FALL 2018

Kansas City MEDICINE

JOURNAL OF THE NEW KANSAS CITY MEDICAL SOCIETY

REDUCING DISPARITIES IN MATERNAL AND CHILD HEALTH

Ensuring Equal Care to Ethnic and Minority Groups
Unsafe Sleeping Practices
Mother & Child Health Coalition
WIC: Access to Nutritious Foods
Maternal Substance Use Disorders
Using a Trauma-Informed Approach

FEATURES

Surgeon General to Address Annual Meeting
Viewpoints: KC's Center for Practical Bioethics
KCMS Retired Physicians

Kansas City MEDICINE
— FALL 2018 —

FROM THE *Editor*

Top News KCMS ANNUAL MEETING

Editorially SPEAKING

News KCMS

Viewpoints: CENTER FOR PRACTICAL BIOETHICS

ON THE COVER: *Pediatrician Elizabeth Simpson, MD, with a mother and infant at Truman Medical Center. Photo by Truman Medical Center.*

Letter TO THE EDITOR

Special Section

By Building Healthy Brains, We Build Healthy Communities: What Physicians Can Do

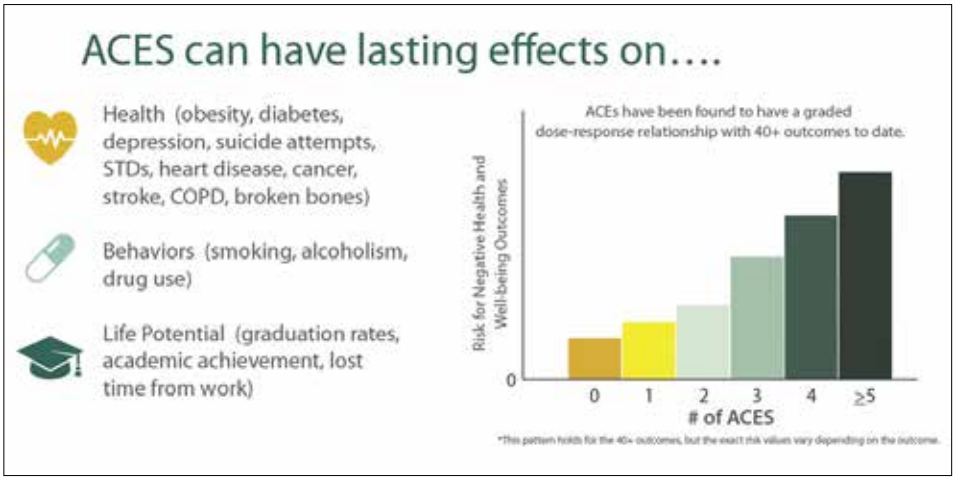
DEVELOPING A TRAUMA-INFORMED APPROACH CAN HELP PHYSICIANS BETTER UNDERSTAND AND RELATE TO PATIENTS WHOSE BEHAVIOR HAS BEEN AFFECTED BY ADVERSE CHILDHOOD EXPERIENCES

By Kathleen Harnish McKune, MBA, and Marsha Morgan, MPA
Kathleen@TeamTechInc.com Morgan.Marsha.03@gmail.com

When communities pay attention to the impact of trauma, they are able to affect positively some of the toughest challenges facing both policymakers and providers. When communities have been intentional about addressing adverse childhood experiences (ACEs) by becoming trauma-informed, they report outcomes including lower suicide rates, reduced numbers of children entering the juvenile justice system, decreased dropout rates, fewer suspensions and expulsions from schools and fewer behavioral issues with children, along with drops in emergency room visits and reduction in substance abuse.

Physicians are uniquely positioned to:

- Raise awareness about the impact of trauma knowledge on neuroscience.
- Lead the way in implementing evidence-based practices, like attachment bio-behavioral check-ups.
- Infuse trauma-informed approaches into their own practices.
- Influence policies that can help children and their families heal from the impact of trauma.



