

## **Adolescent academic outcomes after birth of half-sibling - A case-control study**

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### **Aim**

In this study I aim to shed more light on the effect of gaining a half-sibling on school performance of children living in stepfamilies in Sweden. I will examine the impact of the birth of a half-sibling into an adolescent's main residential family on his or her ninth grade grade point average and whether the effect differs depending on the sex of the adolescent and on whether the parent and stepparent are married or cohabiting.

### **Previous research**

Much research has shown that family structure is related to academic outcomes of children and adolescent. Children growing up in biological two-parent families have better grades in school than those who grow up with a single parent, whereas children in stepfamilies experience similar or worse outcomes as do those living in single-parent homes (Cherlin 1992; Cherlin and Furstenberg 1994; McLanahan and Sandefur 1994). Tillman (2008) has shown that American adolescents in stepfamilies have significantly lower grade point averages than do those living with two biological parents and that living with step- or half-siblings is related to school related behavioural problems and Goldscheider and Goldscheider (1998) has shown that living with step- or half-siblings is also associated with early home leaving.

Explanations for negative child outcomes of stepfamily life point to the stress related to multiple family structure changes and role transitions that create a sense of insecurity for the child. Moreover, the lack of societal norms describing the roles of members of stepfamilies can lead to strained family relationships (Cherlin 1978). Stepfamilies with step- and/or half-siblings show more complex

family dynamics than do traditional biological two-parent and one-child stepfamilies. How the presence of a half-sibling affects the parent-child relationship is, however, not exactly clear. Some studies have shown that the presence of a half-sibling has a negative impact on the stepmother-stepchild relationship (Ambert, 1986; Santrock & Sitterle, 1987) but a positive-influence on the stepfather-stepchild relationship (Ambert 1986; Hobart, 1988). It was also shown that residential fathers who are also stepfathers have more father-like identities towards their stepchildren than do men who do not have biological children (Marsiglio, 1992). Other studies found no negative effect of the birth of a half-sibling on stepmother-stepchild relation (Ahrns & Wallish, 1987; Ganong & Coleman, 1988; Hobart, 1988) and or little effect on stepfamily relations (Ahrns & Wallish, 1987; Booth, Brinkerhoff & White, 1984; Ganong and Coleman, 1988).

The literature on adolescent outcomes after the birth of a half-sibling is almost exclusively based on American research. To gain a deeper understanding, it is important to study the question also in other social context. In my study I will focus on Sweden given its generous welfare state provisions that reduce the economic disadvantages experienced in non-traditional families as compared to two-parent families, unlike in the US. Moreover, there is no emphasis on traditional family life and the nuclear family in Sweden, unlike the US. In fact, Swedish society shows very liberal attitudes to non-traditional family living, as seen in the prevalence of non-marital cohabitation across all social strata and among all types of families with children. Therefore, my study can provide some further important insights regarding the effect of gaining a half-sibling on adolescent academic outcomes.

### **Research questions**

Using Swedish register data this paper will address the following questions:

- (1) Is the birth of a half-sibling related to an increased risk of poor academic outcomes in Sweden?
- (2) Does the effect vary by gender and parent-stepparent union status?

## **Data and method**

This paper will be based on longitudinal Swedish register data from the STAR database. STAR consists of several administrative population registers including a student register with ninth grade school grade point average for the years 1988-2003 covering the whole Swedish student population, their parents and stepparents. The paper uses a quasi-experimental research design. Each case will be matched to multiple controls that share the same risk for a low grade point average but do not experience the birth of a half-sibling (the “treatment”). Given this quasi-experimental study design I will be able to estimate the effect of the birth of a half-sibling on the adolescent’s academic outcome.

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