

**The Importance of Family Structures and Instability in Shaping Adolescent Transitions to Adulthood in South Africa**

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**Abstract:**

There is a growing focus on the importance of cumulative family structure change and family instability on child development in the U.S. and other Western nations. While the motivation for this work comes from recent increases in nonmarital fertility, cohabitation, and divorce coupled with decreases in marriage and higher rates of remarriage, it is unknown how this evidence might play out in the South African context, where family instability, although currently increasing, has always been greater. The household composition in South Africa has traditionally been fluid due to labor migration, child fostering, high levels of nonmarital fertility and, more recently, the impact of the HIV pandemic on families. Rates of orphan hood are expected to rise even further (at least until 2015), adding an important layer of family instability in the lives of South African children.

In this paper, we use panel and life history calendar data on young adults' lives in Cape Town, South Africa (CAPS) to examine the prevalence and intensity of family and household instability among young South Africans. The second goal of this paper is to examine the implications of different types and intensity of family instability for school drop-out and sexual debut among young South Africans. Our preliminary findings show evidence of higher risk of school drop-out and sexual initiation following a separation from mother. Reuniting with mothers has the protective effect of delaying sexual initiation for all adolescents while preventing school drop-out for coloured adolescents only. The evidence for transitions from fathers is mixed.

## **Introduction**

In the United States and other Western nations, there is a growing focus on cumulative family structure change or family instability and child development. In these contexts, much of this scholarship is motivated by the marked changes in union formation and dissolution patterns of contemporary adults. Increase in nonmarital fertility, cohabitation, and divorce coupled with decreases in marriage and higher rates of remarriage have translated into more fluid romantic trajectories in adulthood. To the extent that children are residing with adults undergoing these changes, family structure change can impact child and adolescent development. More specifically, this instability, and the turbulence it can introduce into young people's lives, may disrupt a child's sense of security and create ambiguity in household rules, family relationships, and parental expectations about behavior. Moreover, it can be exacerbated by residential moves and dramatic changes in family income and parents' employment patterns (McLanahan & Sandefur, 1994; Teachman, 2003; Wu & Martinson, 1993). In all, an emerging literature documents a link between complex family structure histories and a host of negative behavioral, social, and academic problems; problems that shape the adolescent experience and can have implications for the transition to adulthood (Cavanagh & Huston, 2006, 2008; Fomby & Cherlin, 2007; Osborne & McLanahan, 2007; Cavanagh, Schiller, & Riegle-Crumb, 2006; Wu & Thomson, 2001).

As compelling as the evidence is in the US, it is unknown how it might play out in the South African context, where family instability, although currently increasing, has always been greater. The household composition in South Africa has traditionally been fluid. On the one hand, African and Coloured mothers and fathers often migrate away from home for work, and on the other, children are often fostered or residing in another home. High levels of non-marital childbearing also add fluidity to the household composition in South Africa (Garenne et al. 2000). In addition, the HIV pandemic has translated into higher levels of orphanhood in South Africa. Rates are expected to rise even further until at least 2015, thereby placing additional strain on the extended family as a safety net (Ardington and Leibbrandt 2010). Importantly, family separation due to work migration, child fostering, and illness is not randomly distributed among South Africans but follows along lines of earlier, pronounced inequalities. Thus, while monitoring the implications of instability brought on by parental death and varied family structures is essential as the AIDS crisis further deepens, examining the implications of family instability generated by a diverse set of factors is equally important for the understanding of both young peoples' transition to adulthood as

well as the role of family structure and stability in the reproduction of inequality in contemporary South Africa.

Using unique panel data on young adults' lives in Cape Town, South Africa (CAPS), the first goal of this paper is to examine the prevalence and intensity of family and household instability among young South Africans. The second goal of this paper is to examine the implications of different types and intensity of family instability for educational outcomes and transitions to adulthood of young South Africans. We implement event history models to explore the linkages between family structure instability and educational standing and sexual debut for young adults.

An important feature of Cape Town is the continued socio-economic disparities and high degree of spatial segregation across the three major population groups – African, coloured, and white (the Cape Town population in the 2001 census was 48% coloured, 32% African, and 19% white). These three groups were subject to very different treatment under apartheid. Whites had advantages in a wide range of areas, including significantly higher expenditures on schooling, privileged access to the labor market, unrestricted residential mobility, and better access to social services. Africans had the least access to services and the most restrictions on work and migration, with a large gap in expenditures on schooling. The coloured population, which is heavily concentrated in the Western Cape (including Cape Town), occupied an intermediate status under apartheid, with higher expenditures on schooling, fewer restrictions on residential mobility, and better access to jobs than Africans. For these reasons, we examine the role of family instability on adolescent's sexual debut and school drop-out separately by population group.

