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Long-term Consequences of Men’s Migration for Women’s Well-being in a Rural African Setting

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Abstract

Labor migration is a massive global reality, and its effects on the well-being of nonmigrating household members vary considerably. However, much existing research is limited to cross-sectional or short-term assessments of these effects. This study uses unique longitudinal panel data collected over 12 years in rural Mozambique to examine long-term connections of women’s exposure to husband’s labor migration with women’s material security, their perception of their households’ relative economic standing in the community, their overall life satisfaction, and their expectations of future improvements in household conditions. To capture the cumulative quality of such exposure, we use two approaches: one based on migrant remittances (“objective”) and the other based on woman’s own assessment of migration’s impact on the household (“subjective”). The multivariable analyses detect a significant positive association between “objective” migration quality and household assets, regardless of women’s current marital status and other characteristics. However, net of household assets, “objective” quality shows a positive association with life satisfaction, but not with perceived relative standing of the household or future expectations. In comparison, “subjective” quality is positively associated with all the outcomes even after controlling for other characteristics. These findings illustrate the gendered complexities of long-term migration impact on nonmigrants’ well-being.

Keywords

migration; marriage; gender; well-being; long-term effects; sub-Saharan Africa

Introduction

For many households in the Global South, labor migration is an important economic risk diversification strategy as well as an integral and central feature of societal organization, reproduction, and functioning. Studies in different low- and middle-income contexts have examined the association of migration with a wide range of outcomes among nonmigrating (“left-behind”) household members, including economic security, physical and mental

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health, and social well-being of migrants' marital partners (e.g., Agadjanian, Arnaldo, and Cau 2011; Agadjanian and Markosyan 2017; Bhargava and Tan 2018; Chen et al. 2015; Ghimire, Zhang, and Williams 2021; Ivlevs, Nikolova, and Graham 2019; Lu 2012; Lurie 2006; Nobles, Rubalcava, and Teruel 2015; Sevoyan and Agadjanian 2010; Yabiku et al. 2010). This research typically contrasts the challenges arising from migration-induced spousal separation, and related social and familial disruptions and disjunctions, with benefits of migration's financial returns. Yet, a rigid distinction of the sociofamilial and economic consequences of migration is hardly reflective of the complex and interconnected consequences of migration for nonmigrating spouses and other household members (Arias 2013; Cohen 2011). Moreover, due largely to data constraints, much of the existing research looks at possible impacts of labor migration on nonmigrants either cross-sectionally or without fully accounting for variations in the longer-term effects of migration, which often extend well beyond the actual exposure to it.

In this study, we seek to contribute to the extant scholarship on the effects of exposure to husband's labor migration on rural women's economic and psychosocial well-being in three key domains. First, moving beyond the migrant's versus nonmigrant's household dichotomy, we assess consequential variations in the impact of migration across migrants' households. Second, in defining this impact from the standpoint of migrant's left-behind marital partner, we juxtapose a perspective that narrowly focuses on migrant's financial remittances, presumably the primary marker of migration success, with a more holistic perspective that captures the nonmigrant marital partners' perception of the broader effects of migration on their household. And third, because migrant's material support to and social engagement with the left-behind family may fluctuate during the migration span, we assess these varied effects of migration over an extended period of time.

We use unique longitudinal panel data from a sample of ever-married women in rural Mozambique, a typical migrant-sending sub-Saharan setting, to examine these longer-term implications of nonmigrating women's exposure to their marital partners' labor migration and of variations in the quality of that exposure for women's material security, and beyond that security, for women's perception of their household's relative economic standing in the community, women's overall life satisfaction, and their expectations for the future. We use two approaches to define the quality of this exposure: one based on the frequency of financial transfers received from the migrant husband over a period of up to 12 years and the other based on woman's own assessment of the impact of husband's migration on her household's living conditions during the same period. The analyses produce not only instructive associations between the quality of husband's migration and these outcomes but also notable variations in these associations depending on how this quality is defined. These findings have important implications for the scholarship on the effects of migration on migrants' marital partners and other family members in sending communities and for corresponding policies aimed at improving their well-being.

Background

Male labor migration is widespread in the Global South, including sub-Saharan Africa (Agadjanian 2008; Flahaux and De Haas 2016), and has diverse and complex implications

for migrants' families and communities. Ensuring household economic security is the primary goal of labor migration (Stark 1991), but its impact extends to various other aspects of migrants' family well-being. Thus, a considerable and growing body of research has looked at the effects of labor migration on the physical health of nonmigrating adult household members. It has been argued that the economic and social resources generated through migration lead to improvement in left-behind spouses' and other household members' physical health, and corresponding reduction in mortality, by enhancing food security and facilitating access to and utilization of health care (e.g., Amuedo-Dorantes and Pozo 2011; Green et al. 2019; Kan 2021; Lopez-Cevallos and Chi 2012; Lu 2013; West et al. 2021; Zezza et al. 2011). However, some studies have questioned the benefits of migration for nonmigrants' physical health. For example, L. Lei and S. Desai (2021) reported worse self-rated health (SRH) among wives of migrants, compared to wives of nonmigrants, in India. A. Bhargava and X. Tan (2018) found a negative association between the duration of men's absence due to migration and their left-behind spouses' SRH in China. Also, some studies point to an association of male migration with increased STI/HIV risks among migrants and, by consequence, among their nonmigrating partners (e.g., Agadjanian, Arnaldo, and Cau 2011; Agadjanian and Markosyan 2017; Lurie 2006; Sevoyan and Agadjanian 2010; Yang 2004).

Studies have also shown associations of migration with deteriorating mental health and with increased psychological stress among left-behind wives and other adults (e.g., Chen et al. 2015; Ivlevs et al. 2019; Lu, Hu, and Treiman 2012; Menjivar and Agadjanian 2007; Salgado de Snyder 1993; Orozco et al. 2013; Silver 2014; Siriwardhana et al. 2015; Ullmann 2012). However, as J. Nobles et al. (2015) found in their analysis of three waves of the Mexican Family Life Survey, the association between migrant husband's absence and wife's psychological well-being is modest in magnitude and the negative effects tend to disappear after husband's return. E. L. Compernelle (2021), using data from rural Nepal, did not detect any consistent effects of men's labor out-migration on left-behind wives' perceptions of their marital quality. And some studies have also argued that the benefits of migration-generated financial remittances and women's decision-making autonomy may outweigh the deleterious psychological and emotional consequences of husband's absence (Arias 2013; Ghimire et al. 2021; Yabiku et al. 2010).

