

# Kinship, Gender & Migration from a Rural Caribbean Community

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## Abstract

Emigration from developing countries may be influenced by kinship, which has different effects on men and women. A strong family at home may inhibit migration, and kin living abroad may encourage it. This study examines effects of kin on odds of migration for men (N=200) and women (N=220) from a rural community in the Commonwealth of Dominica. Multiple logistic regression showed that women were more likely than men to migrate. Number of matrilineal kin in the community was associated with women's migration but not with men's. Maternal grandmothers resident in the community were associated with decreased odds that women migrate.

**Keywords:** Rural Caribbeans, kinship, gender, migration.

## Introduction

Migration decisions depend on multiple factors including an individual's gender and position within a social network (Curran & Saguy 2001; Lawson 1998). Kinship is often the foundation of social networks in developing nations; hence, it may have important implications for migration. This study examines associations between patri- and matrilineal kin networks and sex differences in the probability of leaving Bwa Mawego, a rural village in the Commonwealth of Dominica.

Behavioural ecology suggests that decisions reflect cost-benefit analysis (not always conscious) that may ultimately enhance an individual's reproductive opportunities. Decisions do not necessarily maximize fertility, but they often

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address a trade-off between offspring quality and quantity (Borgerhoff Mulder 2000). In rural Dominica, patterns of kinship have gender-specific associations with reproduction (Quinlan & Flinn 2005). Many Dominican women help kin with childcare within a matrifocal kinship system (Quinlan 2001; Quinlan et al. 2003). Children whose mothers have little kin support tend to have elevated stress (cortisol) levels and suppressed immune systems (Flinn & England 2003). The benefits of kinship, however, may decline as kin groups grow large and “local competition” increases. For example, “reproductive success” in Bwa Mawego increases up to an apparently optimal group size where it begins to decrease (Quinlan & Flinn 2005). Availability of matrilineal kin and concerns over childcare may influence whether women migrate or not. Similarly, access to patrilineally inherited smallholdings for commercial and subsistence agriculture may influence men’s migration. Many young adults in Bwa Mawego delay reproduction, saying that they want to wait until they have adequate resources for childrearing. Young villagers also complain that there are too few jobs and educational opportunities in Dominica. Women say that jobless rural men are unattractive as mates, and men say that they cannot start a family without financial stability. Migration may be one means of improving reproductive opportunities.

### **Ethnographic context**

The Commonwealth of Dominica is a small, rural island nation located between Guadeloupe to the North and Martinique to the South. The island is mountainous and relatively undeveloped. Dominica’s population of 65,000 is of mixed African, European and Island-Carib descent. Most Dominicans are bilingual in English and French-Patois.

Bwa Mawego is one of the least developed villages on the island, located at the dead-end of a narrow, mountainous road. There are approximately 700 full and part-time residents. For more detailed descriptions of Bwa Mawego see Quinlan & Flinn (2005) and M. Quinlan (2004).

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Economic activities are limited, including subsistence and commercial agriculture, fishing and, for a few villagers, wage labour or penny capitalism. Cash crops from smallholdings are an important source of income for many families. Average annual household income in Bwa Mawego is approximately \$5,000 E.C. (\$1,850 U.S.).

Educational opportunities are also limited. About 30% of villagers born between 1953 and 1986 have attended high school. Girls are more likely to attend high school than are boys (OR [adjusted for age] = 3.32 95%CI: 1.94-5.67).

Kinship and family are the foundation of economic, social, and reproductive behaviour in Bwa Mawego. Kin ties provide a map for navigating social life, and they offer avenues for the flow of goods and services. Male kinsmen work together on construction and agricultural projects for the family, and kinswomen share childcare and chores.

Cooperation among kin depends in large part on the structure of households and their relation to other households. For example, a woman who moves into her husband's family compound may receive little direct assistance from her husband's kin, but her children receive care and support from paternal relatives. Coresident adult sisters, in contrast, are more cooperative.

Kinship is important beyond the household. There are several large patrilineages and many small lineages. Patrilineal descent provides access to ancestral family land, advantageous to individuals whose immediate family does not own land. Land tenure in the village is complicated and sometimes contentious, similar to other Caribbean populations (e.g. Clarke 1957). Rights to family land in Bwa Mawego are transferred over generations to many descendants. As the village founders died, their children had rights to cultivate a portion of their land. Current partrilineal descendants also have a right to use family land.