The contribution of this work is both conceptual and methodological. First, this research connects to a broader literature on family instability and adolescent outcomes. We underscore the benefits of examining the meanings of instability in the family unit, disentangling the consequences of family instability coming from different sources for adolescent risky outcomes. Second, going beyond static typologies of living arrangements, we examine how the intensity of family instability impinges on adolescents' educational and sexual outcomes. This dynamic approach is particularly important in contexts where living arrangements are fluid, with young adults often experiencing several living arrangements throughout their childhood and adolescence.

## **Data and Methods**

### **Data**

We use data from Waves 1-4 of the Cape Area Panel Study (CAPS), a longitudinal survey of young people in metropolitan Cape Town. Details about the design of CAPS are provided in Lam et al. (2008). Wave 1, which was conducted in 2002, includes a household questionnaire along with a young adult questionnaire administered to up to three young adults within the household aged 14-22. The young adult questionnaire collected data on a wide range of topics, including sexual behavior, schooling, and employment. The young adult questionnaire also included a life history calendar that provides retrospective information on living arrangements, schooling, and pregnancy. Young adults were asked whether they lived with family members—father, mother, maternal grandparents, maternal grandmothers, and guardian—for each year of life.

CAPS was designed using a two-stage probability sample of households, with an oversampling of African and white households in order to get large enough samples to make meaningful comparisons across groups. The baseline wave of CAPS surveyed 4,751 young adults living in 3,304 households. As in most South African household surveys, response rates were high in African and coloured areas and low in white areas. Household response rates were 89% in African areas, 83% in coloured areas, and 46% in white areas.<sup>1</sup> Young adult response rates, conditional on participation of the household, were high, even in white areas. Given household participation, response rates for young adults were 93% in African areas, 88% in coloured areas, and 86% in white areas (Lam et al. 2008). Wave 2 of CAPS took place in 2003 and 2004, Wave 3 took place in 2005 and Wave 4 took place in 2006.

### **Methods**

We use event history models to examine the CAPS data. Event history analysis is appropriate because it predicts the occurrence of events (Alisson 1984) and our goal is to examine whether the occurrence of a transition in co-residence of young people is associated with a risky outcome—school dropout and sexual initiation—in the following year.

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<sup>1</sup> As discussed in Lam et al. (2008), household response rates were lower in high-income areas. Sample weights adjust for differential response rates within sample clusters, which partially accounts for differential response rates that are correlated with sample cluster characteristics such as income.

The CAPS life history calendar has information on whether respondents were enrolled in school at each age. Respondents are also asked whether they become sexually active at each age. We code a spell of first school drop-out and sexual debut as 1 and respondents who experienced such events are censored afterwards. We focus our analysis up to high school completion. In practical terms, this means that those who completed high school and then dropped-out are not consider a spell of failure. This makes sense because our focus is on the normative schooling South Africans attain during adolescence.

## **Preliminary Findings**

We begin by documenting the timing of sexual debut (Figure 1a) and first school drop-out (Figure 1b) across gender and race groups. Figure 1a shows important differences in the timing of first school drop-out across groups. For example, Figure 1a highlights that dropping out of school is common among South African adolescents, and that coloured boys and girls drop out of school earlier than their African peers. For example, by age 16, 32% of coloured males and 15% of African males had dropped out of school. These proportions are smaller for females within each race.

From Figure 1b it is clear that a large proportion of South Africans experience sexual initiation very early. There are marked differences by gender and population group, with larger proportions of males and Africans than females and Coloureds transitioning to first sex sooner. For example, by age 15, 40% of African males had already experienced sexual intercourse compared to 15% of their coloured peers. By age 15, 15% of African females and only 8% of coloured females had sexual intercourse.

Next, Table 1 and Figures 2 and 3 provide an overview of the coresidential instability among respondents and their biological parents over time, separately by gender and population group. To begin, a large proportion of young South Africans did not have both mother and father present in the household at birth—25% and 45% for African girls and boys, and 33% and 29% for Coloured girls and boys. This is an interesting finding as it seems to suggest that fathers are more likely to stay around in households with girls versus boys. The large proportion of adolescents who experienced a transition by age 15 reflects that instability in household co-residence with parents. Between 23% and 42% of adolescents had experienced at least one transition leading to reunification or separation from their mother by age 15. This proportion is slightly larger for transitions related to father's co-residence with adolescents. Between 25% and 38% of adolescents

have experienced a movement related to father's co-residence by age 15. A non-trivial proportion of adolescents have experienced a parental death by age 15—8% of coloured and 7% of African males have experienced their father's death. Although these statuses provide a sense of family structure fluidity, especially across population subgroups, they fail to anchor these changes in time.

