

Parental ACEs Screening in Neonatal and Pediatric Care: Implementation, Challenges and Best Practices

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BACKGROUND & OBJECTIVES

- As many as 11 out of every 95 live births in California require NICU admission (Peng et al., 2023).
- Parents of NICU infants report significantly higher psychological distress than those with healthy, full-term babies (Hynan et al., 2013; Lefkowitz et al., 2010).
- Parents who were exposed to adverse childhood experiences (ACEs) are at an increased risk of mental and physical health concerns, including preterm birth (Bellis et al., 2014; 2019; Felitti et al., 1998; Font & Maguire-Jack, 2016; Gilbert et al., 2015; Hughes et al., 2017; Metzler et al., 2017; Shonkoff, 2016; Sulaiman et al., 2021) .
- Objectives:
 - Explore the feasibility of screening for parental ACEs in neonatal and pediatric care settings.
 - Identify processes for implementing ACE screening in neonatal and pediatric settings to inform future recommendations.

METHODS

Neonatal Intensive Care Unit (NICU)

- Time period:** May 2023 - October 2024
- Participation:** Optional participation in research study
- Inclusion criteria:** English-speaking, infants hospitalized ≥7 days and infants eligible for HRIF follow-up.
- Exclusion criteria:** Parents younger than 18 y.o., severe mental illness or active substance use, and no parents of infants approaching end-of-life.
- Screening method:** In-person paper screening or electronically via email.
- Administered by:** External psychologist.
- Follow-up:** Parents with ACEs >0 or PSS-10 ≥14 were referred for further psychological support.

High Risk Infant Follow-Up Clinic (HRIF)

- Time period:** March 2024 - January 2025.
- Participation:** Integrated part of intake process for the clinic.
- Inclusion criteria:** All families who present to clinic.
- Exclusion criteria:** Secondary/non-parent caregivers.
- Screening method:** In-person paper screening in family's preferred language.
- Administered by:** Embedded psychologist.
- Follow-up:** Elevated scores prompted in-visit counseling or follow-up contact.

Outpatient Mental Health Clinic (OP MH)

- Time period:** October 2023 - January 2025.
- Participation:** Integrated part intake process for the clinic.
- Inclusion criteria:** All families who present to clinic.
- Exclusion criteria:** None.
- Screening method:** Virtual screening sent via email.
- Administered by:** Embedded psychologist.
- Follow-up:** All parents receive psychological services informed by screener reporting.

Adverse Childhood Experiences (ACEs) Screener

10-Item Dichotomous (Yes/No) Scale
Score range: 0–10
Scores later categorized as None (0), Low Risk (1-3), or High Risk (≥ 4)
Ex. Did you live with anyone who was depressed, mentally ill, or attempted suicide?

Perceived Stress Scale (PSS-10)

5-point Likert Scale from Never to Very Often
Score range: (0–40) Higher scores indicating more stress
Scores categorized as Low (<14), Moderate (14-26), or High Stress (≥ 27)
Ex. In the last month, how often have you felt that you were unable to control the important things in your life?

Demographics

Data collection varied by site and included:
Age (Parent and/or infant)
Sex (Parent and/or infant)
Parental birthing status
Race/Ethnicity (Parent and/or infant)

RESULTS

NICU families:

- 17.93% completion rate
- 26 completed screening of 145 eligible
- Birthing Parents: *N* = 25
- Non-Birthing Parents: *N* = 10

HRIF families:

- 80.49% completion rate
- 132 completed screening of 164 eligible
- Birthing Parents: *N* = 124
- Non-Birthing Parents: *N* = 66

OP MH families:

- 80.00% completion rate
- 36 completed screening of 45 eligible
- Birthing Parents: *N* = 33
- Non-Birthing Parents: *N* = 18

Barriers to Screener Completion

NICU	HRIF	OP MH
Unable to reach parents	Provider time restraint	Forms not returned to the provider
Parents declined to participate	Visit focused on other significant concerns	
Forms not returned to study team	Parent time restraint	
Infant approaching end-of-life	Child required additional support/attention	

Frequencies/Percents of Parental ACEs and PSS Scores

	Birthing Parents			Non-Birthing Parents		
	NICU (<i>N</i> = 25)	HRIF (<i>N</i> = 124)	OP MH (<i>N</i> = 33)	NICU (<i>N</i> = 10)	HRIF (<i>N</i> = 66)	OP MH (<i>N</i> = 18)
ACEs						
0	13 (52%)	55 (44%)	11 (33%)	6 (60%)	25 (38%)	8 (44%)
1 - 3	7 (28%)	38 (31%)	12 (36%)	4 (40%)	29 (44%)	9 (50%)
4+	5 (20%)	29 (23%)	10 (30%)	0 (0%)	14 (21%)	1 (6%)
PSS						
Low (0-13)	9 (36%)	62 (50%)	6 (18%)	6 (60%)	41 (62%)	3 (17%)
Moderate (14-26)	11 (44%)	37 (30%)	24 (73%)	4 (40%)	12 (18%)	14 (78%)
High (27+)	5 (20%)	4 (3%)	5 (16%)	0 (0%)	2 (3%)	1 (6%)

DISCUSSION

- Screening yielded the highest completion rates when implemented as a routine component of care, particularly in outpatient settings.
- Parents appeared more likely to complete screeners in contexts where the content felt directly relevant to the care they were receiving, such as in the HRIF and FDP clinics.
 - Clear communication about the purpose of screening and how results will inform care may enhance parental engagement and willingness to participate.
- In-person administration or in-person reminders seemed to increase the likelihood of screener completion.
 - Personal interaction from providers embedded in medical team may support follow-through.
- Screening parents of higher-acuity infants in the NICU was more challenging than in outpatient settings.
 - Contributing factors likely included the infant’s medical complexity, heightened parental distress, and study-specific consent and eligibility requirements.
- Language access remains a critical factor in equitable care. Screening should ideally be conducted in each parent’s preferred language, with providers trained to accurately score and interpret responses and provide appropriate follow-up support.
- Outpatient environments provided more opportunities for non-birthing parents to participate in screening, supporting more comprehensive caregiver assessment and intervention.

MORE INFORMATION

Want more information about implementing trauma-informed care in acute care settings?

