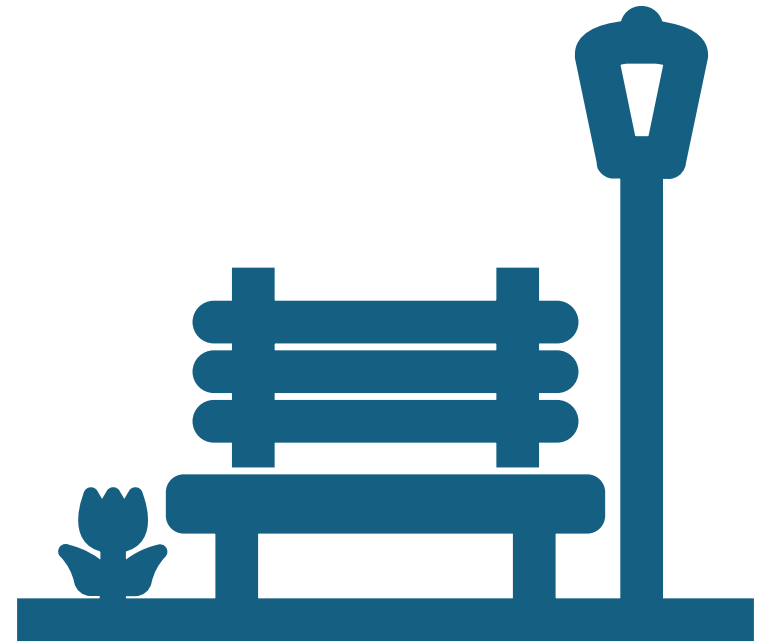
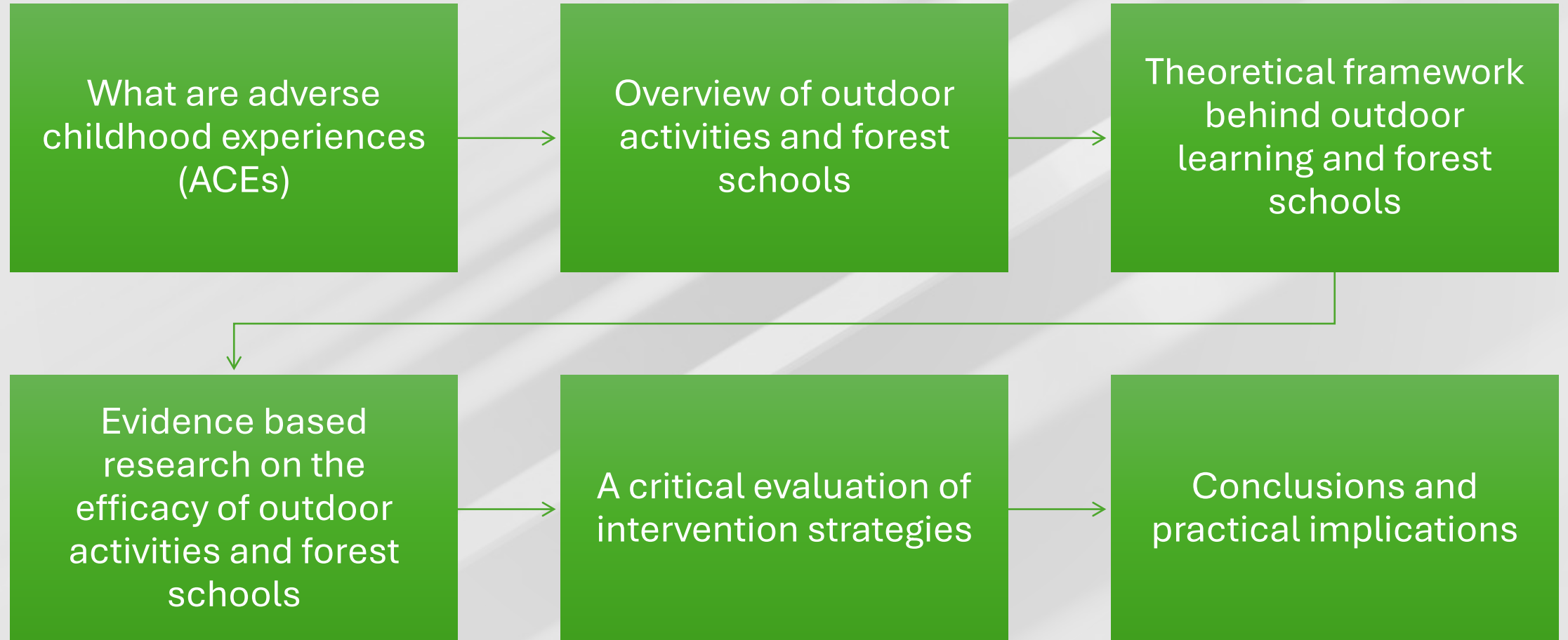


Outdoor Activities and Forest Schools

By Afsana Begum



Overview



What are Adverse Childhood Experiences (ACEs)

ACEs include trauma such as abuse, neglect, and household dysfunction (Boullier et al., 2018)

Linked to long term impacts on mental, emotional, and physical wellbeing (Hughes et al., 2016)

Increased risk of mental health disorders, substance abuse, and struggles with education (Gu et al., 2022)

Early intervention is paramount to reduce impact (Felitti et al., 1998)

Outdoor Activities & Forest School

What are outdoor activities?

Physical and recreational activities in a natural environment

Includes activities such as hiking, climbing, nature walks, camping, and more

Focused on physical health, mental well being, and connecting with nature

Encourages teamwork, resilience, and confidence

What are forest schools?