Figure 2 shows the proportion of children experiencing a co-residence transition with mother and father at each age. The Figure also identifies the cumulative proportion of children who experienced a parental death by age. We find that Africans are more likely to experience greater instability at younger ages than their coloured counterparts, while both racial groups experience more instability as they begin the transition to adulthood.

Figures 3a and 3b display the time to co-residence transition with mother and father separately by gender and population group. Figures 3c and 3d show the time to separation of mother and father for those children who had their mother (Figure 3c) or father (Figure 3d) present during their first year. In addition to the greater instability displayed in figures 2, we see that African children are also more likely to experience this instability earlier, with over 40% of all African males experiencing a co-residence by age 15 compared to only close to 25% of coloured males.

This disparity becomes even sharper when we compare those children who had a parent present during their first year. Figure 3ca shows that about 10% of African children as young as 5 whose mothers were present during their first year of life had already separated at least once from their mother. By age 15 nearly 40% of African males and 34% of African females had separated at least once from their mother. Coloured adolescents experience lower levels of separation from their mother.

Finally, Tables 2 and 3 show preliminary results of survival analyses that explores the link between family structure and the risk of dropping out of school and of sexual initiation, respectively. All models control for age, mother's education, log of household income and parental presence at birth. Each model includes various family structure measures, separately for instability resulting from mother versus father's separation, reunification or death. Model 3c includes all measures. The control and family structure variables are lagged to the outcome measures.

Model 1 includes a lagged measure of family structure status. Overall, coloured girls and boys living with their mother but away from their father have higher chances of dropping out of school vis-à-vis those living with both parents. For African adolescents, no significant link between family structure and school dropout was identified. This finding is consistent with recent work by

Lam and colleagues (2011) that suggests that education attainment and performance has a large stochastic component for African adolescents. In Model 2, we test whether family instability matters for adolescents' first transition out of school. Our findings show that a maternal transition—either separation or reunification of adolescents with their mothers—leads to higher chances of school dropout in the subsequent year. For example, African girls are 83% more likely to dropout of school in the year after they experienced such transition.

In Model 3a, we examine the type of transition separately by whether it results in adolescents reuniting with their mother or separating from their mothers due to a household move or mother's death. Our results show that separation from mothers leads to higher chances of school dropout in the next year. This finding is consistent across all race and gender groups we examined. Reuniting with mothers has a protective effect for males and coloured females, but not for African girls. In Model 3b we examine the type of co-residence transition from fathers. Separation from father is similar to those for mother in that moving away is associated with higher risk of dropping out of school in the subsequent year. However, the magnitude of the coefficients representing father transitions is smaller. This is clear in Model 3c when we include all measures of family instability we consider. Adolescents have higher risks of school dropout in the year after they experience separation from their mothers. The risk of school dropout is higher for females than for males. For example, among coloured adolescents, girls who separated from their mothers are at a 225% higher risk of school dropout than girls who did not experience a separation, while boys are at 109% higher risk of dropping out of school.

We estimated the same set of models for risk of sexual debut (Table 3). The overall findings for sexual initiation are consistent with the findings for school dropout in that separating from mothers is associated with higher risks of sexual initiation, at least for girls. Results from Model 3a show that, among adolescent girls, Africans are at a 52% and Coloureds are at a 64% higher risk of sexual initiation in the year after they separate from their mothers. The correspondent coefficients for adolescent boys are not statistically significant. At the same time, findings from Model 3b also show that reuniting with mothers implies in lower risks of sexual initiation for both African and coloured boys and girls.

