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Effects of Community-Based Care for People Living with HIV/AIDS on the Agricultural Livelihoods of the Family Members in Benue State, Nigeria

A. Ilebani Olabisi and Eniola Fabusoro
Department of Agricultural Extension and Rural Development,
University of Agriculture, Abeokuta, Nigeria

Abstract: The study examined the effects of care and support provided by family members of people living with HIV/AIDS (PLWHA) on their agricultural livelihoods in Benue state, Nigeria. Data were collected from a purposively selected sample of 96 family members of PLWHA through interview guide and focus group discussions. The data collected were subjected to descriptive and inferential (regression analysis) statistics. Effects of care on agricultural livelihoods was based on differences in farm size, time spent on farm and farm labour of family members before and after infection of PLWHA. Few (3.1%) of the family members had their farm size reduced by 0.30 ha and 1.0% lost 10 ha after a member was infected; 11.5% of the respondents lost 1 h; 1.0% lost 2 h and 62.5% lost 8 h due to care offered. It was found that 27.1% of the respondents had their farm labour increased by 1 man day^{-1}, 18.8% by 2 man day^{-1} and 1.0% by 7 man day^{-1} while 52.1% lost the total labour on their farms. The result of the ordinal regression analysis showed that care offered significantly determined farm size (β = -0.899, R^2 = 0.044, p = 0.046) indicating that increase in care will reduce farm size of family members by 89.9%. The study therefore recommends that intervention programme that is aimed at improving the knowledge of the family and community members about care and support for PLWHA should be designed. Extension workers' activities in Benue state should be geared towards improving the knowledge of family members of PLWHA on the practice of alternative types of farming that is less labour and time consuming. Relevant stakeholders should intensify their efforts towards care and support.

Key words: Agricultural livelihoods, PLWHA, family members, labour, time consuming, Nigeria

INTRODUCTION

Few crises have affected human health and threatened national, social and economic progress the way that HIV/AIDS has. The Society for Family Health, SFH (2006) affirmed that HIV/AIDS is a major challenge to health and development in Nigeria. The Federal Ministry of Health FMOH (2006), Nigeria reports that a number of efforts have been devoted to addressing the problem of HIV/AIDS and that the current picture in the country reveals that the situation is still far from the desired status.

The pandemic has had a devastating impact on household food security and nutrition through its effects on the availability and stability of food and access to food and its use for good nutrition (Gillespie and Kadiyala, 2005). Agricultural production and employment are severely affected and health and social services put under great strain due to increase in HIV/AIDS prevalence (FMOH, 2006). With worsening poverty, families also lose their ability to acquire food and to meet other basic needs.

Akinrinola *et al.* (2003) further ascertained that time and household resources are consumed in an effort to care for sick family members, partners may become infected, families may be discriminated against and become socially marginalized; children may be orphaned and the elderly left to cope alone as best as they can. During the year 2000, an estimated 2.4 million people died of HIV/AIDS related illnesses in Sub-Saharan African while a further 3.8 million became infected. Indeed about 80% of the global total of HIV/AIDS death during 2000 occurred in Sub-Saharan Africa and almost 72% of the new infections (FMOH, 2005).

Nigeria is the demographic giant in the Sub-Saharan region. It is argued that nearly one of every five Sub-Saharan African is a Nigerian. Although, adult prevalence in Nigeria is still 5% that is 4.4% (FMOH, 2006). It was found that Nigeria has a large and growing number of HIV/AIDS infected individuals.

From an estimated 2.2 million in 1997, the number of people currently living with HIV/AIDS in Nigeria has risen to about 3.2-3.8 million.

Corresponding Author: A. Ilebani Olabisi, Department of Agricultural Extension and Rural Development, University of Agriculture, Abeokuta, Nigeria

In the 1999, 2001 and 2005 national antenatal HIV sero-prevalence survey, Benue state recorded the highest infection rates of 16.8% in 1999, 13.5% in 2001 and 10% in 2005 (FMOH, 1999, 2001, 2005). Policy Project (2003) estimated that some 325,000 inhabitants of Benue were HIV positive in 2003 out of a total population estimated at 3.78 million. Most of those infected will fall ill and die within the next 5-10 years. Another, alarming implication of the HIVAIDS epidemic is the emergence of large numbers of orphans. It was estimated in 2000 that there were approximately 139,000 orphans in Benue state and by 2010 there will be over 683,000 orphans (FMOH, 2006).

