

RELATION BETWEEN COMMUNITIES BASED AWARENESS PROMOTION AND REDUCTION OF HIV/AIDS INFECTION IN NORTH EAST NIGERIA

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Received date: 20 March 2022

Revised date: 10 April 2022

Accepted date: 30 April 2022

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ABSTRACT

Background of the study: Human Immunodeficiency Virus (HIV) is a disease that has damage the immune system of an individual and kill the CD4 cells which are called immune cell or T cell. HIV/AIDS many lives have been saved. Through the communities based awareness promotion programmes information about HIV/AIDS disease. **Objectives:** this study is aimed at determining the impact of communities based awareness on the reduction of HIV/AIDS infection in North-East. **Methodology:** The data were analyzed using Descriptive Statistics and relation. **Results:** The results obtained showed that there was a significant relationship between communities based awareness program and reduction of HIV/AIDS infection in North-East Nigeria ($p < 0.05$). The relationship between Community based awareness and reduction in HIV is a positive relationship ($p < 0.05$), community based awareness on the use of condom influenced reduction in HIV/AIDS positively ($p < 0.005$); community based awareness program on the use of condom influenced the reduction of HIV/AIDS infection by 8.7% in Adamawa State ($p < 0.005$), community based awareness on the prevention of mother to child transmission influenced reduction in HIV/AIDS positively ($p < 0.05$).

INTRODUCTION

Background to the study

Human Immunodeficiency Virus (HIV) responsible for Acquired Immunodeficiency Syndrome (AIDS) is a disease that has ravaged the world over the past 30 years and it's still a public health issue across the globe today. AIDS was reported first in the United State in the early 1980s precisely 1981 (World Health Report, 2003). In Nigeria, the first case of AIDS was reported in Lagos State in 1986 and it involves of 13 years old female sex worker which came into the country from one of the West African countries (Awofala & Ogundele, 2016). When aid first came into the country, people perceived it as ploy Americans were using to discourage sex and thus gave it an acronym "American Ida of Discouraging Sex (Eze, 2009). This earlier perception of Nigerians led to a non chalant attitude towards the disease and thus most people then didn't take precautionary measures to avoid it. Community based interventions to increase HIV awareness and reduce HIV risks are effective in improving knowledge, attitudes, and practice outcomes as evidenced by the increased knowledge scores for HIV/AIDS, protected sexual encounters, condom use and

decreased frequency of sexual intercourse although their Community Based. Improved Community based awareness to HIV infection and sustained service provision will enhance good health seeking behavior and reduce incidence of HIV infection and stigmatization of affected persons in the IDP camp (Affiah *et al.*, 2020)

Specific

These objectives will be achieved by:

1. To determine if there is a correlation between communities based awareness program and reduction in reduction of HIV/AIDS infection in North-East Nigeria.

1.5 Objectives of the study

1. To determine if there is a correlation between communities based awareness program and reduction in reduction of HIV/AIDS infection in North-East Nigeria.
 - a. If community based program awareness program on the use of condom is correlated with the reduction of HIV/AIDS infection in North east Nigeria
 - b. If community based program awareness program on the use of pre-exposure prophylaxis (PrEP) is

correlated with the reduction of HIV/AIDS infection in North east Nigeria

- c. If community based program awareness program on the prevention of mother to child transmission is correlated with the reduction of HIV/AIDS infection in North east Nigeria
- d. If community based program awareness program on the availability of antiretroviral drug is correlated with the reduction of HIV/AIDS infection in North east Nigeria
- e. If community based program awareness program against Homosexuality/sex work/drug addiction is correlated with the reduction of HIV/AIDS infection in North east Nigeria

Research Questions

1. What is the relationship between communities based awareness program and reduction in reduction of HIV/AIDS infection in North-East Nigeria.?
 - a. To what extent has community based awareness program on the use of condom influenced the reduction of HIV/AIDS infection in North east Nigeria?
 - b. To what extent has community based awareness program on the use of pre-exposure prophylaxis (PrEP) influenced the reduction of HIV/AIDS infection in North east Nigeria?
 - c. To what extent has community based awareness program on the prevention of mother to child transmission influenced the reduction of HIV/AIDS infection in North east Nigeria?
 - d. To what extent has community based awareness program on the availability of antiretroviral drug influenced the reduction of HIV/AIDS infection in North east Nigeria?
 - e. To what extent has community based awareness program against Homosexuality/sex work/drug addiction influenced the reduction of HIV/AIDS infection in North east Nigeria?

