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Father's Migration and Leaving the Parental Home in Rural Mozambique

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Abstract

Migration is an increasingly common demographic phenomenon and has important implications for the well-being of family members left behind. Although extensive research has examined the impact of parental labor migration on school-age children, less is known about its effect on adolescents. In this study, the authors used longitudinal survey data collected in rural Mozambique (N = 515) to assess the association between father's migration and adolescent children's leaving the parental home, an important component of the transition to adulthood. The results showed that father's migration delays home-leaving for adolescent girls and that these effects are not mediated by school enrollment. The results for boys were inconclusive. The authors also found that remittances and longer durations of paternal migration were negatively associated with the transition out of the home. On the basis of the findings, they argue that father's migration delays girls' marriage.

Keywords

marriage; migration; Mozambique; remittances; sub-Saharan Africa; transition to adulthood

Adolescence is a “demographically dense” (Rindfuss, 1991) stage of the life course—a time when individuals may enter and exit school, begin working for pay, take on new domestic responsibilities, form sexual and romantic relationships, marry or cohabit, leave the parental home, and have their own children. The timing, sequencing, and context of these transitions into adult roles set the stage for adult lives and the degree to which they are healthy, productive, and fulfilling (National Research Council & Institute of Medicine, 2005; UNICEF, 2011). In most contexts—particularly those without well-developed public institutions—family is the primary source of social, practical, and financial resources for taking on adult roles (Brown & Larson, 2002; Steinberg, 2001). Therefore, family processes are central to understanding variation in transitions to adulthood.

Parental labor migration, particularly by fathers, is widespread and increasing worldwide (UNICEF, 2008). In many developing countries, parental labor migration is an important determinant of family context for children left behind. The economic remittances sent by migrant workers can transform economic conditions for their families, and the father's absence can alter both parent–child relationships and the relationship between spouses. Paternal migration can thus have a substantial influence on the social, economic, and health conditions in which children are raised. Although extensive research has examined how these conditions affect child well-being (e.g., Antai, Wedren, Bellocco, & Moradi, 2010; Kiros & White, 2004; Yabiku, Agadjanian, & Cau, 2012), less is known about how paternal migration shapes adolescents' transitions to adult roles. These impacts are likely to differ because adolescents have different opportunities and responsibilities than younger children, and so they are likely to be affected differently by additional household resources and by parental absence.

Leaving the parental household is one of the key events that occur during the transition to adulthood. It is a theoretically important marker of adulthood because the physical separation between parents and children is linked to a decline in direct parental care and supervision of children and in the level of resources provided by parents to children. In rural Mozambique, where this study was carried out, it is rare for young people to establish households alone. Instead, leaving the parental household is usually part of another transition, such as marriage or migration. Both marriage and migration decisions, in turn, are closely linked to educational enrollment and attainment. Thus, decisions about home-leaving are made jointly with decisions about other adolescent roles and transitions.

In this study we used rich longitudinal survey data collected from rural households in Gaza Province in southern Mozambique, an area characterized by high rates of male labor migration, to assess the association between father's migration and adolescent children's departure from the parental home. Models used multivariate logistic regression to predict residential transitions across two waves of survey data. We accounted for several dimensions of migration, including whether remittances were sent and duration of migration, as well as the migration itself. In addition, because adult roles are highly gender differentiated in this context, we considered differences in the impact of migration on boys and girls.

Background

Parental Migration and Children Left Behind

A growing body of literature has examined the impact of parental migration on child well-being in origin communities. Various aspects of child well-being have been studied, including schooling, physical health, mortality, and emotional health. Studies have produced mixed findings regarding whether parental migration benefits children's outcomes (Frisancho Robles & Oropesa, 2011; Hu, 2012; Jordan & Graham, 2012; Lee, 2011; Vogel & Korinek, 2012). These inconsistent findings are likely due in part to heterogeneity in families' experiences with migration. For example, whether families receive remittances from migrant family members, and whether they are invested in child well-being, could affect whether migration has a positive influence on child well-being. Other factors, such as

how families cope with the physical absence of a migrant parent and the influence a migrant parent has on children's educational and career aspirations, could also play a role.

A primary goal of migration is to increase and diversify household resources (Stark, 1991). Most studies of the impacts of migration on origin communities focus on the economic returns received by left-behind families as the key mechanism that alters family environments and outcomes for children. Remittances may be used to improve housing; purchase consumer goods; or invest in land, livestock, or other domestic production. Studies of the impact of migration on children also indicate that remittances are frequently invested in children's welfare, particularly in schooling (Adams, Cuecuecha, & Page, 2008; Cortes, 2008; Mueller & Shariff, 2011; Vogel & Korinek, 2012; Yao & Treiman, 2011). Where school fees are required, remittances can be directly invested in children's schooling, permitting children living in households with a migrant parent to attend school. Children living in households receiving remittances also may stay in school longer because there is a reduced need for children to enter into wage labor. In turn, greater educational attainment would be associated with later home-leaving for children.

However, migration does not always lead to investment in children. First, not all migrants send remittances, and second, even migrants who do send remittances may also have other influences on their children. Viewing the success and wealth that migration brings, some children may aspire to become migrants themselves (Thorsen, 2010). This phenomenon is observed particularly in contexts where the returns to education are low (Kandel & Kao, 2000; McKenzie & Rapoport, 2011). Migrant fathers may also facilitate children's migration by providing them with information about reaching the destination, finding jobs, or other practical aspects of migration; these elements of migration-specific social capital have been shown to be especially important determinants of migration during adolescence (Zenteno, Giorguli, & Gutiérrez, 2013). Thus, parental migration can accelerate home-leaving by encouraging children to migrate.

