Semi-Settled Pastoralists' Knowledge And Utilisation Of Hiv/Aids Prevention Techniques

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Abstract: This paper examined Semi- Settled Pastoralists' knowledge and Utilisation of HIV/AIDS Prevention Techniques in South West Nigeria. The derived savannah areas of Oyo and Ogun states of Nigeria were selected for the study due to high concentration of semi-settled pastoralists who are distributed within 5 and 10 Local Governments Areas (LGAs) in Ogun and Oyo States respectively. Fifty percent of the LGAs were randomly selected from each state. Ninety-four semi-settled pastoralists' households were randomly selected from 1,174 in Ogun State, while 236 households were selected from 2,942 in Oyo State. An adult respondent was selected in each of the households to give a total of 330 respondents for the study. Structured interview schedule was used to collect data relating personal characteristics, sources of HIV information and utilisation of HIV/AIDS prevention techniques. The result shows that the mean age of the respondents in Ogun State, Oyo State and across the states were 36.3, 38.7 and 38.0 respectively. Across the states, about 83.0% of the semi-settled pastoralists were below 51years of age. In terms of knowledge on HIV/AIDS prevention techniques were presented. Semi-settled pastoralists had high knowledge on 15 items. These include, sharing syringes / needles ($\bar{x} = 0.9$), sharing of spouse ($\bar{x} = 0.9$), sharing tattooing instrument ($\bar{x} = 0.9$) and screening blood before transfusion ($\bar{x} = 0.8$). On the other hand, semi-settled pastoralists had low knowledge about items such as HIV can be transmitted through air ($\bar{x} = 0.1$), HIV transmission through food ($\bar{x} = 0.1$), pre-marital sex ($\bar{x} = 0.2$) and use of condoms ($\bar{x} = 0.4$) among others. Semi-settled pastoralists had high utilisation in 10 HIV/AIDS prevention techniques across the states. These include, screening of blood before transfusion ($\bar{x}$=0.8); usage of new needles for tattooing ($\bar{x}$=0.7); usage of new syringes and needles for injection ($\bar{x}$=0.7) and use of personal blade / razor for cutting my nails ($\bar{x}$ =0.7).
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Introduction

HIV/AIDS is one of the greatest natural challenges that has given humans concern in recent times. It started in the mid-1980s in Africa and it has evolved from a medical curiosity to a worldwide human tragedy and international emergency (UNESCO 2007). Idoko (2004) calls it a disease starting as a single infection at the point of contact and then progressing to a wasting disease known as AIDS. According to UNAIDS/WHO (2007), 38 million people were living with HIV in 2004 and 20 million had died in the sub-Saharan Africa. It is a developmental disaster and a security crisis with social impact more devastating than any war. It has reduced life expectancy by 15 years in sub –Saharan Africa and created more than 14 million orphans. Its impact is wide reaching and even in those parts of the world where the epidemic has been relatively slow to evolve, there are worrying signs of its gathering strength. It has spread nearly everywhere beyond the first so-called high-risk groups, today principally affecting vulnerable populations: the poor, the marginalized, young women and children. It both thrives on and fuels inequalities. The worldwide epidemic of HIV/AIDS has dramatically affected livelihoods in rural areas of the developing world, especially in Africa. In response to this, there has from the 1980 been research on how AIDS affect agricultural systems and livelihood in Africa, by mechanisms such as sale of capital assets to meet medical and funeral costs and removal of adult labour (Gilespie 1989, Barnett and Balarkie 1992, Barnett and Whiteside 2003). More recently, the two-way nature of linkages between HIV/AIDS and rural livelihood has received more attention (Loevinsolin and Gillespie, 2003).

