Research Scholars Poster Presentation

Connections Clinic: A Formative Assessment of Mental Health Through ACE Scores and Prenatal Care

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Connections Clinic: A Formative Assessment of Mental Health through ACE Scores and Prenatal Care

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Background

- The opioid epidemic is getting increasingly worse and continues to affect pregnant women.
- The Connections Clinic was launched in September of 2017 at LVHN and looks to further its impact on providing treatment and assistance to women affected by substance use disorder (SUD) in pregnancy.
- The adverse childhood experience (ACE) questionnaire is a series of questions asked in regards to stressors a person may have experienced in childhood including but not limited to physical, sexual, and emotional abuse. The majority of the population reports an ACE score of one.[1]
- The ACE score of mothers who give birth to babies with neonatal abstinence syndrome (NAS) can predict future health behaviors of the baby. The cross-generational impact of ACEs is currently being studied and can provide key details into how a mother's childhood experiences impacts that of their child's.[2]
- **Purpose: To determine how ACE scores relate to mental health and adherence to the prenatal pathway in mothers with SUD in pregnancy.**

Figure 1: Example of ACE questionnaire asked at time of Child Protection consult.[1]

Lehigh Valley Health Network, Allentown, Pennsylvania

Methods

ACE scores were obtained through maternal interview and entered into REDcap database.

Mental health status and prenatal appointments attended were obtained through chart review within the online medical records, Epic.
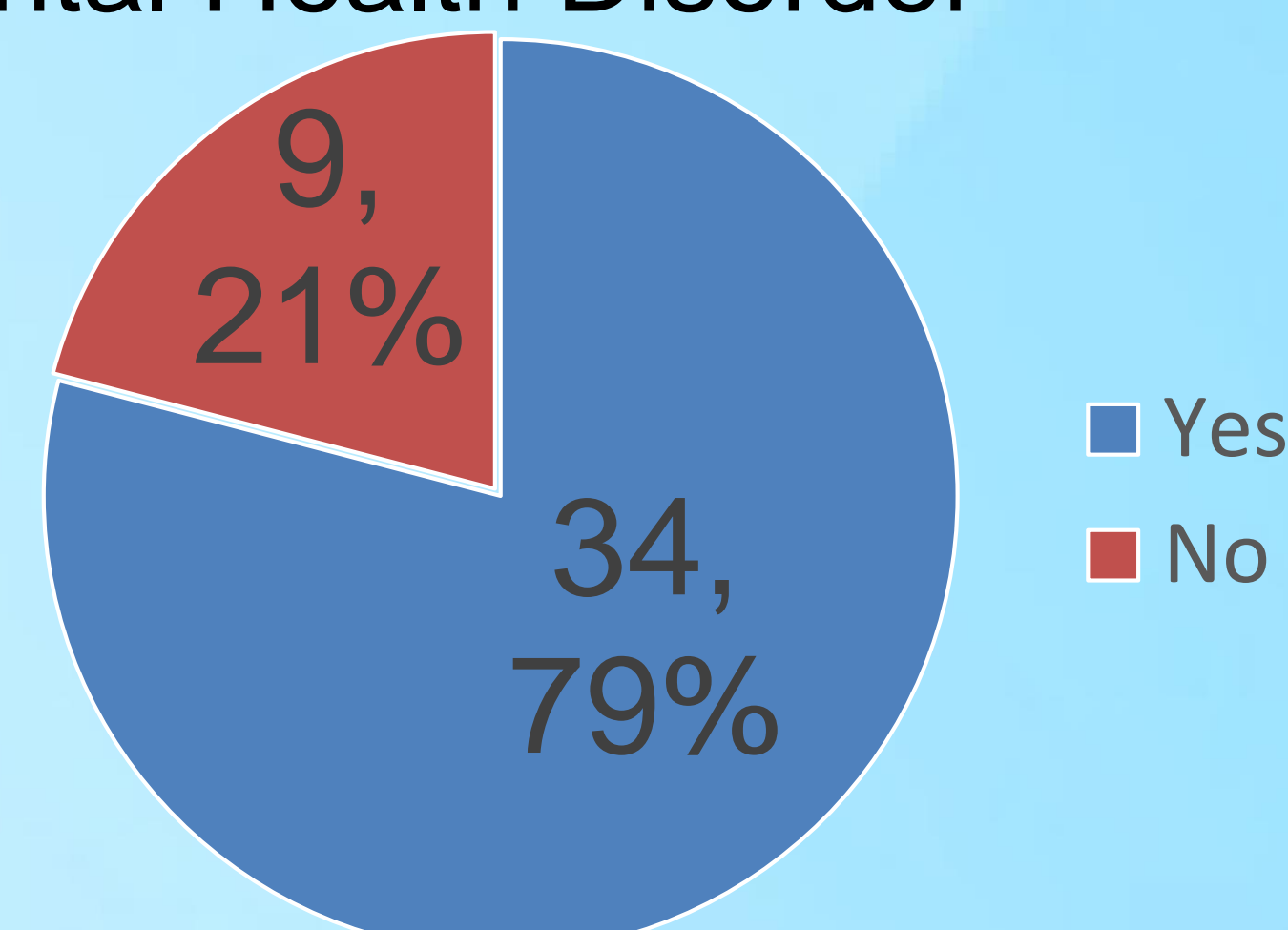
The updated records within REDcap were used to collect and analyze data on how the ACE scores correlate to the occurrence of mental health disorders and prenatal success.

- Women were categorized with a mental health disorder if they ever received the diagnosis of one or more of the following: depression, anxiety, bipolar 1 or 2, panic disorder, adjustment disorder, post-partum depression, and post-traumatic stress disorder.

