

# Utilizing the Adverse Childhood Experiences (ACEs) Screening Tool in a Pediatric Primary Care Clinic

CHARNITA BRYANT MS, CPNP, BRIGIT VANGRAAFEILAND DNP, CPNP

DIVISION OF PEDIATRIC NURSING, DEPARTMENT OF ACUTE AND CHRONIC CARE; JOHNS HOPKINS HOSPITAL, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MD

## Introduction

- ACEs are traumatic events that occur during childhood, such as child abuse, child neglect and household challenges
- The pediatric primary care provider can identify those children at risk, particularly in socioeconomically disadvantaged populations
- The American Academy of Pediatrics (AAP) recommends screening for ACEs during WCC visits
- Evidence shows that education and training in ACE screening and interventions in primary care would increase provider knowledge and competence

## Purpose

- Increase pediatric provider's awareness on ACEs through education and evaluation
- Increase the utilization of the ACEs screening tool in a pediatric primary care clinic
- As a result, screening for ACEs was expected to increase amongst providers, patients and families

## Methods

### Design

- Quality Improvement (QI) Project, utilizing an Educational Intervention
- Pre-post test to determine if there was a difference in the provider's awareness and knowledge of ACEs.
- Target sample included all 59 primary care providers in an pediatric primary care clinic
- None of the providers were excluded
- Single clinical site and there was no control group.

Characteristics	N = 59 n (%)
Mean age in years ± (SD)	30.8 ± 6.5
Gender, n (%)	
Female	45 (76.3)
Male	14 (23.7)
Race, n (%)	
White	44 (74.6)
African American	5 (8.5)
Asian	9 (15.3)
Other	1 (1.7)
Type of Provider, n (%)	
Intern	17 (28.8)
Assistant Resident	17 (28.8)
Senior Assistant	23 (39.0)
Resident	
Nurse Practitioner	2 (3.4)

### Provider's knowledge on ACEs and screening

- Paper-based content validity survey with a 5 point Likert scale: (strongly disagree to strongly agree)
- Survey asked about provider's: (1) familiarity (2) role (3) comfort level (4) barriers (5) resources in screening for ACEs
- Distributed prior to the educational intervention and 12 weeks post implementation of project

### Educational Intervention

- All primary care providers received a Powerpoint presentation on ACEs and screening
- Posters placed in patient exam rooms and provider's work areas
- The education included:
  - background of the original study
  - the definition
  - why this patient population was at risk
  - what they were at risk for
  - importance of screening
  - steps to overcome barriers
  - patient-centered communication

### Utilization of the Screening Tool

- The Center for Youth Wellness (CYW) ACEs Screening Tool was distributed during Well Child Care visits
- Screening tools collected as a way of obtaining data
- Electronic medical records reviewed weekly to examine which patients completed the tool (numerator), number of well-child care visits (denominator), by which providers

Table 2. Comparison of the Provider's Knowledge Pre-and Post an Educational Intervention of Screening for ACEs

Variable	Pre-Test Scores (n=59) M (SD)	Post-Test Scores (n=52) M (SD)	Difference in Scores M	p-value
Knowledgeable of ACEs & screening	3.52 (1.038)	4.33 (.513)	-.81	.00
Role of PCP in screening for ACEs	4.19 (.687)	4.35 (.556)	-.15	.13
Provider's Comfort Level in Screening for ACEs	3.06 (.916)	3.75 (.682)	-.69	.00
Provider's Perception of Having Sufficient Time to Screen	2.38 (.796)	2.75 (.837)	-.37	.02
Provider's Awareness of Resources for Positive Screenings	2.50 (.960)	3.63 (.864)	-1.14	.00
Provider's Total Pre-Post Test Scores of Knowledge of Screening for ACEs	15.71 (2.585)	18.92 (2.222)	-3.21	.00

## Results

- 59 providers participated
- Provider's total knowledge score increased by 21%, paired t-test statistically significant
- Paired t-test in provider's knowledge, comfort level in screening, sufficient time to screen and awareness of resources statistically significant, p-value < .05
- No statistical significance in provider's role in screening for ACEs
- 480 screening tools collected over 12 weeks
- 93% (n=55) of providers utilized the screening tool
- 16-47% of patients completed the screening tool weekly with 1537 Well Child Care visits

## Conclusions

- Pre-post survey showed that providers continued to feel that they did not have sufficient time to screen
- Evidence shows that continuing education curriculums should include ACEs to increase provider's awareness of ACEs
- Ongoing training to providers on patient centered communication skills and building resiliency in patients and families.



JOHNS HOPKINS  
SCHOOL of NURSING