However, there has been very little research on linkages between HIV/AIDS and livestock-related livelihoods and especially the pastoralists (White and Robanson, 2000) whose livelihood is shaped by their dependence on livestock. This is despite the fact that pastoralists represent a significant proportion of the rural population in many countries where the effects of HIV/AIDS have long been felt, such as Kenya and Uganda. Salma (2010) pointed out that in Nigeria, living in the rural areas has left the rural dwellers inadequately informed about HIV/AIDS and how the virus is contracted. This can be attributed to the fact that pastoral communities have limited access to information and where this is available; it may not be

properly packaged and delivered. Anecdotal evidences suggest that pastoralists are highly susceptible to HIV/AIDS due to the factors such as casual sexual networking, frequent conflict with other pastoralists and crop farmers along the pastoral corridor (that usually involve shedding of blood), tattooing practices, using of knives for body scarification for medicinal purposes and being a socially marginalised (isolated) group that are not usually the reached in many health intervention programmes. The migratory pattern of semi-settled pastoralists was identified one of the major factors that make semi-settled pastoralists susceptible to HIV risk (Abdulrazaq and Jibril, 2008). Prevention will help reduce the loss of lives and adverse social and economic effects on the nation. The general objective of this study is to ascertain the knowledge and utilisation of HIV/AIDS prevention techniques among semi-settled pastoralists in south west Nigeria.

Materials and Methods

The study area is south west Nigeria The western zone lies between latitude 5^0 N and 9^0 N with an area of 114, 271 square kilometres. This comprises of Oyo, Ogun, Ondo, Osun, Ekiti. This area is rich in green vegetation populated. It has rainforest, swampy and it is also a savanna region. It has a large population density that supports market opportunities. This area produces foodstuffs, and cash crops for local consumption and export to other parts of the country as well as abroad. The cash and staple crops in the area include cocoa, kolanut, cassava, maize, palm tree among others, while the area 'import' cattle from the north. There are six states in the southwest, they are; Ekiti, Lagos, Ogun, Ondo, Osun and Oyo. These states share homogenous culture and tradition. The inhabitants of this region are direct descendants of Oduduwa-the progenitor of Yoruba race. It has heterogeneous population of Yoruba, Tiv, Agatu, Ibo, Hausa and Fulani (Igbinosa, 1994). The main occupation of majority of the indigenes in the area are farming and trading. The abundance of savanna region especially in Oyo and Ogun states of southwest favours the rearing of ruminant animals in the area. Pastoralism is practiced majorly by the Fulanis and Hausas. The population of this region is about sixty million (Nigeria Population Census Reports 2006).

The semi-settled pastoralists in the south west Nigeria are the population of the study

The study was carried out in South west Nigeria. Oyo and Ogun states were purposively selected for the study due to high concentration of semi-settled pastoralists in the two states in south west Nigeria (Ogunsumi, and Ogbosuka, 2009 and Francis, 2000*)*. In Oyo state, the concentration of semi-settled pastoralists is highest in 10 local government areas (LGAS) (Saki West, Saki East, Atisbo, Kajola, Oorelope, Olorunsogo, Itesiwaju, Iwajowa, Irepo and Iseyin); while in Ogun state, the concentration of semi-settled pastoralists is highest in 5 LGAS (Odeda, Yewa North, Yewa South, Imeko Afon and Abeokuta North).

Fifty percent of the LGAS where the semi-settled pastoralists' concentration is highest was selected using simple random sampling method. House listing revealed a total of 4116 semi-settled pastoralists' households in the study area. Eight percent of the households were randomly selected to give a total sample size of 330 respondents. An interview schedule for semi-settled pastoralists was developed, validated and employed for data collection. The interview was organised in sections to reflect specific objectives namely; personal characteristics, semi-pastoralists' knowledge of HIV/AIDS prevention techniques and utilisation of HIV/AIDS prevention techniques. The respondents were asked to state their actual age, sex marital status, educational status religion, social organisation they belong and their level of language understanding. On Knowledge of HIVAIDS prevention techniques, respondents were asked to respond to appropriate questions using yes and no. The scoring was Yes = 1; No = 0 for positively constructed questions while it was reversed for negatively constructed questions. Respondents were asked to indicate which of the HIV/AIDS prevention techniques they make use. The scoring was Utilised = 1; Not Utilised = 0

Results

Table 1 presents the personal characteristic of respondents; Table 2 shows the distribution of respondents based on knowledge of HIV/AIDS prevention techniques, while the Distribution of respondents based on utilisation of HIV/AIDS Prevention Techniques in Table 3. Table 4 shows the Chi-square analysis of respondents' personal characteristics and utilisation of HIV/AIDS prevention techniques and Table 5 presets the correlation analysis of relationship between semi-settled pastoralists' knowledge and utilisation of HIV/AIDS prevention techniques.