Moreover, this will invariably have a devastating effect on agriculture. It can therefore be projected that Benue state being a rich agricultural region that is specialised in production of crops such as potatoes, cassava, soybean, yams, beniseed among others will experience a drop in the agricultural production with increase in the number of people living with HIV/AIDS. Hilhorst *et al.* (2004) reported that several women had to increase their agro-processing activities to raise additional cash while other men and women had to take up casual work, often at the expense of working on their farms in order to take care of their fellows (family members and friends) who are infected with HIV/AIDS.

Farming operations and business were reduced in scale due to a reduction of working capital among men and women in Benue state. The reduction of household labour due to HIV/AIDS and care for the PLWHA could lead to the reduction in area of land planted increase in fallows and derelict hectarages. Benue state popularly called the food basket of Nigeria because of its agricultural practices but incidentally has the highest number of PLWHA is a great challenge to agricultural development in the nation.

Without adequate care and support for the PLWHA, millions of adults in the prime of their lives will die of HIV/AIDS and take with them the skills and knowledge base that are necessary for human and economic development.

It therefore, becomes imperative to examine the effect of the care and support being offered by family and community members for PLWHA on the agricultural livelihoods of the families and communities. Against this background this study sets out to:

Appraise the losses on agricultural livelihoods attributed to HIV/AIDS through care and support by family members; identify the type of care and support offered by families for PLWHA and evaluate the implications of the findings of the study on agricultural development in Benue state, Nigeria.

Hypothesis of the study: The hypothesis for this study were as follow: care and support by family members has no perceived effect on their agricultural livelihoods.

MATERIALS AND METHODS

The study was conducted in Benue state, Nigeria. Benue is in the North-Central part of Nigeria with a population of about 4,219,244 (NPC, 2006). The state occupies 34,059 km^2. The population of study comprise the families of People living With HIV and AIDS (PLWHA) in Benue state, Nigeria. Multistage sampling procedure was used to select the study participants. The 23 local government areas in benue were stratified according to the 3 senatorial districts, viz: Benue North East, Benue North West and Benue South senatorial districts.

Benue south senatorial district comprises 9 local government areas, Benue north-west is made up of 7 local government areas while benue north east includes 7 Local Government Areas (LGAs) as shows in Table 1. The prevalence of HIV and AIDS is very high in some specific LGAs of the state.

According to number of PLWHA is very high in Otukpo and Okpokwu local government areas in Benue south senatorial district, Makurdi and Gwer East local government areas in Benue north west senatorial district and Buruku and Vandeikya in Benue North East.

Two communities with high prevalence were therefore purposively selected from each of the 6 local governments making a total of 12 communities. Eight family members of PLWHA were also purposively selected from each community. Data were collected through a structured interview guide and a Focus Group Discussion (FGD).

RESULTS AND DISCUSSION

Losses on agricultural livelihoods attributed to HIV/AIDS through care and support by family members: Agriculture is the main source of livelihoods for the families in the study area. Interestingly, Gillespie and Kadiyala (2005) noted that the majority of the PLWHA around the world depend on agriculture as their main source of livelihood. The effects of family care and support of PLWHA on agricultural livelihoods could therefore be enormous. For instance, absence of a family member from the farm due to responsibilities of care and support, coupled with the absence of a PLWHA from the farm due to illness potentiates a reduction in production

Table 1: Representation of the sampling procedure and the sample size

Senatorial districts	Local government areas	Local government areas selected	Communities selected	Respondents
Benue south	Otukpo, Obi	Otukpo	Otukpo Adoka	8 family members
	Ohimini, Ado			8 family members
	Apa, Agatu			
	Ogbadibo, Oju	Okpokwu	Okpoga Ugbokolo	8 family members
	and Okpokwu			8 family members
Benue north east	Buruku	Buruku	Buruku	8 family members
	Ushongo		Mbaya	8 family members
	Logo			
	Katsina-Ala, Ukum	Vandeikya	Ihugh	8 family members
	Kwande and Vandeikya		Vandeikya	8 family members
Benue north west	Makurdi	Makurdi	Nyiman	8 family members
	Konshisha		North Bank	8 family members
	Gwer West			
	Gwer East	Gwer East	Aliade	8 family members
	Gboko, Tarka		Ikpayongo	8 family members
	and Guma			
Total	23	6	12	96

