 2020). Because ACEs have been linked to many detriments and impediments to living a healthy long life, especially with minorities, over 37 states and the District of Colombia have adopted or passed legislation related to ACE screening and interventions (National Conference of State Legislatures, 2022).

### **Purpose/Aims**

The purpose of Implementing ACE screening at an Intensive Outpatient behavioral health clinic aims to support the overall goal of implementing evidenced based care into clinical practice and follows California legislation. Unfortunately, what academia and clinicians have learned is it typically takes up to 17 years or longer for research to eventually reach clinical practice (Fineout-Overholt et al., 2005). This project seeks to conduct California Surgeon General, Dr. Nadine Burke-Harris's goal of identifying ACEs and decreasing ACEs by one half in one generation (Harris, 2020). As the consensus on ACEs and their negative effects on people becomes more concrete, it is now time to increase the screening of ACEs to clearly articulate where and how ACEs are occurring so providers, society, and law makers can continue

instituting measures that will reduce and prevent ACEs; leading to healthier, happier, and fulfilling lives for all. The implementation of this project is further supported by ACEs Equity Act, signed into law by Governor Gavin Newsom, effective January 1, 2022, which significantly expands coverage for ACEs screening.

The goals of this evidenced based intervention include screening for ACEs to detect surveys of four or more ACEs, and then directing treatment toward trauma-informed care (TIC), and referrals to primary care providers (PCP) for further evaluation. According to the substance abuse and mental health services administration (SAMHSA) trauma informed care realizes the widespread impact of trauma and understands the potential paths toward recovery; recognizes the signs and symptoms of trauma in patients; and responds by fully integrating knowledge about trauma into policies, procedures, and practices to actively resist retraumatization (2022). SAMHSA further breaks down trauma informed care into six principles: (a) safety (b) trustworthiness and transparency (c) peer support (d) collaboration and mutuality (e) empowerment, voice and choice and (f) cultural, historical and gender issues. According to the Center for Health Care Strategies (2020), Trauma Informed Care shifts the focus of the provider's perspective from "What's wrong with the patient" to "What's happened to the patient?" This approach acknowledges a more complete picture of the patient's life position in relation to their past and present allowing for healing services which respect what the patient has been through. This project will use trauma informed care to recognize and respond to the signs, symptoms and risks of trauma to support the needs of patients who have experienced ACEs by following SAMSHA's six principles utilizing high levels of ethical and compassionate care remaining sensitive to our patient's past experiences by creating a supportive environment for patients to heal.

## **Evidenced-Based Practice Model**

I have selected the evidence-based model (EBP) called the 8 A's model created in San Diego, California, by Caroline Brown, EdD, RN and Laurie Ecoff, PhD, RN (Brown & Ecoff, 2011). My rationale for selecting the 8 A's model is based upon the model's framework consisting of an 8-step process which is clear cut and simple to follow for implementing EBP, defined as the incorporation of the best available research evidence with patient preferences, clinical context, and healthcare resources (Ciliska, 2005; Cullum et al., 2008). Because my project involves implementing Adverse Childhood Experience Screening (ACEs); the utilization of this model will be simple and thorough allowing for successful adoption in the organization this project will be instituted.

The 8 A's model strengths include a model that is easy to learn, remember and apply in practice. This is primarily due to the logical, sequential format. The 8 A's refer to: (1) assessing a clinical or practice problem; (2) asking a clinical question in a PICOT (population/patient, implementation, comparison, outcome, and time) format; (3) acquiring existing sources of evidence; (4) appraising the levels of evidence; (5) applying the evidence to a practice change (implementation); (6) analyzing the results of the change as compared to the previous implementation state; (7) advancing the practice change through internal and external dissemination; and (8) adopting the practice for sustainability over time (Brown & Ecoff, 2011). Because ACE are well researched, including many RCT's and Meta Analyses, following the steps of EBP implementation will be straight forward.

A potential limitation with this model lies in the assumption that clinicians implementing EBP all know how to discern and appraise levels of evidence and implement the project. Utilizing this model necessitates a provider skilled in those abilities, able to carry out the

implementation and analyzing the results. Additionally, this process does not identify whom the key stakeholders or champions on the project will be and how exactly the project is to remain sustainable over time. This model involves educating everyone involved in the EBP project, which can also be costly and time consuming for the organization (Brown & Ecoff, 2011).