ACE EFFECTS Source: Centers for Disease Control and Prevention[2]

I. NEUROSCIENCE, BRAIN DEVELOPMENT AND TRAUMA – WHAT WE KNOW

In 1998, Vincent Felitti, MD, Robert Anda, MD, and colleagues published a study that sparked a national conversation about the importance of understanding the long-term impact of trauma on brain development. "Relationships of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study" was their work that appeared in the *American Journal of Preventative Medicine.*[1]

Known as the "landmark ACE study," it examined 17,337 Kaiser health plan members (70% Caucasian, 39% college educated with health care insurance). The study determined each patient's exposure to ACEs by asking if they had experienced any of the following before age 18:

1. Emotional abuse (recurrent)
2. Physical abuse (recurrent)
3. Sexual abuse (contact)
4. Physical neglect
5. Emotional neglect
6. Substance abuse in the household (e.g., living with an alcoholic or a person with a substance-abuse problem)
7. Mental illness in the household (e.g., living with someone who suffered from depression or mental illness or who had attempted suicide)
8. Mother treated violently
9. Divorce or parental separation
10. Criminal behavior in household (e.g., imprisonment)

For every ACE identified, one point was assigned to arrive at the individual's ACE score.

Drs. Felitti and Anda correlated the ACE scores with health-risk behaviors and health outcomes and found there is a link between early life adversity and well-known chronic diseases as well as risky behaviors and life potential.[1] Their work has been validated many times. As

the number of ACEs increases, so does the risk for poor health outcomes.

A later study conducted in urban Philadelphia identified additional community issues that contribute to trauma and toxic stress for individuals. Among these are living in poverty and residing in an unsafe neighborhood. Others include having experienced discrimination, witnessed violence, been subject to bullying, and lived in foster care. These indicators represent the social issues that affect each person's health. Physicians can help address these factors by developing strong referral networks and creating health care partners so their patients can receive necessary and basic services.[3]

Positive experiences with a parent, relative, teacher, etc. can help buffer the effects of ACEs, according to research by Erin Hambrich, Ph.D., of UMKC and other fellows of a national university-based consortium on child trauma. Child medical providers, such as nurses, nurse practitioners, and pediatricians, who typically see infants and their caregivers frequently during the first year, can play a strong preventive role by inquiring about living conditions, domestic violence, caregiver depression and caregiver drug use.[4]

ACEs in Metro Kansas City

In 2017, Resilient KC conducted an "expanded ACEs" study in the metro Kansas City area in cooperation with the University of Missouri-Kansas City. The study covered nine counties including Cass, Clay, Jackson, Platte and Ray in Missouri, and Johnson, Leavenworth, Miami and Wyandotte in Kansas. In our region, adverse childhood experiences are common:

- Three in ten adults during their childhood experienced sexual abuse by an adult at least five years older than them (30.2%, n = 1,058).
- Over half of adults experienced emotional abuse while growing up (55.6%, n=1,945).
- Four out of ten adults experienced emotional neglect (39.9%, n=1,384).
- Kansas City regional adults witnessed a parent or adults in their home being physically or emotionally battered four times the rate of the Kaiser study of individuals (49.5% compared to 12.7%).
- Approximately four in ten (40.8%) adults living or working in the Kansas City region grew up in a household where someone abused alcohol or drugs.[5]

The Impact of Trauma

To understand the ways adverse childhood experiences shape long-term physical and mental health as well as behaviors and development, an understanding of the human brain, its development and the stress-response system is essential.

When the stress response (fight, flight, freeze) is chronically activated, sometimes to the extreme, the neural connection patterns of the stress response become stronger. The emotional center of the brain becomes overactive and overpowers the ability of the executive center to think or decide rationally. The brain is stuck in a reactive mode. The stress-response system becomes dysregulated (aka chronic dysregulation). This is especially true for children, whose brains are developing rapidly (and therefore most vulnerable) from birth to age 18. This is when adverse childhood experiences can have their most devastating and long-lasting impact.

Chronic dysregulation causes the body to produce too much cortisol. Over long periods of time, high cortisol levels take a toll on the body by: raising blood pressure and blood sugar, inhibiting clear thinking, destabilizing mood, disrupting sleep, stimulating fat accumulation, and triggering the body to crave high-sugar and high-fat foods.

Chronic dysregulation can be either easy to see (someone who constantly overreacts which neuroscientists call hypersensitivity) or harder to see (someone who has dissociated or checked out, known as hyposensitive). The latter often cause no problems until one day, the person just explodes—the proverbial "last straw."

Realizing that adversity in childhood harms the development and regulation of the stress-response system throughout someone's life helps explain how powerful the ACE science can be in combatting some of the leading causes of disease, mental illness and death. In addition, studies have found that sustained trauma can physically change the brain and how it functions[6] and can even change the way DNA is read. This may explain the frequency of inter-generational sustained trauma.