Several studies have highlighted the critical importance of the level and variation of migration's financial returns for many individual and family outcomes, including physical and mental health (Agadjanian, Arnaldo, and Cau 2011; Green et al. 2019; Kan 2021; Lei and Desai 2021; Lu et al. 2012), mortality (Agadjanian, Hayford, and Jansen 2021), fertility (Agadjanian, Yabiku, and Cau 2011), and marital stability (Agadjanian and Hayford 2018). However, these studies have typically relied on cross-sectional or retrospective data in assessing these associations, and as Nobles et al. (2015) argued, cross-sectional analyses may misrepresent the lasting effects of husband's migration on wife's well-being, especially given variations in migration's duration and financial returns. Also importantly, from a nonmigrating wife's perspective, migration is not just a source of revenue but is a familial experience that shapes her relationship and interactions with her husband, her childbearing and childrearing, her ties with other relatives and nonrelatives, as well as her future expectations and aspirations.

In this study, we analyze long-term connections between men's labor migration and their wives' economic security and psychosocial well-being. We use longitudinal data collected from ever-married women over a 12-year period in a rural area of Mozambique characterized by high levels of male labor out-migration. These unique data contain a wealth of information on women's marital histories and their exposure to husband's migration, as well as on many other important individual and household characteristics. We employ two different approaches to gauge what we define as the quality of the impact of migration on the household—one based on reported financial transfers received from the migrant during the time of migration and the other based on women's own assessment of that impact during that time. We then examine longer-term implications of the impact of migration measured through these two different approaches for different, though interconnected, dimensions of women's well-being. We analyze these longer-term effects in a stage of rural women's life course when they are transitioning out of childbearing and, increasingly, out of marriage (due to divorce or widowhood), yet before the onset of aging-associated decline of general health.

Context

Our data come from rural areas of Gaza province in southern Mozambique, one of the poorest countries in the world with an annual GNI per capita of 480 USD (The World Bank 2023). The setting is patrilineal, largely monoethnic, and predominantly Christian. Similar to most of rural sub-Saharan Africa, the study area is characterized by high levels of fertility and of child and maternal mortality. The area has been strongly impacted by the HIV/AIDS pandemic: HIV prevalence is 24 percent among Gaza residents aged 15 to 49 (Ministry of Health (Mozambique) 2019:5). As in many parts of the subcontinent, marriage in the region is nearly universal, virilocal, and traditionally bridewealth-based. However, reflecting the broader transformation of the family system, in recent times, marital unions have become increasingly informal, with bridewealth payments often delayed or forgone altogether (Chae et al. 2021). At the same time, bridewealth marriage is not being replaced by civil or religious marriages: in fact, according to a household-based survey of adult women in the area, just 3 percent of married respondents had their unions formalized through religious wedding or civil registration (Agadjanian 2020). The growing informalization of marriage has, in turn, contributed to rising marital instability (Agadjanian and Hayford 2018).

The mainstay of the local economy is subsistence agriculture, which suffers from increasingly erratic rainfall and temperature fluctuations. Low and unpredictable agricultural yields, scarcity of local nonagricultural employment opportunities, and the proximity of the Republic of South Africa, Mozambique's much more developed neighbor, have all contributed to large-scale male labor out-migration from rural Gaza, which has been an integral part of the local economic and social organization and reproduction (Mercandalli 2018). Labor migration started during the colonial era, initially as part of the colonial government-organized supply of workers to the South African mining industry, and has continued and even grown in scale after Mozambique gained independence from Portugal in 1975. Internal labor migration, mainly to Mozambique's capital Maputo, has also increased. Typically, migrant men spend most of the year working away from home, returning there mainly for major holidays and important family events. Importantly, labor migration in this

context, as in other parts of southern Africa and beyond, while growing in scale, has also become increasingly less formal and more diverse in destinations, occupational allocations, and financial returns (Crush and Frayne 2010; De Vletter 2007). The growing diversity of male migration's characteristics and outcomes has shown important consequences for left-behind women's marital and family experiences and, consequently, for different aspects of their and their household members' lives, including health, food security, marital stability, employment, and mobility (Agadjanian, Arnaldo, and Cau 2011; Agadjanian and Hayford 2018; Agadjanian, Hayford, and Jansen 2021; Agadjanian, Hayford, and Oh 2021; Agadjanian, Yabiku, and Cau 2011; Cau and Agadjanian 2023; Chae, Hayford, and Agadjanian 2016; Yabiku, Agadjanian, and Cau 2012).

Conceptualization

In this study, we move beyond cross-sectional or short-term assessments of the association between men's labor out-migration and nonmigrating household members' outcomes, by examining the longer-term impact of the quality of husband's migration, measured over a period of up to 12 years, on their wives' economic and psychosocial well-being. Our analyses focus on ever-married women, including those with at least some exposure to husband's migration and those whose marital trajectories involved no such exposure. Prior research (e.g., Agadjanian, Hayford, and Jansen 2021; Agadjanian, Yabiku, and Cau 2011) has shown that the contrast between women on the extremes of the spectrum of husband's migration quality may be more consequential than that between women on either of those extremes, on one hand, and women married to nonmigrants, on the other. While those earlier studies typically looked at migration quality cross-sectionally, we extend that research to operationalize such quality as it evolves over time and to assess its longer-term impact on women's well-being at a later stage of their life course. Accordingly, we compare women at differing levels of husband's migration quality with each other and with women never married to a migrant.

