

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

Kalina Buckenmyer

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Published In/Presented At

Buckenmyer, K., (2018, 3, August) *Connections Clinic: A Formative Assessment of Mental Health Through ACE Scores and Prenatal Care*. Poster presented at LVHN Research Scholar Program Poster Session, Lehigh Valley Health Network, Allentown, PA.

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

Research Scholar: Kalina Buckenmyer

Mentor: Dr. Elaine Donoghue, MD

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.**

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.

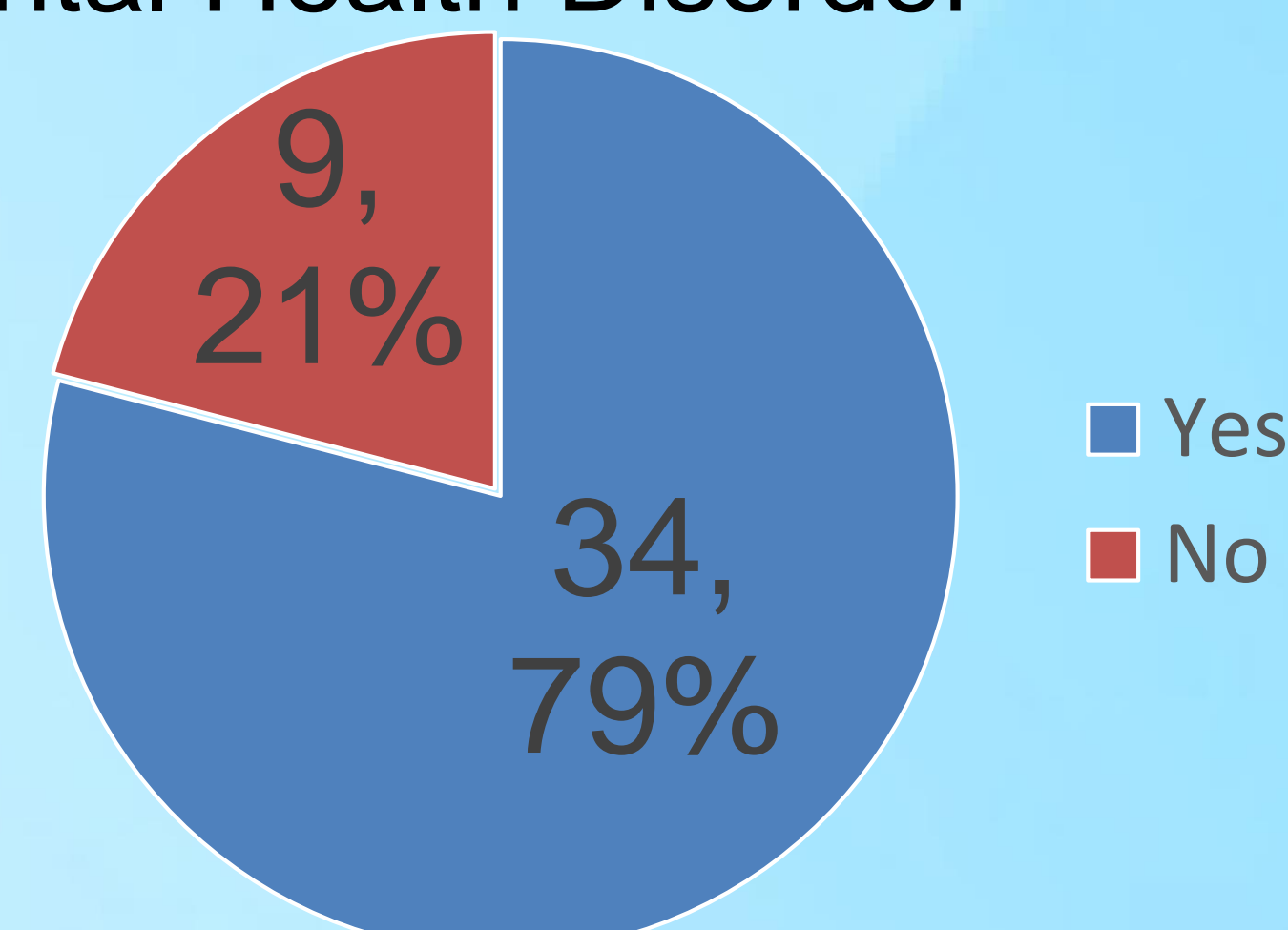
The updated records within REDcap were used to collect and analyze data on how the ACE scores correlate to the occurrence of mental health disorders and prenatal success.

- 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: Mental Health Disorder Occurrence of Mental Health Disorders in the 43 mothers with reported ACE scores.