II. NEUROSCIENCE, BRAIN DEVELOPMENT AND TRAUMA—MOVING INTO ACTION

In an ideal world, all childhood trauma would be gone. But realistically, it is not going away. The gift of neuroscience is that it not only points us to the root cause impact of trauma but it also begins to help us understand how the brain can at least partially heal from the impact of trauma.

1. Teach Emotional Regulation

What We Know: Dysregulated stress-response systems are toxic to the brain and the body.

Moving into Action: The optimal time to teach emotional regulation is ages 3-30 months.[7] However, at any age learning to

self-calm and self-regulate is important for moving from the emotional center (fight, flight, freeze) to the executive center (better thinking). Telling someone to calm down doesn't work. Teaching someone a set of emotional regulating skills they can use when they feel themselves overreacting does work.

How: There are many options for creative and natural ways to enhance what we already do naturally to self-calm (repetitive motions or sighing)—all are based on rhythm and repetition which resonate with neural patterns, e.g. the birth mother's heartbeat and breathing that the developing fetus experiences.

- Breathe slowly and deeply—notice your breath.
- Repeat in your mind positive affirmations or mantras.
- Think of something funny or think of someone you care about.
- Stop and notice things around you such as colors, sounds, textures.
- Visualize calm places and favorite things.
- Put on lotion/hand massage.
- Touch each finger to your thumb on each hand repeatedly.
- Have something small in your pocket that you touch—a touchstone.
- Dance, walk or stretch.
- Engage in musical activities—singing, humming, listening to music.
- For infants, the power of play is critical (with play being purposeful, voluntary, pleasurable in a non-threatening, low-duress context). Swaying and rocking are other rhythmic and repetitive regulating activities.

2. Test Cortisol Levels and Provide One-on-One Interventions

What We Know: Early trauma increases cortisol levels. Cortisol in excess damages your long-term health.

Moving into Action: Implement ABC or attachment bio-behavioral check-ups (an evidence-based practice from the University of Delaware). ABC tests cortisol levels in children and their caregivers and intervenes with one-on-one coaching and parenting skills. Catching high cortisol levels in caregivers (many of whom likely experienced childhood trauma) and providing emotional regulation skills as well as teaching attachment parenting skills can help mitigate the inter-generational nature of ACEs. Many states now have a Medicaid code to pay for this. Kansas does not.

How: Five pilot sites in Kansas are now trying the ABC intervention and seeing reduced cortisol levels in both caregivers and parents. This practice should be expanded, including implementing policy and billing codes that support this early intervention treatment.

3. Provide Safe Relational Experiences

What We Know: One strong meaningful relationship with a supportive parent, coach, teacher, caregiver or other adult can make a difference in a child's neural development even in the face of sustained trauma.

Moving into Action: Provide safe relational experiences for everyone in our communities. All organizations having contact with children and parents must implement trauma-informed practices. Go beyond the referral to a community agency or a set of services and treat the child and parent together in a holistic approach.

How: Often the youth who most need safe, relational experiences don't have them at home and they also find themselves isolated in "normal" social situations. This is a lose-lose-lose situation (loss for the child, the family and our community.) Communities can create multiple pathways to safe relational experiences for our most vulnerable citizens.

- Provide connections to youth organizations that promote resilience, leadership and align with the trauma-informed principles of safety, trustworthiness, choice, collaboration and empowerment while embracing equity.
- Encourage interaction with older school peers who know about and are skilled in resilient practices.
- Advocate for no-fee youth sports teams that promote positive play, competition and sportsmanship.
- Champion community centers that offer resilience-building activities.

4. Build Resilience

What We Know: Building resilience in individuals can help mitigate the impact of trauma.

Moving into Action: We all possess resilience—it can also be taught and further developed. Research on resilience indicates that there are multiple intersecting factors including having a supportive community, feeling valued, having a sense of belonging and being able to engage with others and having access to basic necessities such as food, housing, education, employment and transportation.

How (for Individuals):

- Promote healing practices such as mindfulness, yoga, exercise, nutritious foods, and healthy sleep routines.
- Use historical, cultural rituals that promote well being.
- Implement restorative practices in all child-serving organizations.
- Create safe space in organizations for individuals to go to when they are dysregulated.

- Provide economic opportunities for all citizens that promote quality of life.

