

Introduction and Statement of Research Problem

There have also been numerous attempts at drawing a relationship between onchocerciasis and migration. Despite the rich empirical evidence that suggests that rural-urban migration is often induced by economic considerations and rural deprivation, the literature on onchocerciasis have often claimed that the disease induces migration from endemic communities. However, these assertions are not based on deductive findings from quantitative researches aimed at ascertaining the causes of migration from onchocerciasis endemic communities.

Examples of such generalisation abound in the works of Hunter (1966), in Nangodi, Northern Ghana; Rolland (1972), in Saint Pierre, Burkina Faso; and Bradley (1976), in the Hawal Valley, Nigeria. In fact, some studies in the medical sciences also make these assertions (see Gemade, 1982; Oladepo, 1986; Edungbola and Parakoyi, 1991). For instance, Hunter (1966) observed a cyclical retreat and advance of settlements in onchocerciasis endemic river valleys of Nangodi, Ghana, and based on in-depth interview with society elites and his personal observations; he concluded that onchocerciasis was responsible for this pattern of movement. In the same vein, Bradley (1976) observed extensive depopulation and decay of onchocerciasis endemic communities in the Hawal River Valley, Nigeria, and with reference to Hunter (1966), concluded that onchocerciasis was most likely to be responsible for the large scale depopulation and decay of the communities.

Over the years, the work of Hunter (1966) has become a reference point for most researches on onchocerciasis. Today, most studies on onchocerciasis are based on the assumption that the disease induces extensive out-migration. Indeed, this assertion has tended to hinder a clear understanding of the place of onchocerciasis relative to other factors in settlement depopulation. It is a fact that onchocerciasis is predominantly a disease of isolated and remote rural communities (Kuti, 1991), where poverty and deprivation pervade. However, rather than attribute depopulation and decay in onchocerciasis endemic communities solely to the menace of the disease, it would be logical to conduct unbiased studies into the phenomenon of migration in such areas to determine whether or not onchocerciasis is a major factor of depopulation and decay. It may as well be that the disease only serves to compound an already precarious situation originally induced by other factors. This study, therefore, analyses the primary factors of depopulation of onchocerciasis endemic communities in Kwara State, Nigeria.

The research hypothesises that “Onchocerciasis prevalence is a significant factor of out-migration”. The basis for this hypothesis therefore, is to clearly bring out the place of onchocerciasis in the migration of people from endemic communities and therefore determine whether or not the assertion in the literature that onchocerciasis induces the movement of people from endemic communities is true.

