Fathering in the Life Course of Children in Urban South Africa

Sangeetha Madhavan
University of Maryland

Mark C. Gross
University of Maryland

Shane Norris
University of the Witwatersrand

Linda Richter
Human Sciences Research Council

Victoria Hosegood
University of Southampton
Africa Centre for Health & Population Studies/UKZN

We would like to acknowledge Michael Wagner for his work on the data preparation and analysis and also Xin He and Jack Sandberg for their guidance on survival analysis. Funding for the Birth to Twenty Programis provided by The Wellcome Trust, Human Sciences Research Council, South African Medical Research Council, South Africa-Netherlands Programme on Alternative Development, Anglo-American Chairman's Fund and the UK Medical Research Council. Madhavan and Gross were supported by a grant from the School of Behavioural and Social Sciences at the University of Maryland and Hosegood was supported by funding from The Wellcome Trust [WT082599MA].

Abstract

Black men in South Africa face high rates of unemployment and union instability partly as a result of the apartheid legacy that limited their employment opportunities and disrupted traditional family arrangements. This has, in turn, profoundly affected their roles as fathers. In this paper, we use data from the Birth to Twenty Cohort study in the greater Johannesburg area to accomplish three objectives: 1) to describe two dimensions of father involvement - contact and provision of financial support - at different developmental stages of children in the early life course; 2) to estimate survival probabilities of father involvement in the early life course of children and 3) to identify parental and family factors that might help explain why some children face the experience of not having father involvement sooner than others. The results show that approximately 40% of children experience not having father contact and support provision by the age of 5. We also find that children whose parents were in union at the time of their birth face lower risks of experiencing non-contact with fathers and non-support provision from fathers. The most pronounced effect is found for maternal death which greatly increases the risk of experiencing both events. In addition, we also find that paternal education decreases the risk of not receiving financial support but has no effect on father contact. We find no effect of household attributes that we examined on the risk of facing either event.

Introduction

Black men in South Africa face high rates of unemployment and union instability partly as a result of the apartheid legacy that limited their employment opportunities and disrupted traditional family arrangements. These factors, combined with cultural norms that promote shared responsibility for child rearing among kin, has profoundly influenced the involvement of Black fathers in their children's lives (Morrell and Richter 2006, Swartz and Bhana 2009). Existing research on the role of fathers is limited to paternal presence (Cunningham et al. 2010; King et al. 2004) and survival (Case & Ardington 2006) with little known about other aspects of father involvement in the South African context. Despite the recognition that fathers can play an important role in their children's lives, research in the South African context is still in its early stages. This contrasts with the growth in scholarship and policy development on fathers in the US and other high-income countries. In this paper, we use data from the Birth to Twenty Cohort study in the greater Johannesburg area to accomplish three objectives: 1) to describe two dimensions of father involvement - contact and provision of financial support - at different developmental stages of children in the early life course; 2) to estimate survival probabilities of father involvement in the early life course of children and 3) to identify parental and family factors that might help explain why some children face the experience of not having father involvement sooner than others..

The value of this analysis can be seen in several important ways. One is the conceptualization of fathering which we see as multidimensional, dynamic, and dependent on child's development stage. Borne out of necessity and cultural preference, fathering among Black men in a low-income context in South Africa is characterized by fluidity, shifting configurations of care, and adaptation over the life course. In this sense, the South African context offers a unique opportunity to advance understanding of how marginalized men exercise agency in meeting their fathering responsibilities under condition of pervasive social inequality. Two, is the use of the Birth to Twenty dataset which allows us to use a life course perspective in studying father involvement. Three, this analysis contributes to a growing trend to move away from hegemonic models of fathering based on white, middle class (primarily based on US context) norms and consider

alternative formulations of supportive fathering in non-Western contexts (Schwalb et al. 2004; Nsamenang 2010). Finally, the findings from this analysis will make an important contribution to the study of low-income fathers globally and to policy development aimed at strengthening the role of fathers in promoting healthy development of children who grow up in disadvantaged contexts.

Fathers in the South African context

The challenges that Black men face in South Africa have been well documented. Whereas overall unemployment stood at 24% in 2011, the unemployment rate for Black men was at 28% (Stats SA 2011). Labor migration, which was institutionalized under apartheid and continues today, has resulted in high rates of residential separation between fathers and their children. This has resulted in households functioning as 'stretched' residential units, with family members 'dispersed' between different households for reasons of work, care, support and housing (Murray 1980). According to recent data, only 37% of children lived with their fathers (Stats SA 2011). In such a context, Black fathers, and men more generally, have lost status in both domestic and public spheres (Lesejane 2006) compounded by negative portrayals of fathers as disengaged and irresponsible particularly towards their children (Morrell & Richter 2006). This perceived "crisis in fatherhood" has resulted in scholarly interest in the role of Black fathers and has prompted intervention efforts to strengthen the involvement of fathers in their children's lives.

Despite myriad assaults on Black families brought on by apartheid and post-apartheid conditions, fathering has always been a crucial aspect of Black family life (Morrell and Richter 2006). Fathers are expected to provide for their families (Moodie and Ndatshe1994; Silberschmidt 1999) and the failure to do so is a cause for shame (Wilson 2006). They are also expected to provide moral guidance and affection to children through communication, play and role modeling (Hunter cited in Reynolds 1984). Not having a paternal link, made evident in not carrying his surname or acquiring the father's clan name, is cause for great concern for children and youth (Ramphele 2002; Richter 2006) and their families (Madhavan 2010).

Others have emphasized the unique contributions of fathers to their children such as the provision of social capital, emotional support, a kin identity, and most importantly, love and care (Morrell 2006; Nsamenang 2000). Montgomery et al. (2008) highlight Black men's emotional and practical support in families coping with HIV/AIDS in rural South Africa. In order to understand how fathers do or do not meet expectations amidst so many challenges, we first need to utilize an appropriate conceptual framework.

