



The Influence of Paternal Relationships on Birth Control Use in Adolescents

Annabel Cincotta, Applied Data Analysis, Wesleyan University

Introduction

- Teen pregnancy rates in the U.S. are declining in recent years however, the US continues to have a higher rate of teen pregnancy than most first world nations (CDC 2021).
- Daughters who do not discuss contraception with their mothers have a lower average age of first sexual activity (Palatnik, A., & Seidman, D. S. 2012).
- After relationship status, parental influence is the next most important factor for teenage women when deciding to engage in sexual behavior (Preethy D'Souza, et. al. 2022)
- Most existing research pertains to maternal relationships with female adolescents regarding birth control use, however there is **little information regarding paternal relationships as well as a study of male and female adolescents.**

Research Questions

- Does having a present biological father influence an adolescent's likelihood of using birth control in their first sexual experience?
- Does the association between type (i.e. biological, not) of father and birth control use differ for individuals based on whether they have a biological mother or not?

Methods

Sample

- The sample was taken from the AddHealth data set of over 20,000 adolescents in grades 7-12 from the 1994-95 school year. The set of observations used in this study includes those respondents who were sexually active.

Measures

- **Birth control use** is coded as 1 if sexually active participants or their partner used any method of contraception the first time they had sexual intercourse.
- Type of **father** is identified through the family roster response in which participants list their relationship to each family member. This binary measure differentiates between participants with a biological father and participants with other types of fathers (step, adoptive, foster), with biological coded as 1.
- **Mother** is coded similarly to the **father** procedure mentioned above.

