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International parental migration and the psychological well-being of children in Ghana, Nigeria, and Angola

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ABSTRACT

When parents migrate, leaving their children in the origin country, transnational families are formed. Transnational family studies on children who are "left behind" indicate that children suffer psychologically from parental migration. Many of the factors identified as affecting children's responses to parental migration however are not considered in child psychology and family sociology studies. This study aims to bridge these areas of knowledge by quantitatively investigating the association between transnational families and children's psychological well-being. It analyzes a survey conducted in three African countries in 2010–11 (Ghana $N = 2760$; Angola $N = 2243$; Nigeria $N = 2168$) amongst pupils of secondary schools. The study compares children in transnational families to those living with their parents in their country of origin. Children's psychological well-being is measured through the Strengths and Difficulties Questionnaire. Multiple regression analyses reveal that children in transnational families fare worse than their counterparts living with both parents but not in Ghana where living conditions mediate this relationship. This paper also looks at four characteristics of transnational families and finds that specific characteristics of transnational families and country contexts matter: (1) changing caregivers is associated with poorer well-being in all countries; (2) which parent migrates does not make a difference in Ghana, when mothers migrate and fathers are caregivers results in poorer well-being in Nigeria, and both mother's and father's migration result in worse outcomes in Angola; (3) the kin relationship of the caregiver is not associated with poorer well-being in Ghana and Nigeria but is in Angola; (4) children with parents who migrate internationally do not show different results than children whose parents migrate nationally in Ghana and Nigeria but in Angola international parental migration is associated with poorer psychological well-being. The study shows that broader characteristics in the population rather than parental migration *per se* are associated with decreased levels of well-being.

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1. Introduction

Transnational families, those in which at least one member of the nuclear family lives in a different country, are common in international migration. This study focuses on one form of transnational families: when a parent migrates, leaving one or more children behind in the care of the other parent or another caregiver. These types of families have remained beyond the scope of most family and migration research. However, since the turn of the century, transnational migration studies have begun to focus on the phenomenon of families living across borders (Bryceson and Vuorela, 2002). Studies analyzing the effects of such family arrangements have emphasized the negative effects of family separation on children's general well-being (Dreby, 2007; Kandel and Kao, 2001; Parreñas, 2005; Pribilsky, 2001). These studies have identified important elements of children's family arrangements that influence their relationships

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with their migrant parent: the mediating role of the caregiver, the contact that parents and children are able to maintain, and especially when mothers migrate, the emotional suffering this causes for children. Yet few of these insights have been taken into consideration in larger scale, child psychology and family sociology studies, until recently (Fan et al., 2010; Graham and Jordan, 2011; Nobles, 2011).

This study aims to bring these literatures to bear on each other and contribute to the field of child psychological well-being in transnational families in three ways. First, there is a need for large-scale studies. Most of the existing transnational family studies focus on children living transnationally without comparing the outcomes with children who live with both of their parents in the country of origin (non-transnational families). This leaves open the question whether the outcomes observed apply specifically to transnational families (Mazzucato and Schans, 2011). More recent, larger scale studies from child psychology and family sociology that compare the two types of families confirm the finding that children in transnational families are disadvantaged with regard to psychological well-being. Yet when these studies control for the broader environment in which children grow up in relating to family and schooling conditions, they find that these differences diminish or disappear, indicating that other factors can be more important in determining child psychological well-being than parental migratory status (Fan et al., 2010; Wen and Lin, 2012). However, these studies have usually not considered different transnational family characteristics. Almost exclusively, the focus has been on who the migrant parent is (mother, father or both).

Second, most studies, irrespective of the discipline, have focused on one country. To our knowledge, only one study has investigated this issue in a cross-country comparative fashion, demonstrating that effects on children differ between Southeast Asian countries (Graham and Jordan, 2011; Jordan and Graham, 2012). In this study we conduct a cross-country comparative analysis of children in Ghana, Angola and Nigeria.

Third, this study adds African cases to a body of previous research that is largely based on case studies from Asia and Latin America. This additional geographic focus is important because many African societies have been documented to have family norms that depart from the nuclear family model, which has, until recently, underlain much research on families (Mazzucato, 2013a). Norms of social parenthood, where more people than only the biological parents are involved in raising of a child, and child fostering, where children are entrusted to others to be raised, may lead to different outcomes than those that have been observed for other parts of the world.

This study analyzes survey data on the psychological well-being of Ghanaian, Nigerian, and Angolan school children and young adults between the ages of 11 and 21 who live in transnational families by comparing them to children and young adults who live with their parents in the countries of origin. For convenience, we use the term “children” to refer to this age group throughout this paper. The study aims to investigate whether being in a transnational family influences the psychological well-being of children and, if so, whether different characteristics of transnational families are associated with different outcomes.

2. Contexts and concepts

2.1. Ghanaian, Nigerian, and Angolan migration contexts

Both Ghana and Nigeria have a long history of migration, with people moving internally, within West Africa, and to other sub-Saharan African regions for trade and commerce as well as in search of a better living. Both countries were colonized by the British and experienced some mobility of the high-skilled population as people moved to the UK for study purposes, particularly after Ghana and Nigeria gained independence in the 1960s. Large-scale migration to Western destinations, particularly the United States, the United Kingdom, Germany, Italy, and the Netherlands, began in the early 1980s, when the Nigerian economy, which had previously attracted many migrants from Ghana, experienced a downturn due to declining oil prices. There were 1 million Nigerian and 825,000 Ghanaian international migrants in 2010 (World Bank, 2011) although these are most likely underestimations due to undocumented migration.

Although Angolans have migrated internally and within the southern African region for centuries, recent Angolan migration is characterized by a flight from the civil strife that began with independence from Portugal in 1975 and lasted until 2002. In the 1990s, Angolans mostly emigrated to Portugal, Zambia, Namibia, France, Germany, the United Kingdom, the Republic of Congo, the Netherlands, Brazil, and the United States. In 2010, the number of Angolan emigrants was estimated to be 533,300 (World Bank, 2011). Many Angolans migrated to escape violence and obligatory military service, to study, or to work. In all three countries women have historically been engaged in international migration.