Conceptualizing Father Involvement

Father Presence

One of the most common measures of father involvement in any context is father presence based on responses to questions on fathers' co-residence with children. Given that most demographic data collection on parent-child relationships tends to be limited to co-residential households, the presence/absence of fathers is the most common indicator of fathers' involvement in their children's lives (Hosegood and Madhavan 2011). Using this measure, Table 1 shows the proportions of children whose fathers are "present", "absent" and "dead" in selected countries in Africa.

Insert Table 1 here

Lower proportions of children in southern Africa have present fathers compared to children in Kenya, Mozambique and Malawi and substantially fewer than children in Nigeria where 82.6% of children have a co-resident father. Table 2 presents recent statistics on father co-residence for children in South Africa broken down by age group.

Insert Table 2 here

The percentage of children with co-resident fathers has been stable over time at about 37-40% (although it varies by household socioeconomic status). It is also fairly similar across age groups. If we were to only use this indicator to measure father involvement, we would conclude that the majority of fathers are

disconnected with their children in South Africa. However, that would be a limited and potentially misleading conclusion because non co-residence does not necessarily mean 1) not having contact or 2) not providing financial support for children. Indeed given the high levels of labor migration and high rates of non-cohabitation by parents, relying solely on co-residence is inappropriate for the South African context. The limitations of relying on co-residence have been demonstrated in recent work in a rural context. Townsend et al. (2006) showed that there have been historic changes in the pattern of social organization that have resulted in new forms of connection that fathers have with their children. Moreover, Madhavan et al. (2008) showed that not only are non co-resident fathers able to maintain contact with their children but many are also able to provide financial support.

Multidimensional Approach to Father Involvement

One way to address the limitations of using father presence is to turn to Lamb et al.'s (1985) conceptualization of father involvement. The model has three critical dimensions: access or time spent in the presence of the child, paternal engagement or direct interaction with the child, and taking responsibility for the child's welfare or actively making sure that the child is taken care of. The model has been widely applied in studies of paternal involvement though there has been substantial variation in the ways in which the three components have been operationalized. For example, Hofferth (2003) used time diaries to develop a measure of access; responses to questions on the allocation of tasks to measure responsibility and data on frequency of actions such as hugging and disciplining to measure engagement. Carlson (2006), on the other hand, used data from children about their relationships to their biological fathers to develop a seven dimensional measure of involvement.

Limited by data availability, in this analysis, we focus on two out of the three dimensions: access or time spent in presence of the child and responsibility. Access in this context includes both co-residential and non co-residential contact which takes into account high levels of mobility for employment as well as

frequent change in union status. Responsibility in this analysis refers to the provision of financial support which, we see, as a key determinant of a father's ability to take responsibility for his child's welfare. Whereas the provision of financial support is seen as a universal expectation of fathers (Lamb 1997), there is variation in expectations and practice of how much and how often fathers provide (Coley and Chase-Lansdale, 1998; Rangarajan and Gleeson 1998). While our conceptualization deviates from Lamb et al.'s (1985) original model, we believe that it, nonetheless, captures the prevailing norms and expectations in Black communities in South Africa (Morrell and Richter 2005). One limitation of the model, for the Black South African context, is its focus on biological fathering when we know that social fathers and other kin play an important role in child rearing. Therefore, we incorporate a measure of kin support in our analysis (see details in Methods section).

Determinants of Father Involvement

A number of scholars have highlighted key factors that contribute to sustained father involvement. These factors are conventionally grouped into three categories: paternal attributes, maternal attributes, and family factors. For Black fathers in South Africa, unemployment affects their ability to interact with their children in several ways. First, not being able to provide financially results in shame and depression (Thabane and Guy 1984; Case and Wilson 2000) and may cause fathers to disengage. Second, the lack of local employment opportunities forces fathers to leave home to look for work (Wilson 2006) which inhibits direct communication with their children and fundamentally disrupts the established family structure (Moodie 1994). However, non-residential employed fathers are able to maintain relationships with their children through regular phone calls, visits and by demonstrating commitment through regular remittances (Madhavan et al. 2007; Townsend et al. 2008). Third is the link between unemployment and union status. Lack of or poor employment prospects have served as disincentives for Black women to enter into and/or remain in formal unions (Hunter 2009). Consequently there is concern that women's choice to remain unmarried or disengaged from the fathers of their children will have a profound effect on fathers' ability to maintain a healthy relationship with their children (Wilson 2006). Research on fathers'

age at birth of children suggests that men who father children at a young age may be involved at the time of birth but are not emotionally or financially ready to take on the responsibilities of fathering and therefore are more likely to disengage (Danziger and Radin 1990). However, Swartz and Bhana in their study of young fathers in Cape Town portray at least some of their respondents as highly engaged (2009).

It has been well established that mothers play an important role in mediating the relationship between fathers and their children (Amato and Gilbreth 1999; Allen and Hawking 1999). The extent to which mothers support or inhibit father involvement depends, among other factors, on their age at the birth of the child, educational attainment and survival. Young mothers may lack the skills to manage the relationship between their children and the fathers effectively. This may also hold true for those mothers who have minimal educational attainment. Mothers' influence on father involvement clearly depends on the relationship she has with the father of her children. Studies have consistently shown that positive relationship between parents promotes father involvement (Carlson & McLanahan 2004; Gottman 1998; Coley and Chase-Lansdale 1999). Survival of mothers is likely to have an important effect on father involvement particularly in contexts with high HIV prevalence. While it might be expected that the death of mothers strengthens father involvement, recent studies from South Africa show that maternal orphans are less likely to be co-members of households with their fathers than non-orphans (Hill et al. 2008; Hosegood et al. 2007).

