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Article

Premarital childbearing in sub-Saharan Africa: Can investing in women's education offset disadvantages for children?☆

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ABSTRACT

Premarital childbearing is common in many parts of sub-Saharan Africa, and may become increasingly so with the rise in women's age at first marriage. These trends are concerning given the severe childhood health consequences associated with being born premaritally. However, women's could condition the experience of having a premarital birth in a way that lessens its consequences for children. Extending the large literature on the child health benefits of mothers' education—including her educational attainment and acquisition of key educational skills – I analyze whether the consequences of being born premaritally are lessened among children whose mothers are more highly-educated. The study focuses on Malawi, a southeast African country where child mortality rates remain high. I use Demographic and Health Survey data to estimate discrete-time logistic regression models (N=30,411 children younger than age five) of the relationships between premarital childbearing, mothers' educational background, and child mortality. The findings confirm that though being born premaritally is associated with higher child mortality, this is only true for children whose mothers have never been to school or discontinued at the primary level and/or never learned how to read. There is no evidence that being born premaritally is associated with elevated mortality among children whose mothers have been to secondary school and/or know how to read. The results demonstrate that analyzing how premarital childbearing intersects with other sources of health inequality enhances our understanding of the circumstances under which it poses the greatest risk to child well-being in sub-Saharan Africa.

Introduction

Sub-Saharan African women are increasingly entering marriage at older ages (Garenne, Tollman, & Kahn, 2000). Given the commonality of premarital sex in the region (Mensch, Grant, & Blanc, 2006), the trend toward later marriage means many African women are at risk of premarital childbearing for increasingly long durations of later adolescence and early adulthood. Indeed, the rise in women's age at first marriage corresponds with higher levels of premarital childbearing in select sub-Saharan African contexts (Harwood-Lejeune, 2001).

Evidence that premarital childbearing has become more common in some sub-Saharan African countries (Barker & Rich, 1992; Gage-Brandon, & Meekers, 1993; Ocholla-Ayayo, Wekesa, & Ottieno, 1993) and is normative in many settings (Garenne et al., 2000; Garenne & Zwang, 2006a; Meekers & Ahmed, 2000; Xu, Mberu, Goldberg, & Luke, 2013; Zwang & Garenne, 2009), raises concerns over its consequences for population health. Premarital childbearing is tied to disadvantages at the aggregate and individual levels (Garenne & Zwang, 2006a). At the individual level, premarital childbearing places women at risk of numerous health problems (Kaufman, Wet, & Stadler, 2001), including an elevated risk of sexually transmitted infections (Garenne & Zwang, 2006a; Nzioka, 2004), and even penalizes women in the marriage market (Calvès, 1999; Ikamari, 2005, Klein Hattori & Larsen, 2007).

Premarital childbearing also adversely affects the health and developmental trajectory of the resulting child. The childhood consequences of being born premaritally are especially severe in sub-Saharan Africa: compared to their peers born to formally married parents, these children are often born in the absence of medical supervision (Gage, 1998), are un/under-vaccinated (Gage, 1997), and are malnourished (Gage, 1997), each of which may help explain their high risk of death under age 5 (Clark & Hamplová, 2013).

The broad societal changes that are driving African women to marry at older ages, and thus experience prolonged risk of having a premarital birth, could, however, condition the experience of

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having a premarital birth in a way that lessens its consequences for children (Garenne & Zwang, 2006a). One such societal change is the expansion of female education in sub-Saharan Africa. African women's education is generally thought to reduce their risk of having a child premaritally (Grant & Hallman, 2008). However, because more highly-educated women marry at later ages compared to their less-educated peers (Derose & Kravdal, 2007, Lesthaeghe, 1989; Lloyd, 2005; Singh & Samara, 1996), they are at risk of having a premarital birth for a longer period of later adolescence and early adulthood. In fact, evidence from select sub-Saharan African contexts shows that more highly-educated women have a greater likelihood of giving birth premaritally (Meekers, 1994). Additionally, more highly-educated women's age at first birth has *declined* over the past 25 years in some contexts (Grant, 2015), suggesting that – in combination with the *increased* age at first marriage – highly-educated women could be responsible for a growing share of the region's premarital births.

Though all mothers who give birth before formalizing a marital union are likely to face greater economic, logistical, and social challenges than their married peers (Singh, 1998), those who are more highly-educated are unlikely to experience these challenges to the same degree as their less-educated peers, which may ultimately protect their children. More highly-educated mothers who give birth premaritally are likely better positioned to both independently care for their children and to mobilize family support to help them do so. It is thus possible that being born premaritally is less consequential – or not consequential at all – for children whose mothers are more highly-educated. Instead, premarital birth might be consequential only when mothers are subject to other sources of social disadvantage, such as having limited education.