Methodology

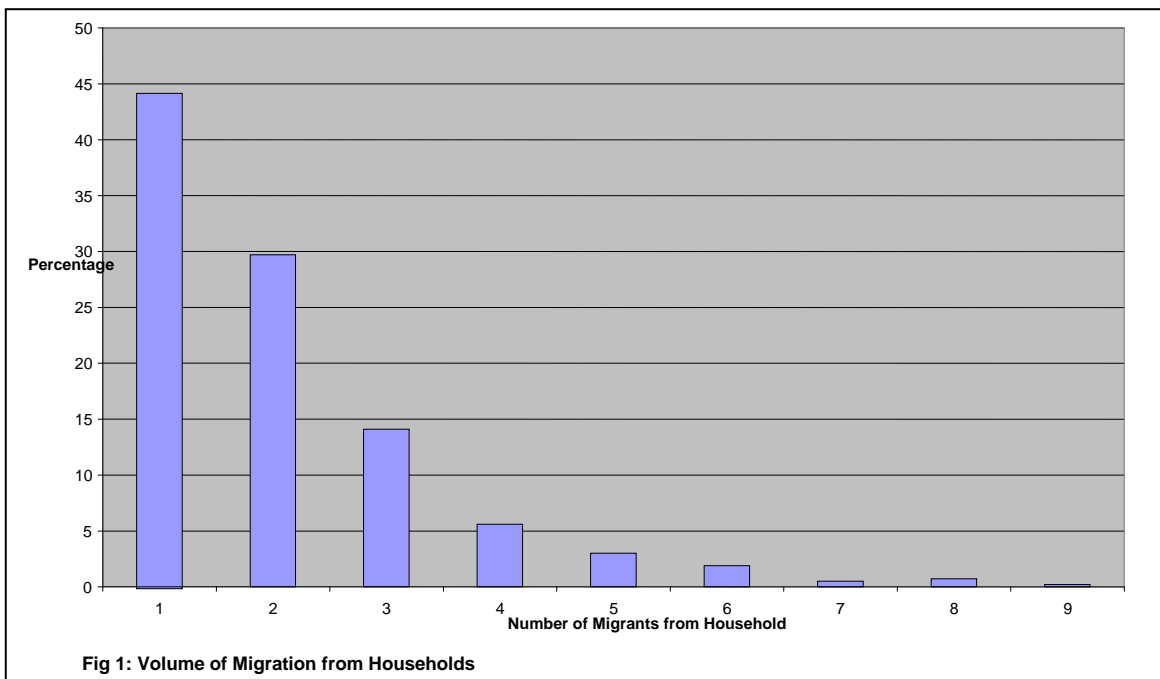
The study area is Patigi Local Government Area (LGA), Kwara State, Nigeria. The LGA is located within Latitudes $8^{\circ} 30' N$ and $8^{\circ} 57' N$; and longitudes $5^{\circ} 30' N$ and $6^{\circ} 11' E$. Primary and secondary data were used for this study. The questionnaire administered on 600 randomly selected respondents in the study area served as the basic tool for collecting data from the primary source. The questionnaire sought information about the location and demographic characteristics of respondents and issues of migration in the household. The list of households as contained in the LGA's Onchocerciasis Control register served as the database for selecting the households interviewed. Also, information about available infrastructures in the LGA was collected from relevant organisations.

Multi-stage sampling was employed in this study for collection of data from the primary source. Patigi Local Government Area was stratified into the three existing administrative districts Lade, Patigi and Kpada. From each stratum, 200 respondents were selected using the LGA's onchocerciasis control household register as the database. The list has a total of 3005 registered households, out of which 600 households (representing about 20 per cent) were selected. The households interviewed were selected using the random sampling technique. The interviews were conducted at household level; the head of each selected household was interviewed.

Results

Volume of Migration

In all, 886 migrants were reported in the 600 households sampled. This gives an average of 1.5 migrants per household. Data show that migration was recorded in 431 (72 per cent) households. One person had migrated each from 191 (44.3 per cent) households, two persons had migrated each from 128 (29.7 per cent) households, and 61 (14.1 per cent) households had recorded three migrants each. Four and five migrants were in 24 (5.6 per cent) and 13 (3 per cent) households respectively. Also, 8 (1.9 per cent), 2 (0.5 per cent) and 3 (0.7 per cent) households recorded 6, 7 and 8 migrants respectively. The highest number of migrants from any household was nine and this was recorded in just one household (see Figure 1).



Source: Field Survey, 2000.

Flow of Movement

Generally, migration had been towards 61 different locations in Nigeria. No case of international migration was recorded during the survey. About 38 per cent of total migration took place within the rural communities in the LGA. Distance was observed to influence the destination of migrants, movement decreases with increasing distance from the origin (see Figure 2). The correlation coefficient shows that there was a negative relationship between volume of migration

and distance travelled ($r = -0.244$; $p < 0.05$). In other words, the greater the distance away from origin the lesser the volume of migration to that destination.