### **Literature Review/Evidence for the Problem**

A review of the literature was conducted using databases through the Copley library including PubMed, Google Scholar, Medline, Cochrane Library and EBSCO host. Because of the seminal research performed by Felitti in 1998 there have been many milestones. Research of the last 20 + years is overwhelmingly clear on ACEs and their impact on both physical and mental health. Research demonstrated 62% of Californians have experienced at least one ACE, and at least 16% report having experienced at least four or more (Bucci et al., 2016). A study by Strine et al, (2012) demonstrated ACEs were associated with an increased risk of self-reported alcohol problems in both men women, and the prevalence increased by specific types of ACEs. Preventing ACEs is linked to reducing conditions like depression, asthma, cancer, diabetes, tobacco usage and heavy drinking in adulthood (Hughes et al., 2017). In addition, by preventing ACES a connection to education and increased employment potential has been found (Merrick et al., 2019) A meta-analysis by Petrucelli (2019) showed psychological outcomes had an increased odds ratio compared to that of medical outcomes with higher ACEs scores. Implications of this study suggest the benefit of screening for ACEs; and, highlights the need to find interventions to ameliorate their effects especially for preventing behavioral health disorders. Rancine et al, (2020) suggest given widespread prevalence of ACEs, providers should be encouraged to adopt a trauma informed care approach as a universal precaution. Furthermore, Rancine et al, suggests only screening for ACEs if a trauma informed care approach to patient care is implemented.

As ACEs research has progressed, research has shown, unfortunately, some demographic groups are more likely to experience ACEs when compared to others. Research by the Robert Wood Johnson Foundation (2017) showed roughly 40% of Caucasian children have experienced 1 or more ACEs, compared to 51% of Hispanic children, and 64% of Black children. These results further support the growing body of research demonstrating how socioeconomic factors play a major role in the health outcomes of our population and our aim as a society to solve them. Additional research by (Liu et al., 2019) suggested that health outcomes are influenced by both adversity and protective factors, and to the extent these are influenced is also informed by race or ethnicity. The implications of this study reveal the highest need to perform ACE screening and interventions are associated with ethnic minorities. Clinicians should be prepared to implement trauma informed care into practice especially with minorities as future presentations of trauma are expected (Oral et al., 2016).

### **Design**

The facility chosen for this project was Sober Life Recovery Solutions (Sober Life), an Intensive Outpatient Substance Abuse and Mental Health clinic located in San Diego, California. Sober Life treats adult patients ages 18 and above. After approval to implement the project at their site and inserting the ten-item screening questionnaire in the EHR for all new admissions to completed prior to admission into the program. The admissions staff were educated about ACEs in general and instructed on how to perform, administer, and interpret ACE screening results. The ACEs screening is a series of ten questions, which are asked of adult patients on the childhood upbringing from ages 0-18. Staff were trained to identify scores of four or more and do two things: direct the patient treatment toward trauma informed care for therapy and work with case managers to schedule a visit to the patient's primary care provider for a physical

evaluation. If the patients did not have an established primary care provider, the treatment team helped them to establish and schedule an appointment as soon as available. An example of the ACE screening form is listed below in Figure 1.

**Figure 1**

*Adverse Childhood Experience Screening Form*

Our relationships and experiences—even those in childhood—can affect our health and well-being. Difficult childhood experiences are very common. Please tell us whether you have had any of the experiences listed below, as they may be affecting your health today or may affect your health in the future. This information will help you and your provider better understand how to work together to support your health and well-being.

<b>Instructions:</b> Below is a list of 10 categories of Adverse Childhood Experiences (ACEs). From the list below, please place a checkmark next to each ACE category that you experienced prior to your 18 <sup>th</sup> birthday. Then, please add up the number of categories of ACEs you experienced and put the <i>total number</i> at the bottom.	
Did you feel that you didn't have enough to eat, had to wear dirty clothes, or had no one to protect or take care of you?	<input type="checkbox"/>
Did you lose a parent through divorce, abandonment, death, or other reason?	<input type="checkbox"/>
Did you live with anyone who was depressed, mentally ill, or attempted suicide?	<input type="checkbox"/>
Did you live with anyone who had a problem with drinking or using drugs, including prescription drugs?	<input type="checkbox"/>
Did your parents or adults in your home ever hit, punch, beat, or threaten to harm each other?	<input type="checkbox"/>
Did you live with anyone who went to jail or prison?	<input type="checkbox"/>
Did a parent or adult in your home ever swear at you, insult you, or put you down?	<input type="checkbox"/>
Did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way?	<input type="checkbox"/>
Did you feel that no one in your family loved you or thought you were special?	<input type="checkbox"/>
Did you experience unwanted sexual contact (such as fondling or oral/anal/vaginal intercourse/penetration)?	<input type="checkbox"/>
<b>Your ACE score is the total number of checked responses</b>	

Do you believe that these experiences have affected your health?     Not Much     Some     A Lot

Experiences in childhood are just one part of a person's life story.  
There are many ways to heal throughout one's life.

