Peer Support Group Participation And Its Effect On HIV-Related Knowledge Among People Living With HIV/AIDS In Enugu State, Nigeria

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Abstract

Positive management of patients living with HIV/AIDS requires patient knowledge on HIV-related issues as it reduces the risk of super-infection, as well as prevents spread of infection. This study aims at determining and comparing the level of HIV- related knowledge of people living with HIV/AIDS in peer and non-peer support groups in Enugu State, Nigeria. A total of 420 HIV-positive adults in peer support and non-peer support groups each took part in this multi facility-based cross-sectional study. Interviewer-administered questionnaires were used to collect quantitative data on socio-demographic characteristics, knowledge on HIV transmission and treatment. Differences between variables were tested for significance using Chi-square test. Multiple logistic regression model was used to determine predictors of knowledge. Overall, knowledge on HIV was significantly higher among respondents in the peer support groups (57.4%) when compared with respondents not in peer support groups (44.0%). Lack of formal education (AOR 0.073, 95% CI: 0.007-0.758) predicted poor knowledge among respondents in peer support groups while having primary education as the highest educational qualification (AOR 0.300, 95% CI: 0.155 – 0.583) and a baseline CD4 <200cells/μl (AOR 0.448, 95% CI: 0.214 – 0.939) predicted poor knowledge among respondents, not in peer support groups. Our findings indicate that peer support education will significantly improve the level of HIV-related knowledge among PLHIV in Enugu Nigeria. Having a better understanding of the information can promote behavioural modifications resulting in better treatment outcome.

Key Words: HIV, Knowledge, PLHIV, peer support, Enugu

INTRODUCTION

Globally, approximately 1.8 million people became newly infected with HIV in 2017 making a total of 77.3 million people being infected with the virus since the beginning of the epidemic (UNAIDS, 2018). Although cases have been reported in all regions of the world, almost 70% of people living with HIV (PLHIV) reside in sub-Saharan Africa (UNAIDS, 2018). The main routes of HIV transmission are unsafe sexual intercourse, intravenous injections with contaminated needles, unscreened or contaminated blood transfusions, and transmission from an infected mother to a child during pregnancy, delivery, or breastfeeding. With the aid of improved knowledge on HIV transmission, these preventable occurrences have the potential to reduce the incidence of the disease (Hong et al. 2012).

HIV-related knowledge among PLHIV is necessary to prevent the spread of the virus to HIV naïve individuals as well as the risk of super-infection (Hong et al. 2012). Strict ART adherence among patients has been associated with adequate knowledge of the disease and its management (Weiss et al. 2010). Knowledge on HIV transmission and treatment has not been recognized to utterly guarantee safe sex practice or risk-reduction methods among PLHIV, it, however, is essential for behavioural modifications, attitudinal variations and overall reduction of HIV/AIDS burden in resource-poor settings (Smith Fawzi et al. 2006; Hong et al. 2012). Although a good number of PLHIV vigorously search for information to sustain their upkeep, barriers to accessing information exist including stigma, fear, concern about disclosure, and feelings of futility and anger (Zukoski et al. 2011).

Peer support services are provided by and for PLHIV to enable them to develop effective strategies for living healthy lives (MDPH, 2010). PLHIV have been involved in the continuum of care since the advent of this epidemic providing HIV education and prevention services to others (Tobias et al. 2010). Through one-on-one interactions and in groups, peer support promotes patients' commitment in their health care and provides opportunities for education, skill-building, and emotional support (MDPH, 2010). Their services are integrated into HIV care and treatment programs with evidence suggestive of increased HIV-related knowledge, coping skills, self-esteem, confidence, decrease HIV transmission risk behaviors and promotion of healthier behaviors following participation in peer support group activities (MDPH, 2010; Tobias et al. 2010; Heyer et al. 2014; Bateganya et al. 2015) Findings from a South African study revealed that 89.9% of support group members reported that support group meetings helped create a forum for sharing knowledge and experience (Wouters et al. 2009) This helped improve treatment outcome of the patients with 76.4% of the patients having a CD4 count >200 cells after 24 months on ART. Based, on the success of peer interventions to reduce HIV transmission, there is a rising promotion and utilization of peer support groups facilitated by HIV positive peers to improve HIV knowledge and care (Bateganya et al. 2015). The interest in using HIV positive peers is founded on the principle that no one fathoms the veracities of living with HIV/AIDS better than one living with it (MDPH, 2010) However, little is known on the effect this association has on HIV-related knowledge.