Unlike Western contexts, fathers' involvement with their children is not necessarily dependent on biological links. There is a well-established line of research in Africa that shows that the biological relationship between fathers and their children may not be as important as the kin group into which children are born (Lesenjane 2006; Riesman 1992; Townsend 2000) and that kin play an important role in child rearing in the African context (Mkhize 2004). For example, in many Black communities in South Africa, the oldest brother of an unmarried woman with a child would have key paternal responsibilities as a "social father" (Niehaus 1994, Junod 1962). This may include the provision of financial support, moral guidance and practical assistance in school and other activities. Social fathers may exist in lieu of or along

with biological fathers. However, the influence of extended kin can sometimes be contentious. Swartz and Bhana (2009) in their study of fathers in Cape Town, South Africa, describe how extended kin both facilitate and inhibit young fathers from developing relationships with their children. US based research that has examined this relationship quantitatively has found either no effect (Danziger and Radin 1990) or an inhibitive one (Kalil et al 2005).

Data and Analysis

Data Description: The Birth to Twenty (Bt20) is one of the longest running birth cohort studies in Africa situated in the greater Johannesburg-Soweto municipality in South Africa (Yach et al. 1991). The majority of families live in socioeconomically disadvantaged circumstances. Bt20 was initiated as an observational, systematic study of human development, health and well-being - from birth extended through to young adulthood (Bt20). Data collection has covered a broad range of topics including anthropometric measures, nutrition, family composition, socioeconomic circumstances, childcare, parenting, cognitive development, and social experiences at home, school, and in the community. Prospective data collection began in the antenatal period and continued with approximately 21 follow up visits until age 20. Children born between April and June 1990 and resident for at least 6 months in the Soweto-Johannesburg municipality were initially enrolled into the study (n=3273). The cohort includes Black, White, Indian and Colored children[1] but we limit this analysis to only the Black children (n=2568) who comprise the largest proportion of the cohort. Even though data have been collected through age 20, this analysis uses age 18 as the end point. Table 3 provides selected descriptive characteristics of the cohort at the start of the study.

Insert Table 3 here

A little more than a third of the cohort is comprised of first births and the mean age of mothers at birth is 25. More than a third of all mothers are married or living together. The majority of mothers have had at

[1] These were the conventional identifiers for population groups in South Africa under apartheid and continue to be used now in most data collection in order to highlight continuing disadvantage for the Black African population.

least some secondary school education. We find a similar distribution for fathers on educational attainment though there is a sizeable missing proportion. Household wealth index which ranges from 1 (very poor) to 5 (wealthy) shows highest proportions in the 2nd and 3rd quintile. Finally, we find that the majority of households are classified as extended family structure though there is, once again, a sizeable number of records with missing data.

Data on Fathers: All data on fathers come from self-reported identification of biological fathers[2]. Data available in Bto20 on father involvement have been collected in two ways. Prospective data collected as part of the household rosters to determine father co-residence, and provision of financial support by fathers for most years of data collection. Contact with child (when fathers are not co-resident) is only available for some of the years which means that we may be underestimating father contact for years in which fathers do not appear on the roster and no additional data on contact is available. To address this issue and to fill in other missing prospective data on fathers, a retrospective questionnaire specifically focusing on father involvement over the child's life course was administered at year 18. The questionnaires included detailed information on fathers' co-residence with the child, extent of contact if not co-resident, provision of financial support, and other forms of interaction with the child from birth until age 18. To both maximize our sample size and improve the validity of our measures, we use the retrospective data to supplement the prospective data but always privilege the prospective wherever it is available. There are two drawbacks that need to be acknowledged. One, most of the data on fathers come from mother's or other caregiver's reports. Research from the US context has highlighted the potential biases in mother's reports with mother consistently underreporting fathers' involvement (Coley and Morris 2002). It is difficult to establish this in the Bt20 data but preliminary analysis of the retrospective data shows that mothers' reports of father contact over the life course are consistently lower than fathers' reports of their involvement (though they are reporting on two different sets of children). Two, the use of retrospective data introduces problems associated with memory recall the farther back in time that data

[2] It is possible that, in some cases, men other than the biological fathers may have been identified as fathers

are sought. When we compared retrospective reports of father presence in the 0-2 time period with prospective data for the same time period, we found that 85% of reports matched. However, more systematic checks should be done to address this issue.

Analytical Sample: Attrition over the course of the BT20 study has been about 30%, mostly occurring during infancy and early childhood when women moved back to their rural homes after giving birth (Norris 2007). A small number of children were lost to follow-up as a result of death. There have been very few withdrawals from the study. After removing non-Black children, the sample is reduced to 1942 girls and boys followed up from birth to age 18. Out of the 1942, 1563 were administered the retrospective questionnaire. A further 7 were removed because of insufficient data bringing our final analytical sample size to 1557.

Analysis: We include two indicators of father involvement: contact with child and provision of financial support, both treated as dichotomous (1/0) variables based on data availability. A father is counted as being in contact if he is 1) co-resident with the child (based on household rosters) or 2) in contact with the child but not co-resident. The latter response is based on responses to a question that asks "How often does the BTT child have contact with his / her biological father?" Provision of financial support is assessed by the question "In the past year, who was mainly responsible for the material support of the child." Descriptive analysis examines each of the two dimensions of father involvement across developmental stages. We aggregate years into four key developmental stages: 0-2 (infancy); 3-5 (pre-school), 6-11 (primary school), and 12-18 (early to late adolescence). These age groupings are consistent with key markers of stages of child development (Maccoby 1998).

Survival bias: In our quest for maximizing sample size by integrating retrospective data with the prospective data, we are left with "survivor bias" in that the analytic sample is comprised of those children who "survived" in the study until year 18. It is indeed possible that those children who were lost to follow up might have had weaker links to their fathers which would, in turn, contribute to an

overestimation of father involvement in our analysis. We examined this issue by comparing the children who dropped out with those who survived. Appendix 1 shows the differences in means of duration of father contact for kids who dropped out and those who did not by age of attrition. With the exception of two attrition periods: 6 months – 2 years and 12-13, none of the differences are significant suggesting that our estimates of father contact in this analysis are not profoundly affected by survivor bias. However, similar analysis should be done to examine possible biases in estimates of fathers' financial contribution.