Family norms regarding the raising of children in all three countries are characterized by notions of social parenthood and child fostering in which child raising is seen as a task fulfilled by various adults in the child's social surroundings rather than only the biological parents. In all three countries, these norms contribute to a large percentage of children who do not live with their biological parents. In Ghana and Nigeria as many as 42% and 22% of children in urban areas, respectively, excluding orphans, live without at least one of their parents (GDHS, 2008; NDHS, 2008). In Angolan urban areas, approximately 33% of children, excluding orphans, do not live with at least one of their parents (INE, 2010). However, an important difference exists in Angola where there are large numbers of internally displaced persons, estimated to be 4 million persons at the end of the war (Roque, 2009). The number of refugees in neighboring countries exceeded 800,000 according to the United Nations High Commissioner for Refugees, 45% of whom were children (UNHCR, 2008). As a result of both war and accelerated recent urbanization, families and entire communities were significantly disrupted. Many women and children were on their own because male family members were mobilized for the military.

2.2. Transnational families and child psychological well-being

Since the turn of the century, transnational family studies have emerged focusing on the effects of living across borders on the different family members involved and how relationships between them are transformed (Bryceson and Vuorela, 2002). Primarily drawing on ethnographies, an increasing body of literature turned its focus to parent–child relationships and generally showed the negative consequences of parental migration for both parents, especially mothers, and children ‘left behind’. Studies argued that children tend to suffer emotionally especially when mothers migrate (Parreñas, 2005); encounter difficulties in coping with their transnational family life (Pribilsky, 2001); employ different tactics to ‘get back’ at their parents for having left them, such as feigning indifference towards their migrant parent when they are younger or showing rebellious behavior when they are older (Dreby, 2007). This inevitably creates much emotional suffering on the part of the child and also parents deal with feelings of distress (Schmalzbauer, 2004), guilt (Parreñas, 2001) and especially mothers, of being inadequate parents (Bernhard et al., 2009; Parreñas, 2001).

Despite this body of literature, until recently, transnational families remained largely outside the scope of child psychology and

family studies, which have tended to focus on families living together or those separated due to divorce or negative events such as death or a crisis (Mazzucato and Schans, 2011; Suarez-Orozco et al., 2002). This is largely due to the fact that theories used in child psychology literature deem geographic proximity a necessary condition for meaningful exchanges between child and parent. Attachment theory claims that psychological development occurs normally when the child has a stable relationship with one parent/caregiver while object relations theory, posits that children behave according to the way that they experience their relationship with their parents (Suarez-Orozco et al., 2002). Both thus imply a focus on geographic proximity. Given that many transnational families are partly based in developing countries where different family norms prevail, not all children in transnational family arrangements will have the same emotional reaction when separated from their parents (Bohr and Tse, 2009).

More recently, child psychology and family sociology studies have turned to the question of child outcomes due to parental migration, showing mixed results. In the Philippines, children with migrant parents have psychological well-being levels similar to children in non-migrant families (Asis, 2006). In Mexico, separation from a father due to migration leads to better outcomes for children than separation due to divorce as children of migrant fathers communicate more with them (Nobles, 2011). The use of modern communication technologies and social support networks seem to be positive contributors to the emotional well-being of children left behind (Asis, 2006; Wen and Lin, 2012). Conversely, the evidence from India (Rogaly et al., 2002) and China (Fan et al., 2010; He et al., 2012) reveals increased psychological distress in children with parents who migrate internally and internationally. Studies also indicate that migration disrupts parent-child bonding (Smith et al., 2004) and that family reunification does not always restore emotional bonds (Suarez-Orozco et al., 2002).

One of the most recent trends in studies on migration and the well-being of children who remain in origin countries is the examination of particular characteristics of separation that influence children's well-being (Mazzucato, 2013b). Who the migrant parent is, and whether the migrant was the primary caregiver of the child play a role in the psychological well-being of children. If the migrant was the primary caregiver, then children are more likely to experience psychological difficulties due to separation (Heymann et al., 2009). Children whose parents leave when they are young have a higher likelihood of suffering from anxiety and depression (Liu et al., 2009). Yet, these recent large-scale studies confirm the negative outcomes found by the transnational families literature only to a certain degree. They identify several factors that can be more important in explaining the psychological well-being of children than parental migration. Family context, living conditions, school environment, and age play significant roles in explaining the psychological distress of children in transnational families (Fan et al., 2010; Huurre et al., 2006; Smith et al., 2004; Wen and Lin, 2012). This study considers these factors and additional characteristics of transnational families that have been mentioned in qualitative transnational family studies as potential influences on the effects of separation that have not yet been systematically analyzed with a comparison group. These factors and characteristics are explained below.

3. Method

3.1. Data

The analysis is based on three surveys conducted among secondary school children in Ghana ($N = 2760$), Nigeria ($N = 2168$), and Angola ($N = 2243$) in 2010 and 2011. A random sample of children in junior and senior secondary schools was surveyed. The sample is composed of children and youths aged 11–21 living with both biological parents and children living in transnational families, with at least one parent who migrated for a period of three months or more, from the time of the survey. An additional purposive sample of children in transnational families was selected in the same schools to ensure that such cases were sufficient for comparative purposes. In all countries, the survey was conducted in urban areas with a high out-migration profile.

In total, 23 schools in Ghana, 27 schools in Angola, and 25 schools in Nigeria were surveyed. The schools in each country were randomly selected, and a stratified sampling procedure was applied to have an equal number of junior and senior secondary, public and private, and high- and low-quality schools according to categories set by the departments of education in Ghana and Nigeria. In Angola, this was done by obtaining rankings from key experts in the Ministry of Education as official rankings were not available. A team consisting of a supervisor and two to three trained interviewers administered the survey. Informed consent was obtained from the schools and the students. All schools accepted except for one in Ghana, which was replaced by another randomly selected school. Student response rates ranged between 85% in Ghana to 91% in Angola. The study was approved by the Social Research Ethics Committee of University College Cork.

A questionnaire was developed expressly for the purpose of evaluating the effects of transnational families on children's well-being. The same questionnaire was administered in the three countries. The data contain more than 190 indicators pertaining to transnational care arrangements, family socio-economic characteristics, educational performance, health, and psychological well-being. The analytic sample was composed of children with at least one parent who migrated internationally and children living with both parents. Only for the indicator *location of migrant parent* (see below) were children with at least one national and no international migrant parent included in the sample. Children who did not know where their parents are located – whether in or out of the country – (Ghana $N = 50$; Angola $N = 46$; Nigeria $N = 32$) were excluded from the analysis. Because we focus on separation due to migration and not due to death of a parent, children who had at least one parent deceased and no parent who migrated (Ghana $N = 183$; Angola $N = 239$; Nigeria $N = 89$) were excluded from the analysis.