Table 1 Personal characteristic of respondents

Variables description		Ogun n=94	Oyo n=236	Pooled data
Variables	Response options			
Age (Years)				
≤ 20		3 (3.2)	23 (9.7)	26 (7.9)
21-30		29 (30.9)	50 (21.2)	79 (23.9)
31-40		38 (40.4)	73 (30.9)	111 (33.6)
41-50		16 (17.0)	41 (17.4)	57 (17.3)
51-60		7 (7.4)	34 (14.4)	41 (12.4)
≥ 61		1 (1.1)	15 (6.4)	16 (4.9)
$\bar{x}$		36.3	38.7	38.0
Sex				
Male		47 (50)	118 (50)	165 (50)
Female		47 (50)	118 (50)	165 (50)
Marital status				
Single		6 (6.4)	21 (8.9)	27 (8.2)
Married		88 (93.6)	215 (91.1)	303 (91.8)
Religion				
Islam		94 (100)	236 (100)	330 (100)
Educational status				
Non formal		74 (78.7)	110 (46.6)	184 (55.8)
Quranic		19 (20.2)	93 (39.4)	112 (33.9)
Primary		1 (1.1)	23 (9.7)	24 (7.3)
Quranic and Primary		0 (00)	1 (4.0)	1 (0.3)
Secondary		0 (00)	8 (3.4)	8 (2.4)
NCE and above		0 (00)	1 (4.0)	1 (0.3)
Level of language understanding				
Hausa language	Speak	1 (1.1)	116 (49.2)	117 (35.5)
	Speak and Read	0 (00)	11 (4.7)	11 (3.3)
	Cannot speak	93 (98.9)	109 (46.2)	202 (61.2)
Fulfulde language	Speak	92 (97.9)	205 (86.9)	297 (90)
	Speak and Read	0 (00)	17 (7.2)	17 (5.2)
	Cannot speak	2 (2.1)	14 (5.9)	16 (4.9)
Yoruba language	Speak	93 (98.9)	147 (62.3)	240 (72.7)
	Speak and Read	0 (00)	14 (5.9)	14 (4.2)
	Cannot speak	1 (1.1)	75 (31.8)	76 (23.0)
English language	Speak	1 (1.1)	19 (8.1)	20 (6.1)
	Speak and Read	0 (00)	18 (7.6)	18 (5.4)
	Cannot speak	93 (98.9)	199 (84.3)	292 (88.5)
Membership of social organization				
Miyetti Allah	Not a member	70 (74.5)	137 (58.1)	207 (62.7)
	Ordinary member	20 (21.3)	85 (36.0)	105 (31.8)
	Executive member	4 (4.3)	14 (5.9)	18 (5.5)
Al-Haya	Not a member	85 (90.4)	222 (94.1)	307 (93.0)
	Ordinary member	2 (2.1)	4 (1.7)	6 (1.8)
	Executive member	7 (7.5)	10 (4.2)	17 (5.2)
Boroge	Not a member	85 (90.4)	220 (93.2)	305 (92.4)
	Ordinary member	4 (4.3)	4 (1.7)	8 (2.4)
	Executive member	5 (5.3)	12 (5.1)	17 (5.2)
Fulani Hausa	Not a member	83 (88.3)	215 (91.1)	298 (90.3)
	Ordinary member	6 (6.4)	9 (3.8)	15 (4.5)
	Executive member	5 (5.3)	12 (5.1)	17 (5.2)
Fulani(Kastina Kano)	Not a member	92 (97.9)	218 (92.4)	310 (93.9)
	Ordinary member	1 (1.1)	14 (5.9)	15 (4.6)
	Executive member	1 (1.1)	4 (1.7)	5 (1.5)

Table 2 Distribution of Respondents based on knowledge of HIV/AIDS prevention techniques

