Trajectories of Unintended Fertility

Karen B. Guzzo, Kathleen M. Harris, Sarah R. Hayford, S. Philip Morgan and Sowmya Rajan

Introduction

With half of all pregnancies and close to two-fifths of live births in the United States estimated to be unintended (either mistimed or unwanted), unintended fertility is a salient and compelling public health issue (Finer and Henshaw 2006). Unintended childbearing is a serious concern because it is associated with poor health outcomes for both mother and child (Kissin et al. 2008). About 50% of unintended pregnancies end in induced abortion, and those that are completed to term are associated with increased risk of complications during pregnancy, birth, and the postpartum period compared to intended pregnancies (Kissin et al 2008). Because of the long arm of the negative consequences of unintended pregnancies and births, reducing its incidence has been identified as an important public health goal (Wildsmith et al. 2010; Guzzo and Hayford forthcoming).

Previous research at the individual-level on unintended fertility has focused on analyzing the impact of unintended births on the subsequent health and well-being of mother and child. Such an approach however, fails to consider the fertility experience of women who have multiple unintended births (Wildsmith et al. 2010; Guzzo and Hayford forthcoming). Recent research has suggested that unintended fertility may be concentrated among the same set of women (Wildsmith et al, 2010; Guzzo and Hayford forthcoming). That is, it is more likely for a woman with one unintended birth to go on to have one or more subsequent births that are also unintended.

Underlying the hypothesis that having one unintended birth is likely to lead to subsequent unintended births is the idea that early family-formation events may drive those occurring later

(Morgan and Rindfuss 1999). This idea is rooted in the life course perspective employed to study fertility and family formation behaviors (Morgan and Rindfuss 1999). Guzzo and Hayford (forthcoming) find that women who have an unintended first birth face an increased risk of a subsequent unintended birth, net of key demographic and socioeconomic characteristics such as age, race, own and mother's education and family structure. In fact, any unintended birth (not just an unintended first birth) increases the risk of a subsequent unintended birth (Guzzo and Hayford forthcoming). A trajectory of unintended fertility is at least partly a consequence of the impact of an unintended birth as a "non-reversible event" on a series of related transitions, such as education and career (Morgan and Rindfuss 1999; Guzzo and Hayford forthcoming).

In the context of unintended childbearing, the factors associated with having a first unintended birth may be similar to those for having subsequent unintended births, and may be linked to sociodemographic characteristics, religious beliefs, psychological traits or genetic personality. As elaborated below, we hypothesize that trajectories of unintended fertility are concentrated among women with less-conservative religious beliefs, high fecundity and certain psychological traits, such as risk-taking, self-efficacy and depressed affect.

Key sociodemographic characteristics such as age, race, education and marital status are known to be associated with a higher risk of unintended fertility . For instance, very young women have higher unintended birth rates compared to older women (Chandra et al. 2005; Finer and Henshaw 2006; Guzzo and Hayford forthcoming). On average, births to African American and Hispanic women are more likely to be unintended than those to non-Hispanic white women (*ibid.*). Women with a high school degree are much less likely to report unintended births compared to those without (Chandra et al. 2005; Finer and Henshaw 2006). Finally, married and

cohabiting women have lower unintended birth rates than unmarried women (Chandra et al. 2005; Hayford and Guzzo 2010).

Evidence indicates that women for whom religion is "very important" in their everyday life have both higher fertility and higher intended fertility compared to those for whom religion is only "somewhat important" or "not important" (Hayford and Morgan 2008). Because religious values necessarily inculcate appropriate family behavior, a high degree of religiosity is closely linked to strong and conservative family values (Hayford and Morgan 2008). The overlapping of religious and family beliefs suggests a pro-natal orientation that may be manifested in fertility differentials between religious and non-religious women (Hayford and Morgan 2008).

Psychological characteristics such as mastery, self-efficacy and risk-taking are also closely associated with unintended fertility (see Guzzo and Hayford forthcoming). Women who believe that they have more control over their lives have a high sense of self-efficacy and mastery, attributes that are strongly associated with contraceptive use by adolescents (Grembowski et al. 1993; Longmore et al. 2003). Personality dispositions such as sensation-seeking and self-regulation are also strongly related to behaviors such as engaging in unprotected sex (Raffaelli and Crockett 2003).

Finally, we cannot rule out the impact of genetic makeup of individuals, particularly in terms of fecundity. Women who are more fecund might be more prone to becoming pregnant and having a live birth (Bongaarts and Potter 1983). Because of data limitations, however, we will not test this hypothesis.

Data and Methods

We use panel data from the National Longitudinal Study of Adolescent Health (Add Health), a nationally representative sample of school-based adolescents in grades 7-12 in 1994-

95 (Harris et al. 2009). These adolescents were interviewed in four waves beginning in 1994-1995 in Wave I and followed through 2007-08 in Wave 4. Respondents were 24 to 32 years old in 2007 and 2008 at the time of the Wave IV interview. For this study, we will restrict our analyses to the women respondents in the survey. The four waves provide rich information pertaining to sociodemographic characteristics, family background, religiosity, mental and physical health, psychological characteristics and cognitive ability as well as detailed information on relationship histories (romantic/ cohabiting/ marriage relationships), pregnancy and birth histories.

We plan to use discrete-time event history models using person-months to analyze how intentions for an earlier birth affect intentions of subsequent births by parity – at first, second, and third births. For first births, each respondent enters the analysis when she turns 15 and exits the month of her first birth or the month of the interview if she has not had a birth in that period. Likewise, for subsequent births, each respondent enters the analysis the month of the preceding birth and exits the month of the next birth or the month of interview if she has not had a birth in that period. We will have an ordinal dependent variable to measure birth category at each parity – no birth, an intended birth and an unintended birth. Finally, we will run logistic regression models of birth intendedness on sociodemographic characteristics, family structure, religiosity, personality and psychosocial characteristics.

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