3.2. Dependent variable

The psychological well-being of children is defined by the Total Difficulties Score (TDS) derived from the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). The SDQ is a self-reporting tool designed expressly for children aged 11 and above to measure their psychological status. The SDQ has a proven record of reliability and validity scores in both Western and non-Western contexts (Goodman, 1997; Palmieri and Smith, 2007; Woerner et al., 2004). This study used the English language version of the SDQ among school children in Ghana and Nigeria and the Portuguese version in Angola. The SDQ comprises 25 measures of psychological distress, which are indexed on five factors: emotional symptoms, conduct problems, hyperactivity, peer problems, and a pro-social scale. All but the last indexed factor are grouped together to generate the TDS, with values ranging from 0 to 40 (Goodman et al., 2000). The internal consistency of the TDS scale and the four sub-scales was measured and found to be average, indicating the appropriateness of the TDS measure for the three countries. A principal-component factor analysis found that the 20 items do not cluster perfectly around the 4 sub-scales of the TDS for the countries being studied. We therefore used the TDS as an indexed linear scale rather than the 4 sub-scales separately to fully capture the dispersed variation of the latent factors.

3.3. Independent variables

Based on the studies reviewed above, we identify four transnational child raising characteristics that can impact the psychological well-being of children living transnationally. Studies on transnational families indicate that children's psychological well-being is affected depending on *which migrant parent is absent* (Battistella and Conaco, 1998; Liu et al., 2009; Parreñas, 2005). When mothers migrate, children are more prone to psychological distress (Graham and Jordan, 2011; Liu et al., 2009). Children who are cared for by the other parent have been found to be less psychologically distressed (Asis, 2006; Graham and Jordan, 2011; Wen and Lin, 2012). In this analysis we account for who is the migrant parent and whether the other parent is caring for the child through the following categories: *I live with both my mother and my father, I live with my mother and my father is away internationally; I live with my father and my mother* is away internationally; *both my mother and my father are away internationally*.

Hypothesis 1a. Children with at least one international migrant parent are more likely to display poorer psychological well-being than children living with both parents.

Hypothesis 1b. Children with migrant mothers and who are cared for by their fathers are more likely to display poorer psychological well-being compared to children living with both parents.

Geographical proximity of the migrant parent: While both internal (Gao et al., 2010; Wen and Lin, 2012) and international (Dreby, 2007; Parreñas, 2005; Pribilsky, 2001; Suarez-Orozco et al., 2002) migration have been found to negatively affect the psychological well-being of children left behind, there are no studies that compare the two. Closer geographic proximity of internal migration implies lower travel costs and fewer administrative barriers, allowing parents more occasions and greater ease to visit their children. This is expected to positively affect the psychological well-being of children with national migrant parents. Furthermore international migration carries with it expectations that the parent will provide materially and remain actively engaged in parenting. These expectations are not always met, especially when parents encounter difficulties abroad in making a living, leading to feelings of abandonment in children (Dreby, 2007; Parreñas, 2005). This is expected to lower children's psychological well-being. We asked children "Does your parent currently live with you?" (asked for mothers and fathers separately): *she/he lives with me*; *she/he lives somewhere in the same town*; *she/he lives in another town in the country*, *she/he lives in another country*, *I do not know where my mother/father is currently living*, *and my mother/father passed away*. For analysis, we collapsed these categories to: both parents live with the child, one or both parents are away internally; one or both parents are away internationally. Those children whose parents live in the same town were excluded, as their parents cannot be considered migrants (Ghana: $N = 178$; Angola $N = 322$; Nigeria $N = 84$).

Hypothesis 2a. Parental internal migration is expected to have no effect on children's psychological well-being as compared to children living with both parents whereas international migration is expected to be associated with lower psychological well-being compared to children living with both parents.

Hypothesis 2b. In Ghana and Nigeria, two mid-sized countries, internal migration is expected to affect children's psychological well-being less than international migration. In Angola, where distances are greater, internal migration is not expected to show any differences with respect to international migration.

The *caregiver of children* in transnational families is largely understudied in transnational family research (Mazzucato and Schans, 2011). Children may feel abandoned when their parents migrate (Dreby, 2007), and psychologically challenged when forced to adapt to new forms of authority that accompany the change in caregiver and new caregiving arrangements (Smith et al., 2004). At the same time, a caregiver can play a fundamental role in explaining to the child why the parent has left thus reducing feelings of abandonment. Schmalzbauer (2004), for example, finds that in Honduras grandmothers fulfilled this role. Hoang and Yeoh (2012) show how the emotional work of caregivers in Vietnam, often the other parent or a grandparent, is crucial for alleviating emotional hardships children may experience as a result of their parent migrating. Furthermore, we have shown above that in all three countries, it is common for children not to live with at least one of their parents. Children with migrant parents therefore are not expected to feel the stigma that has been documented in other parts of the world (Parreñas, 2005). We record the type of kin relationship between the caregiver and child by asking, "At present, who usually takes care of you and lives with you at home?" The 27-item response categories were collapsed to: both parents, one parent, a grandparent, an uncle/aunt, others (siblings, non-kin and nobody). The category 'others' captures all relationships which could not be grouped as separate categories due to limited sample-size.

Hypothesis 3. The type of kin relationship between a caregiver and a child is expected to lead to no differences in child psychological well-being compared to children living with both parents.

Generally, in child psychology literature a *change in caregiver* because of divorce has been found to negatively influence the psychological well-being of children (Amato and Cheadle, 2005; Huurre et al., 2006). Yet this relationship has not been studied for the case of transnational families (Mazzucato and Schans, 2011). We therefore explore caregiver stability in the context of parental international migration. We ask children "In your life, how many times did you change carer?" The answers include: *None; once; twice; three or more times*. We combined these answers with the current migration status of children's parents to obtain the following categories: children in non-migrant families who never changed caregiver; children in non-migrant families who changed carer at least once; children in migrant families who did not change carer; and children in migrant families who changed carer at least once.