REVIEW OF LITERATURE

Introduction

The health environment is ever changing and shaped by new science, information, policies and socio-cultural forces (Dalah and Singh, 2017). Information through Community based awareness promotion and dissemination of knowledge have proven to be good and very effective way of curbing the increase in prevalence of HIV/ AIDS in Nigeria and the world at large. According to the Centers for Disease Control and Prevention, young people aged 13–29 accounted for 39 % of all new HIV infections in 2009. HIV is a disease that does not discriminate. Anyone can contract this disease, which is why it is important to be aware of how to protect themselves and prevent the transmission of HIV (Awofala and Ogundele, 2016). Yusuf and Aregbesola (2014) reported that almost every respondent in their study (98.6%, 73) reported to have heard about HIV/AIDS before; most of whom (94.6%, 70) also believe that the disease is real and 70.3% (52) of them

receive information about the disease often. They observed that there was no consistent pattern in the distribution of the responses on HIV/AIDS awareness in the communities. They also added that forty-seven (63.5%) of the respondents admitted that there is HIV/AIDS awareness, whereas only 48.6% (36) indicated having community HIV/AIDS awareness programme and this resulted to 32.4% (24) of the respondents to be ignorant that it is a Whiteman's disease. About three of every ten respondents (29.7%, 22) believe that HIV/AIDS is curable and about the same proportion 33.8% (25) stated that professional association does not have HIV awareness programme (Yusuf and Aregbesola, 2014).

Impact of community-based interventions on HIV Awareness

Salam et al. (2014), in their study on 'Impact of community-based interventions on HIV knowledge, attitudes, and transmission', reported that that CBIs did not have any significant impact on scores for self-efficacy and communication. They found very limited evidence on community-based management for HIV infected population and prevention of mother- to-child transmission (MTCT) for HIV-infected pregnant women.

Global Interventions

According to Bertozzi et al (2006), the following are the global interventions that have helped in the reduction of HIV/AIDS globally. this intervention according to Bertozzi et al (2006) includes education on HIV/AIDS and condom use through pamphlets, brochures, and other promotional materials in classroom. In Peer intervention programs, influential members of a targeted community are used to disseminate information or teach specific skills according to Bertozzi et al (2006). Such interventions they say have generally been found to be effective in reducing unsafe behaviors although work on the cost-effectiveness of peer-based interventions in developing countries has been minimal.

EMPIRICAL REVIEW OF CORRELATES BETWEEN AWARENESS PROMOTION AND REDUCTION OF HIV/AIDS INFECTION

In a review conducted by Cahill, Valadez and Ibarrola (2013), on the community based HIV prevention interventions that combat anti-gay stigma for men who have sex with men and for transgender women, they found that the focus on the individual risk behaviour of the people have helped a great deal in reducing HIV infection and its spread.. Also their study reveals that the factors that worked in their community interventions are the distribution of condoms. The work of Liebowitz, Harawa, Sylla and Hallstrom also reveals that condom distribution in jails and prison is effective in reducing HIV transmission. They went further to predict that if inmates are allowed to have more than one condom per week, the chances that the program will be more effective in reducing HIV in prisons. Community based intervention also includes interventions that are school

based. Ibrahim and Sidani (2014) studied the effect of Community based Intervention in prevention of HIV in developing countries. their studies specifically reveals that multicomponent interventions in schools that used mixed teaching methods produced beneficial effects on the knowledge and self-reported risk behaviour of the students. It was also noted in their study that Community based HIV prevention interventions are an important resource for providing education to improve HIV-related knowledge and for acquiring skills to decrease engagement in sexual risk behavior among young persons living in developing countries.

Salam et al., (2014) studied the impact of community-based interventions on HIV knowledge, attitudes and transmission. Their result suggests that Community based interventions to increase HIV awareness and reduce HIV risks are effective in improving knowledge, attitudes, and practice outcomes as evidenced by the increased knowledge scores for HIV/AIDS, protected sexual encounters, condom use and decreased frequency

of sexual intercourse although their Community Based Interventions did not have any significant impact on scores for self-efficacy and communication.