We conceptualize the longer-term impact of exposure to husband's migration from two complementary perspectives. The first perspective seeks to capture the financial benefits of that exposure as it is proxied by consistency of financial transfers that a woman received from her migrant husband during their partnership. The second perspective focuses on women's own assessment of the impact of their husbands' migration on their households' living conditions during their exposure to that migration. Although these two perspectives are interconnected and complementary, they are sufficiently distinct. Specifically, the focus on the flow of financial transfers may offer a reasonably accurate proxy for migration's material benefits. In comparison, women's personal assessment, while undoubtedly also reflecting the inflow of financial remittances as well as in-kind transfers, may be more conditioned on women's expectations of migration's economic returns. Although focused on household living conditions, this assessment may also capture nonmaterial consequences of husband's migration, including the wife's perception of her husband's commitment to the marriage and the family and of the quality of their spousal relationship. In sum, personal assessment represents a more holistic, even if potentially less factually accurate, appraisal of the benefits and costs of husband's migration for the household. Accordingly, we label the two perspectives on migration experience in terms of the nature of its longer-term quality—

“objective,” that is, financial transfer-based, versus “subjective,” that is, based on woman’s assessment.

We examine the longer-term impact of the quality of migration experiences, defined objectively or subjectively and averaged over time, on interconnected, yet distinct aspects of women’s well-being. First, we look at household’s economic status. Because an improvement of household economic security is at the core of typical labor migration decisions, we start by linking the quality of migration experience to household’s current economic conditions, which in our analysis are represented by household material assets (we do not consider financial assets because they are difficult to accurately measure in this low-income rural context). Next, we examine how quality of husband’s migration experience is associated with women’s perception of their household’s living conditions in comparison with living conditions of the majority of households in their residential community. This focus engages with a long tradition in the migration scholarship that highlights relative deprivation, that is, the perception of own household’s economic standing relative to that of other households, as both a driver and a consequence of migration (e.g., Bhandari 2004; Kafle, Benfica, and Winters 2020; Quinn 2006; Stark and Taylor 1989). It should be noted that, while this perception has a strong and psychologically consequential subjective meaning, it may not accurately reflect objective economic reality (see Glei, Goldman, and Weinstein 2018). Then, we look at women’s overall life satisfaction. Although life satisfaction has numerous semantic and affective ingredients (see Diener et al. 1999), we conceptualize it as a general evaluation of individual life trajectories and conditions that extends beyond such immediate determinants as material security or physical health. Finally, we project the possible effects of past migration experience into the future by examining the association of the quality of such experience with women’s prospective assessment of their household’s well-being. Here, we focus on what we define as woman’s short-term optimism, represented in our analysis by woman’s expectations of improvement in her household’s living conditions in the foreseeable future.

Our general hypothesis is that, net of other factors, higher quality of husband’s migration will be positively associated with woman’s household’s economic security and with woman’s ranking of own household’s conditions relative to those of other households in the community, her life satisfaction, and her short-term optimism. Because economic security generated through migration is critical for psychosocial comfort, we anticipate that much of the hypothesized associations of migration quality with the last three outcomes will be mediated by household’s material assets. However, we also expect that the effects of migration quality will remain significant even after accounting for the mediating role of assets, especially in the models where that quality is defined subjectively. This expectation is based on the assumption that subjectively defined quality reflects the effects of husband’s migration more comprehensively, capturing its implications beyond the flow of financial remittances and their translation into household material belongings. Finally, because we conceptualize the impact of husband’s migration on women’s well-being as long-lasting, we expect the hypothesized effects to transpire even beyond women’s actual exposure to husband’s migration, that is, regardless of their marital status or the migration status of their husbands (if they are still married) at the time when the well-being outcomes of interest are measured.

Data and Method

Data

We use data from the Men's Migrations and Women's Lives (MMWL) longitudinal panel of ever-married rural women in four districts of Gaza province. Starting in 2006 (Wave 1), women in the sample were interviewed up to five times over a period of 12 years. Wave 1 sample ($N=1680$) was drawn from 56 villages (14 per district) selected with probabilities proportional to size. In each village, all households with at least one married couple (whether in formalized or informal union) were enumerated and then classified as migrant households or nonmigrant households based on whether the husband was a labor migrant. Then, 15 households were randomly selected from each of the two migration-status lists, and one married woman aged 18 to 40 from each household was interviewed using a standardized questionnaire covering information on a wide range of individual and household characteristics, including various details on husband's migration. The panel was re-interviewed in Wave 2 (mainly in 2009, with a follow-up attempt to find and interview missing respondents expanding into 2010), Wave 3 (mainly in 2011, with follow-ups in 2012), Wave 4 (a relatively short bridge survey in 2014), and Wave 5 (mainly in 2017, with follow-ups in 2018). In Wave 2 and Wave 3, the sample was randomly refreshed with new ever-married respondents to replace the original respondents who could not be found. However, in follow-up attempts in those two waves, some of these original respondents were located and re-interviewed, which resulted in the total sample size increasing across Wave 2 ($N=1,867$) and Wave 3 ($N=2,059$). No sample refreshment was done in Wave 4 and Wave 5. Retention rates are remarkably high in MMWL, with most attrition being due to mortality or migration to unknown destinations; the refusal rate was less than 1 percent. Wave 5 sample consisted of 1,896 women (95 percent interviewed in person and the rest by phone).

Outcomes

Our analyses focus on four outcomes measured at Wave 5. The first outcome is household's material assets. It is a six-level scale reflecting a household's possession of such items as a framed bed with mattress, appliances and devices, improved pit latrine, and means of transportation, such as a bicycle or a motorcycle. Higher scores denote greater material assets. The second outcome is respondent's perception of her household's relative standing in the community. It is based on responses to a question asking participants to compare the economic conditions of their households with those of the majority of households in the community. It is operationalized as a trichotomy—own household's conditions are worse, about the same, or better, compared to other households.

The third outcome is respondent's overall life satisfaction which is a summary proxy for her general subjective well-being. Following a standard approach (e.g., Diener, Inglehart, and Tay 2013), we operationalize it as a four-level ordinal scale derived from the question on how satisfied the respondent is with her life as a whole: not satisfied, a little satisfied, quite satisfied, and very satisfied. The fourth outcome is respondent's expectation of improvement in her household's living conditions in the near future. This outcome, which we also label as "short-term optimism," is based on responses to the question on whether the respondent

expects the living conditions of her household to improve, worsen, or stay the same in approximately one year from the time of interview. Although the question may primarily connote respondent's perception of potential changes in household material conditions, it is a more holistic measure of expected changes in household and family life. Based on the responses, short-term optimism is operationalized as a dichotomy: women who expected their household living conditions to improve are contrasted with those who did not express such expectations.