5. Raise Awareness of the Neuroscience of Trauma

What We Know: Supporting healthy, resilient people requires trauma-informed and resilient practices throughout families, communities and organizations. Cultural changes occur based on the trauma-informed principles of safety, trustworthiness, choice, collaboration and empowerment while embracing equity. Effective community and organizational practices are well established.

Moving into Action: Raise awareness in your family, teams, organizations and communities about the neuroscience of trauma.

How: Explore, implement and adapt available resources and add to the wealth of knowledge through publications, seminars, extensive and certified training and learning collaboratives. The efforts of Alive & Well Communities in Kansas and Missouri are a good place to start: https://www.traumamatterskc.org/. Share this article and our full paper with others: https://teamtechinc.com/, click on At the Forefront.

III. USING THE NEUROSCIENCE OF TRAUMA IN PHYSICIAN PRACTICES

Physicians who wish to bring trauma-informed care into their practices can work on the following five approaches to patient care and interaction.

Assure Physical and Emotional Safety

- Provide and clearly identify washrooms.
- Take time to familiarize the patient with the physical environment.
- Ask about comfort.
- Share control.
- Show respect.
- Use a warm and compassionate manner to build rapport.
- Meet with the patient before he/she disrobes.
- Ask the patient to disrobe only if necessary or only as much as needed.

Collaborate

- Share information.
- Allow time for questions.
- Provide opportunities for the patient to teach back home interventions.
- Support the patient to make decisions about their treatment.
- Include the patient's family when the patient requests family be present.

Promote Choice

- Ask permission to close the door.
- Ask before another person is invited into the room.
- Ask permission to touch.
- Allow the patient to decide where to sit in the room.
- Explain rationale for the procedure and obtain consent.

Empowerment

- Ask "What happened to you?"
- Take time with the patient so they feel genuinely heard.
- Ask if the patient has preferences related to or has had difficulty with a particular procedure.
- Ask the patient what you should know before you begin the procedure.
- Ask if there is a way you can make the procedure easier for the patient.
- If the patient is having difficulty with a procedure, ask if there is a way you can help the patient relax.
- Pay attention to body cues; look for signs of distress and dissociation.

Build Trustworthiness

- Explain all procedures in terms the patient can understand.
- Tell the patient what to expect and how long it will take.
- Ask the patient what they want.
- Stop the procedure if the patient shows signs of distress.

CLOSING

Our hope is that the physician community will play a leading role in both raising awareness about this important topic and in implementing evidence-based practices to help our citizens heal. If you wish to join the trauma-informed movement in the Kansas City area, there are efforts you can support. Contact either co-author for more information. **Together we can build healthy brains, which builds healthy communities.**

Kathleen Harnish McKune, MBA, CEO and co-founder of TeamTech, a Kansas City-based facilitation firm, has helped organizations and collaboratives move their people and ideas into action for over 27 years. Her particular interest in the neuroscience of trauma was sparked in 2017 facilitating efforts to formalize this movement in the Kansas City metro area. Combining her systems background and study of root cause analysis with TeamTech's implementation methods, TeamTech has added moving trauma-informed care into action to its portfolio of client services.

Marsha Morgan, MPA, founded Resilience Builders, LLC, after retiring from Truman Medical Centers in 2016. She has provided multiple trainings and facilitated learning collaboratives on toxic stress, trauma and resilience for health care providers, schools, nonprofit organizations and communities. Marsha's passion for this work is a result of more than 40 years serving people with mental illnesses and substance use disorders.

(See page 33 for references.)

- ***Bring Them All* Documentary:** Addiction is a family disease. Yet mothers are often treated in isolation from their children and partners, having to choose between getting treatment and keeping their families together. One revolutionary program in Compton, California lets women bring them all—fathers/partners and children of all ages—to experience the recovery journey together. *Bring Them All,* a brief documentary, tells the story of family-centered care through the perspectives of clients and staff at SHIELDS for Families, proving the seemingly impossible can be done: to move forward a generation of children who never experience—or even remember—the challenges of growing up with family addiction. Watch the full documentary and topic-specific vignettes at www.BringThemAll.org
- **On-Demand Training Videos:** The ECHO Didactics and Webinette pages contain a variety of video presentations by national experts on topics such as medications for addiction treatment, fetal alcohol spectrum disorders (FASD) and parenting for women in recovery.
- **Resource Library:** This database contains over 300 reputable resources that can be searched by topic and resource type.