Field survey, 2008

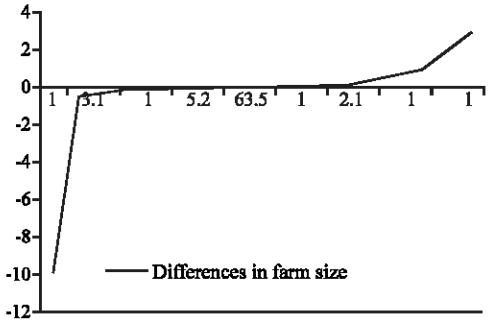

Fig. 1: A chart showing the differences in farm sizes of family members before and after

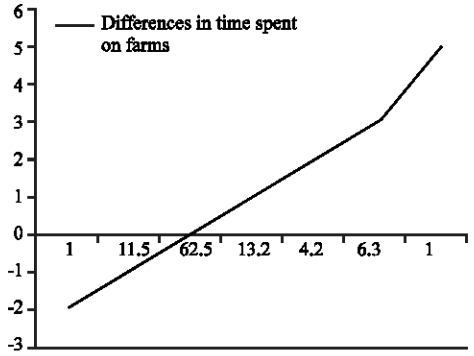

Fig. 2: A chart showing the differences in time spent on farm by family members before and after

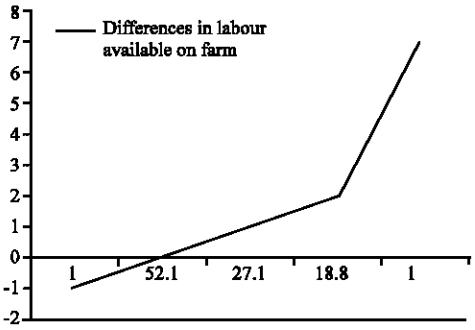

Fig. 3: A chart showing the differences in farm labour of family members before and after

and a resultant high rate of food insecurity and poverty within the household. The perceived effects of care and support by family members on their agricultural livelihood securities are highlighted as follows. Figure 1 shows that majority of the family members (63.5%) indicated that their farm size was not affected before and after a family member was infected.

The implication of this is that this majority might have abandoned their farms for the care and support of an infected member. They may not necessarily sell the farmland but farming activities on the farm might have been stopped or reduced.

This was revealed in the findings on time difference as shown in Fig. 2. Majority, 56.2% of the respondents lost the total time they were spending on farm before a member was infected to take care of their family members and 11.5% lost 1 h. Figure 3 shows that 52.1% of the family members lost all their labour due to care and support and 27.1% gained 1 labour. These further confirmed the views of Gillespie and Kadiyala (2005) that over the last 3-4 years, the vulnerability of agriculture to HIV/AIDS cannot be over-emphasized.

These include reduction in the area of land under cultivation and crop diversity, abandonment of specific activities and crops and shift to less labour intensive mono-cultivation. The views/responses of some of the respondents/participants crisply explain this:

"Na farmer wen I be, since he become sick na me dey take care of am, im father dey farm but two of us dey come Makurdi sometimes, we go just abandon the farm.....na him dey help us before but now we dey do the little wey we fit do" (I am farmer but I have been taking care of him since he became infected, though the father is on the farm but we sometimes come to Makurdi together.....He has been the one helping us but now we can only manage with little)."

"Na only me and him dey work for farm, since he sick na me dey take care of him, so e don tey wen I farm. Anything we see na im we dey chop" (We have been farming together, I have been taking care of him since he became sick, thereby abandoning the farm. Whatever we see is what we eat). But some of the respondents/ participants experienced no negative effect on their farming activities as expressed in their views/responses". For instance:

> "My husband was a solider before he became infected, the pension that was paid to him was what we used to set up a farm..... we employ labourers to work for us, we just stay to supervise them"

Care and support by family: PLWHA require information, counselling, care and support (at all stages of the illness) from the moment of diagnosis. The ability of households and communities to ensure adequate care and support for the PLWHA is being severely challenged as ability to farm and maintain common property resources are being challenged and assets are sold off to raise cash. Livelihoods are being eroded through the effects of care and support, social relations and capacity to care are being put under immense strain by HIV-related stigma, increasing orphaning rates and reduced incentives for collective action (Gillespie and Kadiyala, 2005).