Migration also has the potential to disrupt family life, including day-to-day roles and responsibilities of household members, and this disruption could differ depending on the age and gender of the child. For example, the departure of a parent can result in the redistribution of household responsibilities (Arias, 2013), with older children bearing an increasing share of this burden. One study in China provides suggestive evidence that girls' schooling suffers more than boys from this added burden (Meyerhoefer & Chen, 2011). It is not clear whether this finding would hold in contexts such as our study site where both domestic and paid labor are highly gender segregated and boys are more likely than girls to be called on to replace their father's labor. In many cases, the financial benefits of migration are not immediate and children may need to work in order to make up for the lost wages of a migrant parent. This increased workload could negatively affect children's school performance and lead to premature school dropout (McKenzie & Rapoport, 2011). It might also delay home-leaving if households rely on contributions from adolescent children.

Finally, the physical absence of a migrant parent is often accompanied by reduced parental guidance and support. Faced with a larger share of responsibilities, the non-migrant parent may have less time and energy to effectively monitor and support children. However, the

impact of reduced parental monitoring on adolescent home-leaving is not clear. Reduced parental monitoring increases the likelihood that younger children will skip school and neglect their studies. Among adolescents, levels of sexual activity are higher when levels of parental monitoring are lower (Biddlecom, Awusabo-Asare, & Bankole, 2009), but there is little research connecting sexual activity and home-leaving. Reduced parental monitoring might lead to earlier home-leaving if it reduces adolescents' attachment to their natal family.

In sum, this body of literature does not identify a single clear pattern for the relationship between father's migration and adolescent home-leaving. The effect of father's migration on adolescent home-leaving likely differs by gender and varies across contexts. Father's migration can generate economic resources, but the impact of these resources on adolescents is mixed: Remittances can be used for school fees but at the same time can encourage adolescents, mostly boys, to leave school to migrate. Similarly, the absence of the migrant father may increase the demands on the adolescent for domestic labor, strengthening the ties of the adolescent to the household, but it may also reduce parental supervision. The links between parental migration and adolescent's departure from the home are likely to depend on the nature and economic outcomes of migration, characteristics of the adolescent, including gender, and the social context of the sending community. Below, we describe the setting of our study and the relevant characteristics of home-leaving and other transitions to adulthood. We then develop specific hypotheses for this setting. Both our hypotheses and our analyses distinguish between the effects of migration related to the economic remittances generated and the effects of migration stemming from the father's absence.

The Setting

Data for this study were collected in rural areas of Gaza Province in southern Mozambique (details are provided in the DATA section). Mozambique, a former Portuguese colony that gained independence in 1975, is located in southeast Africa. After nearly two decades of brutal civil war, terminated by peace accords in 1992, Mozambique experienced rapid economic growth. Despite this growth, the country continues to be one of the poorest and least developed in the world (United Nations Development Programme, 2014). Like other regions in sub-Saharan Africa, the study area is characterized by subsistence agriculture, with limited opportunities for formal sector employment. Gaza Province frequently experiences both droughts and floods, and agricultural production is therefore volatile and unpredictable. Because of the precarious nature of local agriculture, as well as the shared border with the Republic of South Africa, rates of male labor migration to South Africa have historically been high (de Vletter, 2007). In recent years, migrant labor has increasingly shifted from formal employment, largely in South Africa's mining industry, toward the informal sector (Crush & Frayne, 2010; Crush, Jeeves, & Yudelman, 1991; de Vletter, 2007). As a result, the economic outcomes of migration are increasingly uncertain, unstable, and heterogeneous.

Primary school enrollment rates in the study setting are high: Data from the survey used in this study indicate that 90% of boys and 97% of girls age 9–12 (primary school age) were enrolled in school in 2011 (authors' calculations). However, relatively few rural adolescents enroll in secondary school, in part because the supply of secondary schools in rural areas is

limited. In addition, although there are no school fees in the study setting there are nonetheless costs associated with enrollment, such as buying school uniforms and school supplies, as well as informal contributions that parents are expected to make in money, kind, or labor. Households with children enrolled in school also lose domestic and agricultural labor that children could provide. As a result, by age 16 only 55% of boys and 45% of girls are still enrolled (authors' calculations).

Marriage occurs at relatively young ages in this setting, especially for women. According to the 2011 Demographic and Health Survey, 70% of women but only 27% of men age 20–24 were married by age 20 in Mozambique (Ministry of Health, National Institute of Statistics, & ICF International, 2011). In the patrilineal tradition of Gaza Province, marriage has historically been virilocal and bridewealth based; that is, women typically move to their husband's compound or village after marriage, and children are considered to belong to the husband's family; the husband's family makes payments (bridewealth) to the wife's family. As part of the marriage system, the oldest son frequently remains within the parental household upon marriage because he primarily inherits the familial property (Loforte, 2000).

Hypotheses

In the following section we propose hypotheses regarding the association of father's migration with adolescent transitions out of the household. We constructed these hypotheses on the basis of the existing literature on parental migration and children's outcomes while taking into account the specifics of rural Gaza. In this setting, home-leaving is an important event that is typically connected to other events that occur during the transition to adulthood, such as school-leaving, marriage, and migration. Our hypotheses therefore took these linked transitions into account as possible mechanisms. Because social and economic life trajectories in the study setting are highly gendered, and therefore reasons for leaving home differ for boys and girls, our hypotheses were gender specific.