To examine survival probabilities of father involvement, we use Kaplan-Meier estimation techniques to determine probabilities of children experiencing the event which is defined as "not having contact with fathers" and "not having financial support from fathers." We include children whose fathers were not in contact or providing support at birth and set the time of these events at time 0. An observation is censored if event does not occur by the age of 18 when the observation period ends or when the father dies before the event occurs. We limit this analysis to the first event but we recognize that father "events" can be a recurring event. We hope to examine this in future work.

To examine correlates of father involvement, we use Cox proportional hazards (PH) model to determine the influence of selected father, mother and household characteristics on the risk of children experiencing not being in contact with their fathers and not receiving financial support from fathers. PH models are widely used because they do not require the specification of the distribution of the baseline hazard. Another advantage of Cox models is the ability to handle missing values. However, the model is based on the assumption that the hazard ratio is independent of time. In other words, the effect of a covariate remains constant over time. In order to verify this assumption, we included interaction variables with time in the model and found no significant effects whereby confirming that the PH assumptions hold.

The dependent variable is the time to event which is defined in 2 ways: 1) first experience of not having contact; and 2) first experience of not receiving financial support. The co-variates of interest include 1) paternal characteristics; 2) maternal characteristics; 3) parental union status and 4) household

characteristics. The paternal attributes include father's age at birth, father's educational level at time of birth, and social class at time of birth (6 rank ordered categories with 0 being unemployed to 6 referring to professional employment). The maternal characteristics include mother's age at birth, mother's education at time of birth, and survival. Two hundred and twenty eight children become maternal orphans before the age of 18 in this cohort. The data do not permit us to measure the quality of parental relationships. Therefore, we need to rely on parental union status at time of birth is a dichotomous variable (1 – not in union/not married; 0 – in union/married) as a proxy measure of the union context. Household characteristics include household structure at time of birth (0=nuclear; 1=extended) and household wealth at time of birth measured by an asset score and grouped into quintiles. Both measures capture, albeit imperfectly, the potential effect of co-resident kin in child rearing. Control variables are sex of child (M/F) and parity/birth order (1-4). All covariates are measured at time of child's birth except maternal survival which is time varying.

Findings

Table 4 shows the proportion of children in three contact types across life stages. Full contact means continuous/uninterrupted throughout the period; partial refers to interrupted and no contact means not having any contact during the period. Children whose fathers died at some point in the period are treated as a separate category.

Insert Table 4 here

Seventy-five percent of children have full contact with their fathers throughout early infancy but this figure decreases with age and development stage of child to about 46% in the 12-18 age group. Conversely, the proportions who have no contact with their fathers gradually increases from around 9% in infancy to 15% in the oldest age group. The proportions who are in partial contact varies appears to be much more dynamic quite likely reflecting the complexities of union formation and dissolution on the part of both parents. Table 5 presents similar results for the provision of financial support.

Insert Table 5 here

Similar to Table 4, the proportion of children who receive financial support from their fathers throughout the period decreases from a high of 66% at ages 0-2 to below 40% at the oldest age group. However, the proportions who receive no support during the period is similar across age groups though much higher overall than those who have no contact possibly reflecting the challenges brought on by high unemployment that makes it difficult for men to provide for their children. They may also be capturing fathers' difficulties in meeting age specific needs of children. In other words, it may be easier to pay for early childcare needs (diapers, food) than for school related expenses later on in life.

In comparing the two tables, it appears that where there is financial support, there is contact; however, the converse is not necessarily true in the sense that fathers can be in contact with their children but not provide support. Indeed, this is what we found when we examined the distribution of a composite measure that accounted for both contact and financial support (table not shown). We now turn to survival probabilities to gain a better understanding of the timing of disruptions in paternal involvement in children's lives.

Survival Probabilities

The first set of curves show survival probabilities for father contact (Figure 1) and the provision of father support (Figure 2) stratified by father's age at the birth of the child grouped into three age bands: 14-20, 21-30 and 31-55.

Insert Figures 1 and 2 here

Not all children begin life having contact with their fathers or receiving support from them. It appears that about 20% start out in this situation. The proportion of children who "survive" without experiencing a "non-contact" event and a "non-support" event drops to about 55% by age 5. This does not vary substantially by father's age at the birth of the child. Survivorship continues to decline after age 5 but

does so more gradually. By age 18, only 40% of children have never experienced any period of non-contact or non-support. It is not surprising that the biggest declines in survivorship happen in the first 5 years of a child's life. The initial excitement surrounding a child's birth is often followed by the sober reality of financial insecurity and the challenges of keeping an intact union. It may also reflect fathers' difficulties of meeting age specific caregiving responsibilities.

The second set of curves show survival probabilities for father contact (Figure 3) and the provision of father support (Figure 4) stratified by parental union status at the birth of the child. The two categories are: "married or cohabiting" and "not in a relationship or casual relationship." The main difference in the categorization is the degree of stability in the relationship.

Insert Figures 3 and 4 here

Unlike the first set of figures, we see substantial differences in the survivorship curves by union status of parents at the time of birth. For children whose parents were not in a union at time of birth, 60% "survive" to age 5without having experienced a "non-contact" event. For children whose parents were in a union at time of birth, the figure is nearly 90% at age 5. While the proportions surviving without experiencing a "non-support"event are lower overall, the same differences hold. The survivorship curve for children whose parents were in union decreases gradually ending up at around 70% for contact and 60% for support provision at age 18. The curve for children whose parents were not in a union at the time of birth shows a dramatic decline in the first 5 years followed by a more gradual decline until age 18 where we find 40% of children not having experienced "non-contact" and "non-support" events. The fact that greater proportions of children whose parents were not in union experience a disruption is not particularly surprising but it is interesting that the most volatile period is the years between birth and age 5. Again, this period appears to serve as a time to determine if and how men can manage a relationship with their child in the absence of a relationship with the mothers of their children.

In order to better understand which factors influence the timing of events, we turn to the multivariate results.

Correlates of Father Involvement

Tables 6 and 7 shows results from three Cox models predicting the hazards of children first experiencing non-contact (6) and non-provision of financial support (7). Model 1 includes only child characteristics, parental marital status and paternal characteristics. Model 2 adds maternal attributes and model 3 includes household attributes.