This study, therefore, tried to determine and compare HIV-related knowledge among PLHIV in peer support and non-peer support groups in Enugu in order to ascertain their efficacy in providing adequate knowledge on HIV prevention and treatment and provide possible directions for future research.

MATERIAL AND METHOD
Study Location and Context

The study area is Enugu state also called the Coal City State, one of the five states in the South-east geopolitical zone of Nigeria. It is bound on the west by Anambra State, on the south by Abia State, on the north by Kogi State and on the east by Benue and Ebonyi States. The indigenes are mainly of Igbo ethnic nationality and are mainly Christians. Enugu state is made up of 17 Local Government Areas (LGAs). The LGAs' are the administrative units of the state with a total of 291 wards. Distribution of health facilities among the 17 LGAs is based on the population and disease burden of the areas.

Enugu state operates the District Health System which involves a network of primary care health facilities that deliver a comprehensive range of promotive, preventive, curative and rehabilitative health care services to a defined population with the active participation of the community and under the supervision of a district hospital and district health management team (WHO, 2018). ART programme was introduced by President's Emergency Plan for AIDS Relief (PEPFAR) agencies in the state in 2004 with the services offered by both private and public health facilities (Enugu SMOH, 2015).

Study Design

The research design for this study was cross-sectional, involving PLHIV who belong to peer support groups and those not belonging to support groups in Enugu state Nigeria. Peer support groups are gatherings of people who come together to share common experiences and challenges delivered at an individual or group level. This study focuses on group-level peer support through support group activities within the health facilities where patients assess care. Eligible participants were PLHIV ≥ 18 years of age, receiving ARV in the selected health facilities. Those in WHO HIV clinical stage 3 and 4 and those with cognitive impairments were excluded from the study.

Simple random sampling was used to select eight health facilities from the fourteen facilities within the state that offer facility-based peer support group services. The facility registers containing the names of PLHIV receiving care in the selected facilities were used to determine the sampling frame for each study group. Participants were then stratified into two

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groups; members of peer support groups and non-members. Systematic sampling technique was used to select the study participants as they presented for their clinic visits on each day of data collection.

Study Instrument and Data Collection

A questionnaire consisting of three sections; socio-demographics, clinical characteristics, and knowledge on HIV transmission and treatment was administered to the participants by the research assistants. The instruments were administered in English language or native language (Igbo) depending on the participant's preference and the result of the Igbo version translated back to English. The questionnaires were pre-tested among 80 students randomly selected from a health facility in Agbani District which was not selected in the main study.

To ascertain the level of knowledge on HIV transmission and treatment, a 20-item HIV Knowledge Questionnaire (HIV-KQ-20) was developed by the researcher, with questions adapted from an HIV Knowledge Questionnaire (Carey and Schroder, 2002). Respondents were required to answer "true", "false" or "don't know." Items answered "don't know" were considered incorrect answers. The knowledge score was determined by calculating the correct responses to 20 variables. A mean score 15 (75%) of the correct answers was used to determine the cut-off point. ≥ 15 was defined as good knowledge while <15 as poor knowledge.

Data Analysis

Data entry and analysis were done using SPSS Statistical Package for Social Sciences version 20. Frequency values and cross-tabulations were generated to summarize the categorical data while mean and standard deviation were used for numerical data. Chi-square test of statistical significance or Fisher's exact test was performed to examine the associations between HIV transmission knowledge and other variables. Level of statistical significance was set at a predetermined p-value of < 0.05. Variables that showed a significant univariate association with knowledge at $p<0.15$ were logged into multivariate models.

Ethical considerations

Ethical clearance was obtained from the Health Research and Ethics Committee of the Enugu State University Teaching Hospital. Permission to conduct the study was also obtained from the Health Research Committee of Enugu State Ministry of Health, the hospitals and the clinic heads. Written informed consent was obtained from PLHIV attending clinics at the selected health facilities in both the local dialect (Ibo) and English language.

