Are Fathers All the Same? Understanding the Role of Biological and Social Fathers in the Lives of Young Adults in South Africa

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Amidst the growing scholarship on fathers' influence on children's well-being, there has been heightened interest in the role of non-biological or social fathers (Artis 2013; Bzostek 2008). In the US, this has primarily been driven by complex family arrangements that have resulted from increasing rates of divorce, remarriage, cohabitation, and multi-partner fertility as well as concerns about the well-being of single mothers and their children. In doing so, most studies either implicitly or explicitly treat biological fatherhood as the normative model with other forms of fathering, most notably stepfathering, arising as a response mechanism to the disruption of nuclear units. What happens if we switch the focus of inquiry to a context in which biological fatherhood may not be accorded the same normative value for a number of reasons conditioned by historical and present day conditions? African and Coloured[1] men in South Africa are often unable to meet their paternal responsibilities due to economic factors such as high unemployment and labor migration, demographic behaviors included high rates of non-marital birth, multi-partner fertility, and elevated adult mortality, and cultural norms that support models of non-biological fathering amidst competing discourses that emphasize the primacy of biological fatherhood. What, then, is the relative influence of biological and social fathers on children's well-being? To address this question, we draw on data from the Cape Area Panel Study to examine the influence of the type of co-residential adult male arrangement on sexual debut and schooling in a sample of urban, African and Coloured young men and women in the greater Cape Town area of South Africa. We define social father as an adult male (over the age of 18) who is not the biological father. This commonly includes mother's partner, stepfather, grandfather, uncle, other relatives, and older brothers.

[1] We retain the terms, African and Coloured, to be consistent with current usage in research and government statistics. African refers to the Black population and Coloured delineates mixed race ancestry and those originating in the Cape Malay community.

The value of this study can be appreciated in several ways. One, there are very few quantitative studies of fathers' roles, let alone social fathers, in non-western contexts despite the growth in interest in fathering. Two, we need a better understanding of family influences on child outcomes in developing and emerging economy contexts which differ from Western contexts in important ways. It would also allow us to better understand the extent to which commonality in family arrangements may reflect global issues (e.g. access to jobs) that are shaping parenting practices. Three, with a few notable exceptions (Hawkins and Eggebeen 1991; Jayakodi and Kalil 2002), the lion's share of research on social fathers has focused on stepfathers. By focusing on both related kin and unrelated adult men (i.e. stepfathers), we are better able to assess the relative weight of genetic closeness and social factors in explaining effects. Lastly, this work has important policy implications for ensuring a healthy transition to adulthood for young people in contexts where the returns to education are in question, employment opportunities limited and family safety nets increasingly insecure.

Conceptual Background

To address our research questions, we develop a conceptual model informed by two bodies of literature: 1) investment in children and 2) transitions to adulthood. Investment in children has been approached in different ways. Whereas some have emphasized the role of genetic closeness as a critical factor in determining investment in children (Case, Paxon & Ableidinger 2004; Case, Lin and McLanahan 2000), others have offered evidence that the effects of biology are not as important as other factors (Hofferth and Anderson 2003) and that having a stepfather is either beneficial or not different from having a biological father (Artis 2007; Bzostek 2008) on a number of outcomes including behavioral problems, emotional stability, and school performance. Moreover, research on the role of other types of social fathers, i.e. uncles, has underscored the critical role that non-biological fathers play in child rearing in the African-American and South African context (Madhavan and Roy 2012). Consistent with an approach rooted in kinwork (Stack and Burton 1993), various adult male kin take turns in fathering roles as a type of risk

management strategy as dictated by needs and availability. The relative influence of social fathers will depend on the survival and involvement of the biological father.