Family members' involvement in care and support for the PLWHA is still in at the lowest level in most parts of the country (United Nations Development Programme, UNDP).

Only few families accept a PLWHA with a sense of responsibility for their care and support, especially if they still have a dependant status in the family. Bloom and Mahal (1996) opined that economic cost of HIV/AIDS will be felt not by nations but by households. To respond with effective mitigation against HIV/AIDS, therefore the way that the family care and support the PLWHA needs to be critically examined.

In this, information provided includes the types of care and support by the family members and the rates at which this care and supports are being provided. Psycho-social supports for the PLWHA can best be provided by the family of the PLWHA to enable them regain their morale, courage, hope and desire to live. Such support cut across provision of basic needs of life such as food, housing and clothing. Table 2 shows the responses of family members to the different kinds of care and support by for PLWHA.

Some kinds/aspects of care and support are seen to receive more attention than others. These aspects include, maintaining proper hygiene around the PLWHA (76.0%) and maintaining the dignity of the PLWHA (74.0%).

The statements by some of the family members during the focus group discussion suggest that this response might have been influenced by their perception about HIV/AIDS or series of sensitization campaigns taking place in the communities. For instance, one of the research participants, a household member of a couple living with AIDS said:

> ".....the (kind of) care and support we provided for him and his wife. Ranged from/include cooking, washing and taking/accompanying them to the hospital for treatment"

Another relative of a woman affected by AIDS also reported thus:

> "I have to make sure that her food is ready before going to work, as a banker. I have a very tight schedule, so my house help takes care of the lunch and dinner. But when I return later in the night I still have to go to her room and encourage her that she can still achieve her dreams"

The following is a response of a family member regarding the source of information on how to care for PLWAs: "When dem tell us say na AIDS wen he get, we start to dey take care of am, small time we go register am for church with other people wey get the thing, we dey buy am drugs, give am food at the right time, I sit down with am for hospital till im body beta small. Anytime he call me I go abandon anything wen I dey do to go take care of am" (We have been taking very good care of him since we were told that he was infected with AIDS, we registered him with a support group in the church, we buy drugs and give him food at the right time. I am always with him in the hospital whenever on admission. I always abandon whatever am doing in the village to come down here and attendto him whenever he calls)".

Table 2: Distribution of respondents on the type of care and support by families for PLWHA (N = 96)

Care and support	Always (%)	Sometimes (%)	Never (%)
Carrying out laundry services for the PLWHA	58.3	36.5	5.2
Taking PLWHA out for light exercise	13.5	60.4	26.0
Running errands for PLWHA	44.8	51.0	4.2
Fetching water for PLWHA	56.3	41.7	2.1
Fetching firewood for the PLWHA	19.8	54.2	26.0
Cooking for the PLWHA	56.3	41.7	2.1
Taking meal to the hospital for the PLWHA	50.0	43.8	6.3
Maintaining proper hygiene around the PLWHA	76.0	22.9	1.0
Housing the PLWHA	53.1	36.5	10.4
Encouraging the PLWHA to always take proper rest	55.2	40.6	4.2
Accompanying the PLWHA to health facilities	45.8	45.8	8.3
Showing love and sense of belongings	68.8	29.2	2.1
Making the PLWHA acceptable in the family	61.5	36.5	2.1
Attending to the PLWHA on hospital bed	65.6	31.3	3.1
Understanding the feelings of PLWHA	63.5	32.3	4.2
Reassuring the PLWHA	64.6	31.3	4.2
Counselling the PLWHA	44.8	47.9	7.3
Maintaining the dignity of the PLWHA	74.0	20.8	5.2
Purchasing medicine for PLWHA	57.3	35.4	7.3
Providing nutritional supplement for the PLWHA	60.4	35.4	7.3
Treating PLWHA for opportunistic infection	38.5	41.7	19.8
Organizing complementary home-based care	46.9	43.8	9.4
Taking care of the children of PLWHA	47.9	36.5	15.6
Avoiding stigma and discrimination within the family	66.7	27.1	6.3
Financial support for dependents of PLWHA	44.8	33.3	21.9
Accompanying PLWHA to religious worship	45.8	39.6	14.6
Taking PLWHA out for spiritual counselling	38.5	42.7	18.8
Inviting religious leader to pray for PLWHA	30.2	42.7	27.1

Field survey, 2008

The following response by yet another family member further reveals a relative good knowledge about the need for and efficacy of Anti-Retroviral (ARV) drugs in the care of PLWHA.

