



Evaluating a High School Curriculum on Preventing Pediatric Abusive Head Trauma & Promoting Safe Sleep Environments

Background: Pediatric abusive head trauma (PAHT), formerly known as shaken baby syndrome, refers to physical abuse that occurs when an infant or small child is violently shaken and/or the visible/invisible result of shaking a child/infant. Kentucky Revised Statute (KRS) 158.303 encourages Kentucky schools to include education concentrating on the prevention of PAHT, including content on safe sleeping environments to prevent sudden unexpected infant death.

Working to enhance state policies (e.g., KRS 158.303 and the Kentucky State Injury Prevention Plan) on the need to address PAHT and unsafe sleeping practices, an advisory board assembled in late 2017 to create the *Keeping Infants Safe* curriculum.

Curriculum: *Keeping Infants Safe* focuses on promoting protective factors against PAHT, child abuse, other forms of violence and injury, and unsafe sleeping practices by teaching nurturing and parental skills and nonviolent problem-solving skills and improving community prevention capacity and sharing of resources.

The curriculum is designed for high school students, as the classroom provides an ideal environment to emphasize that violence and injuries to infants are preventable. High school students are likely to be exposed to infants and toddlers through their lifespan, via babysitting, having friends and families with babies, and/or becoming pregnant or dating someone with a baby in the upcoming years. With a focus on developing healthy life skills to manage life challenges, specifically focusing on individual and family relationships, the curriculum's learning targets include:

- Examining pediatric abusive head trauma and its associated injuries,
- Understanding the TEN-4 rule for bruising,
- Citing risk factors for pediatric abusive head trauma,

- Understanding how to choose a safe caregiver for your baby,
- Providing ways to soothe a baby and relieve stress for the caregiver,
- Describing a safe sleep environment for babies, and
- Understanding why babies are at risk of brain damage from shaking.

Process: The curriculum was refined and initially pilot-tested at two high schools during the 2018–2019 school year, led in-person by a local health department employee. Seventy-four percent of students improved their overall PAHT/safe sleep knowledge after completing the curriculum. The average test score across all items improved by 12% from pre- to post-test among the two schools. The curriculum was then tested among students at a 2019 technical education conference, HOSA—Future Health Professionals (n=106), led by local health department employee and Ky Violence and Injury Prevention Program (KVIPP). Overall PAHT/safe sleep knowledge improved in 88% of students after completing the curriculum. The curriculum was introduced to technical education teachers via a focus group session at a teacher conference in 2019, where feedback on improving the curriculum was gathered.

After the successful pilot-testing, the *Keeping Infants Safe* curriculum was launched to high school teachers for use in the classroom during the 2019–2020 school year. Institutional Review Board approval was sought. Teachers submitted letters of support and received training on the curriculum and its application in the classroom, including administration of pre- and post-tests. Fifteen high school teachers participated in implementing the curriculum in their classroom. Average test scores across all items improved 18% from pre- to post-test (n=239). Other findings revealed a 16% increase in awareness of risk factors for pediatric abusive head trauma, a 53% increase in the knowledge of child abuse prevention (e.g., recognizing child abuse, understanding state reporting practices, and recognizing normal bruising patterns), a 28% increase of understanding how to promote safe sleep practices for infants (e.g., identifying and mitigating risk factors for unsafe sleep), and a 12% increase in knowing how to select a safe caregiver. The COVID-19 pandemic occurred—pausing curriculum progress. The curriculum was revisited by key partners post-pandemic, and the launch plan developed given the promising results. The curriculum materials were refined and reviewed by advisory board members in preparation for a 2024 promotional campaign with partners to share with schools and others working with students.

The curriculum format consists of a PowerPoint with speaker notes, an evidence-informed resource list, supporting literature, pre- and post-test evaluations, and applicable Kentucky Academic Standards.

Summary: The results from the high school curriculum are promising, showing that knowledge acquisition increased among students. High schools are ideal environments to emphasize that violence and injuries to infants are preventable, as students are likely to be exposed to infants and toddlers throughout their lives.

The *Keeping Infants Safe* high school curriculum and materials are now freely available for educators to download and use. It is also approved and supported as part of the Kentucky Title V Maternal Child Health Block Grant Program Pediatric Abusive Head Trauma Packet for Kentucky local health departments.

To access the *Guide for Using Keeping Infants Safe Curriculum*, visit

<https://pcaky.org/training-educational-videos-and-webinars/> and scroll to the bottom of the page, and click “Download”. For quick access, use the QR code.



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