Results

- 43 ACE scores were entered and analyzed.
- The average ACE score for this sample was 3.54 which is considered high as compared to the general population.
- The REDcap database was updated from 90 total entries last summer (2017) to 226 total entries this summer (2018).

Figure 2: Occurrence of Mental Health Disorders in the 43 mothers with reported ACE scores.

Mental Health Disorder

9, 21%
34, 79%

- Yes
- No

Results

Percentage of Missed Prenatal Appointments by ACE score (N=13/N= 14)
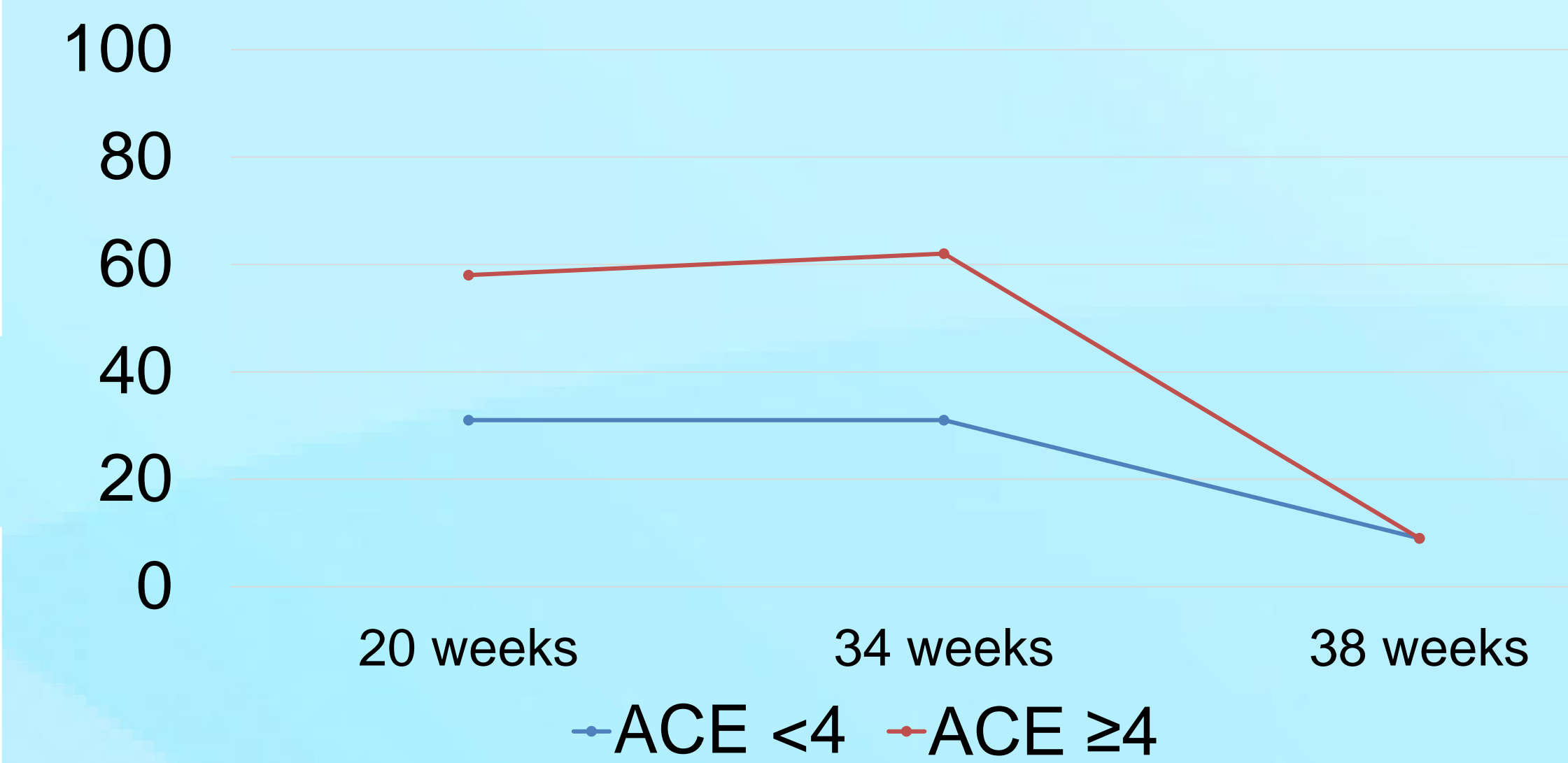
ACE <4   ACE ≥4

Figure 3: Percentage of missed prenatal appointments in mothers with ACE scores less than four and greater than four.

Conclusions

- Our data suggests a positive correlation between higher ACE scores and higher occurrences of mental health disorders along with lower prenatal success.
- Our results show inconclusive areas of missing data. The data could potentially be much higher.

Recommendations

- Create a universal referral process to the Connections Clinic matching the information needed for REDcap.
- Hire a mental health professional to treat the mental and emotional side of substance abuse during pregnancy and after pregnancy.
- Future research: track the adherence to the pediatric well-child check-up pathway to see if the poor appointment adherence trend continues with the infant

References:
1. Felitti, Vincent J, et al. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults." *American Journal of Preventive Medicine*, vol. 14, no. 4, 1998, pp. 245–258., doi:10.1016/s0749-3797(98)00017-8.
2. Lê-Scherban, Félice, et al. "Intergenerational Associations of Parent Adverse Childhood Experiences and Child Health Outcomes." *Pediatrics*, vol. 141, no. 6, 2018, doi:10.1542/peds.2017-4274.

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