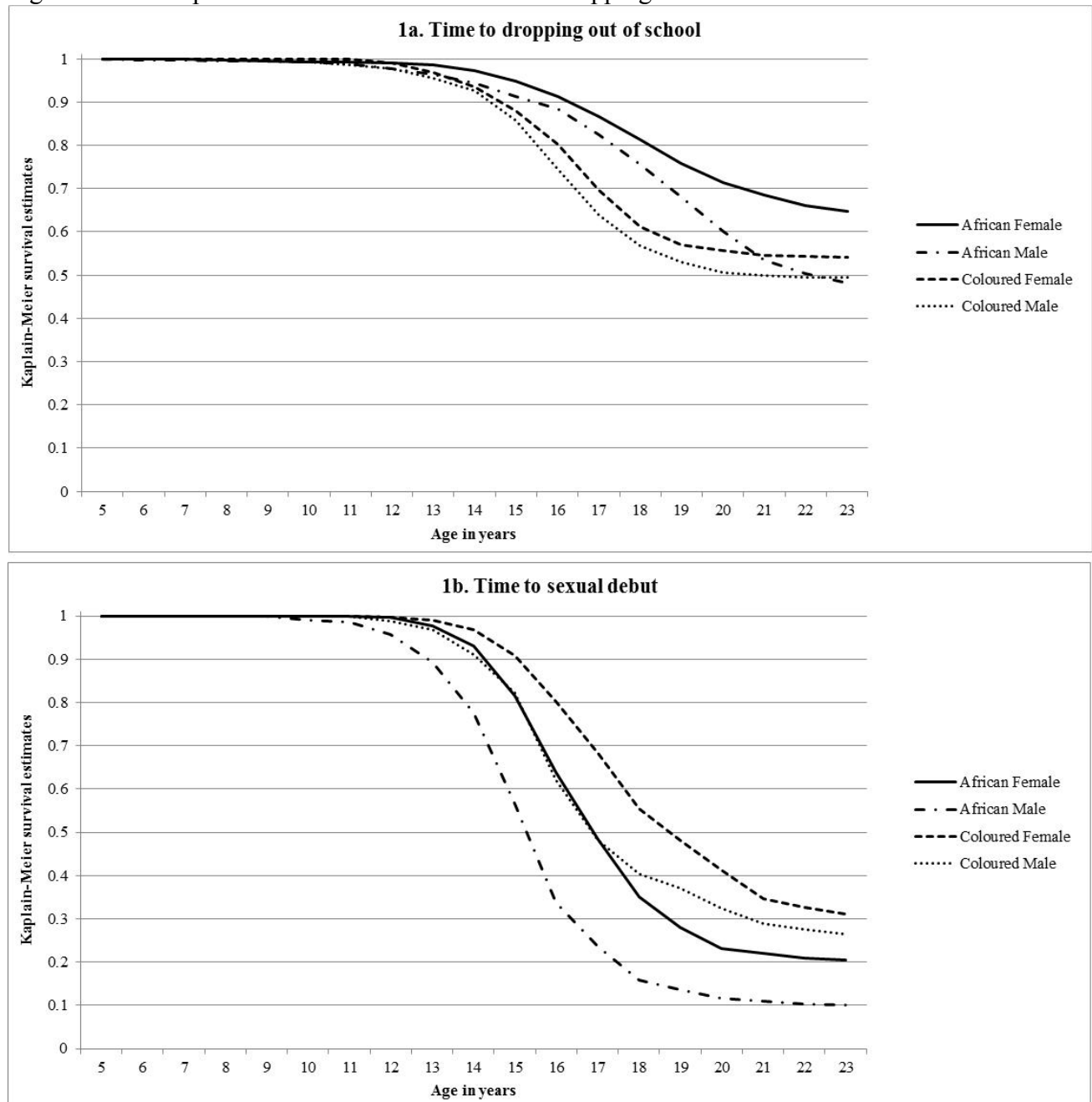
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## Figures and Tables

Figures 1a-b. Kaplan-Meier survival estimates for dropping out of school and sexual debut



**Table 1. Characteristics of CAPS Respondents Aged 14-22 in 2002 (Wave 1), by Selected Variables, by Race and Gender, Cape Town, South Africa**

	Females		Males	
	African	Coloured	African	Coloured
	%	%	%	%
<b>Family structure at birth</b>				
Mother and father	74.7	68.5	55.3	71.0
Mother, but no father	19.7	23.2	38.3	21.7
Father, but no mother	0.9	0.6	1.2	0.8
Grandparent(s) only	2.8	4.1	2.9	3.8
Other family structure	2.0	3.6	2.3	2.7
<b>Coresidence transitions by age 15</b>				
Never experienced coresidence transition with mother	72.7	74.3	57.5	77.1
Experienced separation/reunification with mother	27.3	25.7	42.5	23.0
Experienced one separation/reunification with mother	18.9	19.0	26.9	18.6
Experienced two or more separations/reunifications with mother	8.4	6.7	15.6	4.3
Never experienced coresidence transition with father	69.4	72.4	61.6	74.6
Experienced separation/reunification with father	30.6	27.6	38.4	25.4
Experienced one separation/reunification with father	24.7	21.9	28.5	21.0
Experienced two or more separations/reunifications with father	5.9	5.8	10.0	4.4
<b>Parental death by age 15</b>				
Experienced mother's death	1.7	3.0	2.4	3.2
Experienced father's death	3.7	6.6	6.9	8.0
<b>School drop-out and sexual debut by age 15</b>				
Ever dropped-out of school by age 15	4.2	11.7	9.1	13.8
Sexual debut by age 15	13.7	8.6	42.7	17.1
Sample size	1,873	1,098	942	938