Prevalence of HIV in North-East Nigeria

The reports on the breakdown of HIV prevalence in North- East Nigeria are: Adamawa (1.1%); Bauchi (0.5%); Borno (1.1%); Gombe (1.2%); Taraba (2.6%) and Yobe (0.4%) (NAIIS, 2019a). The humanitarian crisis in North-East Nigeria has had its greatest impact in Borno, Adamawa and Yobe states. The recent 2019 NAIIS reported HIV prevalence in Borno state to be 1.3%, however in the IDP camps, the risk of transmission appears to increase due to inadequate access to HIV and other basic health services (Affiah *et al.*, 2020). The result of study by Affiah *et al.*, (2020) revealed the prevalence of HIV in the 3 IDP camps in Borno to be 0.98%. In Ngala Camp, Ngala LGA of Borno state, there was a high prevalence rate of 1.98%, which is higher than the Borno state's and the National indices.

Research Questions

1. What is the relationship between communities based awareness program and reduction of HIV/AIDS infection in North-East Nigeria.?

Table 4.1: Demographic Representation of Respondents.

Variable	Sub	Frequency	Percentage
Gender	Male	789	67.8%
	Female	374	32.2%
State	Adamawa	160	13.8%
	Bauchi	207	17.8%
	Borno	212	18.2%
	Gombe	194	16.7%
	Taraba	203	17.5%
	Yobe	187	16.1%
Affiliation	NASA	178	15.3%
	SACA	489	42.0%
	PHC	273	23.5%
	CSO	101	8.7%
	WHO	7	0.6%
	OTHERS	115	9.9%

Table 4.1 shows the demographic characteristics of the participants, the data presented in the table shows that, there are more males, 789(67.8%) than females, 374(32.2%). The states of the participants shows that, Borno had the highest number, 212(18.2%); followed by Bauchi, 207(17.8%), followed by Taraba, 203(17.5%); Gombe, 194(16.7%); Yobe, 187(16.1%); and Adamawa, 160(13.8%). The affiliations of the respondents shows that majority are affiliated with SACA, 489(42.0%); followed by PHC, 273(23.5%); NASA, 178(15.3%); others, 115(9.9%); CSO, 101(8.7%), and lastly WHO, 7(0.6%).

Table 4.2: relationship between communities based awareness program and reduction in reduction of HIV/AIDS infection in North-East Nigeria.

State		Mean	SD	R	r ² (%)	ρ	Remark
Adamawa	CBA	49.11	8.94	0.957	0.916 (91.6%)	0.00	Positive relationship
	HIV reduction	9.79	2.90				
Bauchi	CBA	48.68	2.67	0.903	0.815 (81.5%)	0.00	Positive relationship
	HIV reduction	9.86	2.04				
Borno	CBA	39.66	16.54	0.773	0.598 (59.8%)	0.00	Positive relationship
	HIV reduction	11.09	2.04				
Gombe	CBA	51.93	3.91	-0.131	0.017 (1.7%)	0.07	negative relationship
	HIV reduction	15.10	3.49				
Taraba	CBA	56.49	2.83	-0.240	0.057 (5.7%)	0.00	Negative relationship
	HIV reduction	12.96	1.32				
Yobe	CBA	36.44	16.91	0.866	0.745 (74.5%)	0.00	Positive relationship
	HIV reduction	13.92	4.98				
Total	CBA	47.03	12.66	0.462	0.213 (21.3%)	0.00	Positive relationship
	HIV reduction	12.14	3.60				

Table 4.1 shows that there was a significant relationship between communities based awareness program and reduction of HIV/AIDS infection in North-East Nigeria ($r = 0.462$; $\rho = 0.00$). The result shows that Community based awareness program had an influence of 21.3% on HIV reduction in North-East Nigeria. The relationship between Community based awareness and reduction in HIV is a positive relationship. Based on the different States of study, The Table 4.2 shows that in Adamawa State, Community based awareness was highly correlated with HIV reduction ($r = 0.957$; $\rho = 0.00$), with an influence of size of 91.6%. In Bauchi State, the result of Community Based Awareness was similar to that of Adamawa State ($r = 0.903$; $\rho = 0.00$), as it correlated highly and had an influence of 81.5% on the reduction of HIV in the State. In Borno State, the influence was not as

much as that of Adamawa and Bauchi ($r = 0.773$; $\rho = 0.00$) as CBA had an influence of 59.8% on HIV reduction in Borno State. CBA had negative influences in Gombe ($r = -0.131$; $\rho = 0.07$) and Taraba ($r = -0.240$; $\rho = 0.00$) with influence of 1.7% and 5.7% respectively for Gombe and Taraba State. In Yobe State ($r = 0.866$; $\rho = 0.00$), CBA had an influence of 74.5% on the reduction of HIV in Yobe State.

The Result presented in Table 4.2 shows that CBA was very effective and Instrumental to the reduction of HIV in Adamawa, Bauchi, Borno and Yobe States, although CBA was not effective in Gombe State (as it had a negative influence). CBA also had a negative influence on HIV reduction in Taraba State.

