An Extension Educator Perspective on Adverse Childhood Experiences (ACEs)

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By Stephen Small & Mary Huser

University of Wisconsin-Madison and
University of Wisconsin-Extension

Recently, a growing number of Extension educators and other youth and family professionals have become involved in initiatives and trainings related to Adverse Childhood Experiences (ACEs), Trauma-Informed Care and the Protective Factors Framework. Many have asked about what role these approaches might play in our work. In this article we provide a brief overview of ACEs, examine the evidence base, and offer some suggestions about where ACEs might fit in our work. In a companion article we provide a discussion of Trauma-Informed Care and explore implications for Extension educators and other community professionals.

Overview of ACEs

Over the past few years, the ACEs findings have garnered a great deal of attention and become increasingly used as a way to demonstrate the negative impact of stressful and traumatic childhood experiences on psychological and physical health throughout the lifespan. The ACEs "framework" is based on a large research study conducted by the health maintenance organization Kaiser Permanente and the Centers for Disease Control and Prevention (CDC). More recently, other versions of the ACEs survey have been administered, some at the state level, including Wisconsin. The original study surveyed adults about whether as children they had experienced 10 of the most common types of adverse and traumatic childhood events. These included physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect, a mother who had been domestically abused, household substance abuse, household mental illness, parental separation or divorce, and whether there was a household member who had been incarcerated.

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The results from the original ACEs study were robust and eye-opening. The study found that having adverse childhood experiences was strongly associated with a range of psychological, social and health problems as an adult. As the number of adverse events increased for children, the higher the chances for behavioral problems such as smoking, alcohol and drug abuse, depression, mental health conditions and severe obesity. What was most surprising was that adverse childhood experiences were also found to be related to the leading causes of death in adulthood including stroke, heart disease, cancer, chronic lung disease and thus, a shorter lifespan.

Like other studies of risk factors in childhood and adolescence, the ACEs study also found that the effects were cumulative. The more risks or ACEs events a person reported, the greater the likelihood that they had a negative psychological or physical problem in adulthood. Sometimes these effects were exponential in that the severity of the relationship grew faster if a person had multiple adverse experiences. For example, compared to an ACEs score of zero (i.e., no adverse childhood experiences), having four adverse childhood experiences was associated with a seven-fold increase in alcoholism, a doubling of risk of being diagnosed with cancer, and a four-fold increase in emphysema; and an ACEs score above six was associated with a 30-fold increase in attempted suicide.

Analysis of ACEs

The ACEs findings provide a simple and understandable research-based analysis of how traumatic and stressful childhood experiences are related to later adult health and well-being. The ACEs findings are consistent with previous research on traumatic and other negative experiences in childhood but the fact that they also show that these early experiences are related to physical health and life expectancy adds a level of importance often not seen in studies that only show a link to psychological and social outcomes. The framework and the materials now available from a host of different organizations can provide a powerful way to share with professionals, policy makers, elected officials, community leaders and the public the importance of supporting families with young children and reducing the toxic events and environments these families may be experiencing.

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There are, however, several limitations of the ACEs research that can sometimes lead to misunderstandings. Recognizing them can prevent us from misinterpreting the findings or drawing conclusions that are not warranted.

- First, the ACEs findings are correlational and based on probabilities. This means that even if an individual has encountered multiple ACEs in their life, they will not necessarily experience the negative psychological and health outcomes identified in the study. However, it is accurate to say that the *probability* of these negative outcomes occurring increases with the number of ACEs experienced. This is an important issue to raise since those who have a less technical understanding of the science and statistics behind ACEs may misinterpret the findings and draw inappropriate conclusions that could lead to greater stress and psychological fallout for them or other family members.

- Second, even if a person has reported experiencing an ACEs event like domestic violence or having had a parent who was incarcerated, it does not mean they experienced the event as traumatic or that it will result in long-term trauma. Adverse events are not all the same nor are they experienced in the same way. The ACEs study did not take into account the severity, frequency or impact of various adverse events that were assessed. Thus, the imprecision with which ACEs are measured can create wide variability in how individuals experience particular events and the outcomes that might result.