RESULTS
Table 1: Socio-demographic characteristics of respondents in peer and non-peer support groups

Variable	Support Group n=420 N (%)	Non-support Group n=420 N (%)	χ^2	-value
Age of respondents				
Mean ±(SD)	38.5±9.6	38.5±10.1	0.063*	0.950
Age in groups				
<30 years	65 (15.5)	71 (16.9)	2.672	0.445
30 – 39 years	176 (41.9)	177 (42.1)		
40 – 49 years	123 (29.3)	105 (25.0)		
=50 years	56 (13.3)	67 (16.0)		
Gender				
Female	337 (80.2)	304 (72.4)	7.171	0.007
Male	83 (19.8)	116 (27.6)		

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Marital status

Single	87 (20.7)	64 (15.2)	12.927	0.005
Married	206 (49.0)	239 (56.9)		
Separated/Divorced	3 (0.7)	12 (2.9)		
Widowed	124 (29.5)	105 (25.0)		

Religion

Christianity	415 (98.8)	417 (99.3)	0.684**	0.710
Traditional religion	4 (1.0)	2 (0.5)		
Islam	1 (0.2)	1 (0.2)		

HIV Status of partner

	n = 360	**n = 382**		
Unknown	124 (34.4)	117 (30.6)	1.234	0.540
Negative	111 (30.8)	124 (32.5)		
Positive	125 (34.7)	141 (36.9)		

Education of respondent

	n = 420	**n = 420**		
No formal education	19 (4.5)	25 (6.0)	2.944	0.400
Primary education	167 (39.8)	145 (34.5)		
Secondary education	174 (41.4)	188 (44.8)		
Tertiary education	60 (14.3)	62 (14.8)		

Education of spouse

	n = 206	**n = 239**		
No formal education	38 (18.4)	43 (18.0)	2.918	0.404
Primary education	65 (31.6)	70 (29.3)		
Secondary education	92 (44.7)	103 (43.1)		
Tertiary education	11 (5.3)	23 (9.6)		

Employment status of respondent

	n = 420	**n = 420**		
Self-employed	326 (77.6)	297 (70.7)	5.673	0.059
Salary Earners	54 (12.9)	65 (15.5)		
Unemployed/Student	40 (9.5)	58 (13.8)		

Employment status of spouse

	n = 206	**n = 239**		
Self-employed	136 (66.0)	177 (74.1)	21.401	<0.001
Salary Earners	45 (21.8)	17 (7.1)		
Unemployed/student	25 (12.1)	45 (18.8)		

*student t-test, **likelihood ratio

A total of 840 adult PLHIV participated in the study. Their mean age of respondents in both study groups are comparable with majority of the respondents within the age group of 30 – 39 years of age. About three quarters of the respondents in both study groups were females; 80.2% peer support, 72.4% non-peer support. (χ^2=7.171, p=0.007). Majority of the spouses of the respondents were self-employed and a significantly higher proportion belonged to peer support groups. (χ^2=21.401, p<0.001) Though not statistically significant, disclosure was higher among respondents not belonging to peer support groups (96.0%) than 94.5% of those in peer support groups. (χ^2=0.945, p=0.331)

Table 2: Clinical Characteristics of respondents

Variable	Support Group n=420 N (%)	Non-support Group n=420 N (%)	χ^2	p value
Baseline CD4 (cells/µL)				
0 - 199	113 (26.9)	2 (0.5)	556.506	<0.001
200 - 349	150 (35.7)	3 (0.7)		
350 - 499	85 (20.2)	5 (1.2)		
= 500	72 (17.1)	410 (97.6)		
Current CD4 (cells/µL)				
0 - 199	27 (6.4)	51 (12.1)	31.256	<0.001
200 - 349	67 (16.0)	104 (24.8)		
350 - 499	92 (21.9)	107 (25.5)		
= 500	234 (55.7)	158 (37.6)		
Duration of HIV Infection				
<5 years	273 (65.0)	283 (67.4)	0.540	0.764
5 – 10 years	144 (34.3)	134 (31.9)		
>10 years	3 (0.7)	3 (0.7)		

At baseline, the CD4 cell count of respondents in peer support group significantly differed from those not in peer support groups (χ^2=556.506, p<0.001). Similarly, there was a significant difference between the CD4 count of respondents in peer support groups at the time of study with those not in peer support groups. (χ^2=31.256, p<0.001)

Table 3: HIV- related knowledge of respondents in peer support and non-peer support groups

Variable	Support Group n=420 N (%)	Non-support Group n=420 N (%)	χ^2	p-value
The term HIV stands for human immune deficiency virus	348(82.9)	282(67.1)	27.657	<0.001
The term AIDS stands for acquired immunodeficiency syndrome	334(79.5)	267(63.6)	26.252	<0.001
Insects like mosquitoes can transmit HIV	333(79.3)	312(74.3)	2.945	0.086
A person can be infected with HIV in one sexual contact	375(89.3)	350(83.3)	6.297	0.012
Main body fluids that contain HIV are blood, semen, and vaginal secretions	392(93.3)	366(87.1)	9.136	0.003