Insert Table 6 here

Child attributes appear to have no effect on the risk of experiencing a non contact event. However, parents' union status at the time of birth has a strong effect in all the models. Parents being in union at the time of the birth decreases the risk of experiencing a non-contact event by about 50% compared to having parents who were not in union. Age of mother at birth of child has a marginal effect such that the older the mother, the lower the risk of experiencing a non contact event. The most striking effect is the role of maternal death. The death of a mother more than doubles the risk of experiencing a non-contact event. None of the paternal attributes nor the household attributes has any effect. We now turn to results for experiencing a first "non-provision" of financial support.

Insert Table 7 here

Similar effects are apparent for child attributes, parent's union status and age of mother at birth of child as were found for father contact. In addition, we find father's educational level at the time of child's birth having a marginal effect. The higher the level of educational attainment at the time of child's birth, the lower the risk of experiencing a non-provision of support event. This could be a reflection of greater access to employment opportunities which, in turn, enables sustained provision of financial support or perhaps a different perception of obligations towards one's children. In other words, men with higher

educational attainment feel a stronger obligation to provide support because they are more confident in their ability to do so..The effect of a maternal death is even greater for first disruption in the provision of financial support than for disruption of contact. Children who lose a mother face four times the risk of disruption as children who have mothers who are alive. Contrary to expectations that the death of a mother might strengthen fathers' involvement in their children's lives, we find that it might actually expedite a disruption in the provision of financial support. The fact that this effect holds even after controlling for household wealth and structure suggests underscores the importance of mothers' roles in keeping fathers linked to their children.

Discussion

In this analysis, we set out to better understand the ways in which fathers are involved with their children and life course patterns of involvement by focusing on two key dimensions of involvement: contact and provision of financial support. Several key findings merit some consideration. First, we find that a high proportion of children experience a period of no contact and not receiving support from their fathers in the first 5 years of life. This is similar to findings in the US literature that has documented the waning of father involvement in early childhood (Furstenburg and Harris 1993; Cutrona et al. 1998). This is likely a result of the challenges that men face with child rearing which, in turn, precipitates instability in their relationship with the mothers of their children. It might also relate to changes in partnering with or without subsequent childbearing in which competing demands emerge and where new partners are able to make more demands on the man than older partners. Additionally it might also be reflecting a sense that young children are more vulnerable and require more support. In other words, fathers may sense greater social approbation when they do not contact or provide for the mothers of their very young children, an internalised or externalised attitude that might not be as strong for fathers of older children. Second, we find that union status of biological parents at time of child's birth has a consistently strong effect on the risk of children experiencing both non-contact and non-provision of support from fathers. Children whose parents were in a union at the time of birth face far lower risks of experiencing either event. This finding

suggests that fathers who are committed to the mothers of their children when children are born are less likely to break their involvement even in the first 5 years when the relationship is tested. We also find some evidence for the role of education in keeping fathers involved. We find that children whose fathers have higher levels of education at the time of their birth face lower risks of experiencing "non-provision" of resources. To the extent that education and employment are correlated, this finding makes sense. As has been noted for the US ((Lamb 1997; Carlson and McLanahan 2004) fathers are more likely to disengage if they feel that they cannot play the provider role. High levels of education may increase fathers' self esteem and confidence in their ability to provide for their children.

Third, we find that maternal death has a powerful effect on the risk of experiencing both non-contact and non-provision of support from fathers. Children whose mothers die face substantially higher risks of experiencing both events. This is particularly troubling in settings marked by high HIV prevalence and brings to light the possibility of children facing challenges associated with losing both parents even if one is still alive. Unlike other African countries, in South Africa, maternal orphans are less likely to be co-resident or co-members of households with their father than non-orphans. One explanation is that it has to do with the living arrangements of the child prior to the death of the mother (Hosegood et al. 2007). In situations where the child is living with both parents in a marital union, the child is likely to remain in the same household with the father. Fathers may go on to bring in additional carers or to take another partner but there is less movement of the child and the father continues to be present. In a situation where parents are not married or not co-members of the same household as tends to be the case in so many households in South Africa, the child is more likely to be living with maternal kin. This makes it more likely that the father will disengage.

In interpreting these results, it is important to emphasize that we limited this analysis to only the first event. There is compelling reason to view experience of "no father contact" or "no support provision" as a recurring event. Our initial analysis suggests that 24% of children experienced "no father contact" and 32% experienced "no provision of support" as temporary events. In a context in which union dynamics

are volatile and where the connection to the labor market is tenuous at best for Black men, it would be expected that fathers exit and re-enter children's lives. Therefore, there is a clear need to distinguish permanent ruptures in involvement with temporary disruptions which we plan to do in future analyses. Moreover, recent work suggests that time span of examining father involvement should be expanded to include the prenatal period (Shannon et al. in press). However, we believe that there is value in examining the timing of and predictors of "first exit" as we have done in this analysis. Related to this issue is the measurement of co-variates, almost all of which we have constrained to be time constant in this analysis. While a case can certainly be made that conditions at the time of birth may have a unique effect on the timing of events later on in life, it is likely more realistic to account for the time varying nature of these co-variates. Finally, it would be very valuable to incorporate markers of child's development stage other than age. For example, one might expect an independent effect of cognitive development on father involvement or a mediating effect on other predictors of father involvement.

Future research should also examine the role of mothers in mediating father involvement using other measures. For example, maternal gatekeeping through which mothers monitor the time that fathers spend with their children and the quality of that interaction can be examined further by including more nuanced indicators of maternal contact, and the amount of support that mothers provide. Given that we know that mothers' influence is, in large part, mediated through the quality of their relationships with the fathers (Carlson and McLanahan 2004; Gottman 1998), it might also be useful to investigate this issue using qualitative methods. Finally, it would also be valuable to examine age specific effects of maternal death on father involvement.

