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From ACEs to early relational health: Implications for clinical practice

Developed by Andrea Moir and Dr. Mel Lewis for PedsCases.com.
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Introduction:

Hello everyone! My name is Andrea Moir, and I am a third-year medical student at the University of British Columbia. This podcast is based on a CPS statement titled "From ACEs to early relational health: Implications for clinical practice" by Dr. Robin C. Williams, a pediatrician and public health specialist based in Ontario's Niagara region (1). The script was developed in conjunction with PedsCases, the Canadian Pediatric Society, and Dr. Mel Lewis, a professor in the Department of Peds and the Chief Wellbeing Officer in the Faculty of Medicine & Dentistry at the University of Alberta. For more information and to view the full statement, please visit www.cps.ca.

The goal of this podcast is to review the topics covered in the CPS position statement about ACEs, early relational health, and their implications for clinical practice. By applying this information to a clinical case, we will aim to cover the following objectives:

1. Describe Adverse Childhood Experiences and their impacts on health.
2. Explore early relational health as an avenue to protect against the negative effects of Adverse Childhood Experiences.
3. Explain how clinicians can work with families to promote early relational health and optimize parenting for healthy child development.

Let us begin by introducing a clinical case. Tracy, a 26-year-old female, comes into your clinic with her 2-year-old, Tyler, for a routine well-child check. You ask Tracy how things are going at home. Tracy confides that it's been difficult to bring Tyler in for his appointments due to her demanding schedule. The time she's taken off work and the cost of childcare have put financial strain on the family. Tracy reports that Tyler is a "fussy" child, who cries often and is difficult to console. Because Tracy's husband is estranged, she takes on the parenting role alone. Tracy shares that she's exhausted, and at times "shuts down" when Tyler won't stop crying. When she finally puts him down to sleep, Tracy often drinks several glasses of wine to relax. She says it's hard to bond with Tyler because it's so stressful taking care of him. In the appointment today, Tyler is restless, squirming in his mother's lap. She tries rocking him, shushing him, and telling him to stop, but to no avail. She then goes silent, and a blank look comes across her face.

Objective #1:

Before we continue, let's delve deeper into our learning objectives to see how we can address this case. Our first objective is to describe Adverse Childhood Experiences and their impacts on health. The term "Adverse Childhood Experiences", or ACEs, was popularized in the landmark study by Felitti et al. in 1998 (2). This paper was the first to suggest that ACEs, encapsulating child maltreatment and household dysfunction, may be related to the leading causes of death in adults. Child maltreatment can occur in the form of abuse or neglect. Types of abuse include physical, sexual, or psychological acts, whereas neglect describes the omission of appropriate physical or emotional care (3). Both result in actual or potential harm to a child's health, development, or dignity (3). Household dysfunction may include mental illness, substance abuse, or intimate partner violence in the home, parental divorce, or having an incarcerated household member (4). One important revelation of the landmark ACEs study is just how common they are. Of the 9,508 survey respondents, half of them had experienced

1 ACE, and a quarter had experienced 2 or more ACEs (2). Later studies by the Centre for Disease Control reported as many as 64% of Americans as having experienced at least 1 ACE (4). Having even 1 ACE was found to significantly increase the risk of physical diseases such as those affecting the heart, lungs, and liver, mental illnesses such as depression, substance abuse, and lifestyle issues such as smoking and physical inactivity (2). This risk increases further by the number and variety of ACEs (2). The mechanism by which many of these disease processes occurs is known as “toxic stress.” Stress, when short-lived and directly in response to a particular stimulus, is an adaptive function that prepares the body to fight or flight (5). Think about the classic evolutionary scenario of a cave man running away from a lion: when the cave man sees the lion, his body initiates several responses including dilating the pupils, increasing blood flow to the extremities, quickening the heart rate, and more. Toxic stress on the other hand, refers to long-term stress that causes dysregulation in neurologic, endocrine, immune, metabolic, and genetic body systems (6). For example, repeated exposure to abuse may result in methylation of the glucocorticoid receptor gene, an increase in the size or activity of the amygdala, and ensuing hypersensitivity to potentially threatening cues (7). This response may be considered adaptive at first since it encourages survival in an unsafe environment (7), but over time these biological changes can harm the body, increasing the risk of adverse health outcomes in adulthood (5).

