



Athabasca
University

**MITIGATING THE STRESS RESPONSE IN
CHILDREN AFFECTED BY PAE
FROM A BIO-PSYCHO-SOCIAL FRAMEWORK**

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Presenter Disclosure

- Ms Bethany Zealant
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- Both declare no relationship with commercial interests
- Both acknowledge the nature of bias in scholarship

TAMING THE TORNADO



The impacts of stress are heightened by the presence of PAE, including low socioeconomic status populations being at a higher risk for the prevalence of PAE, 17% of children in care have a PAE diagnosis, a sensitivity to maltreatment and caregiver separation.

9/1000 Two black footprints.

9/1000 live births in North America are affected by prenatal alcohol exposure (PAE), the leading preventable cause of birth defects.

\$5.3B A black dollar sign inside a square frame.

PAE costs Canadians \$5.3 billion annually, an estimated \$14 342 per individual for support, even more, if the child enters the welfare system.

PROTECTIVE FACTORS



RISK FACTORS

Early diagnosis, before age 6
Attunement with the caregiver
Raised by the biological family
Positive parenting techniques, including believing the child is capable of success
Stable and supportive home
Less caregiver stress

Early life stress (ELS) and PAE are associated with low birth weight, learning deficiencies, hyperactivity
Risk factors include maternal nutrition, socioeconomic status, ethnic origin, drug use, caregiver stress
Punishment based parenting



EFFECTS OF PAE

PAE has been found to create deficits in learning, memory, executive function, decision making, planning, intelligence, language and behaviour. These challenges also increase caregiver stress, which has been found to lead to poorer cognitive functioning in children. Punishment in parenting was shown to be associated with more behaviour problems.

INTERVENTIONS



Exercise is a protective factor against impacts of stress



Nutrition & supplements can relieve PAE deficiencies



Medication allows for regulatory functioning by lowering stress



Sleep mitigates the stress response and maximizes potential



Community support can reduce caregiver stress and increase parenting skills



Parenting skills should predict and prevent misbehaviour