Predictors

Following our conceptual framework, we used two approaches—objective and subjective—to operationalize the quality of husband's migration over a period of up to 12 years. The two corresponding variables are based on measures that were validated in earlier analyses of single-wave MMWL data (e.g., Agadjanian, Arnaldo, and Cau 2011; Agadjanian and Hayford 2018; Agadjanian, Hayford, and Jansen 2021; Yabiku et al. 2012) and are extended to cover the multiwave observation span. First, for the objective quality approach, we constructed a measure of financial benefits of migration based on reported frequency of financial transfers received by the respondent from her migrant husband through any channel (e.g., a bank or phone-based transfer or in cash through a private intermediary) during the 12 months preceding the survey (or since the start of migration if it started less than 12 months before the interview) in Waves 1, 2, 3, and 5 (this information was not collected in the bridge Wave 4). The information on the annual numbers of financial transfers was gathered from all respondents who had been married to a migrant during the year preceding the survey, and these numbers are averaged across those waves. We first classified these quantities into three categories: no/few transfers (0–1.5 transfers, on average), occasional transfers (1.6–2.5), and frequent transfers (more than 2.5). We label these categories as low, medium, and high objective quality of husband's migration, accordingly. Although this operationalization is somewhat arbitrary, it does reflect the typical flow of migrant remittances in the study area and provides a meaningful ranking of migration's economic returns over time. We then added, as a separate category, unknown number of transfers for respondents whose husbands were migrants in years other than the years preceding the survey interviews. These four categories of respondents with at least some experience of husband's migration are compared to each other and to respondents whose marital partner never migrated during their marriage.

We acknowledge that the reported frequency of financial transfers in the 12 months preceding the survey interview may differ from that in other years of migration exposure. We also recognize that frequency of transfers may not fully represent the financial contributions of migrants to their left-behind households, as the amounts of such transfers may vary. However, while information on the amount of last three transfers is available from the survey, this information is plagued by inevitable inaccuracies, random or deliberate, in reporting such amounts, as well as memory failures, especially for transfers received a relatively long time before the interview. Also, in addition to, or instead of, sending money to their households, migrants may give money to their wives directly when they return home for holidays or other reasons or when the wives visit them at their places of work. In exploratory analyses, we tested different operationalizations of frequency of

financial transfers, which in addition to the instances of money sent by migrants included the frequency of wife's visits and husband's visits; the results of these explorations are very similar to those we present here (they are not shown but are available upon request). Finally, it should be noted that financial remittances leave out migrants' in-kind contributions (e.g., clothes, food, furniture, devices) that migrants in this context may bring or send home. Although the MMWL questionnaires included a general question on type and intensity of such in-kind contributions, this information cannot be reliably quantified and standardized.

For the subjective quality of migration, we used a measure constructed from woman's assessment of the overall impact of the husband's migration on her household's living conditions. In each survey wave (except Wave 4), migrants' wives were asked if they thought that their household's living conditions had improved, worsened, or remained the same as a result of their husband's migration. For each wave, we first created a dichotomous indicator: household conditions have improved versus have not improved (we do not distinguish between "remained the same" vs. "worsened" because migration is expected to improve the lives of families left behind; thus, a lack of improvement can be viewed as migration's failure). We then combined these wave-specific assessments into three categories—consistent lack of improvement, mixed effect (improvement in some waves and lack thereof in others), and consistent improvement. As in the case of the objective, that is, remittances-based, quality indicator, we refer to these categories as low, medium, and high subjective quality, and compare women in these categories with each other and also with women with unknown quality of husband's migration (i.e., women whose husband's migration did not occur in the years preceding the survey), as well as women whose husbands never migrated.

We acknowledge that the objective and subjective migration quality measures are intercorrelated, yet we argue that they are sufficiently distinct in describing the impact of migration. We also recognize that because both measures are based on information collected for the one-year period preceding each survey wave, neither measure fully captures long-term variations in the quality of husband's migration, and therefore they should be treated as proxies for such quality. Finally, we acknowledge potential endogeneity of the outcomes with respect to the measures of migration effects, and especially women's own assessment of such effects (the subjective quality measure). However, the use of indicators of migration quality averaged over several waves spanning up to 12 years preceding the time when the outcomes are measured decreases the potential of reverse causality.

Controls

The multivariable analyses take into account several individual characteristics that are likely to correlate with the outcomes of interest. Specifically, the analyses control for the total number of years respondent spent in a marital partnership between 2000 and 2017. The following characteristics, all measured at Wave 5, are also included as controls. Respondent's age is grouped into five categories—25 to 30, 31 to 35, 36 to 40, 41 to 45, and 46 or older. Respondent's education is a continuous variable ranging between 0 and 6 or more years of schooling. Current marital status is operationalized into four categories—in monogamous union, in polygynous union, divorced, or widowed. The number of

respondent's living biological children is another control included in the models. The models also control for woman's employment outside subsistence agriculture (currently employed vs. not). Because physical health is strongly associated with exposure to migration and is a major factor in overall subjective well-being (Diener et al. 1999; Steptoe 2019), the models predicting life satisfaction control for respondent's SRH, operationalized as a dichotomy—excellent/good versus so-so/bad. In addition, the life satisfaction models also control for lifetime experience of child loss (at least one biological child died vs. no child deaths). SRH is also included as a control in the short-term optimism model.

Modeling

The choice of multivariable model is determined by the operationalization and distribution of the outcome variables. Thus, we use linear regression for the household material assets scale, ordinal logistic regression for perceived relative household standing in community and for overall life satisfaction, and binomial logistic regression for short-term optimism. For each outcome, we fit a model in which husband's migration quality is defined objectively and a model in which it is defined subjectively. All models include women with unknown quality of husband's migration experience and women who had no such experience. Following our expectation of the mediating effect of material security on all three psychosocial outcomes, we first fit models without material assets and then models that include it as a covariate. For all multivariable analyses, two-level mixed models with random intercepts are used to account for both household-level variations and possible variations across communities. While this modeling choice cannot fully account for unobserved heterogeneity that might influence both labor migration and the outcomes under investigation, it allows for capturing the long-term connections of men's migration with women's material security and their psychosocial well-being, which is the aim of this study.