Figures 2. Parental separation, reunification, and death experienced during childhood and adolescence

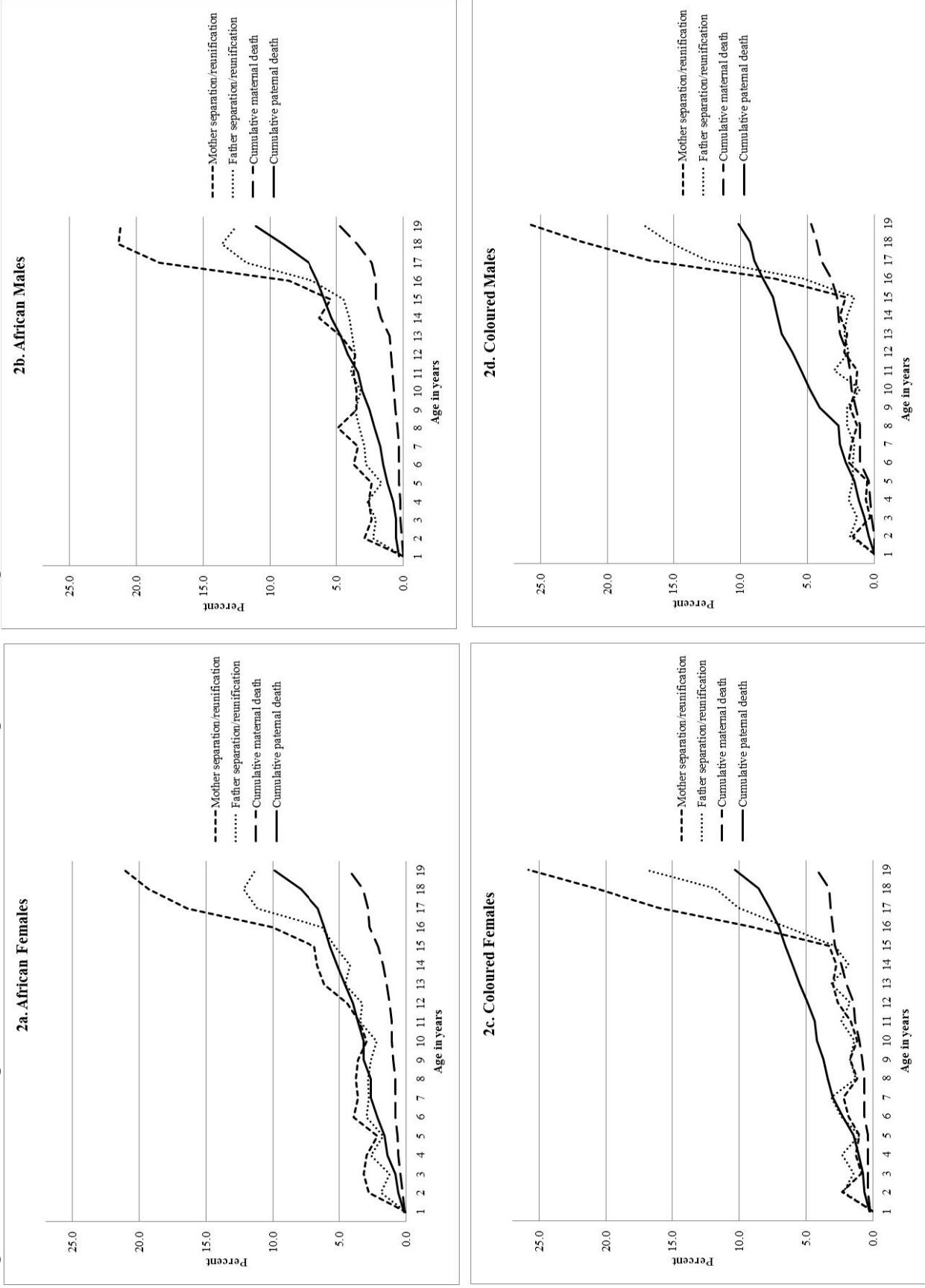


Figure 3. Kaplan-Meier survival estimates for experiencing parental separation or reunification