For girls, marriage is the primary reason for leaving home. Migration for work is rare among adolescent and adult females in Mozambique. Although adolescent labor migration is common among both sexes in West Africa (Hertrich & Lesclingand, 2012; Linares, 2003), there is little evidence to indicate that adolescent girls' involvement in work-related migration is common in East Africa. In Malawi, a neighboring country with similar migration and family systems, the most common reason for leaving the parental household for adolescent girls is marriage, whereas most adolescent boys leave for work-related reasons (Beegle & Poulin, 2013; Chalasani, Mensch, & Hewett, 2013). Girls may also leave home to attend secondary school in a town or city. Because secondary school attendance is relatively low in the study site, we anticipated that few girls would leave home for this reason, but we did control for secondary school availability in our models.

We proposed that father's migration delays home-leaving for girls. Father's migration may delay girls' home-leaving by increasing school enrollment if migrant remittances are invested in girls' education. Father's migration may also delay marriage. In contexts such as rural Mozambique, parents have substantial decision-making power over marriage and, where children's marriages can have financial consequences for their families, marriage is also an important component of parental investment in adolescents. Because the bride's

family receives money and resources as part of the marriage exchange, early marriage of daughters is a possible strategy for increasing household resources. Migrant remittances may substitute for bridewealth, reducing the need for early marriage of daughters and leading to later home-leaving. We also expected duration of father's migration to be negatively associated with home-leaving for girls. Duration of migration, compared to remittances, serves as a less direct proxy measure for the success of father's migration. Longer durations of continuous migration likely signify more successful migration, which produces greater economic benefit for left-behind families. Hence similar to migrant remittances, longer durations of migration will lead to later home-leaving.

We therefore formulated the following hypotheses:

Hypothesis 1: Father's migration will delay home-leaving for girls.

Hypothesis 1A: This relationship will be stronger for girls whose fathers send remittances.

Hypothesis 1B: This relationship will be stronger for girls whose fathers have been migrants for a longer time.

For boys, father's migration may be associated with both speeding up and delaying home-leaving, depending on the mechanism at work. As noted above for girls, migration that increases school enrollment will also delay home-leaving. This association may even be stronger for boys than for girls because families are more likely to invest in boys' schooling than in girls' schooling (e.g., Buchmann, 2000; Lloyd & Blanc, 1996; Yabiku & Agadjanian, 2013). It will also be stronger for migration that results in remittances. Similar to girls, the lack of availability of secondary schools in rural areas may result in boys leaving home to attend secondary school in a larger city or town. In our analytic sample, fewer than 18% of boys were eligible to attend secondary school (based on authors' calculations). Thus, we anticipated that very few boys leave home for this reason. Our models included a control for secondary-school availability. As stated earlier, the departure of a family member could result in the redistribution of roles and responsibilities of family members. In cases of paternal migration, boys may experience delayed home-leaving because they are needed to remain at home in order to substitute for their father's labor in agriculture or animal husbandry. (In the study setting, men and boys are primarily responsible for raising and tending cattle, a traditional marker of wealth.) To the extent that migrant remittances can be used to hire paid labor, this association will be weaker in households that receive remittances.

This led us to our second set of hypotheses:

Hypothesis 2: Father's migration may delay home-leaving for boys.

Hypothesis 2A: This relationship may be stronger for adolescents whose fathers send remittances (because boys are more likely to be enrolled in school).

Hypothesis 2B: This relationship may be weaker for adolescents whose fathers send remittances (because there is less of a need to replace their father's labor).

However, because in southern Mozambique labor migrants, especially those who go to work in South Africa, are almost exclusively male, father's migration may also accelerate home-leaving for boys if it increases their own migration, as described above. This association may be stronger for boys whose fathers are more economically successful migrants because labor migration becomes an even more appealing option. It may also be stronger for fathers who have spent more time as a migrant because these fathers are usually more integrated in migrant networks and can provide more assistance to their sons.

With respect to boys, we therefore tested a set of alternative hypotheses:

Hypothesis 3: Father's migration may speed up home-leaving for boys.

Hypothesis 3A: This relationship may be stronger for boys whose fathers send remittances.

Hypothesis 3B: This relationship may be stronger for boys whose fathers have spent longer durations as a migrant.

Analytic Approach

To test these hypotheses, we first calculated bivariate statistics to estimate the overall association between father's migration and adolescent transitions out of the parental household. We then used multivariate models to directly test whether schooling is a mechanism (by controlling for children's school enrollment) and to assess variation in the association according to the characteristics of migration (receipt of remittances and duration). Because our hypotheses specified gender-specific processes, we estimated models for boys and girls separately.