The analytic sample excludes women who were interviewed over the phone in Wave 5 (approximately 5 percent of the total Wave 5 sample) because the phone interview used a shorter instrument that did not contain questions on some of the characteristics of interest. Four cases with missing values are also excluded from the analysis. The final analytic sample consists of 1,798 ever-married women. More than three-quarters of them, 75.6 percent, were married to a migrant for at least one year between 2000 and 2017; reflecting the long-term nature of migration, those women spent, on average, 72.9 percent of their married life during that period in partnership with a migrant.

Results

Table 1 shows the distribution of the outcome and predictor variables. The average material assets score in the analytic sample was 2.3, close to the middle of the assets scoredistribution. Forty-one percent of Wave 5 participants thought that the economic conditions of their households were better than those of the majority of households in their community, 51 percent reckoned that their household conditions were comparable to those of the majority, and 8 percent ranked their household economic conditions below that of the majority. For overall life satisfaction, 6 percent were not satisfied with their lives, 37 percent

were a little satisfied, 42 percent were quite satisfied, and 16 percent were very satisfied. For short-term optimism, 56 percent of participants expected their living conditions to improve in the next year, whereas the rest expected them to worsen or stay the same or were unsure.

For the objective quality of migration experience, 15 percent of women in the sample received no/few transfers, on average, from their migrant husbands (low quality), 33 percent received occasional transfers (medium quality), and 15 percent received frequent transfers, on average, across waves (high quality). In comparison, on the subjective quality scale, which, we remind, may be conditional on women's assessment of migration's actual effects in relation to its anticipated effects, 14 percent of women show consistent lack of improvement in household living conditions across waves (low quality), 24 percent show mixed effects (medium quality), and 25 percent show consistent improvement (high quality). For 12 percent of women, the information on transfers or improvements in household conditions is not available as their husband's migration occurred outside the years of the four survey rounds and therefore was not covered by corresponding survey questions. Finally, 24 percent of the analytic sample had no experience of husband's migration at all.

The results of the multivariable tests of our hypotheses are shown in Tables 2 to 5. In each model, low migration quality, objective or subjective, is the reference category. To remind, in each model, we also include women whose marital partners never migrated during their marriage to allow for comparisons across the entire range of marital experiences. In ancillary exploratory analyses, in order to account for the relative duration of migration exposure, we also fitted models that are limited to respondents with at least some migration experience and include the share of married years between 2000 and 2017 that were spent in a marital union with a migrant as a control variable. We briefly comment on the results of those additional tests.

Table 2 presents the parameter estimates and standard errors from the linear regression models predicting household's positioning on the material assets scale. Section 2.A displays the results of the model that uses objective migration quality as the predictor. As we hypothesized, the ranking of the household on the material assets scale rises as does the objective quality of husband's migration experience, regardless of current marital status and other factors. At the same time, women with low quality of migration experience are statistically indistinguishable from those who had no such experience at all (undeterminable quality is associated with greater assets, relative to low quality, but this association is only marginally significant, $p < .10$). Model 2.B is analogous to 2.A but uses subjective migration quality—low, medium, and high, in addition to unknown quality and no migration experience—as the main predictor of interest. The results are very similar to those in Model 2.A: compared to households of women reporting low migration quality, those of women with medium quality have better material conditions, and the gap further increases for households of women with high quality (in fact, the difference between medium and high quality is also highly significant; not shown). As in Model 2.A, the material standing of households of women with low subjective quality of migration experience is nearly identical to that of women whose husbands never migrated. These results yield further support to our hypothesis.

Table 3 displays the results of the ordinal logistic regression models predicting women's assessment of their household's living conditions relative to those of other households in their community. Section 3.A presents the estimates of two models using objective migration quality as the predictor. Model 3.A.1, which does not include household actual material assets, shows a strong positive association between objective quality and the relative ranking of own household's economic conditions. However, when we add household material assets as a covariate in Model 3.A.2, this association diminishes in magnitude and is no longer statistically significant, confirming the mediating role of material assets. Section 3.B replicates these two models using subjective migration quality as the predictor. As Model 3.B.1 shows, women with high level of such quality rank their household's relative economic conditions significantly higher than women with a low level of it, regardless of actual material assets. However, unlike the objective quality models, this contrast, while diminishing in magnitude after the addition of household material assets (3.B.2), remains highly statistically significant. Also, notably, women with high subjective quality of migration experience are significantly more likely to rank the relative economic positioning of their household in the community higher than women without any such experience (not shown). These results generally support our hypothesis as well as our expectation of a stronger net association of this outcome with subjective migration quality, compared to objective migration quality.

The results of the ordinal logistic regression models predicting overall life satisfaction are shown in Table 4. In addition to the original set of covariates, these models control for SRH and the experience of child loss. Models 4.A.1 and 4.A.2, which compare women with differing levels of objective quality of husband's migration as well as women whose husbands never migrated, strongly support the hypothesized association: life satisfaction increases as does the objective quality of migration experience, regardless of household material assets. In fact, the results of these models also show a statistically clear advantage of women never married to a migrant relative to women with low migration quality. Models 4.B.1 and 4.B.2 replicate the same test for subjective migration quality. The pattern that this model produced is very similar to that in the objective quality model, again, confirming our hypothesis. At the same time, the results of the two models do not conform to the expectation that material assets are more likely to mediate the effect of objectively defined migration quality, compared to the effect of subjectively defined quality.

Finally, Table 5 presents the results of two binomial logistic regression models predicting women's expectations for improvement in their household's living conditions within the next year. These models include the same covariates as the life satisfaction models (except for experience of child death). The two models in Section 5.A relate short-term optimism to objective husband's migration quality. In Model 5.A.1, the hypothesized effect of objective quality is clearly present. However, when household assets are included in the model (5.A.2), this effect declines in magnitude and becomes statistically nonsignificant. In contrast, Models 5.B.1 and 5.B.2, in which migration quality is operationalized subjectively, potently demonstrate the predicted association between such quality and short-term optimism: although the magnitude of the coefficients diminishes after the addition of assets, woman's anticipation of improvement in household conditions in the next year strengthens with each subsequent level of subjective migration quality, regardless of her household's

current material conditions. The results of the two models support our expectation that the effect of subjective migration quality is less likely to be mediated by household current material assets. Also notably, as in the case of the models predicting life satisfaction, women with low subjective quality of migration experience are also significantly less optimistic than women never married to a migrant, regardless of their current marital status, household material conditions, and other characteristics. Interestingly, women whose marital partners never migrated are no different from women with medium migration quality in the likelihood of expecting short-term improvement in household conditions; their difference from women of high migration quality is only marginally significant (not shown, but available upon request).