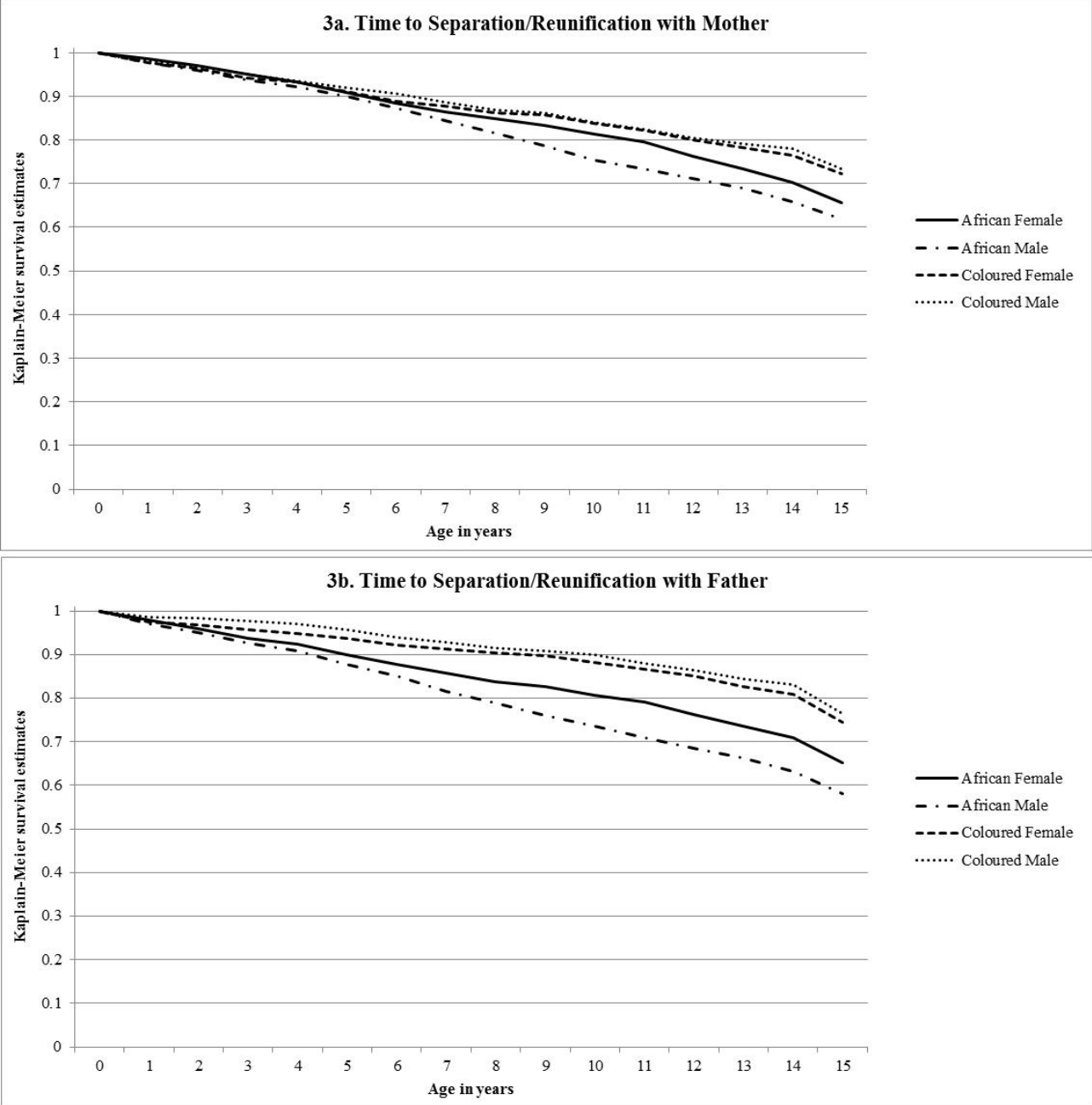
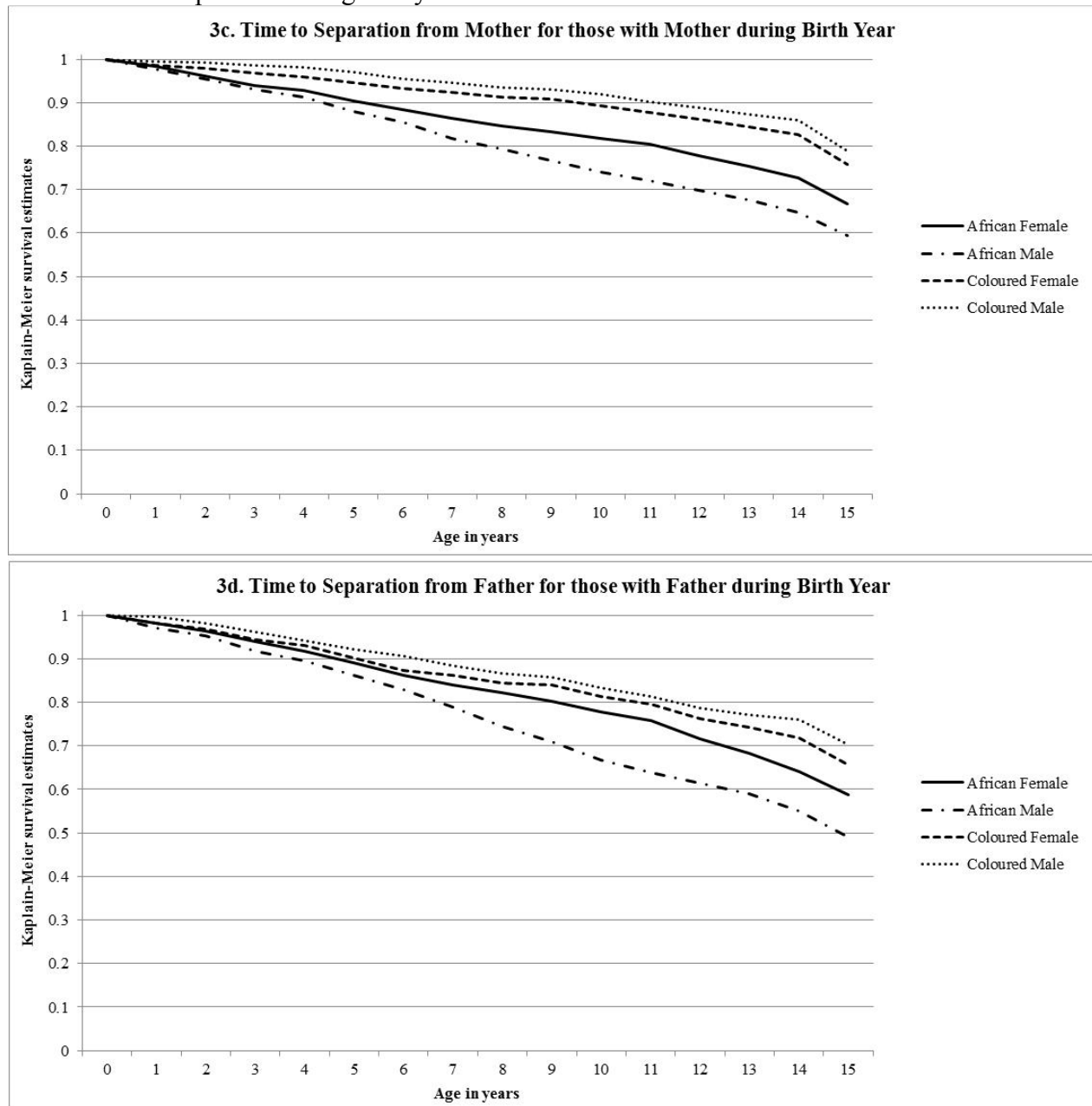