1a To what extent has community based awareness program on the use of condom influenced the reduction of HIV/AIDS infection in North east Nigeria?

Table 4.3: Influence of Community based awareness program on the use of condom on the reduction of HIV/AIDS infection in North east Nigeria.

State		Mean	SD	R	r ² (%)	P
Adamawa	Condom Use	10.7312	.44470	0.296	0.087 (8.7%)	0.000
	HIV reduction	9.7875	2.90388			
Bauchi	Condom Use	11.0773	.57776	-0.213	0.045 (4.5%)	0.002
	HIV reduction	9.8551	2.03805			
Borno	Condom Use	8.5519	3.47396	0.600	0.360 (3.6%)	0.000
	HIV reduction	11.0849	2.03811			
Gombe	Condom Use	10.0464	1.07872	-0.368	0.135 (13.5%)	0.000
	HIV reduction	15.1031	3.49236			
Taraba	Condom Use	9.9261	1.69140	-0.368	0.135 (13.5%)	0.000
	HIV reduction	12.9557	1.32119			
Yobe	Condom Use	6.9519	2.77718	0.841	0.707 (70.7%)	0.000
	HIV reduction	13.9198	4.97618			
Total	Condom Use	9.5331	2.47873	0.090	0.008 (0.8%)	0.002
	HIV reduction	12.1402	3.59505			

Table 4.3 shows that community based awareness on the use of condom influenced reduction in HIV/AIDS positively. ($r = 0.090$; $\rho = 0.002$). The result shows that

Community based awareness program on the use of condom on the reduced HIV/AIDS infection in North east Nigeria by 0.8%. For each State of study, the result

in Table 4.3 shows that community based awareness program on the use of condom influenced the reduction of HIV/AIDS infection by 8.7% in Adamawa State ($r = 0.296$; $\rho = 0.000$), In Bauchi State, there was an influence of 4.5% ($r = -0.213$; $\rho = 0.002$) and 3.6% in Borno State ($r = 0.600$; $\rho = 0.000$). CBA on the use of

condom, had a negative influence on the reduction of HIV in Gombe and Taraba States ($r = -0.368$; $\rho = 0.000$) with an influence size of 13.5%, while in Yobe State, CBA targeted at condom use influenced HIV reduction by 70.7% ($r = 0.841$; $\rho = 0.000$).

1b To what extent has community based awareness program on the use of pre-exposure prophylaxis (PrEP) influenced the reduction of HIV/AIDS infection in North east Nigeria?

Table 4.4: Influence has community based awareness program on the use of pre-exposure prophylaxis (PrEP) on reduction of HIV/AIDS infection in North East Nigeria?

State		Mean	SD	R	r ²	P
Adamawa	PrEP	9.3188	1.82702	0.296	0.088 (8.7%)	0.000
	HIV reduction	9.7875	2.90388			
Bauchi	PrEP	10.0773	.62614	-0.213	0.045 (4.5%)	0.002
	HIV reduction	9.8551	2.03805			
Borno	PrEP	6.7453	4.57390	0.645	0.416 (41.6%)	0.000
	HIV reduction	11.0849	2.03811			
Gombe	PrEP	11.1907	3.74992	-0.102	0.010 (1%)	0.155
	HIV reduction	15.1031	3.49236			
Taraba	PrEP	11.0099	2.11077	0.652	0.425 (42.5%)	0.000
	HIV reduction	12.9557	1.32119			
Yobe	PrEP	5.9465	6.13445	0.688	0.473 (47.3%)	0.000
	HIV reduction	13.9198	4.97618			
Total	PrEP	9.0499	4.19666	0.345	0.119 (11.9%)	0.000
	HIV reduction	12.1402	3.59505			

Table 3 shows that community based awareness on the use of use of pre-exposure prophylaxis (PrEP) influenced reduction in HIV/AIDS positively. ($r = 0.345$; $\rho = 0.00$) in North –East Nigeria. The result shows that

Community based awareness program on the use of pre-exposure prophylaxis (PrEP) reduced HIV/AIDS infection in North east Nigeria by 11.9%.

1c To what extent has community based awareness program on the prevention of mother to child transmission influenced the reduction of HIV/AIDS infection in North east Nigeria?

Table 4.5: Influence has community based awareness program on the prevention of mother to child transmission on reduction of HIV/AIDS infection in North East Nigeria?