Data

In this study we used data from a longitudinal survey of rural ever-married women in four contiguous districts of Gaza Province in southern Mozambique. Conducted in 2006, the first survey wave collected data from 1,678 married women age 18–40. In each district, 14 villages were selected with probability proportional to size, and approximately 30 women were interviewed in each village. Households were randomly selected in each village, with stratified sampling to produce equal numbers of women married to migrants and non-migrants, and eligible women were randomly sampled within households. In June–July 2009, the survey team attempted to locate and reinterview all women from the original sample, regardless of current marital status or residence. To maximize retention, follow-up data collection efforts were carried out in October 2009 and in June–July 2010. In all, 1,411 women from the original sample (84%) were reinterviewed. A refresher sample was randomly selected to replace women lost to attrition, for a total sample of 1,869 women in 2009. (The sample size was larger in 2009 than in 2006 because the second follow-up data collection effort took place after refreshment sampling, so some women were both “replaced” by refreshment sampling and reinterviewed.) A similar procedure was followed in 2011 to interview a total sample of 2,061 women. Overall, 85% of women from the 2009 sample were relocated and interviewed at the third wave. For women who were not located, a brief interview on the reasons for attrition was conducted with a neighbor or household

member. Most women lost to follow-up were those who had moved out of the area, either because of divorce or to join migrant husbands in South Africa; a few (approximately 3%) died between survey waves. The longitudinal sample therefore slightly underrepresents the experience of children from residentially mobile households and children whose parents died or divorced.

In the present study we used data collected from women in 2009 and 2011. These waves were chosen because the 2006 survey did not collect detailed household roster data, so it was not possible to identify children in the household. The 2009 and 2011 survey waves were nearly identical in structure and content for the variables of interest. Both collected information from women, including basic sociodemographic information, marriage and fertility histories, husband's migration history, information about remittances for current migrants, and information on women's health. In addition to the survey of women, a community survey was conducted with the leaders of sample villages; the community survey collected information on access to public transport and the availability of primary and secondary schools.

In both 2009 and 2011, women listed all regular household members and reported information on each member, including his or her sex and age, whether he or she had slept in the house last night, number of grades of schooling completed, current school attendance, and whether he or she brought any income to the household. They also reported on their relationship to each household member. We used this information to determine whether a household member was a biological child of the woman and her husband and to determine whether adolescents left the household between 2009 and 2011.

Our analytic sample was defined as adolescents (12–19 years) who were listed in the 2009 household roster and whose parents were married to each other in 2009 and 2011. The age range, 12–19 years, was chosen because many of the events that are linked to home-leaving, such as marriage and migration, do not occur until the later teen years. Moreover, the United Nations' definition of adolescents includes children up to age 19. Although some 18- to 19-year-old adolescents may have left the household to seek postsecondary education, very few adolescents in our analytic sample were eligible to attend postsecondary schooling. Among 17-year-old adolescents in our analytic sample, the mean number of grades of schooling completed was 6.4. In rural Mozambique it is not uncommon for children to experience delayed school entry, drop out of school temporarily, and/or repeat one or more grades

We excluded children of unmarried women ($n = 76$ children) because only currently married women were asked to provide spousal migration histories. We also excluded three children whose mothers experienced a divorce or spousal death between survey waves because of difficulties in determining whether adolescent children left the household during the intersurvey period. Because these women had changed households themselves (because of the virilocal nature of marriage, as described above), it is not clear whether adolescent children who no longer lived with their mother had moved out or not. We also excluded two adolescents who died between the 2009 and 2011 survey waves. Finally, we excluded five adolescents who lived in communities with no schools. Initially, these adolescents were included in the analytic sample; however, they were dropped from our regression models

because living in a community with no schooling was found to be perfectly collinear with our outcome variable. Our final analytic sample consisted of 515 children of 355 women. Nine hundred forty stably married women had no children in the target age range coresiding in the same household in 2009.

Dependent Variable

Our primary outcome of interest, whether the adolescent moved out of the household, was created using information collected as part of the household rosters. To determine whether an adolescent moved out of the household, we linked children across the 2009 and 2011 survey waves. Specifically, we used the child's age, gender, and birth order to verify that a child listed in 2009 was the same as a child listed in 2011. If a child was listed in 2011, then we coded the child as still living in the household. If a child was not listed, then we coded the child as having moved out of the household.

Because this measure is constructed indirectly, it is subject to error if not all children are reported on the household roster or if children are not matched properly. To assess the degree of error, we looked at the estimated rate of home-leaving among children under age 5. Children in this age range are more physically dependent than older children on their mothers and rarely live apart from their mothers in the study context. If our measure showed a substantial proportion of children under age 5 leaving the household, this would indicate a problem with the quality of these linkages. We did find that some young children (< 5%) left the household between 2009 and 2011, suggesting some error in measurement. However, this error is small, instilling overall confidence in the quality of linkages. Because we had no reason to expect differential rates of error depending on father's migration status, any error introduced in our results will stem from imprecision rather than bias.

Independent Variables

In this study, we examined the association between father's migration and adolescent transitions out of the household. We measured father's current migration status using the mother's responses to the following question: "In the past month (last 30 days), did your husband spend all the nights in this community, all the nights outside of this community, or some nights in this community and some nights outside of this community?" If the respondent reported that her husband spent all the nights outside the community, then we coded her husband as a current migrant. If the respondent reported that her husband spent at least some nights in the community, then we coded him as a current non-migrant. We coded this variable using data collected at the 2009 survey wave. We did not use data from the 2011 wave because we were interested in whether father's migration status in 2009 predicted adolescent transitions out of the household during the intersurvey period.