Objective #2:

Now let’s explore early relational health as an avenue to protect against the negative effects of Adverse Childhood Experiences. Because ACEs are so common, they are regarded as a public health threat (8). To decrease their impact on the population, initiatives such as public education campaigns, screening patients for ACEs, and teaching patients about their effects, have been initiated (8). Some pediatric practitioners have extended this screening to parents because

of the impacts these experiences can have on their children (9,10). For instance, even if parents are not aware of their trauma (11), it can still affect their ability to respond to stress, take care of themselves, ask for help, discipline their children, resolve conflict appropriately, and even play with their children (15). They are also more likely to repeat the same unhealthy behaviours they were subjected to as children (15).

While ACEs education and screening can be helpful, these strategies tend to focus on problems rather than solutions. Teaching patients how to build resilience and support systems offers protective mechanisms by which they can buffer the negative effects of ACEs. In this vein, there was a motion to explore Positive Childhood Experiences, the opposite of ACEs, to see whether these can protect against their effects. Positive Childhood Experiences, or PCEs, nurture, support, and engage children in safe and stable relationships (12). Examples of PCEs include openly communicating as a family, living and playing in a stable, protective environment, having opportunities for constructive social engagement, and adult mentorship (13). A 2024 study found that every additional PCE lowers the odds of someone reporting a mental health condition (17). This effect is present when the number of ACEs is low, but when there are many ACEs, children are equally likely to report a mental health condition no matter how many PCEs they have (17).

A novel, closely related approach is to emphasize early relational health. Relational health is defined as “the capacity to develop and sustain SSNRs (Stable Safe Nurturing Relationships), which in turn prevent the extreme or prolonged activation of the body’s stress response systems” (20). Similarly to PCEs, this approach emphasizes forming safe, stable, nurturing relationships, optimizing parenting skills, community engagement, social opportunities, and creating a safe environment to live and play, so as to best promote child development (15). As ACEs lead to biological phenomena associated with toxic stress, early relational health promotes “biobehavioural synchrony,” a phenomenon encompassing

positive reciprocal experiences such as mutual gaze, touch, and vocalizations between caregivers and infants. These interactions help children self-regulate, manage stress, and feel empathy, as well as support other key aspects of development (14). Early relational health creates an environment that is conducive to PCEs and represents a compelling approach to buffer the negative effects of ACEs.

Objective #3:

Finally, let's examine how clinicians can work with families to promote early relational health and optimize parenting for healthy child development. As we outlined earlier, ACEs consist of child maltreatment and household dysfunction. Accordingly, parents, or caregivers, ultimately have the most power to shape the foundations of development for their children. To do so in a healthy manner involves key elements such as creating routines, fostering community connections, and displaying good parenting skills (15). Every patient encounter offers an opportunity for clinicians to work with the parents to promote early relational health for their children. To get a baseline of parenting effectiveness, care providers can start with a relational assessment, which involves talking about the parent's history and observing their child-caregiver interactions (16). In terms of supporting parenting skills development, Williams (15) proposes a 3-step approach adapted from an earlier CPS statement. The steps are as follows: 1. Discuss the specific parenting behaviours that support early relational health (for example, explaining that noticing and responding to baby's cues helps promote secure attachment), 2: Model the behaviours during the visit (for example, by demonstrating warm, back-and-forth interactions), and 3: Praise what you observe (for example, when a parent is able to calm their baby by holding them) (15). Furthermore, there are many important messages that clinicians can impress upon parents. These messages include reminding parents of their ability to buffer stress and build resilience in their children, understanding that challenging behaviours may be

coping strategies, emphasizing the importance of routine, early literacy, intentional connection, effective conflict resolution, empathizing that feeling frustrated is normal and offering healthy coping strategies such as exercise, CBT, and mindfulness (15). If areas for improvement are identified in the realm of early relational health, interventions are available.