State		Mean	SD	R	r ²	P
Adamawa	MTCT	8.6875	1.74899	0.985	0.970 (97%)	0.000
	HIV reduction	9.7875	2.90388			
Bauchi	MTCT	9.1063	.99918	0.961	0.923 (92.3%)	0.000
	HIV reduction	9.8551	2.03805			
Borno	MTCT	8.8302	2.36872	0.824	0.679 (67.9%)	0.000
	HIV reduction	11.0849	2.03811			
Gombe	MTCT	12.8969	3.11435	0.859	0.737 (73.7%)	0.000
	HIV reduction	15.1031	3.49236			
Taraba	MTCT	10.7044	1.10415	0.945	0.893 (89.3%)	0.000
	HIV reduction	12.9557	1.32119			
Yobe	MTCT	12.0856	4.95172	0.801	0.642 (64.2%)	0.000
	HIV reduction	13.9198	4.97618			
Total	MTCT	10.3887	3.16667	0.865	0.748 (74.8%)	0.000
	HIV reduction	12.1402	3.59505			

Significant = $p < 0.05$

Table 4 shows that community based awareness on the prevention of mother to child transmission influenced reduction in HIV/AIDS positively. ($r = 0.865$; $\rho = 0.00$). The result shows that Community based awareness program on the use of pre-exposure prophylaxis (PrEP)

reduced HIV/AIDS infection in North east Nigeria by 74.8%.

1d. To what extent has community based awareness program on the availability of antiretroviral drug influence the reduction of HIV/AIDS infection in North east Nigeria?

Table 4.6: Influence of community based awareness program on the availability of antiretroviral drug on the reduction of HIV/AIDS infection in North east Nigeria.

State		Mean	SD	R	r ²	ρ
Adamawa	ART	10.5250	3.24658	0.937	0.878 (87.8%)	0.00
	HIV reduction	9.7875	2.90388			
Bauchi	ART	9.3720	.86563	0.895	0.801 (80.1%)	0.00
	HIV reduction	9.8551	2.03805			
Borno	ART	8.1038	3.26530	0.880	0.774 (77.4%)	0.00
	HIV reduction	11.0849	2.03811			
Gombe	ART	8.5567	1.97638	-0.896	0.803 (80.3%)	0.000
	HIV reduction	15.1031	3.49236			
Taraba	ART	12.8374	1.38884	-0.406	0.165 (16.5%)	0.000
	HIV reduction	12.9557	1.32119			
Yobe	ART	5.8984	2.50491	0.484	0.234 (23.4%)	0.000
	HIV reduction	13.9198	4.97618			
Total	ART	9.2098	3.17813	0.116	0.013 (1.3%)	0.000
	HIV reduction	12.1402	3.59505			

Table 4.6 shows that community based awareness on the availability of antiretroviral drug influenced reduction in HIV/AIDS positively. ($r = 0.116$; $\rho = 0.00$). The result

shows that Community based awareness program on the on the availability of antiretroviral drug reduced HIV/AIDS infection in North east Nigeria by 1.3%.

1e To what extent has community based awareness program against Homosexuality/sex work/drug addiction influenced the reduction of HIV/AIDS infection in North east Nigeria?

Table 4.7: Influence of community based awareness program against Homosexuality/sex work/drug addiction on the reduction of HIV/AIDS infection in North east Nigeria.

State		Mean	SD	R	r ²	P
Adamawa	Sex/Drug/Homo	9.8500	2.98887	0.966	0.933 (93.3%)	0.000
	HIV reduction	9.7875	2.90388			
Bauchi	Sex/Drug/Homo	9.0483	1.00368	0.910	0.828 (82.8%)	0.000
	HIV reduction	9.8551	2.03805			
Borno	Sex/Drug/Homo	7.4245	3.73899	0.781	0.610 (61%)	0.000
	HIV reduction	11.0849	2.03811			
Gombe	Sex/Drug/Homo	9.2371	1.22388	-0.520	0.270 (27%)	0.000
	HIV reduction	15.1031	3.49236			
Taraba	Sex/Drug/Homo	12.0148	1.78131	-0.582	0.339 (33.9%)	0.000
	HIV reduction	12.9557	1.32119			
Yobe	Sex/Drug/Homo	5.5615	3.28080	0.887	0.787 (78.7%)	0.000
	HIV reduction	13.9198	4.97618			
Total	Sex/Drug/Homo	8.8512	3.23934	0.330	0.109 (10.9%)	0.000
	HIV reduction	12.1402	3.59505			