As stated earlier, for each outcome we also fitted a model restricted to women with at least some experience of husband's migration while controlling for the share of marital life spent married to a migrant. In the models predicting household material assets, the addition of this control did not alter the effect of objective quality. In the subjective quality version, it somewhat reduced the magnitude of the difference between low and medium migration quality, but the difference between low and high quality remained strong and significant. Notably, in both versions, the share of married life spent in partnership with a migrant had a net positive association with household assets, regardless of the quality of migration experience, current marital status, and other factors. However, this share showed no net effect on any of the three psychosocial outcomes, and its addition to the corresponding models did not noticeably change the effects of the predictors of interest, compared to what we found in the main analyses (the results of these additional tests are available upon request).

Discussion and Conclusion

The scholarship connecting exposure to labor migration with various aspects of well-being among nonmigrating household members has generated a complex and often contradictory picture, typically contrasting the negative effects of family separation with positive impacts of migrant financial transfers (e.g., Agadjanian, Arnaldo, and Cau 2011; Amuedo-Dorantes and Pozo 2011; Arias 2013; Chen et al. 2015; Cohen 2011; Green et al. 2019; Kan 2021; Lu 2012; Nobles et al. 2015; Siriwardhana et al. 2015). However, much of that scholarship, constrained by data limitations, has not fully captured variations in migration's longer-term effects. Our analyses contributed to this body of research by examining the long-term implications of migration and of its varying quality for the lives and well-being of migrants' wives as they enter and transition through midlife. Engaging in dialogue with and expanding upon previous studies, we used unique longitudinal data from a typical rural sub-Saharan setting to capture a spectrum of women's experiences of husband's migration along two interrelated yet sufficiently distinct axes—objective and subjective quality—and to examine how variation in these experiences along these axes is related to several aspects of women's midlife well-being. Moreover, unlike most studies that typically contrast migrants with nonmigrants, and, accordingly, migrants' partners with nonmigrants' partners, our conceptual and analytic approach sought explicitly to capture the diverse range of women's experiences both between these two categories and within the migrants' partners' category.

Finally, we conceptualized the long-term effects of migration experiences as lasting beyond women's actual exposure to such experiences.

Our analyses found a clear positive association of household material assets with husband's migration quality, whether that quality was defined objectively or subjectively. It is noteworthy that this association persisted regardless of the duration of a woman's actual exposure to her husband's migration or her current marital status. In comparison, the analysis of perceived relative standing of household in the community, which engaged the relative deprivation perspective on migration and its drivers and outcomes (Stark and Taylor 1989), produced a more nuanced picture: while the association of a woman's perception of such relative standing with objective quality of migration experience was largely mediated by her household's material assets, women with high subjective quality ranked their household's relative conditions higher than those with low subjective quality and those who did not have any experience of husband's migration regardless of those assets. These findings conform to what we conceptualized as a more holistic nature of subjective quality of husband's migration experience, which reflects economic benefits of migration but is also highly contingent on women's overall perception of migration's consequences for their lives.

Overall life satisfaction showed a strong predicted association with the quality of migration experience. Interestingly, the detected pattern of this association was very similar for both types of migration quality, and in both cases this association persisted even after accounting for household's current material assets. We suggest that this pattern may have to do with the broad and multidimensional meanings of what life satisfaction encompasses (cf. Diener et al. 2013). Also notably, women with low migration quality were significantly less satisfied with their lives than were women without any experience of husband's migration, regardless of material assets, current marital status, and other characteristics. These findings illustrate that at least for such general well-being outcomes as life satisfaction, men's labor migration, depending on its quality, can have highly divergent consequences for women's lives, further inviting us to heed variations in labor migration outcomes and their long-term implications.

Yet, the distinction between the objective and subjective quality of husband's migration was forcefully confirmed with respect to the last outcome that we examined—expectation of improvement in the household living conditions in the near future: while its association with objective quality of that experience was largely mediated by household material assets, it showed a significant net positive association with its subjective quality, regardless of household's material conditions and other characteristics, including current marital status. This pattern, we argue, may owe to the prospective meaning of this outcome: the subjective construction of migration experiences as genuinely and wholesomely beneficial may better project into the future than the record of past migrant financial transfers. Notably, as in the case of the model predicting life satisfaction, the disadvantage of women with low subjective quality of husband's migration was clearly present not only with respect to their counterparts with medium or high quality of migration but also in comparison with women who had no exposure to husband's labor migration at all.

We acknowledge, again, that our measures of migration quality do not fully capture the content, scale, and timing of the influence of labor migration on nonmigrating women and

their households, as this influence is inherently multidimensional and multidirectional (cf. Cohen 2011). Also, as mentioned earlier, while the temporal ordering of the predictors and outcomes instills considerable confidence regarding the causal connections between them, endogeneity of migration quality with respect to at least some of the outcomes cannot be fully ruled out, thus inviting caution in any causal inferences. It is also important to note again that variations in the quality of migration experience along the objective-versus-subjective axes are inevitably interrelated. Finally, even in a setting where labor migration is a well-established and widespread practice, potential selection into migration and its effects on nonmigrating household members cannot be ruled out.

These limitations and qualifications notwithstanding, our approach and findings contribute to a more nuanced understanding of the nature and consequences of migration exposure among nonmigrating rural women by illustrating how variations in the quality of male labor migration may impact different aspects of women's well-being differently. As labor migration involving spousal separation persists and grows throughout the Global South and plays a vital role in its rapid, multifaceted, and dramatic transformations, future research should further address and unpack these complex interconnections and implications of male labor migration for nonmigrating marital partners and for sending households and communities, in general. Our findings are also highly relevant to policy efforts in migrant-sending communities to maximize the benefits of migration and to minimize its negative consequences for nonmigrating family members. With respect to the well-being of male migrants' marital partners, in particular, these efforts should heed the diversity of rural women's experiences of husband's migration and their long-term, cumulative consequences that may persist beyond women's actual exposure to migration and continue to impact their livelihoods and welfare and as they transition through midlife and into old age.