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Table 1. Father's Residential Status for Children (0-14) in Selected Countries in Africa

	South. Africa	Namibia	Zimbabwe	Kenya	Mozambique	Malawi	Nigeria
Present	41.5	33.8	54.1	64.1	67.6	63.2	82.6
Absent	51.1	57.6	34.5	28.4	24.7	28.5	13.4
Dead	8.4	8.6	11.4	7.5	7.7	8.3	4

Source: Posel and Devey (2006)

Table 2. Estimates of Father Co-Residence by Age Group in South Africa

	0-2y	3-4y	5-6y	All children 0-6
2005	40%	39%	40%	40%
2006	40%	40%	39%	39%
2007	39%	38%	39%	38%
2008	39%	39%	38%	38%
NIDS 2008[1]	40%	40%	43%	41%
2009	37%	38%	39%	37%
2010	38%	38%	35%	37%

Source: Statistics South Africa
[1]National Income Dynamics Study

Table 3. Selected Characteristics of Black Children in Bto20 Cohort at Birth

Sex of Child			Paternal Education	
Male	49%		No Schooling	1.1%
Female	51%		Some primary	2.5%
Parity			Completed primary	4.2%
1	36%		Some secondary	21.2%
2	30%		Completed matric	26.1%
3	18%		Post-School	10.7%
4+	16%		Missing	34.2%
Maternal Age (mean)	25		Household Wealth Index	
Mother's Marital Status			1	19.6%
Married	28.9%		2	16.4%
Living Together	7.2%		3	28.9%
Divorced/widowed	.9%		4	16.1%
Single	62.3%		5	7.8%
			Missing	11.2%
Maternal Education				
No Schooling	1.8%		Household Structure	
Some primary	7.3%		Nuclear Family	21.9%
Completed primary	7.3%		Extended Family	53.9%
Some secondary	39.5%		Missing	24.1%
Completed matric	28.9%			
Post-School	7.1%			
Missing	8.1%			
N	2568		N	2568

Table 4. Children's Contact with their Biological Fathers

	0-2	**3-5**	**6-11**	**12-18**
In contact throughout age period	75.5% (1176)	61.3% (954)	57.7% (899)	46.9% (730)
In contact partially throughout period	12.1% (189)	16.5% (257)	10.6% (165)	15.5% (242)
No contact in period	8.9% (138)	16.2% (252)	20.6% (321)	15.2% (237)
Dead (at any point in period)*	2.3% (35)	3.9% (60)	9.8% (153)	21.6% (337)
Missing (for any year in the period)**	1.2% (19)	2.2% (34)	1.2% (19)	.7% (11)
Total	1557	1557	1557	1557

*Dead refers to cumulative deaths of fathers across life stages **Missing data is a result of the question(s) not being answered or the child not followed up in a particular round

Table 5. Provision of Financial Support from Biological Father to Child

	0-2	**3-5**	**6-11**	**12-18**
Support throughout period	66.4%(1035)	52.3% (814)	48.3% (752)	38.3% (596)
Provide support partial	3.7% (58)	18.6% (290)	21.7% (338)	18.0% (280)
No support in period	23.8% (370)	22.8% (355)	19.3% (301)	21.2% (330)
Dead (at any point in period)*	2.2% (35)	3.9% (60)	9.8% (153)	21.6% (337)
Missing (for any year in the period)**	3.7% (58)	2.4% (38)	.8% (13)	.9% (14)
Total	1557	1557	1557	1557

*Dead refers to cumulative deaths of fathers across life stages **Missing data is a result of the question(s) not being answered or the child not followed up in a particular round

Figure 1. First Experience of Not Having Contact with Fathers by Father's Age at Birth of Child

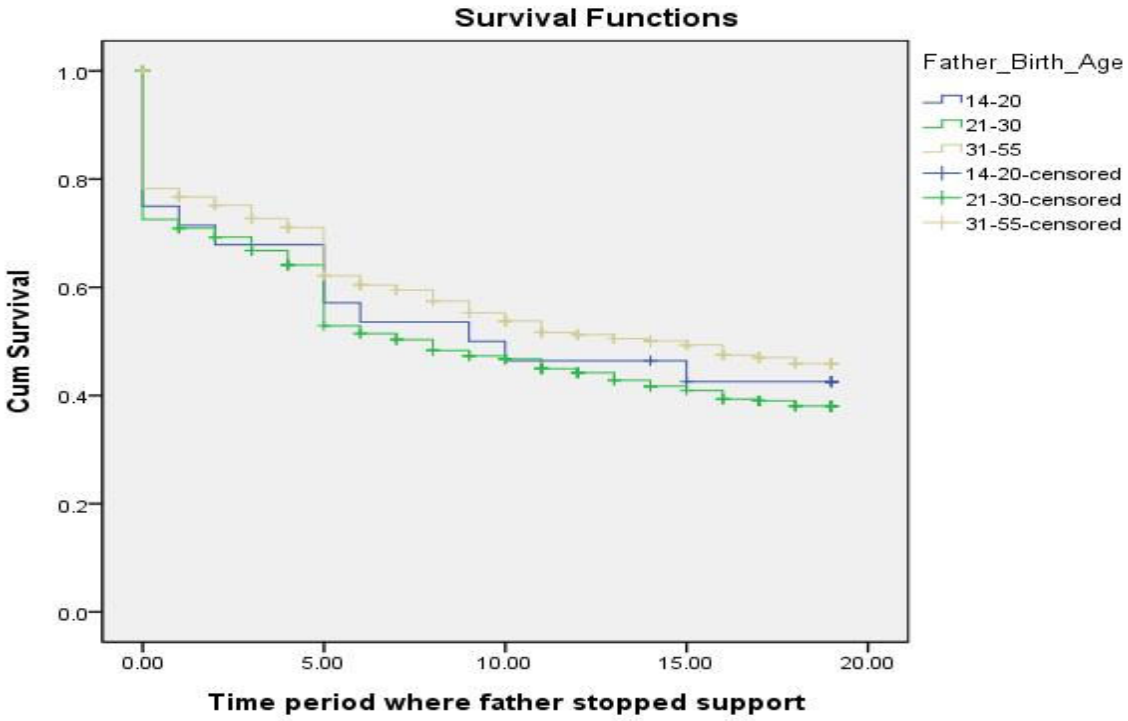

Figure 2. First Experience of Not Receiving Financial Support from Fathers by Father's Age at Birth of Child