- Third, people do not experience adverse events in the same way. Factors such as the age the event was experienced, how frequently it occurred, and the protective influences that were present can affect the impact on the individual. For instance, the presence of supportive, caring adults in the life of a child can significantly diminish the effects of an adverse event, making the event less stressful and reducing the chances of later problems. In some cases, what may at first glance appear to be a traumatic event, may actually be a beneficial experience. For example, imagine a family where an abusive adult is incarcerated. Though incarceration would be counted as an ACEs event, the absence of such an adult in the family

may actually serve as a positive experience for the family member who was victimized or for others who will now avoid such an experience.

- Fourth, because the ACEs findings are correlational, a direct causal connection between early childhood experiences and later health and well-being cannot conclusively be established. It may be that these experiences exert their effect through other mechanisms that have not yet been identified. For example, the relationship between having more adverse childhood experiences and a higher rate of cancer does not mean that child abuse or having an incarcerated parent causes cancer, but that these negative events might be related to other problematic conditions or experiences like being exposed to environmental toxins (e.g., lead or smoking) or poor healthcare access that can lead to a higher risk of cancer.

- Another methodological weakness of the ACEs research is that people in the study were reporting retrospectively (i.e., they were reporting on experiences from their distant past). Consequently, the study relies on people having accurate memories of the past, which can be unreliable. This may result in people either under or over reporting their incidence of ACEs.

- Finally, although the ACEs study does a good job identifying many (although certainly not all as it is not an exhaustive list) of the most common and harmful conditions of childhood that can undermine later physical and psychological health, the study tells us little about what to do about them. In order to take action, there is a pressing need to share existing scientific knowledge and conduct further research about how to prevent or reduce these adverse events from occurring, how to protect children from the short and long-term harm if they are exposed to them, and how to treat children and adults who are experiencing their detrimental effects.

It is important to note that the framework that comes out of the ACEs findings shares a great deal with past risk and protective factor and resiliency models that have long been common in other areas of health and prevention science (see for example, Harvard Center on the Developing Child, 2016; Small & Memmo, 2004). ACEs is primarily a descriptive study of the kinds of problematic experiences we *do not* want children to have. The findings tell us little about the types of *positive* developmental opportunities and protective experiences that children also need if they are to grow up to be psychologically and physically healthy and reach their developmental potential. While reducing the risks and toxic influences in children's lives is important in order for children to grow up to be competent, well-adjusted and healthy, they also need developmentally positive experiences. Simply being problem-free is not enough if children are to be fully prepared for life.

Implications of ACEs for Extension Educators

In keeping with UW-Extension's educational mission, our work is generally focused on individual and family well-being and the prevention of family, social, psychological and health problems. As such, we do not provide interventions for severe trauma-afflicted or clinical audiences. Given our tradition of community education, it would seem appropriate to provide education about the ACEs findings and how they might guide organizational and community responses. Some educators are providing educational programming on ACEs to area professionals to raise awareness about the study's findings. For other colleagues, ACEs research adds to the knowledge base that informs programming across many areas of Extension. Still other educators are using the ACEs language and findings to communicate with Extension Committees and other key stakeholders the value of their work directed at preventing negative experiences in childhood. Another appropriate role for Extension is to work with coalitions that have adopted the ACEs framework and are trying to reduce the incidence of trauma or treat trauma directly—assuming our role is not a clinical one involving the delivery of

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direct treatment interventions. With any of these roles, it is critical that educators understand the nuances of the ACEs research so the knowledge is used in a responsible, informed manner.

In sum, the ACEs research offers support for continuing our valuable Extension work, much of which has traditionally been directed at preventing many of the negative experiences in childhood that were identified in the ACEs research.

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This Research to Practice brief was prepared by the What Works, Wisconsin team at the University of Wisconsin-Madison, School of Human Ecology, and Cooperative Extension, University of Wisconsin-Extension. All of the briefs in the series can be downloaded from: http://fyi.uwex.edu/whatworkswisconsin/

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