Results

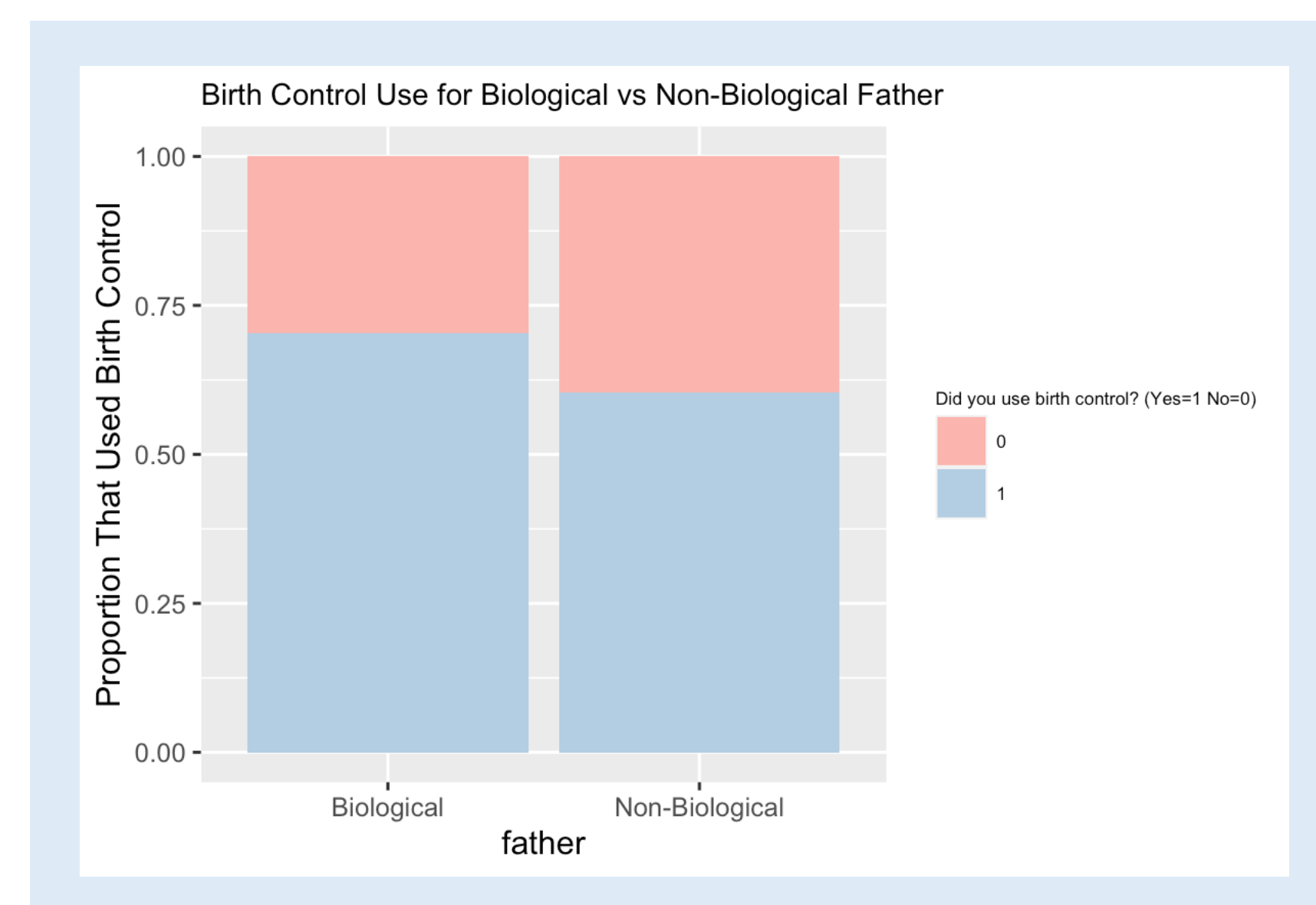
Univariate

- 66.3% of respondents used birth control the first time they had intercourse
- 81.1% of respondents have a biological father listed on their family roster
- 94.9% of respondents have a biological mother listed on their family roster

Bivariate

- A Chi Square test showed that participants who had a **biological father** were significantly *more likely* to **use birth control** (70%) than participants who have a non-biological father (60%) ($p < 0.01$).
- Simple logistic regression shows that those with a **non-biological father** are 0.64 times *less likely* to **use birth control** than those with a biological father ($p < 0.01$) (see Figure 1)