ITEMS	Ogun n=94	Oyo n=236	Total n=330	Mean	SD
Sharing of spouse with others.	*100.0	89.4	92.4	0.9	0.265
Pre-marital sex.	14.9	17.4	16.7	0.2	0.373
Mutual faithful monogamous sexual relationship.	83.0	57.6	64.9	0.7	0.478
Avoidance of Sexual promiscuity.	98.9	62.7	73.0	0.7	0.444
Use of condoms.	36.2	39.4	38.9	0.4	0.487
Sharing barbing materials.	92.6	64.8	72.7	0.7	0.446
Sharing syringes / needles.	97.9	94.1	95.2	0.9	0.215
Sharing tattooing instrument.	98.9	88.1	91.2	0.9	0.284
Screening blood before transfusion.	85.1	80.9	82.1	0.8	0.384
Sharing of toothbrush or chewing stick.	59.6	82.2	75.8	0.8	0.429
Traditional ceremonies and practices such as scarification or circumcision.	68.1	60.6	62.7	0.6	0.484
Traditional forms of birth deliveries and medical practices.	44.7	67.8	61.2	0.6	0.488
Pregnancy by HIV infected women.	95.7	57.6	68.5	0.7	0.465
HIV transmission through food.	2.1	14.4	10.9	0.1	0.312
HIV cannot be transmitted through drinking water.	34.0	33.5	33.6	0.3	0.473
HIV can be transmitted through air.	1.1	11.9	8.8	0.1	0.284
HIV can be prevented by avoiding things that can attract curse.	8.5	30.9	24.6	0.3	0.431
Transplanting of an organ of an infected person is evidence of love towards the AIDS patient.	00	25.0	17.9	0.2	0.384
Reuse of unsterilised ear piercing instruments is a sign of love among siblings.	1.1	33.1	23.9	0.2	0.427
HIV can be transmitted from infected woman to infant through breastfeeding.	94.7	67.8	74.5	0.8	0.431
Application of microbicides before sex can prevent sexually transmitted diseases.	77.7	36.9	48.5	0.5	0.501
HIV can be contracted through hand shake with infected person.	97.9	71.6	79.1	0.8	0.407
Insect bite and especially mosquito can transmit HIV.	97.9	65.3	74.6	0.8	0.436
HIV can be spread through contact with sweat of an infected person.	75.5	53.4	59.7	0.6	0.491
Sharing plate/food with infected person can predispose one to HIV infection.	92.6	58.9	68.5	0.7	0.465

Table 3 Distribution of respondents based on utilisation of HIV/AIDS Prevention Techniques

HIV/AIDS Prevention Techniques			Percentage	Mean
	Ogun n=94	Oyo n=236	Total n=330	
Avoid sharing of spouse with others	*96.8	44.2	71.8	0.7
Avoiding pre-marital sexes	93.6	45.2	71.8	0.7
Usage of condom during sex with multiple partners	28.7	48.3	42.7	0.4
Usage of new syringes and needles for injection.	98.9	64.4	74.2	0.7
Usage of new razor blade during barbering.	61.7	74.2	70.6	0.7
Medical check-up at hospital for HIV status	92.6	64.0	72.1	0.7
Usage of new needles for tattooing.	89.4	67.4	73.6	0.7
Screening of blood before transfusion.	89.4	74.2	78.5	0.8
Use of personal blade / razor for cutting my nails.	96.8	63.6	73.0	0.7
Avoiding the use of commercial nail cutters common tools for cutting nails.	87.2	65.3	71.5	0.7
Avoid consulting traditional medical practitioners.	80.9	51.3	59.7	0.6

*Percentage

Table 4 Chi-square analysis of respondents' personal characteristics and utilisation of HIV/AIDS prevention techniques

Variables	Df	χ^2	p value	Decision
Age	5	14.59	0.01	**S**
Level of education	5	30.11	0.00	S
Sex	1	1.22	0.98	NS
Marital status	1	0.56	0.45	NS
Level of understanding Hausa language	2	78.79	0.00	S
Level of understanding Fulfude language	2	9.68	0.00	S
Level of understanding English language	2	14.20	0.00	S
Level of understanding Yoruba language	2	45.53	0.00	S

Table 5 Correlation analysis of relationship between semi-settled pastoralists' knowledge and utilisation of HIV/AIDS prevention techniques