Figure 3. Kaplan-Meier survival estimates for experiencing parental separation for those with mother or father present during first year of life



**Table 2. Survival analysis predicting risk of dropping out of school (independent variables lagged by one year), CAPS Respondents Aged 14-22 in 2002 (Wave 1), Cape Town, South Africa**

	Females						Males					
	African		Coloured		African		Coloured		African		Coloured	
	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.
<b>MODEL 1 - Family Structure</b>												
<i>Reference: Two bio-parent household</i>												
Mother, no father	1.21	0.175	1.37*	0.211	1.20	0.188	1.71***	0.255				
Father, no mother	1.30	0.323	2.40***	0.673	1.24	0.331	1.25	0.439				
Grandparent(s) only	1.21	0.258	1.24	0.322	1.11	0.265	1.63	0.425				
Other family structure	1.13	0.163	2.74***	0.399	1.17	0.183	3.20***	0.469				
<b>MODEL 2 - Presence and coresidence transition</b>												
Separation/Reunification with mother	1.83***	0.222	1.74***	0.255	1.50***	0.219	1.21	0.197				
Separation/Reunification with father	0.99	0.161	1.07	0.181	0.99	0.178	1.76***	0.296				
<b>MODEL 3a - Presence and mother-child coresidence transition</b>												
Reunification with mother	0.97	0.195	0.30***	0.118	.60*	0.162	0.49**	0.155				
Separation from mother	2.61***	0.355	3.43***	0.551	2.38***	0.375	2.90***	0.514				
Mother died	0.00	0.000	0.80	0.802	0.00	0.001	0.86	0.871				
<b>MODEL 3b - Presence and father-child coresidence transition</b>												
Reunification with father	0.95	0.268	0.38*	0.174	0.62	0.210	0.86	0.289				
Separation from father	1.72***	0.296	2.16***	0.357	1.68***	0.305	2.72***	0.446				
Father died	0.00	0.000	0.24	0.244	0.21*	0.153	0.52	0.371				
<b>MODEL 3c - Presence and coresidence transition</b>												
Reunification with mother	1.06	0.242	0.33*	0.155	0.68	0.206	0.36**	0.145				
Separation from mother	2.62***	0.395	3.25***	0.590	2.29***	0.406	2.09***	0.445				
Mother died	0.00	0.000	0.81	0.812	0.00	0.000	0.79	0.808				
Reunification with father	0.92	0.297	0.87	0.487	0.77	0.293	1.81	0.765				
Separation from father	1.00	0.192	1.12	0.211	1.09	0.225	1.83**	0.362				
Father died	0.00	0.000	0.25	0.254	0.26	0.184	0.53	0.377				
Sample size			14,776		13,243		12,188					
	17,852											
* p<0.05, ** p<0.01, *** p<0.001												
<i>Controlling for: age, mother's education, household income, parental presence at birth</i>												