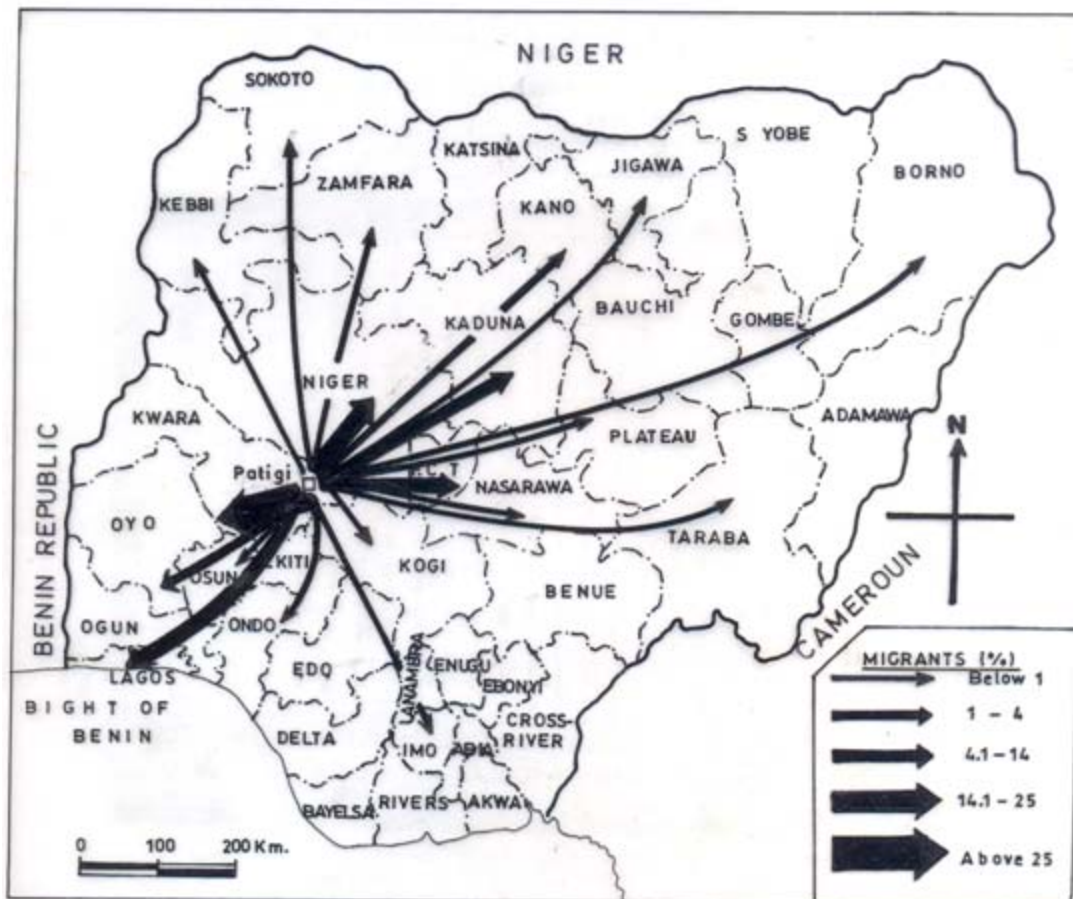


Figure 2: Migration Flow from Patigi LGA

4.2 Determinants of Migration

The head of each household was asked the most important reason why every migrant from his household migrated. The quest for education was reported as the most important push factor from the study area, 467 (53 per cent) migrants were reported to have migrated to acquire education elsewhere. Economic considerations were next with 318 (36 per cent) migrants having migrated to find employment. Thirty two (3.6 per cent) people migrated to join their spouses, while other migration factors such as lack of social amenities, socio-cultural constraints, land shortage and natural disasters (mainly flood and windstorm) constituted 3.7 per cent of migration factors. Only 4.1 per cent of migrants were reported to have migrated as a result of the scourge of onchocerciasis (see Table 1).