There is a growing volume of literature focused on non-western contexts that has shown how the transition to adulthood is profoundly influenced by family factors and, in particular, the context of co-residential arrangements (Goldberg 2013; Lloyd et al. 2006). Yet, the pathways through which these relationships affect sexual behavior and educational progress, two key markers of the transition, are complex. First, fathers and men, in general, are often associated with access to greater economic resources which, in many developing country or emerging market contexts may have direct effects such as keeping kids in school through the payment of school fees (Case & Ardington 2006) or preventing the need for transactional sex (Dunkle et al. 2004). Alternatively, the presence of fathers of any type may engender more indirect effects by ensuring a more stable environment that is conducive to healthy decision-making and achievement oriented behaviors. Second, the presence of adult men may provide greater social control over children's behavior (Amato 1994) which would result in delaying sexual initiation and promoting educational success. Finally, the literature suggests that effects of father absence on sexual debut may be stronger for girls (Babalola et al. 2005; Ellis et al. 2003; Ngom et al. 2003) but may not matter for educational outcomes.

Bringing together theoretical perspectives from these two bodies of literature, we put forth these hypotheses to guide the empirical analysis that follows:

1) Living with related male kin, such as grandfathers and uncles, will have either no effect or delay sexual behavior and promote schooling progress, compared to living with biological fathers.
2) Living with both biological father and related male kin offers additional benefits compared to living only with biological father;
3) Living with step-fathers or mother's partners, increases the likelihood of experiencing sexual debut and schooling challenges compared to living with biological fathers.
4) All effects vary by gender and ethnicity

Data and Methods

The data used in this study come from the Cape Area Panel Study, a panel study comprised of 5 waves of data from 2002-2009 on a sample of 4,752 young adults aged 14-22 in the greater Cape Town area of South Africa. In addition to detailed data on educational, employment, sexual and reproductive histories, CAPS also collected data on household context and also non-residential parents and sources of income. This analysis relies on the prospective data starting at Wave 1 in 2002. We focus on two specific aspects of the transition to adulthood: sexual debut and school drop-out. For first sex, we rely on responses to the question "Have you ever had sex? If so, in what year?" and also use entry into a union (cohabiting or not) as evidence of having had sex. School drop-out is captured by not having been enrolled in school for more than one year.

We focus this analysis on the African (N=2,126) and Coloured youth (N=1,879) because of low response rates among the white youth. Table 1 shows descriptive characteristics for the full sample of African and Coloured youth at Wave 1 in 2002.

	African		Coloured	
	Boys	Girls	Boys	Girls
Age				
14	11.0	8.0	11.6	10.5
15	10.7	10.0	12.6	12.2
16	9.8	11.9	12.0	13.5
17	10.6	11.8	15.4	13.3
18	11.1	13.1	11.5	12.5
19	14.0	13.3	11.5	9.9
20	11.3	11.5	10.5	9.4
21	10.1	10.0	8.1	11.2
22	11.4	10.3	6.8	7.6
Currently Enrolled in School	71.8	70.4	60.9	61.0
Educational Attainment				
< grade 3	.7	.2	.3	.2
3 – 6	19.4	10.9	8.4	4.6
7 – 9	45.8	47.2	51.7	48.2
10-11	24.0	27.8	23.1	25.1
Matric+	10.1	13.9	16.4	22.0

Ever Had Sex	61.0	62.5	36.6	32.2
Median Age at First Sex	16	16	16	17
Total	919	1207	878	1001

The age distribution is similar for both African and Coloured samples with slightly greater weighting towards younger ages in the Coloured sample. The proportions currently enrolled in school are lower for Coloured boys and girls by about 10% because higher proportions of the Coloured samples have completed matric. For example,22% of Coloured girls have completed matric compared to 13.9% for their Black counterparts. The most notable difference is in the proportions reporting ever having had sex at Wave 1. The proportion of African boys and girls ever having had sex is nearly double that of Coloured boys and girls. The median age at first sex is fairly similar for male adolescents, while Coloured female youth begin sexual activity at older ages than Black female adolescents.