It is important to note that our measure of father's migration does not capture migrants who returned home in the 30 days before the survey; however, it is rare for long-distance migrants to return home during the time of year that our fieldwork was conducted; thus, this measure is unlikely to substantially miscategorize men's migration status. We compared our measure of father's migration to reports in spousal migration histories. All men who were coded as migrants using our definition were also reported in the spousal migration histories

to be working outside the province in 2009. Some men reported by their spouses to have been working outside the province in 2009 had spent at least some nights in the community in the last 30 days before the survey. Thus, our measure of father's migration may underestimate the true prevalence. We preferred to measure migration as current absence because the corresponding question was more likely to identify men whose migration is more continuous. In addition, questions about remittances were asked only if women reported their husbands to have spent all nights outside the community. We conducted sensitivity analyses to examine whether regression results changed when we measured father's migration using spousal migration histories, and we found that the results were qualitatively similar. In addition, our measure captured only current migration. Men who had migrated in the past but returned home by 2009 were not treated as migrants in any of our analyses. Past migration may influence adolescent home-leaving, for example, by increasing the likelihood that children start school on time or stay in school. However, these associations are likely mediated by current adolescent and household characteristics. Furthermore, labor migration is typically a career path in Mozambique and is not done sporadically. Men who enter into labor migration usually remain labor migrants for long periods of time. Thus, in this analysis we focused on current migration.

We used two measures to conceptualize different aspects of father's migration: (a) remittances sent home in the past 12 months and (b) duration of migration. If a woman reported that her husband had spent all the nights outside the community, then she answered questions about her husband's migration, including whether remittances had been sent. We created a variable indicating whether the father had sent remittances home in the past 12 months using mothers' responses to the following question: "In the past 12 months, how many times did your husband send you any money?" If the respondent reported "never sent any money," then we coded the father as not having sent money. If the respondent provided a response greater than 0, then we coded the father as having sent remittances. Non-migrant fathers were the reference category for this variable. According to maternal reports, approximately 73% of migrant fathers had sent remittances at least once in the past year. We measured the duration of father's migration using information collected in spousal migration histories. We used women's responses to the following question: "Since the end of the war in 1992, what has your (current) husband done to support the family and where has he done it? What I would like to know is your husband's main occupation in each of those years." (For marriages that started after 1992, the question referred to the years since the start of marriage.) A husband was coded as being a migrant in a particular year if a woman reported her husband as working outside of the community in that year. Duration of father's migration was coded as the number of continuous years the father has been a migrant up until the time of the 2009 interview. Non-migrant fathers were coded as having spent "zero" years in migration. According to maternal reports, the mean duration of migration is approximately 14 years. Because non-migrant fathers are the reference category for these two variables, the measures are statistically equivalent to including interactions between migration status and the characteristics of migration.

On the basis of our theoretical framework, we tested whether schooling represents the mechanism through which father's migration affects home-leaving by controlling for schooling-related variables, including current school attendance in 2009, grades of schooling

completed, and community school availability (lower primary, upper primary, secondary). Our measure of community school availability indicated the highest level of schooling that is available in the community; children living in a community with a secondary school should be less likely to leave home.

We also included control variables that may be associated with adolescent transitions out of the household. We controlled for age, because descriptive analyses indicated that the rates of home-leaving increase for older children. Household wealth (as measured by ownership of durable goods) and maternal education (none, completed 1–4 grades, completed 5+ grades) were included as measures of the resources available in the household. Because oldest siblings, especially oldest sons, have different social expectations in this context, models accounted for whether the adolescent was the oldest. We controlled for the number of household members as well as the number of adolescents (12–19 years) in the household to take into account the availability of household members to provide supervision of and support for the adolescent and the number of people available to provide labor to the household. Finally, we included duration between surveys (in months) as a control variable because not all women were interviewed at the same time. As described in the DATA section, some women were interviewed 1 year later in follow-up data collection efforts. All control variables, with the exception of duration between surveys, were measured in 2009.

Method

We used multivariate logistic regression to investigate whether father's migration is associated with moving out of the household between the 2009 and 2011 survey waves. Because our hypotheses specified gender-specific processes, we estimated models for boys and girls separately. We conducted likelihood-ratio Chow tests to examine whether gender-stratified models provided a better fit than a pooled model of all adolescents. The results indicated that gender-stratified models generated a better fit. We built three sets of models, each using a different conceptualization of father's migration as the key predictor variable. In all models, we adjusted standard errors to take into account the clustering of children within mothers. In exploratory analyses we estimated multilevel models to take into account clustering at both the woman and the village levels and found that results did not change with clustering. Furthermore, intraclass correlations at the village-level were close to 0, indicating that variance in home-leaving does not stem from village-level differences. Thus, we opted to present the simpler model (the results of the models accounting for village-level clustering are available on request).

Because our analytic sample was defined as adolescents living in the household in 2009, we excluded adolescents who had already moved out of the parental home by that year. We used information collected in women's birth histories to determine whether an adolescent had moved out of the household by 2009. Similar to the process for linking children across the 2009 and 2011 household rosters, we manually linked living children listed in the birth history to children listed in the household roster. If a child is listed in the birth history but not in the 2009 household roster, then he or she is coded as having left the household by 2009. Adolescents who had left the household by 2009 did not differ significantly ($p < .05$) from those who were in the household in terms of age, gender, maternal education, or

paternal migration status (not shown). In multivariate analyses, paternal migration was not a significant predictor of household coresidence in 2009. Thus, left-censoring is unlikely to cause substantive bias in our results.