Furtherance to ascertaining the factors of migration from Patigi area, respondents were asked specifically, what in their opinion constituted the most important factor of migration from their respective villages. Again, education was reported as the most important factor of migration by 295 (49.2 per cent) respondents. Next were economic reasons with 231 (38.5 per cent) of the respondents reporting that economic factors were the most important consideration. Furthermore, 27 (4.5 per cent) respondents reported the lack of social amenities as the most important push factor, while 23 (3.8 per cent) respondents considered marriage as the most

Table 1: Reasons for Migration

Factors of migration	Number of migrants	Percentage
Onchocerciasis	36	4.1
Economic reasons	318	35.9
Education	467	52.8
Marriage	32	3.6
Lack of social amenities	2	0.2
Socio-cultural constraints	1	0.1
Others	30	3.4
Total	886	100

Source: Field Survey, 2000

important factor of migration. Only 6 (1 per cent) respondents reported onchocerciasis prevalence as the most important consideration. Other migration factors such as socio-cultural constraints, land shortage and flood were reported as being the most important factors of migration by 3 per cent of respondents (see Figure 3).

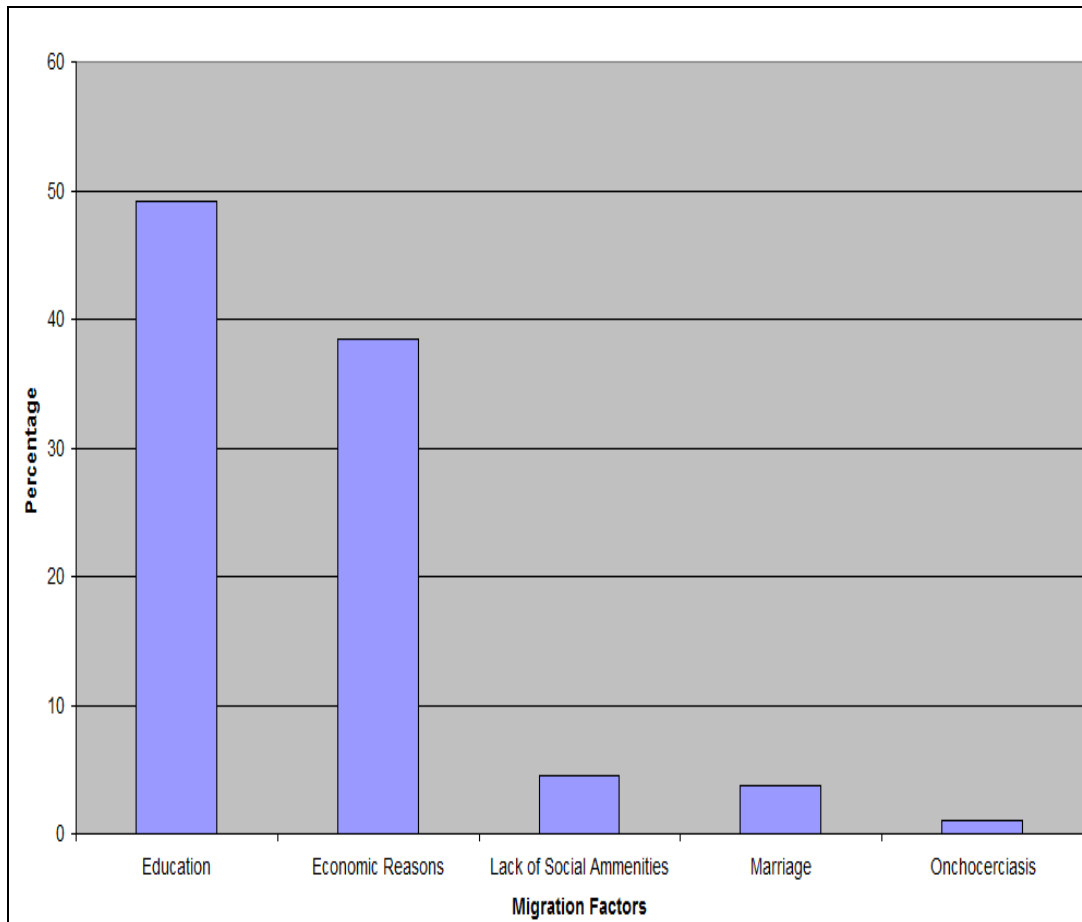


Figure 3: Most Important Factors of Migration

In order to ascertain the importance of each of the migration factors in migration decision making, the probit regression analysis was carried out. One of the pre-conditions for using the probit analysis is that the variables are dichotomised. Therefore, the response to whether there had been migration from the household or not served as the dependent variable, any household where migration was recorded was given 1, otherwise 0. Also, the corresponding factor of migration for each migrant was given 1, while every other factor was assigned 0. Six factors - onchocerciasis, economic factors, socio-cultural constraints, lack of social amenities, the quest for education and marriage - were considered. These constituted the independent variables. The model is of the form: $Y = a + b_1X_1 + b_2X_2 + \dots + b_nX_n + e$; where

- Y = the dependent variable represented by the migration situation in the households;
- X_1, X_2, \dots, X_n = the independent variables i.e. migration factors;
- X_1 = Prevalence of onchocerciasis;
- X_2 = Economic reasons;
- X_3 = Socio-cultural constraints;
- X_4 = Lack of social amenities;
- X_5 = The quest for education;
- X_6 = Marriage;
- a = the base constant
- b = the regression coefficient
- e = error term.

Results of the probit analysis is presented in Table 2.

The Chi Square of 3311.79 with a degree of freedom of 593, is statistically significant at 1 per cent level, thus the model has an acceptable Goodness-of- Fit.

Table 2: Probit Result of Determinants of Migration

Variable	Regression Coefficient	Standard Error	T
Onchocerciasis	0.3110	0.2267	1.3715
Economic factors	0.3761	0.0617	6.0993***
Socio-cultural constraints	0.1289	0.1660	0.7764
