

# CHRD 2024: Abstract Submission Form

**Presenter Name**

Seerat Waraich

**Presenter Status**

Undergraduate Students

**Role in the project**

Analyze Data

Write Abstract

**Research Category**

Community Health / Policy

**Title**

Early Life Adversity and Obesity Risk in Adolescence: A 9-year Population-based Prospective Cohort Study

**Background**

Our group and others have demonstrated that exposure to adverse childhood experiences (ACEs) is associated with a 30 to 50% increased risk of obesity in adolescence. We tested the hypothesis that ACEs reduces the likelihood of remission from obesity and that this is mediated by an increased burden of psychosocial factors.

**Objective**

The primary objective of this study is to determine whether exposure to ACEs reduces the likelihood of achieving remission from obesity by age 18.

**Methods**

Among 8568 nine-year-old children randomly sampled in 2007/2008 for the Growing up in Ireland cohort, 2210 were overweight or obese at 9 years and provided complete follow-up data at age 13 and 18 years. Structural equation and natural effects mediation models tested for a direct causal relationship between ACEs before 9 yrs and remission risk at 18 years, and indirect effects mediated via daily activity, diet quality, self-image and behavioural difficulties and BMI at 9 years.

**Results**

Among the 2210 adolescents, 13% experienced an ACE, 41% were female and 46% experienced remission at 18 years. Among those exposed to an ACE, BMI Z was higher at ages 9 (0.47 vs 0.36,  $p < 0.05$ ) and 13 years (0.39 vs 0.29,  $p < 0.05$ ), household income was ~3000 € lower and measures of parental depression and behavioural difficulties were higher. By 18, those exposed to an ACE were also 2-3 fold more likely to have started smoking before 12 years old, smoke more than 10 cigarettes a week and regularly vape. These factors modestly mediated the association between ACE exposure and remission at 18 years. Exposure to ACE reduced the odds of BMI remission by 26% (OR: 0.73, 95% CI:0.54-0.99;  $p = 0.043$ ), adjusting for household income.

**Conclusion**

Exposure to ACEs significantly reduces the likelihood of remission from obesity between childhood and adolescence. These findings highlight the enduring impact of early life adversity on obesity outcomes and suggest that psychosocial and behavioural factors play a role in this association.

**Do you have a table/figure to upload?**

No

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