Hypothesis 4. Children with migrant parents who change their caregiver more often have poorer psychological well-being than children who live with both of their parents in a stable caregiving arrangement in the country of origin.

This study additionally controls for demographic factors such as gender of the child, where 1 denotes girls, age of the child ($\leq$*14, 15–17,* $\geq$*18*), ethnicity (*majority* or *minority* group), family characteristics such as education of parents (*some/finished primary education*, *some/finished secondary education*, *some/finished vocational education* and *some/finished tertiary education*), age of parents ($\leq$*39, 40–49,* $\geq$*50*), marital status of parents (*together, never married/together and divorced/separated*), a continuous measure of the total number of siblings living with the child, and the living conditions measured as self-declared current living conditions compared to others (*worse, the same, better*) and a continuous measure of housing conditions, where the total number of people in the house is divided by the total number of rooms.

3.4. Analytic strategy

The empirical analysis was conducted in two stages. In the first stage we assessed the effect of parental international migration on the psychological well-being of children regardless the particular

characteristics of the transnational family arrangement. We controlled for clusters of factors measuring child demographics, family characteristics and living conditions. Each of these clusters was included in a stepwise fashion to observe the effects of each cluster in explaining psychological well-being and what effects they had on the parental migration status variable.

In the second stage, the analysis explores whether the effects of parental migration status found in the first stage of analysis hold true if different characteristics of transnational families are employed. This stage comprises four distinct regression models, each using a different measurement of transnational families combined with the three clusters of controls as in the first stage.

All models employ OLS regressions with robust standard errors using the Huber–White sandwich estimators. The models control for missing data by including a category 'missing' (Case et al., 2005) for the following variables: location of the migrant parent and the age and education of parents (not reported in the tables). Indicators in each model were tested for collinearity, and none was found. Multi-level modeling was not used as intra-class correlation estimates showed limited variation of cases (below 0.10) at the school and class levels.

4. Results

Table 1 summarizes descriptive data of the mean TDS scores for each of the categories of transnational family characteristics. An analysis of variance (Anova) show that generally children living in transnational families have higher levels of psychological distress than children living with their parents, in all cases but two: in Nigeria it does not seem to matter who the migrant parent is and who the caregiver is. These general findings concur with the transnational family studies reviewed above and give initial support to Hypothesis 1a. Psychological stress is higher among children with a migrant mother and who live with their father, whose parents are abroad, whose caregiver is the other parent and when a caregiver changes more than once (Table 1).

Table 2 presents the results of the stepwise hierarchical analysis for the main variable of interest, whether a child is in a transnational family or not. For all three countries, the simplified model (Model 1) with no control variables shows that children in transnational families have lower levels of well-being than their counterparts living with both parents, giving further support to Hypothesis 1a. The hierarchical models (Models 2–4) do not show significant changes in coefficients related to migration status with the addition of child demographics, family characteristics and living conditions, except for Ghana where the final inclusion of controls for living conditions renders the effects of being in a transnational family insignificant. We therefore conclude that the effects of being in a transnational family on child psychological well-being in Nigeria and Angola are not mediated by the inclusion of these clusters of factors but in Ghana living conditions mediate this relationship.

The subsequent analysis breaks down the general category of transnational family used above to look at specific characteristics of transnational family formations. Table 3 presents four sets of models, each examining the impact of a different transnational family characteristic. Each model measures the differences between children living in transnational families and children living with both biological parents in the country of origin. The same clusters of control variables as above are included. Below we discuss the results related to the variables of interest: the specific characteristics of transnational families.

Who the migrant parent is (Model 1) makes a difference in Angola and Nigeria but not in Ghana. Children's psychological well-being is negatively affected when mothers migrate and children

Table 1
Means and standard deviations of psychological well-being (TDS) by type of child raising arrangement.

Types of child raising arrangement	Psychological well-being (TDS)[a]								
	Ghana			Angola			Nigeria		
	N	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*
Who is the migrant parent	$F(3, 1346) = 3.39^{*}$			$F(3, 680) = 14.48^{***}$			$F(3, 1179) = 1.89$		
Live with both parents	1158	11.2	(5.3)	995	13.0	(5.6)	1378	10.9	(5.5)
Father away, live with mother	290	11.9	(5.8)	191	15.9	(5.7)	174	11.6	(5.7)
Mother away, live with father	66	12.4	(5.5)	36	18.6	(6.7)	37	13.0	(5.8)
Both parents away, live with a caregiver	233	12.3	(5.6)	122	15.1	(5.9)	101	11.4	(5.0)
Total N	1747			1344			1690		
Location migrant parent(s)	$F(2, 1898) = 4.01^{*}$			$F(2, 931) = 18.61^{***}$			$F(2, 1410) = 6.98^{***}$		
Live with both parents	1232	11.3	(5.4)	978	13.0	(5.6)	1378	10.9	(5.5)
Parent(s) away internally	711	11.9	(5.4)	661	14.2	(5.5)	369	12.2	(5.8)
Parent(s) away internationally	539	12.1	(5.7)	266	16.1	(5.9)	294	11.8	(5.5)
Total N	2482			1905			2041		
Caregiver	$F(4, 1317) = 2.35^{*}$			$F(4, 675) = 9.44^{***}$			$F(4, 1168) = 1.12$		
Caregiver: both parents	1176	11.2	(5.4)	978	13.0	(5.6)	1377	10.9	(5.5)
Caregiver: one parent	326	12.0	(5.7)	235	16.1	(5.9)	205	11.8	(5.7)
Caregiver: uncle/aunt	67	12.0	(5.3)	42	13.9	(5.2)	35	10.8	(4.6)
Caregiver: grandparent	63	11.8	(5.9)	24	15.2	(5.5)	33	11.1	(4.9)
Caregiver: other	75	12.9	(5.6)	39	15.6	(6.1)	23	12.3	(5.7)
Total N	1707			1318			1673		
Stability of the caregiver	$F(3, 1249) = 5.77^{***}$			$F(3, 579) = 3.39^{***}$			$F(3, 1123) = 3.46^{**}$		
Live with both parents: never changed caregiver	842	11.1	(5.3)	671	12.8	(5.5)	1081	10.7	(5.4)
Live with both parents: changed caregiver ≥ 1	253	12.5	(5.7)	185	12.2	(5.2)	250	11.5	(5.7)
Children living transnationally: never changed caregiver	250	11.6	(5.9)	132	15.0	(5.6)	134	11.1	(5.7)
Children living transnationally: changed caregiver ≥ 1	245	12.5	(5.5)	118	17.2	(6.11)	142	12.4	(5.3)
Total N	1590			1106			1607		

Note. Analysis of variance (ANOVA) was used for all comparisons; the numbers are the reported mean values; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

[a] The Total Difficulties Score (TDS) has values between 0 and 40, with higher numbers denoting more psychological distress.