Social amenities	0.1876	0.1077	1.7414
Education	0.4988	0.0599	8.3321***
Marriage	0.5463	0.1083	5.0458***
Diagnostic Statistic			
X ² = 3311.79, DF = 593, P < 0.0001			

*** Model is significant at p < 0.0001

Source: Computed

Out of the six independent variables included in the model, three were significant in determining migration from Patigi area, while the other three were not. The significant factors in the order of importance were the quest for education, economic factors and marriage; these factors were significant at 1 per cent level. The three other factors (lack of social amenities, onchocerciasis and socio-cultural constraints) were not significant in determining migration.

The probit analysis further confirms the fact that the quest for education was the most important push factor in Patigi area, followed by economic factors and marriage (those who migrated to join their spouses). This agrees largely with the frequency distribution discussed earlier. Deriving from this result is the fact that onchocerciasis does not significantly induce migration from the study areas. Therefore, the assertion which states that Onchocerciasis leads to massive movement of people from endemic communities is not true. Rather, the hypothesis seems to be that there are usually some serious developmental problems in onchocerciasis endemic communities which tend to push people out of them, and then the disease sets in to further devastate the people left behind.

5 Summary, Conclusion and Recommendations

It is evident from the study that onchocerciasis prevalence in Patigi LGA was not a significant factor of migration. Only 36 (4.1 per cent) out of the 886 migrants in the study are reported to have migrated because of the menace of onchocerciasis. Also, only 6 (1 per cent) of head of households considered onchocerciasis as the most important factor of migration from Patigi area. Furthermore, the result of the probit regression analysis showed that onchocerciasis was not significant in determining migration. Therefore, the assertion in the literature that onchocerciasis leads to the massive out-migration of people from endemic communities is not true.

The study concludes that onchocerciasis is not a significant factor of out-migration from Patigi LGA. This tends to disprove the assertion in the literature that onchocerciasis leads to mass out-migration of people from endemic communities. Rather, the hypothesis seems to be that there are usually some serious developmental problems in onchocerciasis endemic communities which tend to push people out of them, and then the disease sets in to further devastate the people left behind. Therefore, in order to ascertain the veracity of these claims, it is recommended that this study be replicated in other onchocerciasis endemic areas. Such studies should endeavour to ascertain the level of onchocerciasis prevalence that could make an area become pariah and the stage of infection with onchocerciasis that could make an individual want to leave.