Results

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

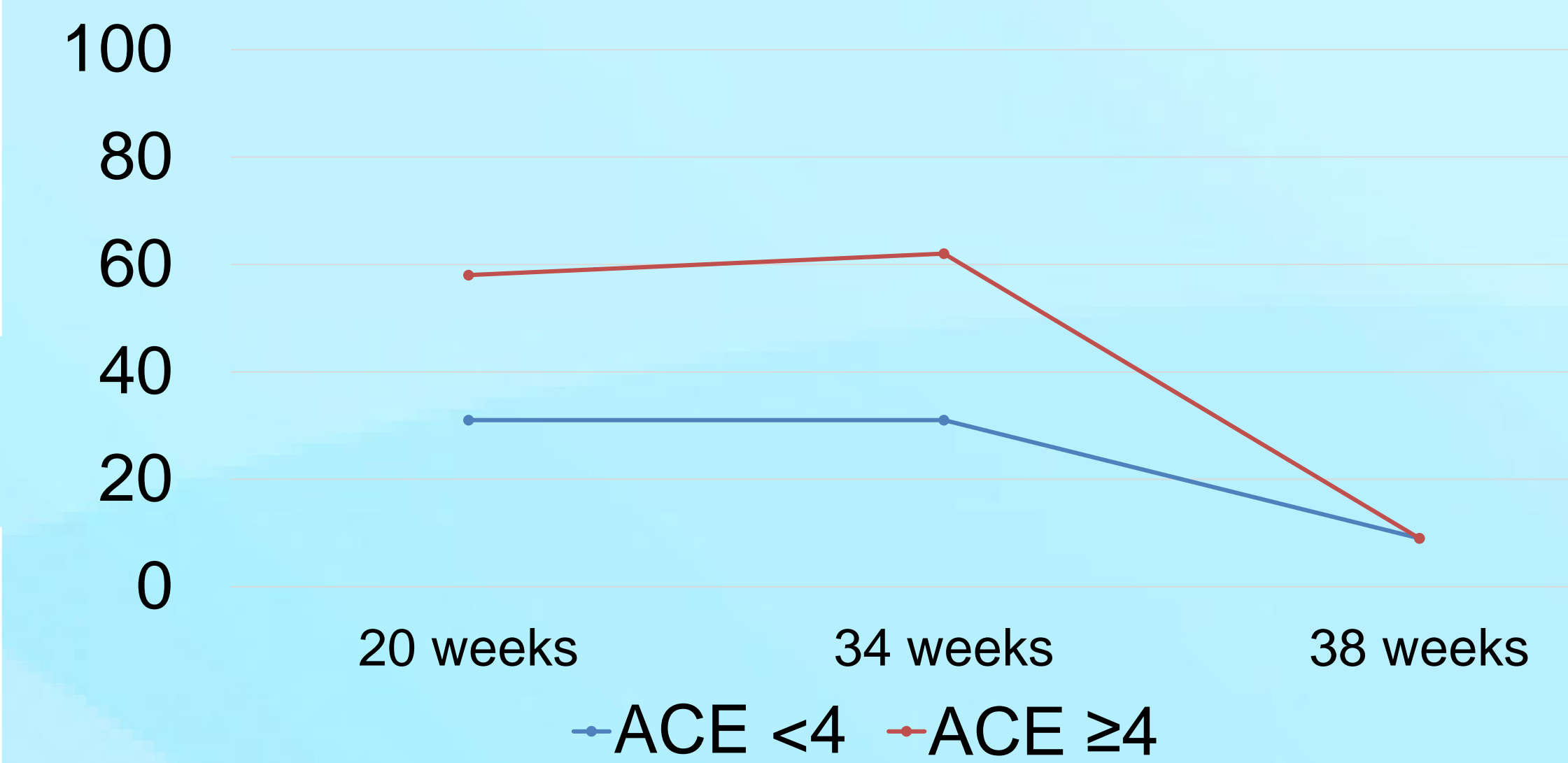


Figure 3: Percentage of missed prenatal appointments in mothers with ACE scores less than four and greater than four.

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:

- 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.
- Lé-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.

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

Adverse Childhood Experience (ACE) Questionnaire
Finding your ACE Score 12/18/06

While you were growing up, during your first 18 years of life:

- Did a parent or other adult in the household often ...
Swear at you, insult you, put you down, or humiliate you?
or
Act in a way that made you afraid that you might be physically hurt?
Yes No If yes enter 1 _____
- Did a parent or other adult in the household often ...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
Yes No If yes enter 1 _____
- Did an adult or person at least 5 years older than you ever...
Touch or fondle you or have you touch their body in a sexual way?
or
Try to or actually have oral, anal, or vaginal sex with you?
Yes No If yes enter 1 _____
- Did you often feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
Yes No If yes enter 1 _____
- Did you often feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Yes No If yes enter 1 _____
- Were your parents ever separated or divorced?
Yes No If yes enter 1 _____
- Was your mother or stepmother:
Often pushed, grabbed, slapped, or had something thrown at her?
or
Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
or
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
Yes No If yes enter 1 _____
- Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
Yes No If yes enter 1 _____
- Was a household member depressed or mentally ill or did a household member attempt suicide?
Yes No If yes enter 1 _____
- Did a household member go to prison?
Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score