Table 2
The impact of parental international migration on psychological well-being (TDS).

	Model (1)[a]		Model (2)[b]		Model (3)[c]		Model (4)[d]	
	β	(SE)	β	(SE)	β	(SE)	β	(SE)
Parent(s) away internationally: GHANA	0.80*	(0.32)	1.00**	(0.33)	0.79*	(0.37)	0.67	(0.40)
Parent(s) away internationally: NIGERIA	0.90*	(0.45)	0.99*	(0.45)	1.22*	(0.47)	1.13*	(0.49)
Parent(s) away internationally: ANGOLA	3.11***	(0.53)	3.11***	(0.58)	4.27***	(0.84)	4.10***	(0.86)

Note: Standard errors in parentheses; *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$; models control for missing data on the location of migrant parent, education parents and age parents.
[a] Model (1) includes only the variable of interest: parental international migration.
[b] Model (2) adds the demographic characteristics of the child (age gender ethnicity).
[c] Model (3) adds the family characteristics (parents' education, age and marital status; number of siblings living with the child).
[d] Model (4) adds living conditions (same or worse than before migration; number of people per rooms).

live with their fathers in Nigeria and Angola, while in Ghana it is not. This gives partial support for Hypothesis 1b. Other conditions also do not lead to worse psychological outcomes in Ghana and Nigeria, such as when both parents migrate or, when fathers migrate and children live with their mothers. In Angola, the magnitude of the effects is high for all three transnational situations (mother, father, or both migrate) and higher than in the other two countries (Angola 6.74; Nigeria 2.76; Ghana 1.64).

Model 2 includes migrant parents who have migrated internally, which is a common phenomenon in all three countries. The results indicate that children with parents who migrate internally (Angola) or internationally (Ghana, Angola, Nigeria) have poorer psychological well-being than children who live with both parents. Hypothesis 2a is therefore confirmed for the case of Ghana and Nigeria but not for Angola. Tests for equality of coefficients were applied to investigate Hypothesis 2b, which compares the effects of internal and international parental migration. The results indicate that there is no significant difference in the coefficients for internal and international parental migration in Ghana ($F = 1.23$) and Nigeria ($F = 1.42$) whereas in Angola significant differences were found ($F = 5.45^{*}$). For Angola, it means that international parental migration ($\beta = 3.49$) has a greater negative impact on children's psychological health than internal parental migration ($\beta = 1.81$). We therefore reject Hypothesis 2b. Model 3 considers the kin relationship of the caregiver with the child. In both Ghana and Nigeria, children living with close relatives (uncles, aunts, grandparents) display no difference in psychological well-being compared to children living with both parents. However, the results indicate that children who are cared for by one parent while the other parent is away are more prone to psychological distress than children living with both parents in Nigeria and Angola. Hypothesis 3 is thus partially supported. The size of impact is higher in Angola where the absence of one parent while the other is the caregiver is predicted to increase the psychological distress with 3.87 units while in Nigeria, the same arrangement is associated with a 1.21 unit increase on the TDS scale.

Model 4 indicates that the stability of the caregiving arrangement is important for all three countries. When children living in transnational families change caregivers one or more times, their psychological well-being worsens compared to that of children living with both parents and who have never changed caregiver. This confirms Hypothesis 4. In Angola, children with parents away and who changed their caregiver more than once are associated with a 5.52 unit increase on the TDS scale. Comparatively, Ghanaian and Nigerian children in the same situations are associated with a 1.14 and 1.95 unit increase, respectively. Additionally, in Ghana and Nigeria, children who do not change their caregiver exhibit no difference in well-being relative to their counterparts living with both parents. The Angolan case reveals that living in a transnational family is worse than living with both parents, regardless of whether the caregiver remains the same.

The effects of two variables are worth noting. Parental relationship status is related to children's well-being. Children with parents who never have been married or are currently divorced or separated are more likely to have lower psychological well-being in Ghana and Nigeria regardless of whether they live in a transnational family. In Angola, children with parents who are divorced or separated are less likely to have psychological problems than children whose parents are together. Furthermore, worse current living conditions in all three countries are more likely to be associated with lower levels of psychological well-being in children. A series of interactions (not shown) were tested between location of the migrant parent (internal and international) with living conditions and with the age of the child. None of the interaction terms were significant in Ghana and Nigeria and no improvement in the robustness of the interacted models was observed. In Angola, better living conditions interacted with international migrant status was associated with a decrease in the psychological distress of children living transnationally indicating that living conditions positively mediates the psychological well-being of Angolan children who stay behind while their parents migrate internationally (analyses available upon request).

5. Discussion

Concurring with the findings of transnational family studies, we find that being separated from a parent due to migration has negative effects on the psychological well-being of children who remain in the origin country. However, our study contributes three nuances to the transnational family literature. First, not always does parental migration lead to worse outcomes for children. Depending on the transnational family arrangement, children may not show any differences in psychological well-being as compared to children living with both parents in the country of origin. Second, cross-country comparisons are important for highlighting that effects can differ depending on a country's context. Below, we give possible explanations for differences found based on two contextual factors: social norms around family and political stability. Third, a quantitative approach to studying the effects of transnational living on children can contribute to transnational family studies in terms of identifying which elements of decreased well-being in children are related to broader characteristics in the population rather than to parental migration. We discuss these three contributions below.

First, this study demonstrates that different characteristics of transnational family life can affect children differently. In line with qualitative transnational family studies, we find that when mothers migrate, children seem to have lower psychological well-being (Parreñas, 2001, 2005). Importantly, however, our quantitative approach shows that in the three African countries of the study, this is the least common arrangement. If mothers migrate, it is more common for fathers to also have migrated, and this form of

Table 3
Psychological well-being and the impact of different transnational care arrangements.