Our analysis proceeds in two steps. First, we use Kaplan Meier estimation techniques to determine survival probabilities of 1) not having initiated sex and 2) not having dropped out of school by Wave 5. Second, we use discrete time event history analysis to model the influence of adult male presence in the household on initiating sex and experiencing school interruption. An observation is treated as censored under two conditions: loss to follow-up, or end of observation period (wave 5) whichever occurs first. Discrete time logistic regression models are used to estimate two dichotomous outcomes: the odds of initiating sex and experiencing school drop-out in each time period. Our variable of interest is type of co-residential adult male living arrangement made up of five categories: only biological father (reference), biological father and male kin, only male kin, stepfathers (which includes mother's partner and other unrelated males), and no adult male. Adult is defined as age 18 or older. This categorization meets sample size needs and allows us to examine the role of related kin (vs. non kin) relationship and the additive effects of male kin and biological fathers. We treat this variable as time varying and code each category as a dummy (0/1) at each wave. Control variables include paternal survival and maternal status

(dead, alive and co-resident, alive and not resident) both of which are treated as time varying co-variates, and two time constant co-variates - total household income categorized in quartiles and educational status of head (treated as a continuous variable) as of 2002, age of youth and ethnicity. To address selection issues caused by left truncation bias, we control for educational status of the youth at Wave 1 and percentage of life father present and percentage of life extended family present. We also examine interaction effects of ethnicity and adult male presence. All models control for the clustering of multiple youth from same household using the complex samples command in SPSS and are stratified by sex of youth.

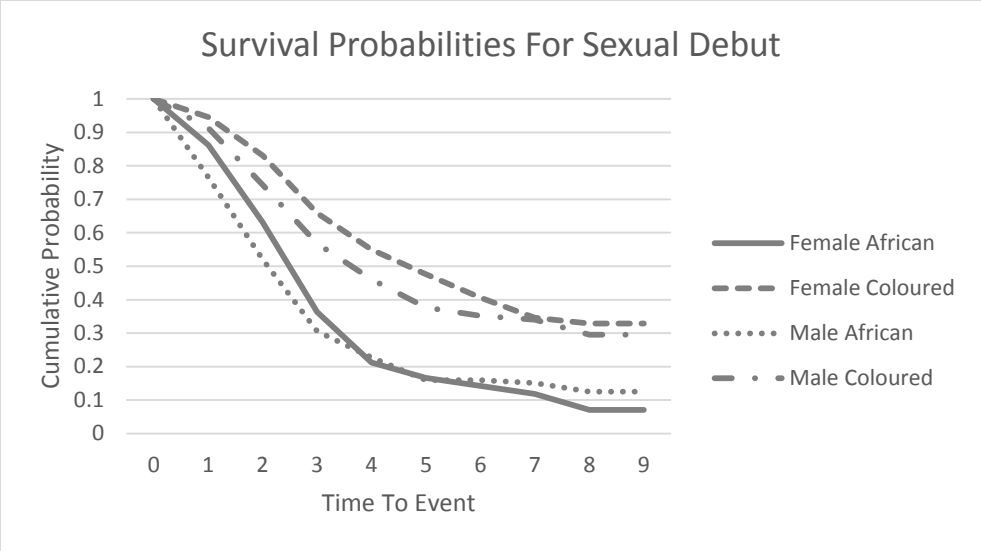
Preliminary Results

Table 2 presents the distribution for type of adult male presence by ethnicity and sex.

Table 2. Type of adult male presence by ethnicity and sex, CAPS

	African		Coloured	
Type of Adult Male Presence	Boys	Girls	Boys	Girls
Only biological father	19.5	14.0	32.1	29.8
Male kin only	37.1	32.0	20.2	21.8
Biological father and male kin	14.9	14.4	19.9	18.0
Stepfathers/mothers' partners/other unrelated	5.1	7.4	15.3	13.7
No adult male	23.4	32.2	12.5	16.8
N	919	1207	878	1001

The largest proportion of Black youth are living with male kin only followed by no adult male. The structure is markedly different for Coloured youth where we find the largest proportions living with biological fathers only followed by male kin only. It is also notable how different the proportions living with stepfathers and other unrelated are across ethnic groups, most likely reflecting different patterns of remarriage and cohabitation in the two communities. We now turn to our outcomes of interest by examining the Kaplan Meier curve for experiencing sexual debut.