Table 4.7 shows that community based awareness program against Homosexuality/sex work/drug addiction influenced reduction in HIV/AIDS positively. ($r = 0.0=330$; $\rho = 0.00$). The result shows that Community based awareness program on community based awareness program against Homosexuality/sex work/drug addiction influenced the reduction of HIV/AIDS infection in North east Nigeria by 10.9%.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS
Discussion

Based on the findings in this study, in relation to literatures consulted, the following discussions were made:

The advent of the human immunodeficiency virus (HIV) in the last few decades has presented considerable challenges to health systems throughout the world. Many countries developed measures to combat the spread of the virus and the trends are improving, mostly due to the introduction of potent new combinations of medications, the development of effective prevention strategies and increased community awareness. These improvements would not have been possible without the mobilization of communities around the world, who, recognizing their vulnerability, have taken collective action to curb the propagation of HIV.

The study revealed that there was a positive relationship between communities based awareness program (CBAP)

and reduction in reduction of HIV/AIDS infection in North-East Nigeria. This implies that, CBAP causes reduction of HIV/ AIDS. This finding contradicts the report of Salam et al. (2014) who reported that CBIs did not have any significant impact on scores for self-efficacy and communication. They found very limited evidence on community-based management for HIV infected population and prevention of mother- to-child transmission (MTCT) for HIV-infected pregnant women. The study also revealed that community based awareness program on the use of condom positively influenced the reduction of HIV/AIDS infection in North east Nigeria; community based awareness program on the use of pre-exposure prophylaxis (PrEP) positively influenced the reduction of HIV/AIDS infection in North east Nigeria; community based awareness program on the prevention of mother to child transmission influenced the reduction of HIV/AIDS infection in North east Nigeria; community based awareness program on the availability of antiretroviral drug influenced the reduction of HIV/AIDS infection in North east Nigeria; and community based awareness program against Homosexuality/sex work/drug addiction influenced the reduction of HIV/AIDS infection in North east Nigeria. HIV prevention services that are sex-worker led and community based are proven to be most effective when they address the legal and social barriers that affect sex workers (Avert, 2020). Studies have estimated that addressing specific key societal factors such as violence, police harassment, safer work environments and decriminalization could reduce the number of female sex workers newly infected with HIV by 33%, to 46% over the next decade (Baral et al., 2019). In 2013, the WHO, UNFPA, UNAIDS, NSWP, the World Bank and UNDP released a tool offering advice on building HIV programmes for sex workers that are led by the sex worker community (WHO, 2013).

Summary of findings

1. There was a significant relationship between communities based awareness program and reduction of HIV/AIDS infection in North-East Nigeria.
2. The relationship between Community based awareness and reduction in HIV is a positive relationship.
3. Community based awareness on the use of condom influenced reduction in HIV/AIDS positively.
4. Community based awareness on the use of use of pre-exposure prophylaxis (PrEP) influenced reduction in HIV/AIDS positively.
5. Community based awareness on the prevention of mother to child transmission influenced reduction in HIV/AIDS positively.
6. Community based awareness on the availability of antiretroviral drug influenced reduction in HIV/AIDS positively.
7. Community based awareness program against Homosexuality/sex work/drug addiction influenced reduction in HIV/AIDS positively.

CONCLUSION

In conclusion, communities based awareness program on the use of condom, pre-exposure prophylaxis, prevention of mother to child transmission, and Community based awareness program against Homosexuality/sex work/drug addiction, positively contributes to the reduction of HIV/AIDS infection in North-East Nigeria. Also,

Recommendations

Based on the discussion and conclusions drawn, the following recommendations are made;

1. Since there was significant relationship between communities based awareness program and reduction of HIV/AIDS infection in North-East Nigeria, the Government and non-governmental organizations should put in more efforts into community based awareness, particularly with the aid of mass media, as well as social media so as to further enhance the reduction in HIV/ AIDS. This will also help reduce mother to child transmission of HIV/ AIDS.

Education/Contribution to Knowledge

- I. This study has added to the existing body of knowledge on the effectiveness of communities based awareness programmes on HIV/ AIDS in reducing the of HIV/AIDS infection, and in particular with reference to North-East zone of Nigeria.
- II. The study has also reiterated that Government and NGOs intervention programmes aimed at making the populace aware of the prevention of the transmission of this disease are powerful tools to achieving the eradication of HIV/AIDS.
- III. The communities based awareness programmes greater education people how to protecting themselves so that they don't take risks, also provide free condoms and free HIV screening center, called mobile HIV testing units to reduce transportation barriers.

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