Results

In Table 1 we present the overall association between paternal migration and leaving home between survey waves, as well as characteristics of adolescents in our analytic sample by father's migration status. Because the reasons for home-leaving likely differ by gender, we examined these characteristics separately by gender. Although close to 40% of adolescent girls with non-migrant fathers moved out of the household between 2009 and 2011, fewer than 20% of adolescent girls with migrant fathers did. The percentage of adolescent boys who moved out of the household during the intersurvey period was approximately 10% and did not differ by father's migration status. Thus, overall, paternal migration was associated with a lower likelihood of adolescent girls leaving the parental home between survey waves, consistent with Hypothesis 1, but was not associated with boys leaving the parental home. Although rates of home-leaving differed greatly by gender, adolescent characteristics differed minimally by gender. Adolescent children of both migrant and non-migrant fathers were about 14 years old, and the gender composition of the sample did not differ significantly according to father's migration status. However, a marginally greater percentage of adolescent boys with migrant fathers were the oldest child; that is, adolescent boys with non-migrant fathers were more likely to have older siblings who are age 20 or older, outside of the target age range. With respect to schooling, children with migrant fathers were more likely to be attending school and to have completed more grades of schooling, which may delay home-leaving. Although average household size was similar by paternal migration status and gender, adolescent girls with non-migrant fathers were more likely to live in households with a greater number of adolescents, on average, again showing differences in the sibship structure of children with migrant and non-migrant fathers. Furthermore, children with migrant fathers had, on average, more highly educated mothers and had greater access to higher levels of schooling in their communities.

We proceeded to multivariate analysis to test whether paternal migration was associated with adolescent home-leaving, accounting for these differences, and to assess variation in this association by outcomes of migration. As stated previously, we conducted regression analyses separately by gender because the reasons for leaving home differ for boys and girls. Coefficients from logistic regression models predicting adolescent moves out of the household during the intersurvey period among adolescent girls are displayed in Table 2. In Model 1 we observed a statistically significant negative relationship between father's migration status and home-leaving, a finding that is consistent with Hypothesis 1. In Model 2 we tested whether remittances sent in the past 12 months were associated with home-leaving, as predicted in Hypothesis A. Daughters of migrant fathers sending remittances were less likely to have moved out than daughters of non-migrant fathers. Daughters of migrant fathers who did not send remittances did not differ significantly from daughters of non-migrant fathers, but they did differ significantly from daughters of migrant fathers who did send remittances ($p < .05$; not shown). These results suggest that the financial returns to migration play an important role in delaying home-leaving among the daughters of migrant

fathers, as predicted by Hypothesis A. Finally, in Model 3 we tested whether duration of father's migration was associated with leaving the parental household between 2009 and 2011. The duration of migration was marginally associated with leaving home for girls, indicating that adolescent girls with fathers who had migrated for longer periods of time were less likely to move out of the household, which provides support for Hypothesis B.

Regression results for home-leaving among adolescent boys are presented in Table 3. In contrast to girls, where father's migration was significantly associated with leaving the parental household between 2009 and 2011, this was not the case for boys, where the coefficient for father's migration was negative but small in magnitude and not statistically significant. It is possible that both Hypotheses 2 and 3 hold and produce a net null effect. We elaborate on this further in the DISCUSSION section. In Model 2, we found no significant association between remittances sent home in the past 12 months and home-leaving during the intersurvey period; however, the coefficients were in the direction predicted by Hypothesis 2A. There was no support for Hypothesis 2B, that a weaker relationship will exist with home-leaving for adolescent boys whose father send remittances. Finally, we examined whether duration of father's migration was associated with leaving the parental household during the intersurvey period (Model 3). The results indicated that no association exists between duration of father's migration and home-leaving, counter to Hypothesis 3B, which posited that boys whose fathers have spent longer durations as a migrant will speed up home-leaving.

Schooling was negatively associated with home-leaving for girls, but not for boys. Girls attending school in 2009 were significantly less likely to have moved out between survey waves, and the availability of upper primary and secondary schools also decreased the likelihood of moving out of the household. In exploratory models we tested whether educational enrollment mediated the association between father's migration and residential transitions. The coefficient for father's migration was essentially identical in models with and without measures of education, suggesting that education is not the primary mechanism linking father's migration and adolescent home-leaving. Although associations between community school availability and home-leaving are not statistically significant for boys, the magnitude of the coefficients were similar to those for girls.

Among other control variables, the number of adolescents living in the household was positively associated with leaving the home for boys, and maternal education was negatively associated with home-leaving for girls. Only older female adolescents were more likely to leave the household during the intersurvey period. Other family and household characteristics were not significantly associated with home-leaving.

Discussion

Although a large body of literature has examined the impact of migration on children's outcomes, very few studies have investigated its effect on adolescents. In the present study we explored the relationship between father's migration and adolescent home-leaving, an important transition that is linked to other events, including schooling, marriage, and migration. Overall, paternal migration was associated with lower rates of home-leaving for

adolescent girls in rural southern Mozambique. These associations persisted when controlling for current school enrollment; they were stronger for girls whose fathers sent remittances in the past year as well as for girls whose fathers had spent more time in migration. Father's migration was not significantly associated with residential transitions for boys in this age group. Taking these results together, we argue that the impact of father's migration on adolescent transitions to adulthood primarily takes place through altering the timing of marriage for girls, rather than through decisions about adolescent schooling or migration.

We conclude that marriage is the primary mechanism because models consistently showed more and stronger associations between father's migration and home-leaving for girls, and marriage is the main reason that girls leave home in this study site, as discussed in the Hypotheses section. Girls may also leave home later if they stay in school longer. However, the fact that the association between father's migration and girls' leaving home is not mediated by either individual educational experiences or the availability of schools in the community suggests that schooling is not the main mechanism for the relationship found in this study.