	Ghana				Angola				Nigeria			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)
Who is the migrant parent												
Live with both parents (ref.)												
Father away, living with mother	0.87	(0.47)			3.81***	(0.88)			0.76	(0.61)		
Mother away, living with father	1.64	(0.90)			6.74***	(1.50)			2.76*	(1.23)		
Both parents away, living with caregiver	0.39	(0.56)			3.24**	(1.03)			0.39	(0.73)		
Location migrant parent(s)												
Live with both parents (ref.)												
Parent(s) away internally			0.17	(0.36)			1.81**	(0.58)			0.31	(0.46)
Parent(s) away internationally			0.74*	(0.37)			3.49***	(0.70)			1.21*	(0.48)
Demographics – child												
Age: ≤14 years (ref.)												
Age: 15–17 years	−0.16	(0.37)	−0.11	(0.30)	0.77	(0.55)	0.55	(0.44)	−0.48	(0.34)	−0.42	(0.31)
Age: 18 > years	−0.83	(0.47)	−0.55	(0.37)	1.15	(0.64)	1.10*	(0.51)	2.83**	(1.09)	2.33**	(0.86)
Child is girl	1.02**	(0.32)	1.12***	(0.25)	1.22**	(0.46)	1.35***	(0.36)	−0.19	(0.33)	0.02	(0.29)
Child is ethnic minority	0.96**	(0.37)	0.77**	(0.29)	−0.43	(0.69)	0.00	(0.56)	−1.55***	(0.40)	−1.44***	(0.37)
Family characteristics												
Education parents: no/primary (ref.)												
Education parents: secondary	0.14	(0.76)	0.31	(0.53)	1.60	(0.88)	1.30*	(0.67)	0.74	(1.02)	0.69	(0.91)
Education parents: vocational	−0.64	(0.90)	−0.78	(0.64)	2.62*	(1.13)	1.81*	(0.87)	−1.47	(1.19)	−0.93	(1.02)
Education parents: tertiary	−0.23	(0.77)	−0.01	(0.55)	1.32	(0.91)	0.87	(0.69)	−1.06	(0.97)	−1.07	(0.86)
Age parents: ≤39 years (ref.)												
Age Parents: 40–49	0.60	(0.56)	0.47	(0.46)	−0.26	(0.73)	−0.57	(0.51)	1.54*	(0.73)	−0.18	(0.61)
Age parents: ≥50	1.08	(0.58)	0.64	(0.47)	−0.61	(0.77)	−0.20	(0.56)	1.39	(0.73)	−0.05	(0.62)
Parents are together (ref.)												
Parents never married/together	1.98**	(0.76)	1.87***	(0.51)	−1.40	(1.06)	−0.95	(0.70)	4.04**	(1.29)	2.28*	(0.92)
Parents divorced/separated	1.48*	(0.61)	0.31	(0.37)	−2.37**	(0.87)	−1.57**	(0.57)	1.02	(0.86)	0.71	(0.51)
No. of siblings living with the child	0.23***	(0.07)	0.11*	(0.05)	−0.12	(0.09)	−0.13*	(0.06)	0.18*	(0.08)	0.15*	(0.07)
Living conditions (LC)												
Current LC: better (ref.)												
Current LC: same	0.68	(0.37)	0.69*	(0.29)	0.27	(0.54)	−0.12	(0.43)	1.06**	(0.36)	0.87**	(0.32)
Current LC: worse	1.86***	(0.54)	1.71***	(0.38)	3.58**	(1.21)	2.20*	(0.86)	2.95**	(0.99)	2.17**	(0.72)
No. of people in the house/no. of rooms in the house	0.10	(0.09)	0.05	(0.07)	−0.19	(0.26)	−0.04	(0.21)	0.38*	(0.18)	0.40**	(0.14)
Constant	6.48***	(1.17)	7.29***	(0.92)	10.44***	(1.58)	10.48***	(1.25)	10.71***	(1.39)	11.91***	(1.22)
Number of observations	1190		1864		615		970		1114		1426	
adj. R^2	0.045		0.036		0.083		0.062		0.082		0.072	

	Ghana				Angola				Nigeria			
	Model 3		Model 4		Model 3		Model 4		Model 3		Model 4	
	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)
Caregiver												
Live with both parents (ref.)												
Caregiver: one parent	0.77	(0.45)			3.87***	(0.80)			1.21*	(0.56)		
Caregiver: uncle/aunt	−0.19	(0.85)			2.29	(1.38)			−0.32	(1.07)		
Caregiver: grandparent	0.19	(0.95)			3.42*	(1.43)			0.63	(0.99)		
Caregiver: others	0.59	(0.79)			3.69*	(1.57)			1.89	(1.62)		
Stability of the caregiver arrangements												
Live with both parents: never changed caregiver (ref.)												
Live with both parents: changed caregiver ≥ 1			1.11*	(0.49)			−0.27	(0.65)			0.92	(0.50)
Children living transnationally: never changed caregiver			0.79	(0.52)			3.92***	(0.99)			0.68	(0.68)
Children living transnationally: changed caregiver ≥ 1			1.14*	(0.49)			5.52***	(1.04)			1.95**	(0.63)
Demographics – child												
Age: ≤14 years (ref.)												
Age: 15–17 years	−0.21	(0.37)	−0.16	(0.37)	0.79	(0.56)	0.68	(0.58)	−0.46	(0.34)	−0.55	(0.35)
Age: 18 > years	−0.94*	(0.48)	−1.00*	(0.48)	1.01	(0.65)	0.89	(0.68)	2.85**	(1.09)	2.79*	(1.11)
Child is girl	0.99**	(0.32)	0.99**	(0.32)	1.11*	(0.46)	1.19*	(0.48)	−0.21	(0.33)	−0.13	(0.34)
Child is ethnic minority	0.92*	(0.38)	0.98**	(0.37)	−0.14	(0.70)	−0.47	(0.71)	−1.59***	(0.40)	−1.57***	(0.41)
Family characteristics												
Education parents: no/primary (ref.)												
Education parents: secondary	0.17	(0.79)	0.18	(0.76)	1.58	(0.90)	1.86*	(0.93)	0.69	(1.01)	0.46	(1.02)
Education parents: vocational	−0.62	(0.93)	−0.73	(0.89)	2.81*	(1.14)	2.09	(1.15)	−1.48	(1.18)	−1.70	(1.20)
Education parents: tertiary	−0.16	(0.81)	−0.20	(0.77)	1.31	(0.92)	1.24	(0.95)	−1.08	(0.95)	−1.36	(0.97)
Age parents: ≤39 years (ref)												
Age parents: 40–49	0.69	(0.55)	0.51	(0.58)	−0.17	(0.73)	−0.15	(0.76)	1.55*	(0.73)	1.69*	(0.73)
Age parents: ≥50	1.16*	(0.56)	0.98	(0.60)	−0.44	(0.77)	−0.35	(0.82)	1.39	(0.74)	1.49*	(0.74)