A recent paper found that parenting interventions not only improve parenting knowledge, practices, and parent-child interactions, but can promote healthy attachment, cognitive, language, motor, socioemotional development, and decrease behavior problems in children (18). Interventions may include responsiveness training, feedback, and general parenting education, delivered online or in-person, in various group sizes (18). For children with suspected attachment and behaviour disorders, options include attachment and biobehavioural catch-up (ABC), parent-child interaction therapy (PCIT), child-parent psychotherapy (CPP), or attachment-focused parent psychoeducation groups (19). Community-based resources may also be available to help families access support and build social connections (20). While a strength-based approach is valuable to promote parental adherence and engagement, it's important to recognize and address unhealthy signs. Children exhibiting symptoms of toxic stress are more likely to have Adverse Childhood Experiences. These symptoms may include tantrums, fretting, fear, emotional dysregulation, attachment issues, yawning, yelling, delays in education or development, defeat, and dissociation (17). Even if explicit symptoms are not present, employing a trauma-informed care approach and promoting early relational health in practice is still appropriate due to the prevalence of ACEs (21).

Back to the Case:

Now that we've explored how clinicians can address ACEs and promote early relational health in their practice, let's go back to the case. Because you have been

following Tracy and Tyler since his birth, you have gotten to know them well and learned about their family social history. You've previously talked to Tracy about toxic stress and the associated adverse health outcomes as well as the importance of positive experiences and stable, safe and nurturing relationships. In every appointment, you use trauma-informed care practices such as patient-centered communication (20) to promote a sense of trust, safety, empowerment, and collaboration (21). You actively create opportunities to discuss parenting skills with Tracy, model these behaviours, and praise her observed successes to promote early relational health. In today's appointment you empathize with her frustration about her difficulties in consoling Tyler. You propose exercise, mindfulness, and relaxation techniques as healthy coping mechanisms for her to try, and suggest she see which one suits her best. You turn towards Tyler and address him warmly, acknowledging his continuous climbing, and offer him a toy to play with. This helps to keep him occupied and he is able to sit still for a few minutes. He tries to balance the toy on his head, and it falls, but Tyler is able to catch it on his tummy. Tracy notices this and smiles, "whoa, nice catch Tyler!" she says. She laughs, smiles, and Tyler mirrors her reaction. Seeing this, you immediately praise Tracy for the moment of reciprocal connection they shared. You reassure her that small moments like this all help to build a good relationship with Tyler. That being said, you acknowledge the concerns she expressed about having trouble connecting with Tyler. You introduce the idea of attachment and biobehavioural catch-up therapy - also known as ABC therapy. Tracy says she's interested as long as she can fit the sessions around her work schedule. You provide her with an informational pamphlet and agree to discuss it further at the next appointment.

Conclusion:

Now that we've applied our concepts to a clinical case, let's go over some take home messages:

- Adverse Childhood Experiences, or ACEs, represent categories of child maltreatment and household dysfunction.
- ACEs are common, and carry risk for a variety of physical diseases, mental illnesses, and lifestyle issues, which are leading causes of death. This risk increases according to the number and variety of ACEs.
- Since ACEs are a public health concern, it is important for care providers to screen them in adults and children, and to practice trauma-informed care.
- Early relational health should be emphasized to promote resilience and secure attachment through safe, stable, nurturing relationships. These elements support child development and, ultimately, adult health.
- There are many ways in which clinicians can support parents in optimizing early relational health. These include conducting a relational assessment, recognizing and educating parents on the effects of ACEs, using the discuss, model, praise approach for ongoing parenting support, recommending appropriate interventions, and connecting families with community-based supports.

This concludes our podcast on ACEs, early relational health, and the implications for clinical practice, brought to you by PedsCases and the Canadian Pediatric Society. Thank you for listening!

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Reference List:

1. The Governor General of Canada [Internet]. [cited 2024 Jun 4]. Dr. Robin C. Williams. Available from: https://www.gg.ca/en/honours/recipients/146-11514

2. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, 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. Am J Prev Med. 1998 May;14(4):245–58.