Outdoor educational program that takes place in a natural environment

Encourages play based learning through exploration and hands on experiences

Builds problem solving skills, creativity, and emotional intelligence



Theoretical framework behind outdoor learning and forest schools

Biophilic hypothesis

- Humans have an innate connections to nature (Gaekwad et al., 2022)
- Exposure to nature promotes emotional well being and cognitive development (Gaekwad et al., 2022)
- For children with ACEs nature can help restore balance and promote healing (Touloumakos & Barrable, 2020)

Theoretical framework behind outdoor learning and forest schools

Experiential learning theory

- Learning through hands on activities and real-life experiences (Kong, 2021)
- cycle of learning involves four stages: concrete experience → reflective observation → abstract conceptualization → active experimentation (Murrell & Claxton, 1987)
- Encourages emotional growth and strengthens coping skills (Kisfalvi & Oliver, 2015)
- Provides opportunities for children to rebuild trust (Kisfalvi & Oliver, 2015)
- Restore their sense of control (Kisfalvi & Oliver, 2015)

Theoretical framework behind outdoor learning and forest schools

Self determination theory (SDT)

- Focuses on innate psychological needs for autonomy, competence, and relatedness to foster motivation and well being (Niemic & Ryan, 2009)
- ACEs often reduce a child's sense of autonomy, competence, and relatedness, leading to emotional and behavioral challenges (Rashid et al., 2025)
- SDT helps in our understanding of the importance of providing opportunities for choice, success, and positive relationships (Gagne et al., 2022)

Theoretical framework behind outdoor learning and forest schools

Resilience theory

- Emphasis on the ability to overcome adversity by developing adaptive coping mechanisms (Zimmerman, 2013)
- Outdoor activities promote autonomy, problem solving, and risk taking (Gray, 2019)
- Forest schools encourage resilience through testing boundaries, challenging activities, and learning from failure (Manner et al., 2021)

Evidence based research on the efficacy of outdoor activities and forest schools

Emotional and psychological benefits:

- Manner (2021) found that forest schools helped with mental wellbeing, resilience, community, social interactions, and learning.
- Taylor and Kuo (2009) found that children with ADHD showed better concentration when they spent time in a natural setting.



Evidence based research on the efficacy of outdoor activities and forest schools

Social and cognitive development:

- Sella et al. (2023) found through a systematic review that forest schools produce higher benefits for cognitive functioning.
- Beames et al., (as cited in French, 2024) found that forest schools demonstrated improved problem-solving skills, increased creativity, and a strong sense of self efficacy.



Evidence based research on the efficacy of outdoor activities and forest schools

Physical health benefits:

- Physical activities in a natural setting can increase vitamin D levels and promote overall wellbeing (Fernandes & Barreto, 2017; Touloumakos & Barrable, 2020).



A critical evaluation of intervention strategies

Individual differences:

- ACEs impact children differently, requiring tailored interventions (Lorenc et al., 2020)
- Some children may thrive, while others could feel overwhelmed or triggered by outdoor settings (Harris, 2024).

Long term impact:

- Short-term benefits are well documented but more long-term research is needed (Turtle et al., 2015)
- How sustainable are these benefits? (Turtle et al., 2015)

Incorporation with traditional treatment and education:

- Outdoor activities and forest schools complement, not replace traditional treatment (Compton et al., 2010; Korotana et al., 2016).
- How can outdoor experiences be integrated into mainstream style or schooling for a more holistic approach to education (Roe & Aspinall, 2011).



Conclusions

- Outdoor activities and forest schools show strong potential in promoting emotional healing, social development, and resilience for children with ACEs
- Evidence supports its effectiveness, but there are limitations
- Need more research especially longitudinal studies
- Combining nature and trauma informed practices can better help children develop resilience to thrive in life.

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Notes

Introduction: presentation focusing on how these interventions can benefit children and young people who have experienced ACEs

ACEs might include abuse, neglect, or growing up in a household with mental illness or substance misuse.

Long-term impacts: physical, mental, and emotional well being

Higher risks of mental health disorders, substance abuse, and struggles with education.

Outdoor activities - hiking, camping, rock climbing, and nature walks

Link to ACEs – outdoor activities provide a safe therapeutic environment offering opportunities for emotional healing and skill building

Forest schools: child centered, nature-based programs that take place outside. It has an emphasis on experiential learning through play, exploration, and risk taking.

It operates on the belief that nature fosters creativity, resilience, problem solving skills, and social interactions.

Theories and models

1. Biophilia hypothesis:

exposure to nature fosters emotional wellbeing

Connecting with nature can restore their sense of balance and wellbeing

2. Experiential learning:

Hands on activities aren't just learning facts but learning through experiences

Helps them process their emotions, build resilience, and develop coping strategies in a safe and supportive environment.

3. Self determination theory:

SDT highlights three core psychological needs: autonomy, competence, and relatedness.

Restoring their sense of control, boost self confidence, and help them rebuild meaningful connections are essential for emotional growth and resilience.

4. Resilience theory:

Overcome adversity through the development of adaptive coping mechanism.

Promoting autonomy, problem solving, and risk taking in outdoor activities children gain the skills needed to manage and navigate future challenges.

Children with ACEs are a highly diverse group of people, and their responses to outdoor interventions may vary significantly.

Need more longitudinal studies.

Outdoor activities and forest schools should not be seen as a replacement for traditional educational strategies or treatments, but rather as a complementary practice.