### **Migration hypotheses**

Kin assist with reproduction and income generation that is predicted to influence villagers' decisions to migrate. For women, a strong matrifocal kin network helps with child-rearing, which may offset advantages of leaving the village. Women without matrilineal kin may, conversely, decide to migrate for better opportunities. For men, membership in a patrilineage can provide access to land for agriculture (Flinn 1992); however, in large lineages many people contend for limited acreage. Therefore, probability of migration is predicted to be a curvilinear function of patrilineal group size. Probability of migrating may decrease up to an "optimal" group size, at which point it increases as competition over lineage land intensifies.

Specific kin may influence decisions to migrate. In Bwa Mawego parents and grandparents are important sources of support, and losing ties to them may make migration unattractive. Siblings in the village might likewise discourage migration; conversely, émigrés may encourage their siblings to follow. Finally, people with limited resources are unable to afford passage off the island; hence, relatively impoverished families may not be able to support emigration.

### **Methods**

Genealogical data for examining relations between kin group membership and migration were collected and cross-checked through a series of interviews (Quinlan & Flinn 2005). Multiple key informants provided kinship information for all villagers in annual census updates (1987-2004) and their children, siblings or parents who may have emigrated. After initial interviews, the genealogical database was analyzed for errors and missing data using KINDEM-COM software (Chagnon & Bryant, 1984). After identifying errors and missing data, five more rounds of interviews, cross-checks and analysis were conducted. The resulting database contains information for 1,826 individuals born between 1835 and 2004. Analyses presented here include 200

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men and 220 women born in Bwa Mawego between 1953 and 1986. Migration status was determined through a series of interviews with multiple key informants in January, July and August of 2004.

Multiple logistic regression modelled migration from Bwa Mawego as a function of kin group characteristics. There were three analyses of criterion variables: whether the individual left (1) the village (migration), (2) the island (emigration), or (3) the village but not the island (internal migration). Predictor variables include the number of matrilineal kin (related through mother) and patrilineal kin (related through father) living in the village; number of brothers and sisters in the village; whether a sibling had emigrated; presence of mother, father, mother's mother, mother's father, father's mother, and father's father in the village; a dichotomous variable indicating whether the immediate family is relatively poor compared with other villagers; year of birth; and sex (female=0, males=1). Quadratic terms for patrilineal and matrilineal group size entered the model to test for competition among kin: Probability of migrating should decrease as kin group size increases and increase in very large groups because of "local competition". Finally, interaction terms for sex by first order variables entered the model to examine gender-specific associations with migration. Interaction terms were centred because non-centred interactions caused substantial multicollinearity. Alpha was set a .05.

### Results

Multiple logistic regression showed gender-specific kin effects on migration. 55% of people born in Bwa Mawego between 1953 and 1986 have migrated. 33% left the island and 22% migrated to other locations on Dominica. Men were less likely to leave than were women (table 1) – women had more than twice the odds of leaving the village. The size of the matrilineal kin group but not the patrilineal group was associated with the probability of migrating, which decreased as matrilineal group size increased. Quadratic terms

for group size, however, were not significant (not shown); indicating that competition among kin may have little effect on the decision to leave. There was a significant sex by matrilineal kin interaction (figure 1, A), indicating that matrilineal kin had a stronger statistical effect on migration for women than for men. There was also a gender-specific effect of mother's mother (MM) on the probability of migration (figure 1, B): Women with a MM living in village were less likely to leave than were other villagers. The year of birth by sex interaction term was also significant (figure 1, C): Younger women were more likely to leave than were older women. Presence of the father in the village was associated with marginally greater odds of migrating ( $P=.092$ ), and number of sisters was associated with marginally lower odds ( $P=.054$ ). Other relations were not significant (table 1).

Analysis for international emigration (not shown) indicated a different pattern of associations. Presence of a father in the village was associated with increased odds of emigration ( $OR=2.02$ ,  $P=.012$ ; odds ratios are adjusted for covariates in table 1). Conversely size of the matrilineal group and family poverty were associated with decreased odds of emigration ( $OR=0.98$ ,  $P=.007$ ;  $OR=0.49$ ,  $P=.033$  respectively). Year of birth was negatively associated with emigration ( $OR=0.97$ ,  $P=.034$ ). There was no sex difference in the probability of leaving the island, but three gender specific interactions were marginally significant: sex by father's mother ( $OR=5.99$ ,  $P=.075$ ); sex by mother's mother ( $OR=3.75$ ,  $P=.058$ ); and sex by number of sisters in the village ( $OR=1.09$ ,  $P=.086$ ), meaning that women with grandmothers and sisters in the village were less likely to leave the island than were men. Other variables in the multiple regression model were not significant.