**Table 3. Survival analysis predicting risk of first sex (independent variables lagged by one year), CAPS Respondents Aged 14-22 in 2002 (Wave 1), Cape Town, South Africa**

	Females						Males					
	African		Coloured		African		Coloured		African		Coloured	
	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.	Risk ratio	Std. Err.
<b>MODEL 1 - Family Structure</b>												
<i>Reference: Two bio-parent household</i>												
Mother, no father	1.06	0.098	1.45**	0.170	1.04	0.108	1.04	0.108	1.04	0.108	1.04	0.127
Father, no mother	1.42*	0.223	1.70*	0.384	1.08	0.203	1.08	0.203	1.08	0.203	1.08	0.258
Grandparent(s) only	0.93	0.126	1.02	0.210	0.76	0.119	0.76	0.119	1.05	0.219	1.05	0.219
Other family structure	0.59***	0.061	0.90	0.113	0.50***	0.066	0.50***	0.066	0.49***	0.076	0.49***	0.076
<b>MODEL 2 - Presence and coresidence transition</b>												
Separation/Reunification with mother	0.97	0.111	1.13	0.136	0.76	0.121	0.76	0.121	0.52***	0.100	0.52***	0.100
Separation/Reunification with father	1.15	0.159	0.79	0.137	1.06	0.186	1.06	0.186	1.15	0.229	1.15	0.229
<b>MODEL 3a - Presence and mother-child coresidence transition</b>												
Reunification with mother	0.58**	0.104	0.55**	0.109	0.49**	0.113	0.49**	0.113	0.38***	0.090	0.38***	0.090
Separation from mother	1.52***	0.194	1.64**	0.263	1.12	0.205	1.12	0.205	0.83	0.182	0.83	0.182
Mother died	0.82	0.578	0.66	0.470	0.56	0.403	0.56	0.403	0.80	0.571	0.80	0.571
<b>MODEL 3b - Presence and father-child coresidence transition</b>												
Reunification with father	0.81	0.173	0.65	0.152	0.73	0.182	0.73	0.182	0.44**	0.120	0.44**	0.120
Separation from father	1.40*	0.216	1.06	0.189	1.08	0.224	1.08	0.224	1.17	0.254	1.17	0.254
Father died	0.27**	0.122	0.15	0.154	0.55	0.214	0.55	0.214	0.75	0.377	0.75	0.377
<b>MODEL 3c - Presence and coresidence transition</b>												
Reunification with mother	0.57**	0.121	0.50**	0.138	0.47**	0.124	0.47**	0.124	0.40**	0.126	0.40**	0.126
Separation from mother	1.44**	0.205	2.00***	0.381	1.10	0.224	1.10	0.224	0.71	0.184	0.71	0.184
Mother died	0.90	0.639	0.72	0.514	0.69	0.500	0.69	0.500	0.84	0.610	0.84	0.610
Reunification with father	1.17	0.295	1.18	0.383	1.14	0.329	1.14	0.329	0.91	0.327	0.91	0.327
Separation from father	1.16	0.200	0.67	0.144	1.03	0.238	1.03	0.238	1.36	0.344	1.36	0.344
Father died	0.30**	0.135	0.16	0.159	0.64	0.250	0.64	0.250	0.72	0.367	0.72	0.367
Sample size	8,831		9,667		6,452		6,452		7,641		7,641	
* p<0.05, ** p<0.01, *** p<0.001												
<i>Controlling for: age, mother's education, household income, parental presence at birth</i>												