This article extends the literature on premarital childbearing by assessing whether the childhood health disadvantage associated with being born premaritally varies depending on mothers' educational background. The study focuses on the context of Malawi, a southeast African country where the commonality of premarital sex puts many women at risk of experiencing a premarital pregnancy (Boileau et al., 2009; Clark, Poulin, & Kohler, 2009; Poulin, 2007). Educational gains among Malawian women have been dramatic in recent years (Grant, 2015), but significant educational inequalities remain among women (Smith-Greenaway, 2015), making it an especially important context for understanding how women's educational background conditions their childbearing experiences. The study goal is two-fold. First, I demonstrate the known associations between children's risk of mortality and mothers' marital status and educational background. Building on evidence that mothers' school experiences and mastery of key educational skills have unique bearing on children's well-being, I focus on two dimensions of mothers' educational background: educational attainment and literacy skills. Second, I analyze whether the elevated mortality risk associated with being born premaritally is lessened among children with highly-educated mothers and more pronounced among children with less-educated mothers. The results demonstrate that analyzing how premarital childbearing intersects with other sources of health inequality enhances our understanding of the circumstances under which it poses the greatest risk to child well-being in sub-Saharan Africa.

Female education and its consequences for marriage and childbearing in Malawi

In 1994, the Malawian government eliminated all primary school fees for students under the Free Primary Education Initiative, making Malawi one of the first sub-Saharan African countries to do so (Al-Samarrai & Zaman, 2007). After implementation, primary school enrollment rates rose dramatically, from 1.9 million to 3.1 million in the first year alone (Al-Samarrai & Zaman, 2007). The educational gains among women have been especially dramatic: whereas nearly one fifth of older Malawian women (ages 45–49) have never attended school, almost all (98%) young women (ages 15–19) have (Macro International 2010). Young Malawian women are also increasingly progressing to the secondary school: whereas merely 5% of older women (ages 45–49) have attended secondary school, over 20% of young women (ages 15–19) have secondary education.

The expansion of school participation has also made educational skills more attainable to the average Malawian woman (Smith-Greenaway, 2015). However, research has also shown that educational skills, like literacy, are far from universal. In fact, educational attainment is an unreliable marker of whether a Malawian woman has learned how to read, signaling the low-school quality that many women experience.

Both going to school and learning how to read profoundly affect multiple dimensions of Malawian women's lives, including their marital and childbearing trajectories.

In the instance that a woman does enter motherhood before marriage, her educational background could also condition the experience of doing so. In the following section, I discuss how the child health consequences of being born premaritally could vary dramatically depending on mothers' educational background. I describe how the severe health disadvantages associated with premarital childbearing are unlikely to be uniform across Malawi's child population; instead, the associated health disadvantages may be limited, or even unobservable, among children whose mothers are highly-educated, and more severe among children with educationally disadvantaged mothers.

Premarital childbearing and its disadvantage for children: ***concentrated among educationally disadvantaged women***

Education offers women a number of benefits that could counteract the disadvantage their children face from being born premaritally. In particular, I hypothesize that education enhances never-married mothers' health-related behaviors and their ability to secure the support of other family members, including a child's father, each of which lessen the negative consequences of having an unmarried mother.

A key way that mothers' education could dampen the childhood health disadvantages associated with being born premaritally is by encouraging women to proactively seek reproductive healthcare. One reason premarital childbearing is associated with poor child outcomes is that never-married mothers are significantly less likely to receive high-quality healthcare during pregnancy and their child's early life (Gage, 1998; Hakansson, 1994; LeGrand & Mbacké, 1993; Magadi, Agwanda, & Obare, 2007; Mahomed, Ismail, & Masona, 1989; Ocholla-Ayayo, Wekesa, & Ottieno., 1993). Some work argues that never-married mothers avoid seeking reproductive healthcare due to stigma and the fear that providers will condemn their premarital pregnancy (Huntington, Lettenmaier, & Obeng-Quaidoo, 1990).

More highly-educated mothers who conceive premaritally will similarly be subject to stigma and shame (Johnson-Hanks, 2002). However, because mothers' education is a powerful determinant of receiving more timely and higher-quality healthcare (Basu & Stephenson, 2005; Mturi & Moerane, 2001), children born premaritally to more highly-educated mothers may experience comparable levels of healthcare as their peers whose parents are married. In other words, a mother's education may have a stronger, positive influence on her healthcare behaviors than the negative influence of her status as a never-married mother. If this