Analysis of internal migration in Dominica yielded different results. Year of birth was associated with internal migration, but the effect was in the opposite direction from international emigration ( $OR=1.07$ ,  $P<.001$ ). Men were less likely to migrate internally than were women ( $OR=0.51$ ,  $P=.027$ ), but there were no significant (or marginal) interactions with

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sex. Numbers of brothers and sisters were associated with decreased odds of internal migration (OR=0.90, P=.029; OR=0.95, P=.087) though the association with sisters was marginal.

**Table 1. Multiple logistic regression showing effects of gender & kinship on migration.**

N=420	B	S.E.	P	OR	
Year of Birth	0.026	0.015	0.087	1.026	*
Sex (1=female)	0.755	0.220	0.001	0.478	**
Father lives in village	0.449	0.267	0.092	1.567	*
Mother lives in village	-0.126	0.272	0.643	0.882	
Mother's father lives in village	0.170	0.384	0.659	1.185	
Father's father lives in village	-0.002	0.578	0.998	0.998	
Father's mother lives in village	0.069	0.438	0.876	1.071	
Mother's mother lives in village	-0.419	0.320	0.190	0.658	
N of matrilineal kin in village	-0.012	0.006	0.043	0.988	**
N of patrilineal kin in village	-0.006	0.005	0.177	0.994	
N of sisters in village	-0.032	0.016	0.054	0.969	*
N of brothers in village	-0.036	0.025	0.153	0.965	
Parents impoverished	-0.152	0.289	0.599	0.859	
At least one sibling emigrated	0.340	0.255	0.183	1.405	
<i>Sex X Year of birth</i>	<b>-0.061</b>	<b>0.030</b>	<b>0.044</b>	<b>0.941</b>	**
<i>Sex X Father in village</i>	<b>-0.475</b>	<b>0.534</b>	<b>0.374</b>	<b>0.622</b>	
<i>Sex X Mother in village</i>	<b>-0.893</b>	<b>0.543</b>	<b>0.100</b>	<b>0.410</b>	
<i>Sex X Mother's father in village</i>	<b>-0.605</b>	<b>0.769</b>	<b>0.431</b>	<b>0.546</b>	
<i>Sex X Father's father in village</i>	<b>1.764</b>	<b>1.156</b>	<b>0.127</b>	<b>5.833</b>	
<i>Sex X Father's mother in village</i>	<b>0.772</b>	<b>0.877</b>	<b>0.379</b>	<b>2.163</b>	
<i>Sex X Mother's mother in village</i>	<b>1.497</b>	<b>0.639</b>	<b>0.019</b>	<b>4.470</b>	**
<i>Sex X N of matrilineal kin</i>	<b>0.023</b>	<b>0.012</b>	<b>0.047</b>	<b>1.024</b>	**
<i>Sex X N of patrilineal kin</i>	<b>0.003</b>	<b>0.009</b>	<b>0.742</b>	<b>1.003</b>	
<i>Sex X N of sisters</i>	<b>0.044</b>	<b>0.033</b>	<b>0.179</b>	<b>1.045</b>	
<i>Sex X N of brothers</i>	<b>-0.001</b>	<b>0.050</b>	<b>0.986</b>	<b>0.999</b>	
<i>Sex X Parents impoverished</i>	<b>-0.221</b>	<b>0.578</b>	<b>0.703</b>	<b>0.802</b>	
<i>Sex X Sibling emigrated</i>	<b>-0.243</b>	<b>0.510</b>	<b>0.634</b>	<b>0.784</b>	
Constant	-50.692	29.759	0.088	0.000	*

Note: Quadratic terms for N of matrilineal and patrilineal kin were not significant and are not included in the model above. B =log odds of migration; S.E.= standard error for log odds; OR = adjusted odds ratio; P =significance; \*P <.10; \*\*P <.05.