As expected, survival probabilities decline with time though there are notable differences between gender and ethnicity. Girls have higher survival probabilities than boys and Coloured girls experience slightly higher survival probabilities than African girls.

Below we provide preliminary results of logistic models predicting odds of experiencing sexual debut for boys and girls controlling for all co-variates. Because the mean age at first sex is 16, the sexual debut model is limited to the 14-16 year olds at Wave 1. We ran the models for a more restrictive sample of 14-15 year olds and found similar results. After removing those who had already had sex by Wave 1 (N=220) and cases with missing information, the final sample is 1,043 youth which translates into 4,139 person years.

	Boys	Girls	Boys	Girls
Type of Adult Male Presence				
	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio
Only biological father	Ref	Ref	Ref	Ref
Bio. father and male kin	1.405 (.218)	1.129 (.183)	1.517(.306)	1.124 (.245)
Male kin only	1.084 (.272)	1.124 (.161)	1.278(.255)	1.286 (.256)
Stepfathers/mothers' partners/other unrelated	1.207 (.309)	1.011 (.219)	1.248(.345)	1.048 (.855)
No adult male	.892 (.224)	1.081(.186)	1.253 (.305)	1.468 (.108)
Black African (ref: Coloured)	2.512*** (.165)	2.207***(.112)	3.506***(.260)	2.899***(.236)
Age	1.471***(.091)	1.270**(.087)	1.485***(.090)	1.272**(.087)

Grade for Age	1.718** (.172)	1.092 (.166)	1.776***(.176)	1.094 (.165)
Household Characteristics				
Income Quartiles				
Poor	Ref	Ref	Ref	Ref
Lower Middle	.864 (.184)	1.117 (.133)	.844 (.185)	1.078 (.131)
Upper Middle	.928 (.224)	1.032 (.141)	.913 (.226)	.998 (.144)
Upper	.743 (.223)	.671**(.167)	.739 (.223)	.664**(.164)
Educational Attainment of Household Head	.960 (.056)	.990 (.068)	.953 (.057)	.002 (.068)
Mother Status				
Co-resident	Ref	Ref	Ref	Ref
Alive but non-resident	1.140 (.195)	.937 (.135)	.933 (.193)	.938 (.134)
Deceased	.930 (.270)	1.148(.180)	1.117(.269)	1.115 (.183)
Biological Father Dead	.717 (.203)	1.008(.149)	.702 (.203)	1.031 (.049)
Percent of life lived with bio. fathers	.998 (.002)	.997 (.002)	.998 (.002)	.997 (.002)
Percent of life lived with others	.995 (.002)	.999 (.001)	.995 (.002)	.999 (.001)
Interaction Term				
Ethnicity * bio. father			Ref	Ref
Ethnicity * bio. father and male kin			.763(.362)	.890 (.280)
Ethnicity * Male kin only			.533 (.372)	.696 (.325)
Ethnicity * Stepfathers/ mother's partners/other unrelated			1.339 (.749)	.960 (.396)
Ethnicity * No Adult Male			.481*(.380)	.482**(.314)
Pseudo-R^2 (Nagelkerke)	.070	.068	.074	.072
N (person years)	1697	2442	1697	2442

*significant at .10 level; **significant at .05 level; *** significant at .01 level
Note: All controls included in the model.

We found no significant main effects for adult male structure for either boys or girls but found a large positive effect of Black African ethnicity both boys and girls and a negative effect of being in an upper income quartile for girls only. Therefore, we tested whether the effect of male structure depends on ethnicity by including an interaction term. The second set of models show that being African and having no adult males significantly *lowers* the odds of experiencing sexual debut for both boys and girls. The

next phase of the analysis will examine this finding in greater depth and investigate the influence of male structure on schooling outcomes.

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