3. Gonzalez D, Bethencourt Mirabal A, McCall JD. Child Abuse and Neglect. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 [cited 2024 Jun 4]. Available from: http://www.ncbi.nlm.nih.gov/books/NBK459146/

4. About the CDC-Kaiser ACE Study |Violence Prevention Injury Center CDC [Internet]. 2024 [cited 2024 Jun 4]. Available from: https://www.cdc.gov/violenceprevention/aces/about.html

5. Harvard Health [Internet]. 2011 [cited 2024 Jun 4]. Understanding the stress response. Available from: https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response

6. Ortiz R, Gilgoff R, Burke Harris N. Adverse Childhood Experiences, Toxic Stress, and Trauma-Informed Neurology. JAMA Neurol. 2022 Jun 1;79(6):539–40.

7. Garner A, Yogman M, COMMITTEE ON PSYCHOSOCIAL ASPECTS OF CHILD AND FAMILY HEALTH, SECTION ON DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS, COUNCIL ON EARLY CHILDHOOD. Preventing Childhood Toxic Stress: Partnering with Families and Communities to Promote Relational Health. Pediatrics. 2021 Aug;148(2): e2021052582.

8. Smith Battle L, Rariden C, Cibulka N, Loman DG. Adverse Childhood Experiences as a Public Health Threat. Am J Nurs. 2022 Mar 1;122(3):11.

9. Gupta RC, Randell KA, Dowd MD. Addressing Parental Adverse Childhood Experiences in the Pediatric Setting. Adv Pediatr. 2021 Aug; 68:71–88.

10. Dowd MD. The Relevance of Parental Adverse Childhood Experiences in Pediatric Practice. Pediatr Ann. 2019 Dec 1;48(12): e463–5.

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11. Johnson SB, Riley AW, Granger DA, Riis J. The Science of Early Life Toxic Stress for Pediatric Practice and Advocacy. Pediatrics. 2013 Feb;131(2):319–27.

12. Sege RD, Browne CH. Responding to ACEs With HOPE: Health Outcomes from Positive Experiences. Academic Pediatrics. 2017 Sep 1;17(7): S79–85.

13. Crouch E, Radcliff E, Merrell MA, Bennett KJ. Rural-Urban Differences in Positive Childhood Experiences Across a National Sample. The Journal of Rural Health. 2021;37(3):495–503.

14. Feldman R. The adaptive human parental brain: implications for children's social development. Trends Neurosci. 2015 Jun;38(6):387–99.

15. Society CP. From ACEs to early relational health: Implications for clinical practice | Canadian Paediatric Society [Internet]. [cited 2024 Jun 4]. Available from: https://cps.ca/en/documents/position/from-aces-to-early-relational-health#ref4

16. Goldstein E, Athale N, Sciolla AF, Catz SL. Patient Preferences for Discussing Childhood Trauma in Primary Care. Perm J. 2017 Mar 15; 21:16–055.

17. Hinojosa MS, Hinojosa R. Positive and adverse childhood experiences and mental health outcomes of children. Child Abuse & Neglect. 2024 Mar 1; 149:106603.

18. Forkey H. Putting Your Trauma Lens On. Pediatr Ann. 2019 Jul 1;48(7): e269–73.

19. Jeong et al. Parenting interventions to promote early child development in the first three years of life: A global systematic review and meta-analysis - PMC. PLOS Medicine [Internet]. 2021 [cited 2024 Jun 4]; Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8109838/

20. Bair-Merritt MH, Zuckerman B. Exploring Parents' Adversities in Pediatric Primary Care. JAMA Pediatrics. 2016 Apr 1;170(4):313–4.

21. Strait J, Meagher S. Trauma-Informed Care in Pediatrics: A Developmental Perspective in Twelve Cases with Narratives. Perm J. 2019 Dec 6; 24:19.045.

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10 September 2024.

22. Oral R, Ramirez M, Coohey C, Nakada S, Walz A, Kuntz A, et al. Adverse childhood experiences and trauma informed care: the future of health care. Pediatr Res. 2016 Jan;79(1):227–33.