**Figure 1. Significant gender-specific associations with migration.**

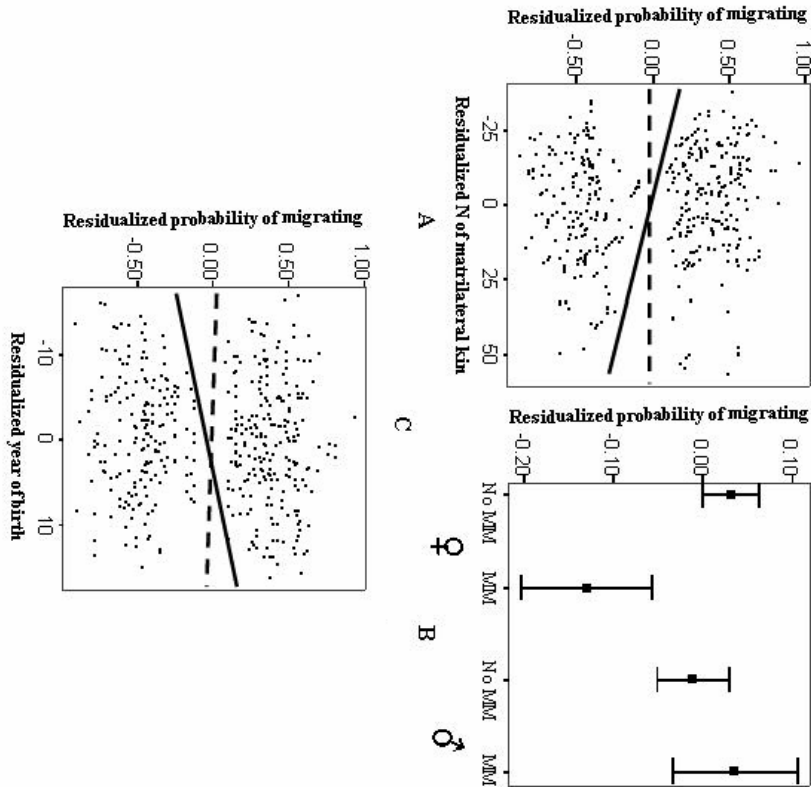


Figure 1 note: In panel A the residual probability of migrating for women is negatively associated with the number of matrilineal kin in the village ( $\mu=30$ ); however, matrilineal kin had little effect on men's migration. Solid lines are the linear association for women, dashed lines are for men. "Residualized probability" is the observed migration status (0 or 1) minus the probability predicted by the model in table 1 excluding predictors on the X-axis. Predictor (X-axis) variables in panels A & C are adjusted for other predictors in table 1 ("residualized"). 1970 was the mean year of birth in panel C. In panel B squares indicate the mean and whiskers are one standard error. "No MM" indicates that mother's mother does not live in the village and "MM" indicates that she does.

### **Conclusion**

Women were significantly more likely to migrate than were men. Women appear to be less likely to migrate when they have matrilineal kin residing in the community, which is consistent with studies in Bwa Mawego indicating the importance of kin support for childrearing. The analyses do not suggest that local competition among kin is an important factor as there was no quadratic relation between patrilineal group size and the probability of migrating for either sex, nor was patrilineal group size linearly related to migration.

Differences between internal and international migration suggest potentially important gender differences in motivation. Girls were more likely to attend high school than were boys, and until 2003 they had to live outside the village or commute for several hours to do so. Although education has many benefits, girls and their parents sometimes suggest that getting an education helps a young woman find a better quality mate than she might in the village. Many young women may decide not to return to Bwa Mawego once they are exposed to the opportunities of the outside world.

Younger women were more likely to leave the village than were older women, which may indicate that migration becomes a more viable option for women as the perceived risks decrease. As more women successfully migrate they may become models for others to follow (Curran & Saguy 2001).

Young villagers say that life in Bwa Mawego lacks employment, educational and entertainment opportunities, and many would like to leave. Those that do migrate tend to return often, particularly if they have not left the island or region. Returning villagers sometimes say that they miss the closeness of family life in Bwa Mawego. Some young women suggest that leaving the village is hard, because they lose family support for child rearing; however, the benefits of migration may outweigh benefits of kinship. Many women from large extended families do leave, and they

sometimes send their own children back to Bwa Mawego to live with relatives, either temporarily or permanently.

In sum, people migrate from rural areas of developing nations for better economic, educational, social and reproductive opportunities. The decision to migrate involves many factors. Availability of kin support is one important factor that may have different influences on men's and women's decision to leave their natal community.

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