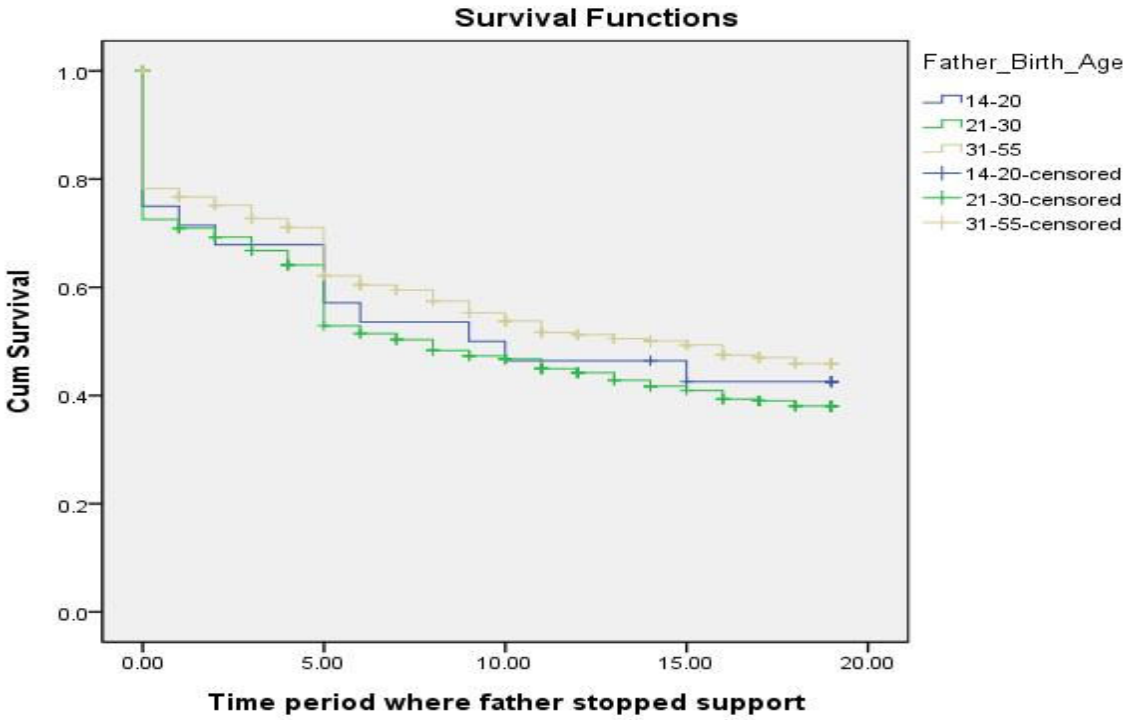

Figure 3. First Experience of Not Having Contact with Fathers by Parental Marital Status at Birth

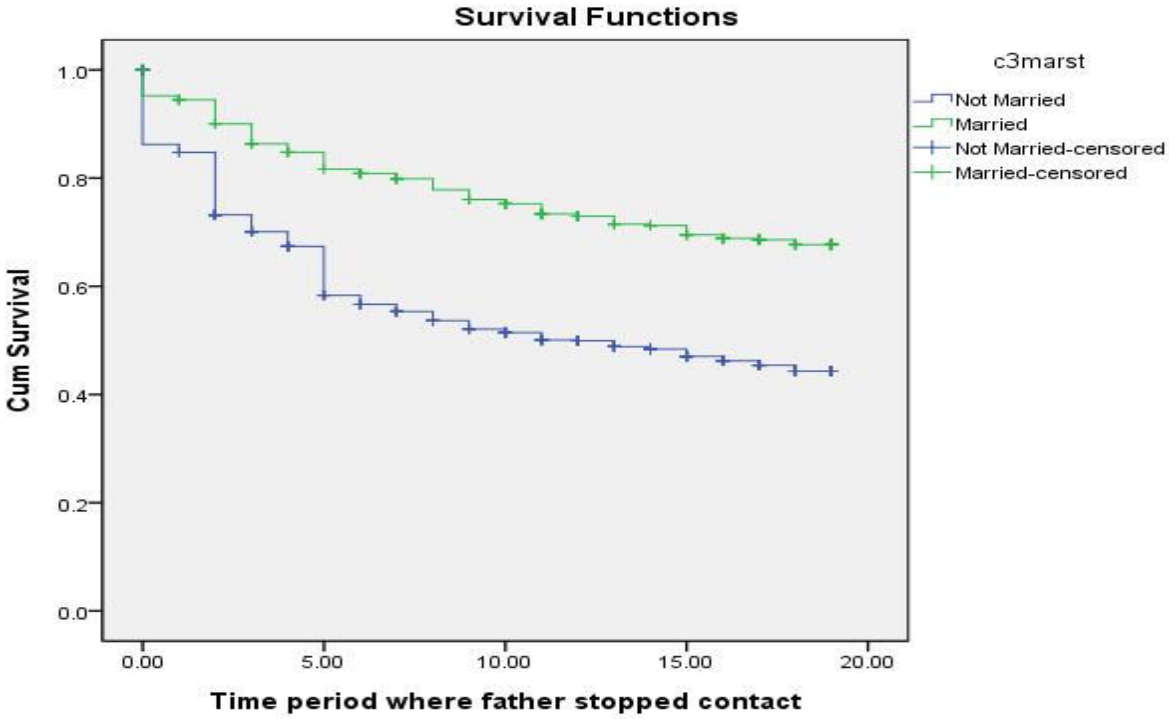

Figure 4. First Experience of Not Receiving Financial Support from Fathers by Parental Marital Status at Birth