> "First 3 years were very difficult because the drugs were not readily available; they were sold at the rate of ₦15,000 and ?20,000. But for me to get it easily and on time, I have to go through some people which invariably increased the cost to ₦25,000 and 30,000. But all the same I have to get the drugs and some other things for her because she is the only family I have left"

Hypothesis testing

Perceived effects of care and support of PLWHA on agricultural livelihood: The ordinal regression model was used to show the perceived effects of care and support of PLWHA on the agricultural livelihoods of the family members. Two functional forms of ordinal regression model were used and they are:

Complementary log-log link

Logit link: The criterion for the selection of a lead model is high pseudo R^2 which measures the goodness of fit of the ordinal regression model. The model-fitting statistic, the pseudo R^2 measured the success of the model in explaining the variation in the data. The pseudo R^2 was calculated depending upon the likelihood ratio. Therefore, the larger the pseudo R^2, the better the model fitting based on the sizes of the pseudo R^2, the complete model with the logit link was was adopted for the perceived effect of the care and support of PLWHA by family on their agricultural livelihood because of the high pseudo R^2 possessed. Using the complete model with the logit link, Table 3 shows that the family care and support is significantly associated with farm size. Effect of family care and support of PLWHA on farm size exhibited a negative regression coefficient indicating that increase in the level of the care and support of PLWHA by family will have negative effect on their farm size. Table 2 shows that a unit increase in the care and support of PLWHA by family will cause a downfall/downturn in their farm sizes by 89.9%.

Similarly, the family care and support of PLWHA although, not significantly associated with the time spent on farms but it exhibited a negative regression coefficient. The regression coefficient of the family care and support of PLWHA on the time spent shows that a unit increase in the care and support will result/lead to a decrease in the number of hours spent on farm by 52.2%. The farm labour is also not significantly associated with the family care and support of PLWHA and/as it exhibited a positive regression coefficient with the care and support. This shows that an increase in the family care and support of PLWHA will require the family members to increase their

Table 3: Ordinal regression analysis of perceived effect of care and support by family their agricultural livelihood using logit link

Variables	Regression coefficients	p-value	Goodness of fit	Pseudo R^2
Family care and support (farm size)	-0.899	0.046**	Pearson chi-square = 22.207	Nagelkerke = 0.044 p-value = 0.137
Family care and support (Time spent on farm)	-0.522	0.228	Pearson chi-square = 6.207	Nagelkerke = 0.016 p-value = 0.287
Family care and support (Farm labour)	0.290	0.485	Pearson chi-square = 2.034	Nagelkerke = 0.006 p-value = 0.565

**Significant at 5%

farm labours by 29.0%. This result therefore, corroborates the assertion of New Partnership for African Development, NEPAD (2004) that the reduction of household labour due to HIV/AIDS and care for the PLWHA has led to the reduction in area planted, time spent on farm, increase in fallows and derelict hectarages. This situation has produced agricultural output shortages in many areas of the developing world.

CONCLUSION

From the findings of the study, it could be concluded that: a negative effect was found on the agricultural activities of the family members due to the care and support they are giving; this is term of farm size and time spent on farm. There was a positive perception in the study location about HIV/AIDS. This in turn was believed to have motivated the family members towards the effective delivery of care and support to the PLWHA. Because the opinions of the family members according to the study indicated that they give good and adequate care and support to the PLWHA.

The ordinal regression model revealed that the family care and support have significant effect on the state of agricultural livelihoods in terms of farm size but had no significant effect on time spent on farm and farm labour of the family members.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

- Intervention programme that is aimed at improving the knowledge of the family and community members about care and support for PLWHA should be designed and developed by the concerned bodies (Ministry of Health, Ministry of Agriculture and Rural Development and NGOs) through seminars and sensitization programmes
- Extension workers' activities in Benue state should be geared towards improving the knowledge of family members of PLWHA on the practice of alternative types of farming that is less labour and less time consuming such as backyard farming.

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