Variables	r-value	p value	Decision
Knowledge of HIV/AIDS prevention techniques	0.263	0.000	S

Discussion

The results from the study covered the personal characteristics in Table 1, distribution of Respondents based on knowledge of HIV/AIDS prevention techniques in Table 2,, Chi-square analysis of respondents' personal characteristics and utilisation of HIV/AIDS prevention techniques in Table 3, distribution of respondents based on utilisation of HIV/AIDS Prevention Techniques in Table 5. Table 6 presents respondents' levels of utilisation of HIV/AIDS prevention techniques and correlation analysis of relationship between semi-settled pastoralists' knowledge and utilisation of HIV/AIDS prevention techniques in Table 7

Age distribution of respondents as indicated on Table 1 shows that the mean age of the respondents in Ogun State, Oyo State and across the states were 36.3, 38.7 and 38.0 respectively. Across the states, about 83.0% of the semi-settled pastoralists were below 51years of age. This implies that majority of the semi-settled pastoralists are in their active reproductive age, wherein the possibility of heterosexual activities is high. The UNAIDS (2003) sentinel survey in Nigeria reported a high record of 3.1% rate of HIV/AIDS infection among the age bracket of 15-49years.

About 6% and 9% of the respondents were single in Ogun and Oyo States respectively, however less than 10.0% of the respondents across the states were single. Ismail (2003) reported that pastoralists in general get married at around the age of 25 while Sodiya, Adedire and Lawal-Adebowale (2009) indicated that male and female pastoralists respectively are married by the age of 30. Dennis, (2007) found that those who get married at a younger age of about 25 years have less knowledge about HIV/AIDS than unmarried women and are more likely to believe they are at low-risk of becoming infected with HIV. However, High Beam Research (2011) affirmed that a married woman among the pastoralists is expected to display appropriate modesty whenever the subject of marriage arises, for marriage confers on her a special status. Thus early marriage makes them to be less prone to HIV/AIDS infection. One hundred percent of the respondents were Muslim. This confirms the assertion of Frank (2011) that over 90% of the pastoralists were Muslims and that it is, in fact, rather difficult to discover any pastoralists who admits not being Muslim, no matter how lax their practice may be. About 1% and 13% of the respondents in Ogun and Oyo States have a least primary school education This corroborates the findings of Ashimolowo and Otufale (2010) that 82.6% of pastoralists are illiterate in Ogun state while in Oyo state Adekoya and Oladele (1998) found that 100% of the women agropastoralists in Oyo state do not have formal education. About 2.7% of the respondents across the states had at least secondary school education and above. The low educational status could be favourable to the spread of the virus HIV among pastoralists (IRIN, 2011). Oladeji and Oyesola (2000) observed that education plays an important role in communication, as it affects coding and decoding of information.

The Table further reveals that about 95%, 77% and 39% of the respondents across the states could speak Fulfulde, Yoruba and Hausa languages respectively. Fulfulde which is not one of the three major Nigerian languages (Hausa, Yoruba and Igbo)

identified by UNESCO (2003) was the most popular language among the semi-settled pastoralists. However, less than 8.0% of the respondents across the states could speak and read Fulfulde, Yoruba, Hausa or English languages. Table 1 show that Miyetti Allah was the most popular organisation to which 37.3% of the respondents across the states affirmed their membership. The level of membership in social organisation was very low among the respondents. This may be due to the fact that there is no specific form of social organisation associated with pastoralism. The pastoralists are often organised in tribes, with the household (often including the extended family) as a basic unit for organisation of labour and expenses (HighBeam Research, 2011).