Example of ACE Screening Form

**Methods and Justification**

The ACEs screening tool was approved by University of San Diego's IRB board and consisted of coordinating with the IOP's EHR named Alleva and electronically uploading the survey along with other regular, required pre-admission screening forms. All admitting patients must fill out and complete pre-admission documentation to the program to evaluate fitness for the program, gather pertinent information; and, remain compliant with California behavioral



health laws as governed by the Department of Healthcare Services (DHCS). Next, the survey was then completed as a routine part of admissions, then evaluated by admissions staff to identify scores of four or more directing patients toward trauma informed care with competent Marriage and Family Therapists at the treatment center, and then setting appointments with the patient's primary care providers for further evaluation. If patients did not already have an established primary care provider, the staff supported in finding the patient a local provider. Scores were reviewed on a bi-weekly basis ensuring compliance with the projects overall aims.

### **Ethical Considerations**

This study was approved by the institutional review board of the University of San Diego, Hanh's School of Nursing (IRB-2022-6).

### **Demographics**

Demographics of this project includes adult men and women ranging in ages from 18 to 64. There were 26 men and 18 women were surveyed. This project surveyed 28 Caucasian patients, 12 Hispanic patients, three Black patients and one Asian patient. Unfortunately, no other races or ethnicities were represented. Of note, there were two transgender patients represented in the survey. All the patients in this survey had private PPO or HMO insurance plans.

### **Results**

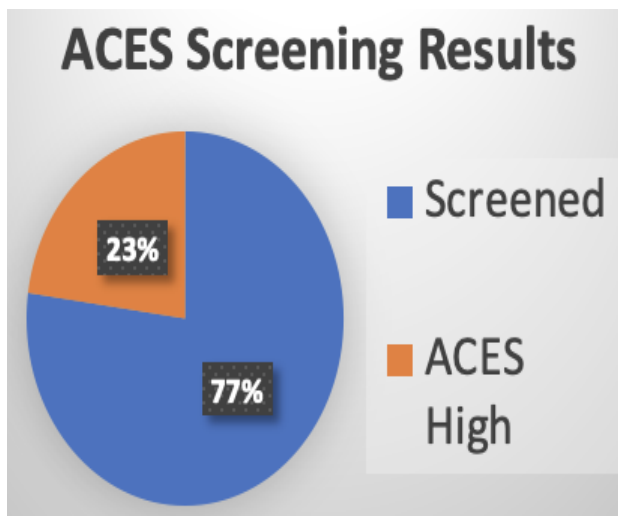
During the implementation of ACEs screening at a Mental health Intensive Outpatient Center 44 patients were screened starting October 11, 2021 through December 31, 2021. Of the 44 patients screened 13 patients or 23% were found to have an ACE score of four or more. These patients were then directed toward two pathways. The first was ensuring they were receiving trauma informed therapy while in treatment. The second involved referring patients to a primary

care provider (PCP) for evaluation and treatment of potential or realized physical health complications.

Of the 13 patients with ACE scores four or greater, 100% were entered into Trauma Informed Care with Marriage and Family Therapists at the treatment center.

**Figure 2**

*ACES Screening Results*

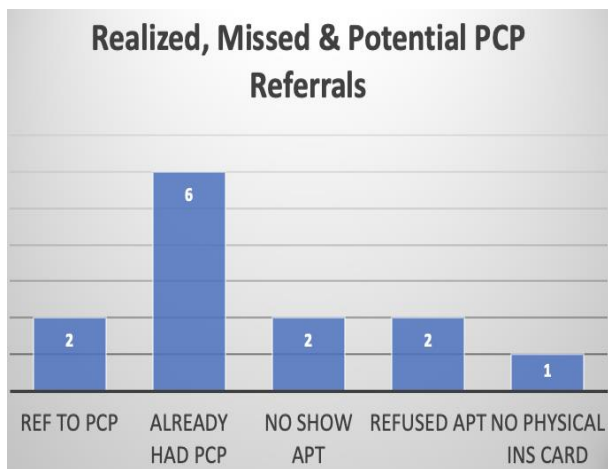


Percentages of patients screened and those with four or more ACEs.

Out of the 13 patients scoring four or more ACEs, two were successfully referred to a primary care provider for an initial evaluation, six already had established care with a primary care provider, two made appointments but did not show, one made an appointment but was not able to be seen because the patient did not have a physical insurance card, and two refused to set an appointment for further follow up. Unexpected findings included two of the patients who went to their primary care appointment ended up having untreated hypertension and were started on anti-hypertension medication.