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Table 1.

Descriptive Statistics (Percent Unless Otherwise Noted).

| | |
|---|------|
| <i>Outcomes (all measured at Wave 5)</i> | |
| Household material assets, scale 0 to 5 (mean) | 2.3 |
| Household's living conditions relative to those of the majority of households in the community | |
| Worse than majority | 7.8 |
| About the same as majority | 50.7 |
| Better than majority | 41.4 |
| Life satisfaction | |
| Not satisfied | 5.7 |
| A little satisfied | 37.0 |
| Quite satisfied | 41.5 |
| Very satisfied | 15.9 |
| Short-term optimism: expectation for improvement of household conditions in the next year | |
| Will improve | 56.2 |
| Will stay the same/worsen/unsure | 43.8 |
| <i>Predictors (measured across waves)</i> | |
| Objective quality of husband's migration experience (average number of financial transfers across waves) | |
| Low (0–1.5 transfers) | 14.7 |
| Medium (1.6–2.5) | 33.4 |
| High (more than 2.5) | 15.3 |
| Subjective quality of husband's migration experience (perceived improvement in household living conditions as a result of migration across waves) | |
| Low (consistent lack of improvement) | 14.3 |
| Medium (improvement in some waves, lack thereof in others) | 24.0 |
| High (consistent improvement) | 25.1 |
| Unknown quality of husband's migration experience | 12.2 |
| Never had a migrant husband | 24.4 |

Table 2.

Household Material Assets, Mixed OLS Regression, Coefficients (Standard Errors in Parentheses).

| Predictors and controls | A | B |
|--|------------------------|--------------|
| Objective quality of husband's migration experience | | |
| [Low] | | |
| Medium | .64 (.11)** | |
| High | .88 (.13)** | |
| Unknown quality | .22 (.13) [†] | |
| Never had a migrant husband | .04 (.11) | |
| Subjective quality of husband's migration experience | | |
| [Low] | | |
| Medium | | .37 (.11)** |
| High | | .84 (.11)** |
| Unknown quality | | .15 (.13) |
| Never had a migrant husband | | .01 (.12) |
| Age [25–30] | | |
| 31–35 | –.06 (.13) | –.04 (.13) |
| 36–40 | .03 (.13) | .05 (.13) |
| 41–45 | .01 (.14) | .01 (.14) |
| 46+ | .18 (.15) | .17 (.15) |
| Number of living children | –.00 (.02) | –.00 (.02) |
| Educational level (0–6+ years of schooling) | .12 (.02)** | .13 (.02)** |
| Numbers of years married between 2000 and 2017 | .04 (.02)* | .05 (.02)** |
| Current marital status | | |
| [In monogamous marriage] | | |
| In polygynous marriage | .30 (.09)** | .28 (.09)** |
| Divorced/separated | –.52 (.16)** | –.47 (.16)** |
| Widowed | –.66 (.15)** | –.61 (.15)** |
| Employed outside subsistence farming | .07 (.08) | .04 (.08) |
| Log-likelihood | –3,194.45 | –3,191.42 |
| Number of cases | 1,798 | 1,798 |

Note. Reference categories in brackets.

OLS = ordinary least squares.

[†] $p < .1$.

* $p < .05$.

** $p < .01$ (two-tailed tests).

Table 3.

Perceived Relative Economic Standing of Household in Community, Mixed Ordinal Logistic Regression, Coefficients (Standard Errors in Parentheses).

| Predictors and controls | A | | B | |
|--|---------------|-------------------------|------------------------|-------------------------|
| | A.1 | A.2 | B.1 | B.2 |
| Objective quality of husband's migration experience | | | | |
| [Low] | | | | |
| Medium | .52 (.16)** | .29 (.17) | | |
| High | .64 (.20)** | .32 (.20) | | |
| Unknown quality | .26 (.20) | .20 (.20) | | |
| Never had a migrant husband | .09 (.17) | .09 (.18) | | |
| Subjective quality of husband's migration experience | | | | |
| [Low] | | | | |
| Medium | | | .31 (.17) [†] | .18 (.18) |
| High | | | .80 (.17)** | .51 (.18)** |
| Unknown quality | | | .26 (.20) | .24 (.20) |
| Never had a migrant husband | | | .12 (.18) | .14 (.18) |
| Age [25–30] | | | | |
| 31–35 | -.41 (.20)* | -.41 (.20)* | -.39 (.20)* | -.40 (.20)* |
| 36–40 | -.18 (.21) | -.18 (.21) | -.16 (.21) | -.17 (.21) |
| 41–45 | -.30 (.22) | -.29 (.23) | -.30 (.22) | -.30 (.23) |
| 46+ | .06 (.23) | .03 (.24) | .04 (.23) | .01 (.24) |
| Number of living children | -.01 (.03) | -.01 (.03) | -.01 (.03) | -.01 (.03) |
| Educational level | .10 (.03)** | .06 (.03)* | .11 (.03)** | .06 (.03)* |
| Numbers of years married between 2000 and 2017 | .03 (.03) | .02 (.03) | .04 (.03) | .02 (.03) |
| Current marital status | | | | |
| [In monogamous marriage] | | | | |
| In polygynous marriage | .15 (.14) | .02 (.15) | .14 (.14) | .02 (.15) |
| Divorced/separated | -.61 (.24)* | -.44 (.25) [†] | -.57 (.25)* | -.41 (.25) [†] |
| Widowed | -1.02 (.23)** | -.81 (.23)** | -.98 (.23)** | -.79 (.23)** |
| Employed outside subsistence farming | -.09 (.12) | -.11 (.12) | -.12 (.12) | -.13 (.12) |
| Household material assets scale | | .43 (.04)** | | .42 (.04)** |
| Log-likelihood | -1,412.96 | -1,349.94 | -1,407.89 | -1,347.16 |
| Number of cases | 1,798 | 1,798 | 1,798 | 1,798 |

Note. Reference categories in brackets.

[†] $p < .1$.

* $p < .05$.

** $p < .01$ (two-tailed tests).

Table 4.