(*continued on next page*)

Table 3 (*continued*)

	Ghana				Angola				Nigeria			
	Model 3		Model 4		Model 3		Model 4		Model 3		Model 4	
	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)
Parents are married/together (ref.)												
Parents never married/together	2.30**	(0.84)	1.93*	(0.79)	−1.19	(1.03)	−2.15	(1.14)	4.03**	(1.27)	4.00**	(1.31)
Parents divorced/separated	1.81**	(0.62)	1.37*	(0.61)	−2.30**	(0.87)	−2.85**	(0.94)	1.00	(0.87)	1.00	(0.87)
No. of siblings living with the child	0.22***	(0.07)	0.23***	(0.07)	−0.13	(0.09)	−0.05	(0.10)	0.19*	(0.08)	0.19*	(0.08)
Living conditions (LC)												
Current LC: better (ref.)												
Current LC: same	0.63	(0.37)	0.77*	(0.38)	0.24	(0.54)	0.39	(0.54)	1.05**	(0.36)	1.09**	(0.36)
Current LC: worse	1.78**	(0.55)	1.87***	(0.56)	3.44**	(1.23)	3.46**	(1.24)	3.42***	(0.98)	2.72**	(1.04)
No. of people in the house/no. of rooms in the house	0.11	(0.09)	0.10	(0.09)	−0.20	(0.27)	−0.28	(0.26)	0.37*	(0.18)	0.39*	(0.18)
Constant	6.52***	(1.20)	6.44***	(1.20)	10.34***	(1.60)	10.20***	(1.66)	10.75***	(1.38)	10.63***	(1.39)
Number of observations	1167		1154		614		552		1106		1077	
adj. R^2	0.044		0.052		0.072		0.092		0.082		0.085	

Note: Standard errors in parentheses; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$; models control for missing data on the location of migrant parent, education parents and age parents.

transnational family was not found to have any differences in child well-being than children living with both parents in the origin country. Also, contrary to the explanations given in studies in the Philippines about children having stronger emotional bonds with their mothers and therefore suffering more if their mothers migrate (Parreñas, 2001, 2005), our study points to alternative explanations. First, we specifically look at who the caregiver is when mothers migrate. When children are in the care of their fathers and their mothers migrate, negative well-being outcomes are found. Such outcomes may therefore be associated with fathers' inability to provide emotionally for their children. Second, transnational family characteristics of female migrants may be different from those of male migrants, driving the negative results. For example, in Ghana we found a strong correlation between families in which the mother migrates and the instability of the caregiver, with children changing caregiver more than once. This indicates that female migrants may have more difficulty in securing a stable caregiving arrangement for their children. In other work (Caarls and Mazzucato, 2015) we find that in Ghanaian transnational families, female-only migration is associated with a higher probability of divorce. This suggests that female migration is associated with problematic family situations, that in turn affect children's well-being. Finally, women may face conditions overseas that hamper their ability to care for the psychological well-being of their children at a distance compared to male migrants. More research is needed to identify the mechanisms behind the association of maternal migration and children's well-being.

Stability in child raising arrangements as measured by changes in caregivers is an important characteristic that determines whether transnational arrangements are associated with negative outcomes for children. Children of migrants in Ghana and Nigeria who did not change their caregiver exhibited no difference in well-being compared with their counterparts living with both parents who also had never changed caregiver. This finding is important because stability in caregiving has been studied in the divorce literature in Western contexts (Amato and Cheadle, 2005) but not with respect to international migration.

Who the caregiver is, whether a grandparent, aunt, or uncle, does not have a negative impact on children's well-being in Ghana and Nigeria, countering some of the findings of qualitative studies that found that children of migrants, particularly adolescents, who are raised by grandparents in Mexico demonstrate rebellious behavior (Dreby, 2007). However, the situation in which one of the parents is a migrant and the other is the caregiver can impact children's well-being negatively in the case of Angolan and Nigerian transnational children. This finding may be an indication that relationships between partners in migrant families are strained when only one parent migrates (Caarls and Mazzucato, 2015), adding to the psychological unease of the child.

Overall, psychological well-being of children with parents away internationally is negatively affected when compared with children living with both parents. Yet, comparing the effects of international and internal parental migration on psychological well-being of children, we find that in Angola, international parental migration has a worse impact than national parental migration. In Ghana and Nigeria, there is no differing impact on children's psychological health when parents migrate internally or internationally. International migration is often praised for its development potential due to the sending of remittances to migrants' home societies. Furthermore, international migrants have been reported to send larger remittances than internal migrants. The results from this study suggest that there is another side to international migration when looking at the well-being of children.

A second contribution of this study is that country contexts make a difference in the effects of parental migration on children. There are two comparisons that we make to hypothesize how country differences may affect child well-being in transnational families. First, as this is the first large-scale study on transnational families in African countries, we compare our results to those of studies conducted in Latin America and Asia. Studies conducted in these two continents find that children have low levels of well-being when parents migrate (Dreby, 2007; Parreñas, 2005; Schmalzbauer, 2004). These studies describe the stigma associated with parental absence, which leads to children feeling unhappy and that they are missing something that other children have. In the three African countries of our study, child fostering and social parenthood practices are prevalent, making it common for children to be raised by a non-biological parent irrespective of parental migration. In such a context, children of migrant parents may not feel stigma associated with parental absence documented in Asia and Latin America. In fact, in Caribbean communities where child fostering is widely practiced, studies have found that no stigma is attached to fostering (Soto, 1989; Waters, 1999). In Ghana, a qualitative study on children's experiences of parental international migration also found no evidence of stigma (Poeze and Mazzucato, 2013). We therefore postulate that child fostering norms in origin countries help children not to feel stigmatized in their social environments when their parents migrate and they are cared for by someone else. The lack of decreased well-being outcomes was particularly evident in Ghana and Nigeria when both parents migrated, when children did not change caregiver, and when parents migrated internally. Furthermore, the kin

relationship between the caregiver and child was not associated with decreased well-being outcomes.