Our analyses suggest that the economic returns to migration serve as the primary mechanism through which migration works to delay home-leaving for girls. Regression analyses showed that remittances sent in the last 12 months had a strong association with delayed home-leaving among girls, whereas there was no significant delay among the daughters of migrant fathers who did not send remittances. In the patrilineal setting of Gaza Province, the payment of bridewealth is a common practice. From the perspective of the household, remittances may substitute for bridewealth payments received, reducing pressure on girls to marry. From the perspective of adolescent girls themselves, remittances may improve household living conditions, reducing their desire to marry and leave the household.

Regression analyses also showed that adolescent girls whose fathers spent more time as a migrant were marginally less likely to leave home. The amount of time spent as a migrant may serve as an additional proxy measure for the economic returns to migration, if migrants who earn more are less likely to return, or if longer migration durations permit the accumulation of wealth. Alternatively, migration duration may capture the strength or intensity of the migrant's engagement with his family and his community. For example, a migrant who has been away longer may be less involved in his daughter's marriage process.

We did not find a statistically significant association of father's migration with home-leaving for boys. The age range used in our analysis, 12–19 years, may explain the lack of statistically significant relationships in our study, if boys tend to leave home later than girls. Alternatively, it might be the case that there are multiple effects of father's migration that cancel each other out. Hypothesis 2 proposed that father's migration delays home-leaving by increasing schooling, whereas Hypothesis 3 proposed that father's migration speeds up home-leaving by increasing migration. Both processes may be taking place, producing a net null effect. We did not find associations between school enrollment or community school availability and home-leaving for boys, so it seems unlikely that there is a strong effect of migration on boys' home-leaving through schooling. Still, additional research using more

detailed data to track adolescents' experiences and reasons for home-leaving in a wider age range is necessary to understand how adolescent boys respond to their father's migration.

Our study contains a number of limitations. First, and perhaps most important, we did not have measures of two key mechanisms: marriage and migration. Our conclusions about these mechanisms are therefore drawn primarily from our knowledge of the study site and the gender-specific patterns of associations. We did not have measures of mechanisms because our main outcome was constructed indirectly on the basis of household roster data. As noted in the DATA section, this measure is subject to possible misreporting, although comparisons with younger children suggest there is relatively little error.

Our study improves on previous studies by using multiple measures of father's migration, including remittances in the past 12 months and duration of migration, to conceptualize different aspects of migration. Still, even these expanded measures did not fully capture the ways in which migration affects adolescents' experiences. In addition, reports of migration came from mothers; ideally, we would be able to directly measure adolescent perspectives on the impact of migration on the household.

Although we conducted analyses separately for boys and girls, we may not be able to fully account for gender differences in the effect of father's migration on residential transitions. If boys leave home later than girls, the age range of adolescents included in this analysis may not be sufficient to capture all effects of father's migration for boys. Thus, caution is necessary when concluding that men's migration does not affect the timing of their sons' transition out of the household.

Finally, as with all observational studies, we were unable to account for selection into migration. Individuals who choose to migrate may differ from those who remain in their place of residence on a number of characteristics, including age, gender, educational attainment, skills, and ambition (Feliciano, 2005). Our models controlled for mother's education, which is likely to be correlated with father's education, but we did not have measures of other characteristics that might be linked to both migration and adolescent home-leaving. Besides, migrant selectivity is typically lower in contexts where migration systems are long established and where there are relatively few institutional barriers to migration (Takenaka & Pren, 2010), and our study site, with its long tradition of migration, its proximity to the international border, and the relative ease of its legal crossing (Mozambicans with a valid passport do not need a visa to cross it), is one such context. Selectivity based on migrant characteristics therefore should have a limited impact on our results.

Conclusion

These results point to new directions for research on parental absence and children's outcomes. In general, parental absence is assumed to negatively affect child well-being. For instance, children living with one or neither parent have lower levels of schooling than children living with both parents (Townsend, Madhavan, Tollman, Garenne, & Kahn, 2002). Similarly, orphans, in some contexts, have poorer schooling outcomes, worse health, and

earlier sexual debut and marriage than non-orphans (Beegle, De Weerd, & Dercon, 2010; Case, Paxson, & Ableidinger, 2004; Chae, 2013; Miller, Gruskin, Subramanian, & Heymann, 2007; Palermo & Peterman, 2009). Our research, in contrast, suggests that certain types of parental absence may have positive implications for child well-being by delaying marriage for adolescent girls, which is generally considered a positive outcome (Mensch, 2005). We also showed the importance of analyzing the mechanisms through which parental absence affects children. Father's migration, in and of itself, does not necessarily lead to delays in marriage. Instead, economic returns of migration, as measured by remittance behavior and duration of migration, serve as the principal mechanisms delaying it. These findings highlight the importance, when analyzing the impact on children, of considering not only the fact of parental absence but also the reason for parental absence as well as the mechanisms through which they may affect children, and they add to a growing body of research studying family as well as economic impacts of paternal migration.

More broadly, the results underline the importance of considering family structures and resources when studying the predictors of adolescent outcomes. Substantial research and policy energy has been directed at increasing schooling and delaying marriage for girls. Achieving these goals is likely to require investment not only in education systems and in adolescents but also in the family and household structures that provide and receive support from individual girls.