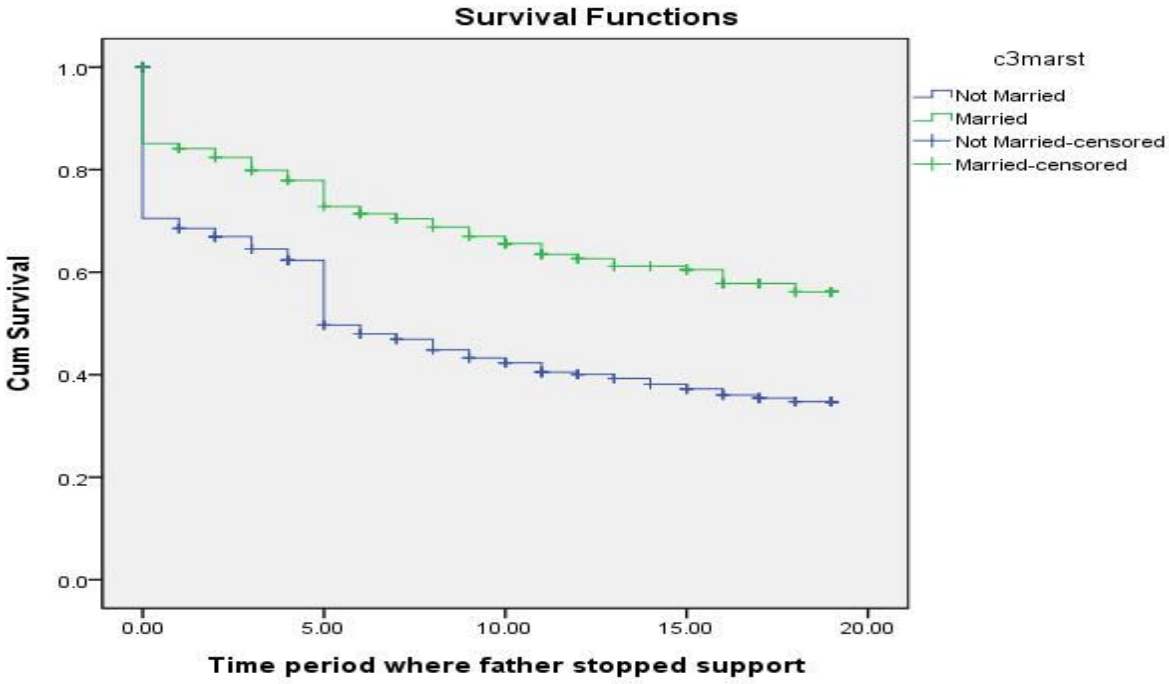

Table 6: Risk of children experiencing a first "non-contact" event by age 18

	Model 1	Model 2	Model 3
	Odds Ratio	Odds Ratio	Odds Ratio
Child Characteristics			
Sex of child (ref: female)	.998	.993	.994
Birth order of child	.972	1.046	1.053
Parental marital status at birth of child (ref: not in union)	.458***	.473***	.500***
Paternal Characteristics			
Age at birth of child	.996	1.003	1.004
Educational level at birth of child	1.003	1.002	.997
Occupational status at birth of child	1.107	1.039	1.040
Maternal Characteristics			
Age at birth of child	xxxxxxx	.976*	.978*
Educational level at birth of child	xxxxxxx	.999	.987
Maternal Death	xxxxxxx	2.372**	2.314**
Household Characteristics			
Wealth Quintile (1-5)	xxxxxxx	xxxxxxx	1.037
Type of Household (ref: nuclear)	xxxxxxx	xxxxxxx	1.217
Log Likelihood	8476.112***	8464.310***	8459.816***
N	1335	1335	1335

*significant at the .05 level; **significant at the .01 level; *** significant at the .001 level

Table 7**:** Risk of children experiencing a first "non-provision" of financial support event by age 18

	Model 1	Model 2	Model 3
	Odds Ratio	Odds Ratio	Odds Ratio
Child Characteristics			
Sex of child (ref: female)	1.083	1.073	1.072
Birth order of child	.947	1.040	1.048
Parental marital status at birth of child (ref: not in union)	.565***	.598***	.622***
Paternal Characteristics			
Age at birth of child	.997	1.007	1.007
Educational level at birth of child	.918*	.917*	.910*
Occupational status at birth of child	1.024	1.057	1.057
Maternal Characteristics			
Age at birth of child	xxxxxxx	.966**	.967**
Educational level at birth of child	xxxxxxx	.986	.974
Maternal Death	xxxxxxx	4.395***	4.361***
Household Characteristics			
Wealth Quintile (1-5)	xxxxxxx	xxxxxxx	1.046
Type of Household (ref: nuclear)	xxxxxxx	xxxxxxx	1.154
Log Likelihood	10242.466	10210.370	10205.822
N	1335	1335	1335

*significant at the .05 level; **significant at the .01 level; *** significant at the .001 level

Appendix 1: Comparison of Mean Duration of Father Contact between Children who Dropped Out and Those Who Did Not by Year of Attrition

Time of Attrition	N (numbers attrit)	Mean Father Contact Until Time of Attrition	Comparison N (non-attrit)	Mean Father Contact Until Time of Attrition	Sig. Level
Birth – 6 months	300	.82	1035	.80	NS
6 mos – 2 yrs	147	.87	1359	.62	***
2 yrs – 7 yrs	80	.6	1913	.6	NS
7 yrs – 10 yrs	54	.64	1843	.6	NS
10 yrs – 12 yrs	23	.62	2011	.58	NS
12 yrs – 13 yrs	14	.66	2028	.57	***
13 yrs – 14 yrs	24	.59	2023	.48	NS
14 yrs – 17 yrs	128	.51	1925	.58	NS
	770		Avg: 1767		

*N for the non-attrit change because of missing data from kids dropping out and back in or not getting the questionnaire;

Note: Significance of difference in means is determined by two sample T-Test; ***sig at .001 level