A second comparison is that between Angola on the one hand, and Ghana and Nigeria on the other, because a consistent pattern emerged in which transnational family indicators had larger coefficients and higher statistical significance in Angola indicating worse outcomes for Angolan children than in the other two countries when compared to their counterparts living with both parents. The different destinations of international migrants in Ghana and Nigeria (largely within Africa and to Europe and North America), and in Angola (mainly within Africa and to Portugal) (World Bank, 2011; UNDP, 2009) may at first glance seem a possible driving difference. While the better economic conditions in the destination countries of Nigerian and Ghanaian parents may allow them to send more remittances, not always can they access better earning opportunities due to difficulties in obtaining residency and work permits, and having their credentials recognized in the origin countries (Haagsman and Mazzucato, 2014). Furthermore, there are no studies to our knowledge that substantiate that Nigerian and Ghanaian parents remit more than Angolan parents. Rather we postulate that a more likely explanation lies in the different recent history of Angola where long years of war (1975–2002) have weakened the bonds of confidence and solidarity between individuals, families and ethnic groups (Grassi, 2010: 160). Child psychology literature that focuses on conflict and post-conflict situations give support to this explanation. Conflict affects the individual and collective resilience of caregivers, families, and communities in ways that may reduce their capacity to support vulnerable children (Veale, 2011). Trauma affects self-efficacy in particular ways, such as the perceived ability of individuals to regulate troubling emotions and to believe in their capacity to address their survival needs of housing and livelihood (Hobfoll et al., 2007). Post-conflict societies struggle to repair years of structural violence and systematic attacks on social institutions, such as health, education, food security, and access by citizens to the means for economic progress. This phenomenon indirectly weakens protective social support networks for children (Machel, 1996). In Angola, risks to children and adolescents often include high levels of family violence, such as spousal abuse and harsh corporal punishment, exacerbated by poverty and alcohol abuse (Wessells and Monteiro, 2004). In contexts in which a parent migrates, extended care networks may be overburdened as a result of post-conflict stressors, and resources may be already depleted before caregivers assume the extra responsibility of providing and caring for children of migrants. Within such a context, children are more vulnerable to shocks such as parental migration and are more likely to have stronger reactions than children in stable sociopolitical contexts (Suarez-Orozco et al., 2002).

A third contribution of this study is to qualitative transnational family studies in that it is able to distinguish between characteristics that are particularly relevant to transnational families and other characteristics that affect the well-being of children more generally. We find that divorce or separation (Liu et al., 2009; Nobles, 2011) and poor living conditions (Fan et al., 2010; Wen and Lin, 2012) affect children's psychological well-being. In Ghana, the effects of transnational families disappeared when controlling for poor living conditions, indicating that well-being outcomes in some contexts are more closely related to characteristics other than being in a transnational family.

This study has some limitations. We were unable to include the length of separation between the migrant parent and the child because particularly young children in our study had difficulties remembering the exact dates of their parent's departure. To a certain extent, the time since child–parent separation is captured by the age of the child. We assume that older children in transnational families experience longer periods of separation from their parents due to their longer life spans. Yet this variable should be more systematically considered in future studies as there is contrasting evidence on the role of time: longer separations have been found to lead to greater anxiety and depression in children (Fan et al., 2010) yet they also allow children to adjust to their situation (Dreby, 2007). Our study also cannot control for possible selection bias. There could be reasons for a parent to migrate that also affect a child's psychological well-being, the most likely of which is marital discord. Studies have found that migration is a way, especially for women, to escape from problematic marriages (Constable, 2003; Hirsch, 2003). Marital discord also negatively affects child psychological well-being. Yet how this would affect children in transnational families is unclear as children may suffer from the departure of a parent augmenting their psychological distress, or they may benefit from less conflict within the household. We have controlled for marital status of the parents in this analysis yet a longitudinal analysis allowing the observation of the sequence of separation and migration events, would allow a more profound investigation of this factor. There are also limitations to the generalizability of our findings. Because the survey was conducted in schools, this study does not capture children who drop out of school. While some studies have found that parental migration can lead to school drop-out (McKenzie and Rapoport, 2011), others point to parental migration as actually leading to better school attendance (Antman, 2012). Likewise, the survey was conducted in urban, high out-migration areas and can therefore not be generalized to the whole country. Another limitation is that the survey was conducted in the language of instruction rather than the language that children may be most fluent in. We tried to minimize language incomprehension problems by working with survey assistants who were fluent in various local languages in each country, however some incomprehension may remain. Finally, the data are cross-sectional. Future research should focus on collecting panel data to allow for the observation of effects over time.

Despite these limitations, this study has served to explore on a large-scale and comparative way some of the main insights coming from qualitative transnational family studies. In so doing, we have added some nuances by showing that not always is parental migration associated with poorer psychological well-being outcomes. Certain characteristics of the arrangements made to care for the child matter. Identifying these characteristics can provide important insights for the development of interventions aiming at the well-being of children in transnational care. Not changing caregivers is one such characteristic. It is therefore important to inform migrant parents and for them to make arrangements before departure to ensure stability of the arrangement. Furthermore, contextual factors are important to creating environments that are more amenable for children to cope with their parents' migration. Norms of social parenthood and child fostering that are prevalent in these African cases, may ease how a child experiences parental separation. Such a context helps avoid moralizing discourses that have stigmatized children of migrant parents in other parts of the world (Parreñas, 2005). Conversely, a post-conflict setting seems to make children more vulnerable to parental migration, indicating the potential importance of taking this category of children into account, for instance, in institutions dealing with refugee families. Finally, having living conditions of sufficient quality is important for children not to incur lower levels of psychological well-being irrespective of parental migration, indicating that policies enabling children to live above poverty levels benefit children's psychological well-being in general.

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