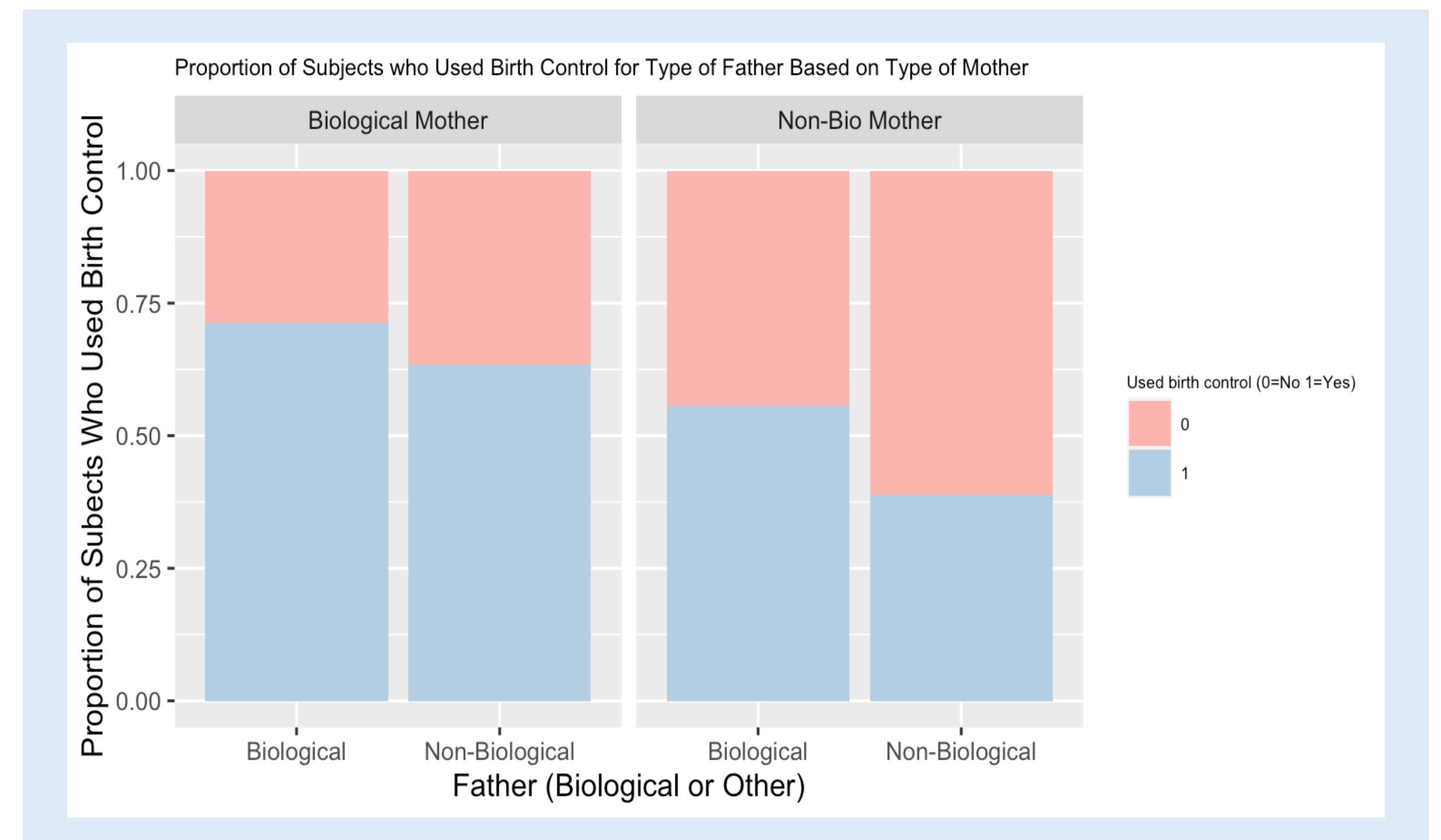
Figure 1. Proportion of participants who used birth control for those who have a biological father and those who have another type of father (step, adoptive, foster)



Multivariate

- The association between type of **father** and **birth control** use is still *significant* after controlling for if participants have a **biological mother** or another type of mother (step, adoptive, or foster), see Figure 2.
- The association between having a **biological mother** and **using birth control** is statistically significant.
- The association between type of **mother** and **using birth control** shows that the odds of using birth control are 0.55 times less likely if the individual has a non-biological mother, Figure 2.
- However, type of **mother** is *not a significant* moderator of the association between type of father and birth control use because the interaction term is insignificant ($p > 0.05$)

Figure 2: Proportion of participants who used birth control based on father type and separated by mother type.



Discussion

- Having a present biological father does influence adolescent use of birth control at first time of sexual activity. Additionally having a biological mother influences use of birth control. In fact, the highest proportion of adolescents who used birth control are those with both a biological father and mother
- The data used in this research was collected from the 1994-1995 school year so it is possible that more recent rates of birth control use have changed, however it is still possible that the associations discussed are prevalent now.
- Parents and pediatricians may use this information to promote conversations and education between parents and children around sexual education and safe sex in order to decrease rates of teen pregnancy and possibly STD rates in adolescents.
- Further research is needed to assess how the strength of communication and relationships with parents influence an adolescents decision to engage in sexual behavior.
- During research it was found that individuals who are not religious are more likely to use birth control. Although this is surprising, it is possible that the consequence of becoming pregnant while not married outweigh the consequences of using birth control. This relationship would need to be explore in more depth in further research.
- Another possible moderator of the relationship between father type and birth control use is sex which could be due to females not feeling comfortable asking male partners to use contraception.