

# Parental death in childhood and self-inflicted injuries in young adults: A national Swedish cohort study

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## CONCLUSIONS

Parental death during childhood is associated with self-inflicted injuries/poisoning in young adulthood, particularly if the death is due to external causes/substance abuse. Men are more vulnerable to maternal loss before school age compared with women.

## INTRODUCTION

About 3.5 percent of Swedish children will experience the death of a parent prior to their eighteenth birthday while the corresponding number in the United States is 4 percent. Some parental deaths are violent like suicide and accidental deaths and may therefore contribute to complicated grief or post-traumatic stress.

Several studies have found that parental suicide is associated with an increased risk of suicide and suicide attempts in bereaved offspring. Previous studies that have examined whether parental death in childhood contributes to an increased risk of psychiatric health problems and/or suicide in young adulthood are inconclusive because of divergent patterns, small study populations and lack of major confounders.

In this study we wanted to exploit the possibilities of a large national cohort of young adults in Swedish registers to study the influence of parental loss during childhood on the risk of self-inflicted poisoning/injuries in young adulthood, using this outcome as a robust indicator for suicidality. We were particularly interested in investigating consequences by losses at different developmental phases in childhood, and to compare effects in men and women. We assumed that deaths due to external causes and substance abuse more often are associated with familial risk factors for suicidality and thus analyzed these deaths separate from deaths by “natural causes”.

## METHODS

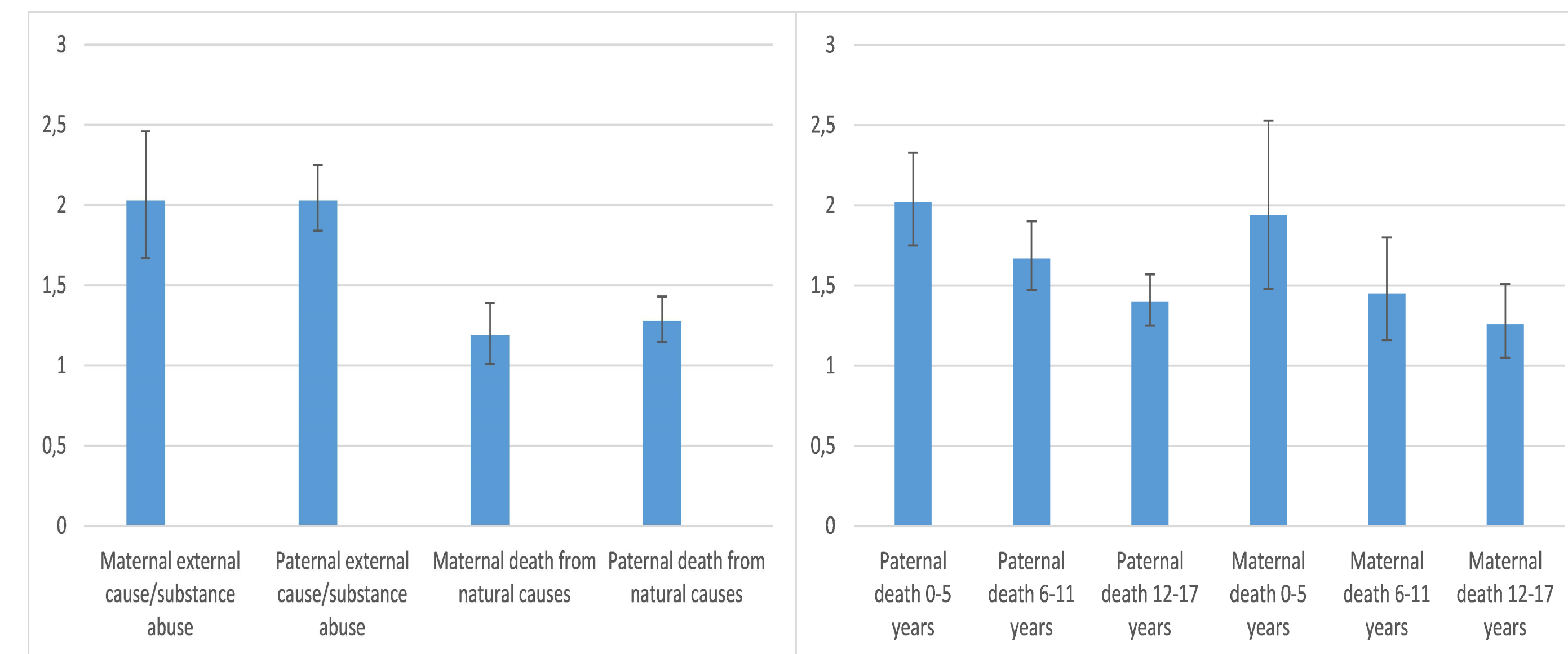
The study population consisted of all individuals born in Sweden in 1973-1982 with two birth parents in the Swedish Multi-Generation Register, who had not been adopted, had no record of emigration, and were alive and resident in Sweden during the year of their 18th birthday (n=871,402).