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Condoms make intercourse completely safe	178(42.4)	164(39.0)	0.967	0.326
A blood is what tells you if you are infected with HIV	404(96.2)	399(95.0)	0.707	0.401
A negative HIV test result means one cannot get HIV	314(74.8)	304(72.4)	0.612	0.434
One can have a negative HIV blood test and still have the virus	290(69.0)	290(69.0)	FT*	1.0
One can always tell by looking if a person is infected with HIV	349(83.1)	340(81.0)	0.654	0.419
HIV can progress to AIDS	374(89.0)	373(88.8)	0.012	0.912
A CD4 count <200 means one has AIDS	212(50.5)	159(37.9)	13.561	<0.001
ART can cure HIV	307(73.1)	276(65.7)	5.388	0.020
ART can prevent disease progression	373(88.8)	383(91.2)	1.323	0.250
ART can prevent transmission from mother to unborn child	363(86.4)	351(83.6)	1.345	0.246
Take half of your medication is better than none at all	255(60.7)	242(57.6)	0.833	0.361
Missing doses of HAART can lead to increased transmission	389(92.6)	362(86.2)	9.162	0.002
Missing dos es of HAART can lead to drug resistance	402(95.7)	366(87.1)	19.688	<0.001
Taking ART does not come with side effects	184(43.8)	171(40.7)	0.825	0.364
Assessment of Knowledge				
Good Knowledge	241 (57.4)	185 (44.0)	14.936	<0.001
Poor Knowledge	179 (42.6)	235 (56.0)		

*Fischer's Exact Test

Table 3 shows the level of HIV-related knowledge among respondents in peer and non-peer support groups. Definition of terms HIV and AIDS were significantly higher among respondents in peer support group with over 70% responding correctly. (χ^2=27.657, p<0.001)(χ^2=26.252, p<0.001). However, only 42.4% of respondents in peer support group correctly responded false to the question, "Condoms make intercourse completely safe."

Respondents not in peer support group (91.2%) had a higher knowledge of ART preventing disease progression than those in peer support group (88.8%). (χ^2=1.323, p=0.250) Upon categorization into good and poor knowledge, a significantly higher proportion of respondents in peer support groups were classified as having good knowledge. (χ^2=15.888, p<0.001)

Table 4: Factors affecting HIV-related knowledge among respondents in peer support group

Variable	Support Group n (420)		χ^2	p-value*	AOR[95%CI]**
	Good	Poor			
Age in groups					
<30 years	33 (13.7)	32 (17.9)	3.433	0.330	NA
30 – 39 years	105 (43.6)	71 (39.7)			
40 – 49 years	75 (31.1)	48 (26.8)			
=50 years	28 (11.6)	28 (15.6)			
Gender					
Male	47 (19.5)	36 (20.1)	0.024	0.877	NA
Female	194 (80.5)	143 (79.9)			
Marital status					
Single	47 (19.5)	40 (22.3)	0.837	0.841	NA
Married	122 (50.6)	84 (46.9)			
Separated/Divorced	2 (0.8)	1 (0.6)			
Widowed	70 (29.0)	54 (30.2)			
Religion					
Christianity	238 (98.8)	177 (98.9)	FT***	0.325	NA
Islam	0 (0.0)	1 (0.6)			
Traditional religion	3 (1.2)	1 (0.6)			
HIV Status of partner	**n = 213**	**n = 147**			
Unknown	77 (36.2)	47 (32.0)	3.178	0.204	NA
Negative	58 (27.2)	53 (36.1)			
Positive	78 (36.6)	47 (32.0)			
Education of respondent					
No formal education	7 (2.9)	12 (6.7)	16.233	0.001	0.073[0.007-0.758]
Primary education	84 (34.9)	83 (46.4)			0.551[0.191-1.592]
Secondary education	104 (43.2)	70 (39.1)			0.547[0.192-1.558]
Tertiary education	46 (19.1)	14 (7.8)			1
Education of spouse	**n = 115**	**n = 91**			
No formal education	24 (20.9)	14 (15.4)	1.020	0.796	NA
Primary education	35 (30.4)	30 (33.0)			
Secondary education	50 (43.5)	42 (46.2)			
Tertiary education	6 (5.2)	5 (5.5)			
Employment status of respondent					
Self-employed	183 (75.9)	143 (79.9)	1.007	0.604	NA
Unemployed/student	24 (10.0)	16 (8.9)			
Salary earners	34 (14.1)	20 (11.2)			
Employment status of spouse	**n=116**	**n=90**			
Self employed	82 (70.7)	54 (60.0)	6.922	0.031	1.411[0.646-3.078]
Unemployed/student	8 (6.9)	17 (18.9)			0.415[0.127-1.360]
Salary Earners	26 (22.4)	19 (21.1)			1