Life Satisfaction, Mixed Ordinal Logistic Regression, Coefficients (Standard Errors in Parentheses).

| Predictors and controls | A | | B | |
|--|-------------------------|---------------|-------------------------|-------------------------|
| | A.1 | A.2 | B.1 | B.2 |
| Objective quality of husband's migration experience | | | | |
| [Low] | | | | |
| Medium | .68 (.15)** | .51 (.16)** | | |
| High | .99 (.18)** | .75 (.19)** | | |
| Unknown quality | .18 (.19) | .11 (.19) | | |
| Never had a migrant husband | .40 (.16)* | .38 (.16)* | | |
| Subjective quality of husband's migration experience | | | | |
| [Low] | | | | |
| Medium | | | .52 (.16)** | .44 (.16)** |
| High | | | .74 (.16)** | .53 (.16)** |
| Unknown quality | | | .08 (.19) | .03 (.19) |
| Never had a migrant husband | | | .31 (.16) [†] | .31 (.16) [†] |
| Age [25–30] | | | | |
| 31–35 | -.31 (.18) [†] | -.30 (.18) | -.31 (.18) [†] | -.29 (.18) |
| 36–40 | -.40 (.19)* | -.42 (.20)* | -.39 (.19)* | -.41 (.20)* |
| 41–45 | -.29 (.21) | -.29 (.21) | -.28 (.21) | -.28 (.21) |
| 46+ | -.11 (.21) | -.16 (.22) | -.12 (.22) | -.17 (.22) |
| Number of living children | -.01 (.03) | -.00 (.03) | -.01 (.03) | -.00 (.03) |
| Educational level | .07 (.02)** | .04 (.03) | .08 (.03)** | .05 (.03) [†] |
| Numbers of years married between 2000 and 2017 | .04 (.02) | .03 (.03) | .05 (.02) [†] | .03 (.03) |
| Current marital status | | | | |
| [In monogamous marriage] | | | | |
| In polygynous marriage | .23 (.13) [†] | .14 (.13) | .20 (.13) | .12 (.13) |
| Divorced/separated | -.61 (.23)** | -.50 (.24)* | -.57 (.23)* | -.46 (.24) [†] |
| Widowed | -1.14 (.21)** | -1.00 (.22)** | -1.04 (.21)** | -.92 (.22)** |
| Employed outside subsistence farming | .24 (.11)* | .24 (.11)* | .22 (.11)* | .22 (.11)* |
| Good/excellent SRH | 1.03 (.12)** | .94 (.13)** | 1.02 (.12)** | .93 (.13)** |
| Had at least one child death | -.07 (.10) | -.02 (.10) | -.08 (.10) | -.02 (.10) |
| Household material assets scale | | .31 (.04)** | | .32 (.04)** |
| Log-likelihood | -1,856.19 | -1,816.09 | -1,861.07 | -1,819.36 |
| Number of cases | 1,798 | 1,798 | 1,798 | 1,798 |

Note. Reference categories in brackets.

SRH = self-rated health.

[†] $p < .1$.

*
 $p < .05$.

**
 $p < .01$ (two-tailed tests).

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Table 5.

Expectation of Improvement in Household Living Conditions in the Next Year, Mixed Binomial Logistic Regression, Coefficients (Standard Errors in Parentheses).

| Predictors and controls | A | | B | |
|--|--------------------------|-------------------------|--------------------------|-------------------------|
| | A.1 | A.2 | B.1 | B.2 |
| Objective quality of husband's migration experience | | | | |
| [Low] | | | | |
| Medium | .45 (.19) [*] | .22 (.20) | | |
| High | .64 (.23) ^{**} | .33 (.24) | | |
| Unknown quality | .06 (.23) | -.03 (.24) | | |
| Never had a migrant husband | .16 (.20) | .16 (.21) | | |
| Subjective quality of husband's migration experience | | | | |
| [Low] | | | | |
| Medium | | | .78 (.21) ^{**} | .68 (.21) ^{**} |
| High | | | 1.11 (.21) ^{**} | .85 (.22) ^{**} |
| Unknown quality | | | .38 (.24) | .34 (.24) |
| Never had a migrant husband | | | .49 (.21) [*] | .52 (.21) [*] |
| Age [25–30] | | | | |
| 31–35 | -.47 (.24) [*] | -.44 (.24) [†] | -.50 (.24) [*] | -.46 (.24) [†] |
| 36–40 | -.45 (.25) [†] | -.43 (.25) [†] | -.45 (.25) [†] | -.44 (.25) [†] |
| 41–45 | -.52 (.26) [*] | -.52 (.26) [*] | -.54 (.26) [*] | -.54 (.27) [*] |
| 46+ | -.57 (.27) [*] | -.63 (.28) [*] | -.59 (.27) [*] | -.65 (.28) [*] |
| Number of living children | .00 (.04) | .00 (.04) | .00 (.04) | .00 (.04) |
| Educational level | .08 (.03) [*] | .04 (.03) | .08 (.03) [*] | .03 (.03) |
| Numbers of years married between 2000 and 2017 | .03 (.03) | .01 (.03) | .03 (.03) | .01 (.03) |
| Current marital status | | | | |
| [In monogamous marriage] | | | | |
| In polygynous marriage | .44 (.17) ^{**} | .36 (.18) [*] | .45 (.17) ^{**} | .38 (.18) [*] |
| Divorced/separated | -.46 (.29) | -.27 (.30) | -.35 (.29) | -.18 (.30) |
| Widowed | -.74 (.26) ^{**} | -.55 (.26) [*] | -.68 (.26) ^{**} | -.50 (.26) [†] |
| Employed outside subsistence farming | .17 (.14) | .17 (.14) | .16 (.14) | .16 (.14) |
| Good/excellent SRH | .77 (.14) ^{**} | .68 (.15) ^{**} | .74 (.14) ^{**} | .66 (.15) ^{**} |
| Household material assets scale | | .38 (.05) ^{**} | | .36 (.05) ^{**} |
| Log-likelihood | -946.21 | -909.69 | -935.85 | -902.39 |
| Number of cases | 1,798 | 1,798 | 1,798 | 1,798 |

Note. Reference categories in brackets.

SRH = self-rated health.

[†] $p < .1$.

*
 $p < .05$.

**
 $p < .01$ (two-tailed tests).

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