**Figure 3**

*Realized, Missed, and Potential PCP Referrals*



Graph depicting PCP referrals

### **Study Limitations**

The initial survey was implemented on October 1, 2021 into the EHR; however, there was a technical error when reviewing the ACEs scores. The evaluator was not able to see which specific ACEs the patient's had selected creating a possible error in the total ACE score interpretation, and preventing clinicians to see which specific ACEs applied to which could be used in further trauma informed care therapy. This prevented the evaluator from ensuring accurate total ACE scores at the end of the survey. This error was identified early on and officially corrected on October 11, 2021 with the support from the Alleva technical team which then ensured the ACEs intervention was now able to be viewed in its entirety and accurately.

A second limitation in this project involved the difficulties of navigating private insurance requirements. One of the patients was unable to see a primary care provider simply because they did not have a physical copy of their insurance card. This was a barrier to accessing

healthcare and quite frankly was a failure of the healthcare delivery system. Despite having an electronic version of their card, the primary care provider's office would not allow the patient to be seen. For this issue to be solved it would require changes in the insurance company, primary care office or legislative policies to promote equitable access for all patients.

Another limitation in this project involved the equity distribution. Most of the patients were Caucasian and all had private insurance. Although this project will add to the growing body of research on ACE screening results, the highest need of ACE screening and intervention has been identified with minority groups and low-income areas.

### **Discussion**

Through the implementation of this project many lessons were learned. There was increased utilization of trauma informed care at the treatment center. This is important because clinicians were able to be sensitive in respect to the patient's past experiences, provided a platform upon which to create therapeutic breakthroughs, and acknowledges the role past trauma plays in the patient's life experience today. Another finding included the increase in referrals to primary care providers. Because patients with scores of four or more ACEs were more likely to have medical co-morbidities, two of the 13 patients were treated for uncontrolled hypertension, which can lead to more serious health outcomes over the long term. An unexpected finding involved the decrease in provider judgement and/or bias when treating patients with behavioral health issues. Many times, providers may have preconceived notions on patients with mental health or substance abuse issues as not being strong enough to fix themselves or are unable to rationalize the types of behaviors these patients may present. By screening for ACEs and recognizing patients with increased ACE scores promotes an attitude of empathy and understanding in providers who prior to ACE screening potentially were not aware of. This can

lead to better outcomes as it increases the provider's curiosity and willingness to exert care at the highest level to sincerely help these patients.

Another surprising finding was identifying the two patients who refused to see a primary care provider despite having private health insurance. One of the patient's simply did not want to pay the co pays and out of pocket costs due to financial burden. The other patient just refused without explanation. These findings helped the evaluator to realize as much as providers want patients to receive health care, it may go against patient attitudes or beliefs. Although we may not always agree, providers should respect patient choices on their personal healthcare, even if it goes against medical advice.

### **Evidence to Action**

By screening for ACEs clinical teams are able to more effective and equitable health care. Results can be used to provide targeted clinical interventions in addition to facilitating greater empathy, compassion and promote emotional healing. Screening for ACEs in adults provide multiple benefits including: improvement of clinical assessment, patient education and treatment planning, especially for chronic health conditions; opportunity for providers to address the behavioral ramifications with ACEs associated mental health disorders; and empowerment of patients toward striving to overall improved family health (Dube et al., 2003).

If this project were to be redone, the evaluator should ensure the screening form is accurately embedded into the EHR, clearly identifying the results and which specific ACEs were noted by the patient. The evaluator would recommend finding local primary care providers with knowledge of ACEs and/or perform an in-service with these providers educating about ACEs and their effects on behavioral health patients to increase awareness and facilitate a smoother

referral or transition process to these providers in an effort to decrease the time it takes to make a successful referral.

### **Implications for Future Research**

This project could easily be implemented at other local intensive outpatient centers, and detox or residential centers. According to SAMHSA there are approximately 160 substance abuse and mental health treatment centers in San Diego county alone (2022). Implementing ACE screening across all behavioral health providers in the County would make a significant impact toward our goal of reducing ACEs by one half in one generation, and could federal, state and local legislators a much better idea of where to direct resources for combatting high ACE scores.

### **Conclusions**

Adverse Childhood Experience Screening is well on its way to becoming a standard of practice implemented in both inpatient and outpatient medical and behavioral health settings. ACEs are preventable, especially for future generations, but the first step is identifying where they are occurring, which ACEs are most prevalent, and then addressing the root causes of the ACEs in the home with the families affected the most. Federal, state, and local funding is being directed toward this effort. The utilization of ACEs screening allows providers direct treatment toward Trauma Informed Care, which realizes the widespread impact of trauma and understands healthy paths for recovery of these patients. Additionally, ACEs screening allows behavioral health providers to refer patients to their Primary Care Provider for evaluation and potential treatment of realized or unrealized health complications. Finally, the screening of ACEs may remove potential provider bias and/or preconceived judgements when treating patients giving them more meaningful data upon which to evaluate their patient's promoting a sense of empathy in the patient provider relationship.

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