In Table 2, 25 knowledge items of HIV/AIDS prevention techniques were presented. Semi-settled pastoralists had high knowledge on 15 items. These include, sharing syringes / needles ($\bar{x} = 0.9$), sharing of spouse ($\bar{x} = 0.9$), sharing tattooing instrument ($\bar{x} = 0.9$) and screening blood before transfusion ($\bar{x} = 0.8$). On the other hand, semi-settled pastoralists had low knowledge about items such as HIV can be transmitted through air ($\bar{x} = 0.1$), HIV transmission through food ($\bar{x} = 0.1$), pre-marital sex ($\bar{x} = 0.2$) and use of condoms ($\bar{x} = 0.4$) among others. The respondents in Ogun State had the knowledge score ranged between 11 and 18, and the mean score was 15.3 while in Oyo State the knowledge score ranged between 7 and 19, and the mean score was 13.5. The respondents in Ogun State (60.6%) had higher knowledge of HIV/AIDS prevention techniques than those in Oyo State (52.5%). Across the States about fifty six percent of the respondents only had high knowledge of HIV/AIDS prevention techniques while the mean score was 14.0. Salma (2010) pointed out that in Nigeria, living in the rural areas has left the rural dwellers inadequately informed about HIV/AIDS and how the virus is contracted.

Table 3 presents distribution of respondents based on utilisation of HIV/AIDS prevention techniques. From 11 techniques on utilisation of HIV/AIDS prevention technique items, semi-settled pastoralists had high utilisation in 10 HIV/AIDS prevention techniques across the states. These include, screening of blood before transfusion ($\bar{x}$=0.8); usage of new needles for tattooing ($\bar{x}$=0.7); usage of new syringes and needles for injection ($\bar{x}$=0.7) and use of personal blade / razor for cutting my nails ($\bar{x}$ =0.7).This may be due to the fact that all these HIV/AIDS prevention techniques support personal hygiene which is naturally esteemed high by the semi-settled pastoralists. Meanwhile, Moussa and Konfe/Tiendrebeogo (2008) identified personal hygiene as one of the HIV/AIDS prevention techniques. However, respondents had low utilisation of condom during sex with multiple partners ($\bar{x}$=0.4). This agrees with Adelore, Olujide and Popoola (2006) that the usage of condom as a means of preventing HIV infection is low in the rural area of southwest Nigeria. Specifically, the respondents in Ogun State had high utilisation in all the HIV/AIDS prevention techniques than those in Oyo State except for usage of new razor blade during barbering (61.7% and 74.2% in Ogun and Oyo States respectively) and age of condom during sex with multiple partners (28.7% and 48.3% in Ogun and Oyo states respectively). The table further shows that majority respondents in Ogun state (87.2%) had higher utilisation HIV/AIDS prevention techniques than those in Oyo state (41.5%). However, across the states 55.5% of the respondents had high utilisation of HIV/AIDS prevention techniques, while 44.5% of the respondents had low utilisation. The mean utilisation score was 9.2, 7.0 and 7.6 in Ogun State, Oyo state and across the states respectively. Table 4 shows that among the personal characteristics of the respondents, ages (χ^2=14.59, p< 0.05), level of education (χ^2=30.11, p<0.05), understanding of Hausa language (χ^2 =78.78, p<0.05), level of understanding of Fulfulde language (χ^2 =9.68, p< 0.05), understanding of English language (χ^2=14.20, p<0.05) and level of understanding of Yoruba (χ^2=45.53, p<0.05) are significantly related to utilisation of HIV/AIDS prevention techniques. This may be due to the fact that Hausa and Fulfulde languages are the most popular languages among the semi-settled pastoralists. Yoruba and English languages may be the popular languages of presenting information on HIV/AIDS prevention techniques in the study area, of which their understanding will determine the acquisition and utilisation of such knowledge. This agrees with Oladeji and Oyesola (2000), who viewed that education, plays a major role in information communication and consequently the acquisition of knowledge and utilisation of prevention techniques. Similarly, UNESCO (2003) is of the opinion that in multilingual country such as Nigeria, language issues have to be considered in any HIV/AIDS prevention programme. However, there was no significant relationship between sex (χ^2=1.22, p>0.05) and marital status (χ^2=0.56, p>0.05); Differences in sex and marital status may not count if knowledge is not available or acquired. The result in table 5 shows a significant relationship (r=0.26, p=0.000) between knowledge and utilisation of HIV/AIDS prevention techniques. This could be attributed to the fact that there must be awareness before adoption. This agrees with UNESCO (2003) that ignorance is a major reason why HIV infection is out of control, which

implies that if knowledge increases utilisation may do as much.

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8/7/2012