

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

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Aim

This paper will study the effect of gaining a half-sibling on school performance for children living in stepfamilies in Sweden. The aim will be to analyze whether the birth of a half-sibling into an adolescent's main residential family has a negative effect on his or hers ninth grade grade point average and whether this 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. Whereas there are evidence for better outcomes for children growing up in biological two-parent families as compared to growing up with a single parent, a number of mainly American studies have shown that children living 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). Living with step- or half-siblings is also associated with early home leaving (Goldscheider and Goldscheider 1998). Tillman (2008) has shown that American adolescents living 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.

Many explanations for negative child outcomes of stepfamily life focus on stress created by multiple family structure changes and role transitions for the child leading to a sense of insecurity. Cherlin (1978) has discussed the lack of societal norms describing the roles of members of stepfamilies that can lead to strained family relationships. Stepfamilies with step- or/and 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 negatively affects the stepmother-stepchild relationship (Ambert, 1986; Santrock & Sitterle, 1987) and positively affects the stepfather-stepchild relationship (Ambert 1986; Hobart, 1988). Some investigations have also shown that residential fathers who are also stepfathers have more father-like identities towards their stepchildren than do men who have do not have biological children (Marsiglio, 1992). Other results show that there is no negative effect on stepmother-stepchild relation after the birth of a half-sibling (Ahrons & Wallish, 1987; Ganong & Coleman, 1988; Hobart, 1988) and yet others show that the birth has little effect on stepfamily relations (Ahrons & 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. There are reasons to assume that a country like Sweden with a different welfare state model reducing some of the economic disadvantages of belonging to a non-traditional family types as well as more liberal attitudes towards cohabitation et cetera would show somewhat different results when it comes to adolescent academic outcomes after gaining half-sibling.

Research questions

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

- (1) Does the birth of a half-sibling place an adolescent in risk of poor academic outcomes in Sweden?
- (2) Does this 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 and encompasses the whole Swedish student population, their parents and stepparents.

The method used will be propensity score matching with multiple controls per case. The birth of a half-sibling will be used as the “treatment” and each case will be matched to multiple controls that share the same propensity score for a low grade point average but do not experience the birth of a half-sibling. This quasi-experimental study design will allow for estimation of the treatment effect.

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