Information on time and cause of death was collected from the Cause of Death Register. The outcome variable was obtained through individual records linkage to the National Hospital Discharge Register from 1991 to 2013. Data was analyzed with Cox regression models of time to event with hospital admission at least once because of self-inflicted injury.

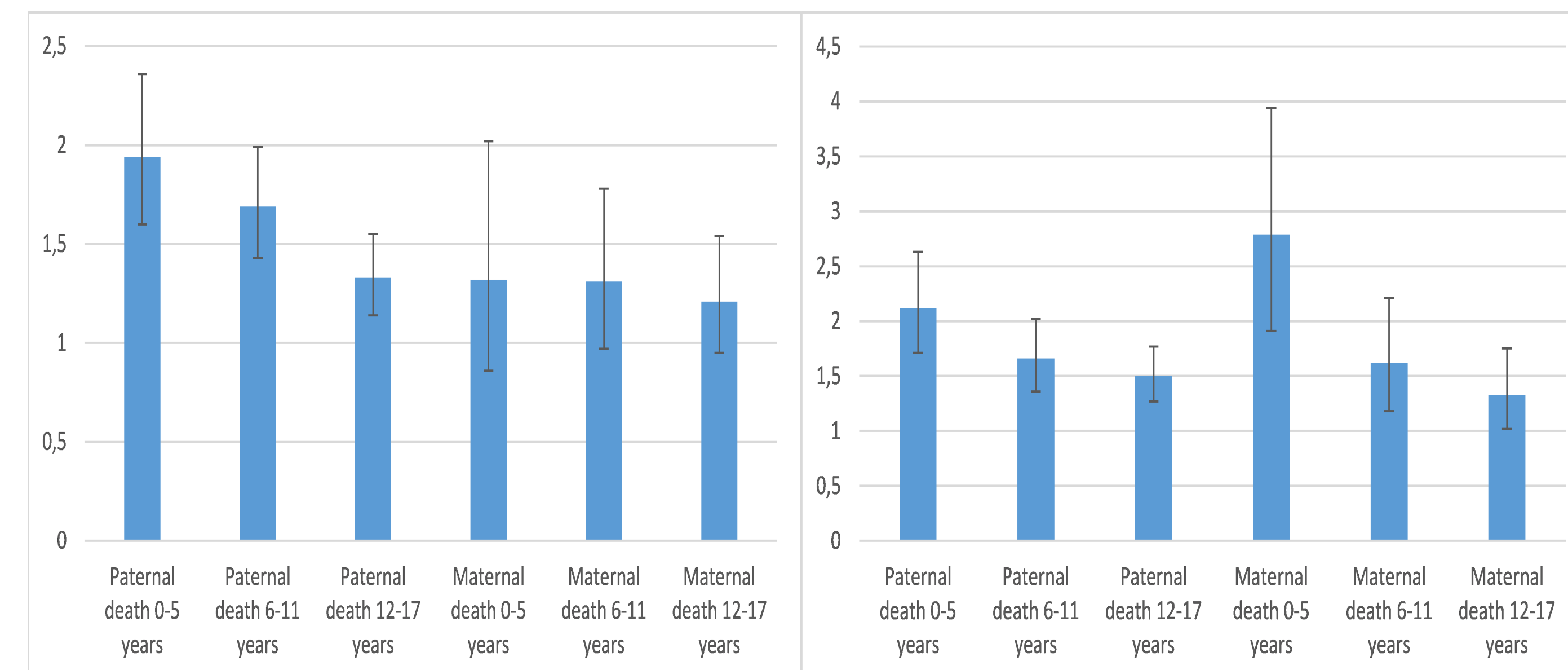
## RESULTS

Persons who had lost a mother or father to an external cause had the highest risk for being admitted to hospital for a self-inflicted injury. Risks were also increased for parental death because of natural causes, but on a lower level. Losing a father before school age was associated with a higher risk for hospital admission due to self-inflicted injury than loss at an older age for both genders. Maternal loss before school age was associated with a higher risk only for men, particularly for maternal death by natural causes.

Cox regression of at least one hospital admission because of self-inflicted poisoning/self-inflicted injury at 18-35 years of age in relation to cause of parental death during childhood (0-18 years)\*



Cox regression of at least one hospital admission because of self-inflicted poisoning/self-inflicted injury at 18-35 years of age in relation to age at parental loss during childhood, Women\*



\*Adjusted for year of birth, gender, region of residence, education of the surviving parent, country of birth of parents, substance abuse in surviving parent, psychiatric disorder in surviving parent and social welfare benefits in surviving parent

Mikael Rostila is a Professor of Public Health Science. His research is focused on health disparities by immigrant group and the contribution of social factors. He also conducts research in the fields of social capital and health and health consequences following bereavement.

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