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Table 1

Characteristics of Adolescents by Father's Labor Migration Status

Characteristic	Girls		Boys	
	Non-migrant	Migrant	Non-migrant	Migrant
Moved out between 2009 and 2011 (%)	39.3	18.6	12.4	10.4
Mean age	14.2	13.8	14.5	14.4
Oldest child (%)	42.8	52.3	48.3	58.5
Attending school (%)	72.4	89.5	73.6	87.7
Grades of schooling completed	5.0	5.6	4.8	5.4
Household assets index	2.0	2.0	2.3	2.2
Number of household members	6.6	6.5	6.3	6.9
Number of adolescents in household	1.9	1.7	1.7	1.6
Maternal education (%)				
None	29.0	15.1	26.4	19.8
1–4 grades	60.7	60.5	55.1	50.9
5+ grades	10.3	24.4	18.5	29.3
Community school availability ^a (%)				
Lower primary	40.0	25.6	31.5	23.6
Upper primary	40.7	48.8	44.4	59.4
Secondary	19.3	25.6	24.2	17.0
Duration between surveys (months)	24.3	24.2	24.4	24.5
Total	178	106	145	86

Note. All variables except "Moved out between 2009 and 2011" and "Duration between surveys" were measured in 2009.

^a Indicates the highest level of schooling available in the community.

† $p < .10$.

* $p < .05$.

** $p < .01$.

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Logistic Regression Models of the Association of Paternal Migration, Remittances, and Duration of Migration on Leaving the Household Between 2009 and 2011 Among 12- to 19-Year-Old Female Adolescents

Table 2

Predictor	Model 1		Model 2		Model 3	
	B	SE B	B	SE B	B	SE B
Migrant father	−0.84 [*]	0.42				
Remittances sent home in past 12 months (ref: non-migrant father)						
No			0.16	0.62		
Yes			−1.23 [*]	0.49		
Duration of father's migration (years)					−0.05 [†]	0.03
Age	0.25 [*]	0.11	0.25 [*]	0.12	0.26 [*]	0.11
Oldest child	−0.13	0.36	−0.11	0.37	−0.22	0.37
Grades of schooling completed	0.20	0.12	0.22 [†]	0.13	0.18	0.12
Currently attending school	−0.90 [*]	0.42	−0.91 [*]	0.43	−0.91 [*]	0.41
Wealth index	−0.10	0.15	−0.06	0.15	−0.09	0.15
Number of household members	−0.04	0.06	−0.03	0.06	−0.04	0.06
Number of adolescents in household	0.02	0.23	0.05	0.24	0.02	0.23
Maternal education (ref.: none)						
Completed 1–4 grades	−0.44	0.36	−0.50	0.36	−0.48	0.35
Completed 5+ grades	−1.32 [*]	0.61	−1.49 [*]	0.63	−1.25 [*]	0.61
Community school availability ^a (ref.: lower primary)						
Upper primary	−0.67 [†]	0.39	−0.71 [†]	0.39	−0.64	0.39
Secondary	−0.85 [†]	0.49	−0.87 [†]	0.49	−0.84 [†]	0.49
Duration between surveys (months)	0.09	0.06	0.09 [†]	0.06	0.09	0.06
Constant	−5.11 [*]	2.09	−5.54 ^{***}	2.06	−5.23 [*]	2.14
Pseudo R ²	.17		.19		.17	

Predictor	Model 1		Model 2		Model 3	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
<i>n</i>	231		231		230	

^a Indicates the highest level of schooling available in the community.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

Logistic Regression Models of the Association of Paternal Migration, Remittances, and Duration of Migration on Leaving the Household Between 2009 and 2011 Among 12- to 19-Year-Old Female Adolescents

Table 3

Predictor	Model 1		Model 2		Model 3	
	B	SE B	B	SE B	B	SE B
Migrant father	-0.16	0.43				
Remittances sent home in past 12 months (ref.: non-migrant father)						
No			0.10	0.57		
Yes			-0.33	0.55		
Duration of father's migration (years)					-0.01	0.02
Age	0.18	0.16	0.18	0.16	0.22	0.16
Oldest child	-0.14	0.45	-0.15	0.45	-0.20	0.44
Grades of schooling completed	0.05	0.14	0.05	0.14	0.04	0.14
Currently attending school	0.82	0.63	0.79	0.64	0.78	0.64
Wealth index	0.04	0.23	0.06	0.24	0.03	0.23
Number of household members	0.04	0.05	0.03	0.05	0.04	0.05
Number of adolescents in household	0.80 [*]	0.35	0.80 [*]	0.35	0.75 [*]	0.35
Maternal education (ref.: none)						
Completed 1–4 grades	0.27	0.57	0.23	0.55	0.28	0.56
Completed 5+ grades	-0.53	0.75	-0.52	0.75	-0.47	0.75
Community school availability ^a (ref.: lower primary)						
Upper primary	-0.64	0.47	-0.63	0.47	-0.66	0.48
Secondary	-0.64	0.73	-0.65	0.73	-0.65	0.72
Duration between surveys (months)	0.31 ^{**}	0.10	0.31 ^{**}	0.10	0.32 ^{**}	0.10
Constant	-14.81 ^{***}	4.06	-14.64 ^{***}	4.00	-15.27 ^{***}	4.18
Pseudo R ²	0.18		0.18		0.18	
n	284		284		277	

[†]p < .10.

^aIndicates the highest level of schooling available in the community.

.10' > *p*
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