For more information on the Tools for Treatment site, contact Sarah Knopf-Amelung at knopfsm@umkc.edu.

Patricia Stilen, MSW, is co-director of the Mid-America ATTC and can be reached at stilenp@umkc.edu.

Sarah Knopf-Amelung, MA-R, is senior project manager of the Mid-America ATTC and can be reached at knopfsm@umkc.edu.
Kate Mallula, MPH, LMSW is senior project manager of the Mid-America ATTC.

REFERENCES

1. *Key Substance Use and Mental Health Indicators in the United States: Results from the 2017 National Survey on Drug Use and Health.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2018. https://www.samhsa.gov/data/report/2017-nsduh-annual-national-report. Accessed Oct. 8, 2018.

2. Smith K, Lipari R. *Women of Childbearing Age and Opioids.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2017.

3. *Opioid Crisis' Youngest Victims: Neonatal Abstinence Syndrome Increases 538 Percent Throughout Decade.* Jefferson City, MO: Missouri Hospital Association; 2017.

4. Smith K, Lipari R. *Women of Childbearing Age and Opioids.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2017.

5. *Key Substance Use and Mental Health Indicators in the United States: Results from the 2017 National Survey on Drug Use and Health.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2018. https://www.samhsa.gov/data/report/2017-nsduh-annual-national-report. Accessed Oct. 8, 2018.

6. *Parental Substance Use and the Child Welfare System.* Washington, DC: U.S. Department of Health and Human Services, Children's Bureau; 2014. https://www.childwelfare.gov/pubs/factsheets/parentalsubabuse/. Accessed Oct. 9, 2018.

7. Kepple NJ, Parker A. *Moving Towards A More Responsive SUD Continuum Of Care: A Comprehensive Community Needs Assessment of the KC Metro Area.* Lawrence, KS: University of Kansas School of Social Welfare; 2018.

8. ATTC Center of Excellence on Behavioral Health for Pregnant and Parenting Women and Their Families. *Easier Together: Partnering with Families to Make Recovery Possible. Kansas City, MO: ATTC Center of Excellence on Behavioral Health for Pregnant and Parenting Women and Their Families.* Washington, DC: National Academies Institute of Medicine; 2017. http://attcppwtools.org/LearnASkill/TrainingCurricula.aspx. Accessed Oct. 8, 2018.

9. State of Missouri. HB 2280. 2018. https://www.house.mo.gov/Bill.aspx?bill=HB2280&year=2018&code=R. Accessed Oct. 8, 2018.

10. *Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants.* HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2018.

11. A Collaborative Approach to the Treatment of Pregnant Women with Opioid Use Disorders. HHS Publication No. (SMA) 16-4978. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2016.

12. http://www.kcur.org/post/keeping-families-together-mothers-undergo-recovery-new-approach-drug-dependency and http://www.kcur.org/post/doctors-grapple-how-best-treat-opioid-dependent-newborns

13. https://www.kansascity.com/news/local/article212588059.html

14. https://www.apnews.com/1f521dc03bf348308fc5abd05270dec9

15. https://www.kmbc.com/article/new-addiction-program-works-to-help-mothers-and-newborns/22719834

BUILDING HEALTHY BRAINS

(continued from page 37)

REFERENCES

1. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine.* 1998;14(4): 245–258.

2. About Adverse Childhood Experiences. Centers for Disease Control and Prevention website. https://www.cdc.gov/violenceprevention/acestudy/about_ace.html

3. The Research and Evaluation Group at Public Health Management Corporation. Findings from the Philadelphia Urban ACE Study. Prepared for Institute for Safe Families, September, 2013.

4. Hambrick EP, Brawner TW, Perry BD, et al. Beyond the ACE score: Examining relationships between timing of developmental adversity, relational health and developmental outcomes in children. *Archives of Psychiatric Nursing.* Scheduled for publication.

5. Resilient KC. ACEs in Metro Kansas City, 2017. http://www.wearehealthykc.com/KCChamber/media/Healthy-KC-Media/PDFs/BehavioralHealth/One-Page-ACE-Stats.pdf

6. De Bellis M, Keshavan M, Clark D, et al. Developmental Traumatology Part II: Brain Development. *Biological Psychiatry.* 1999, 45: 1271-1284.

7. Sousa, David A. *How the Brain Learns.* Fourth edition, 2011. Corwin Press, Thousand Oaks, Calif.