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Baseline CD4 (cells/µL)

0 - 199	103 (42.7)	72 (40.2)	2.155	0.541	NA
200 - 349	89 (36.9)	62 (34.6)			
350 - 499	33 (13.7)	34 (19.0)			
= 500	16 (6.6)	11 (6.1)			

Current CD4 (cells/µL)

0 - 199	14 (5.8)	13 (7.3)	0.691	0.875	NA
200 - 349	37 (15.4)	30 (16.8)			
350 - 499	55 (22.8)	37 (20.7)			
= 500	135 (56.0)	99 (55.3)			

Disclosure

No	8 (3.3)	15 (8.4)	5.081	0.024	0.222[0.042-1.179]
Yes	233 (96.7)	164 (91.6)			1

Duration of HIV Infection

<5 years	154 (63.9)	119 (66.5)	0.371	0.831	NA
5 – 10 years	85 (35.3)	59 (33.0)			
>10 years	2 (0.8)	1 (0.6)			

*p-value on bivariate, **AOR-Adjusted Odds Ratio at 95% Confidence Interval,*** Fischer's Exact Test, NA-Not Applicable (as only variables with a pvalue<0.15 at bivariate were logged into multiple logistic regression models)

Among respondents in peer support groups, level of education (χ^2 =16.233, p=0.001), employment status of spouse (χ^2 = 6.922, p=0.031) and non-disclosure (χ^2=5.081, p=0.024) were significantly associated with knowledge. On multivariate analysis, respondents who lacked formal education were about fourteen times more likely to have less knowledge on HIV than with tertiary education. (Adjusted odds ratio - AOR 0.073, 95% CI: 0.007-0.758).

Table 5: Factors affecting HIV-related knowledge among respondents in the non-peer support group

Variable	Non-Peer Support Group n (420)		χ^2	p value*	AOR[95%CI]**
	Good	Poor			
Age in groups					
<30 years	26 (14.1)	45 (19.1)	7.917	0.048	1.022[0.429-2.438]
30 – 39 years	89 (48.1)	88 (37.4)			1.853[0.917-3.743]
40 – 49 years	48 (25.9)	57 (24.3)			1.893[0.931-3.850]
=50 years	22 (11.9)	45 (19.1)			1
Gender					
Male	59 (31.9)	57 (24.3)	3.020	0.082	1.634[0.980-2.726]
Female	126 (68.1)	178 (75.7)			1
Marital status					
Single	28 (15.1)	36 (15.3)	8.677	0.034	1.178[0.540-2.566]
Married	114 (61.6)	125 (53.2)			1.458[0.841-2.526]
Separated/Divorced	8 (4.3)	4 (1.7)			3.014[0.777-11.699]
Widowed	35 (18.9)	70 (29.8)			1

Religion					
Christianity	183 (98.9)	234 (99.6)	4.445***	0.108	NA
Islam	0 (0.0)	1 (0.4)			
Traditional religion	2 (1.1)	0 (0.0)			
HIV Status of partner	**n=172**	**n=210**			
Unknown	50 (29.1)	67 (31.9)	3.433	0.180	NA
Negative	50 (29.1)	74 (35.2)			
Positive	72 (41.9)	69 (32.9)			
Education of respondent					
No formal education	7 (3.8)	18 (7.7)	15.552	0.001	0.386[0.128-1.166]
Primary education	51 (27.6)	94 (40.0)			0.300[0.155-0.583]
Secondary education	89 (48.1)	99 (42.1)			0.541[0.290-1.010]
Tertiary education	38 (20.5)	24 (10.2)			1
Education of spouse	**n=114**	**n=125**			
No formal education	18 (15.8)	25 (20.0)	1.503	0.681	NA
Primary education	35 (30.7)	35 (28.0)			
Secondary education	48 (42.1)	55 (44.0)			
Tertiary education	13 (11.4)	10 (8.0)			
Employment status of respondent					
Self-employed	125 (67.6)	172 (73.2)	3.016	0.221	NA
Salary Earners	35 (18.9)	30 (12.8)			
Unemployed/student	25 (13.5)	33 (14.0)			
Employment status of spouse	**n=112**	**n=127**			
Self-employed	82 (73.2)	95 (74.8)	1.103	0.576	NA
Salary Earners	10 (8.9)	7 (5.5)			
Unemployed/student	20 (17.9)	25 (19.7)			
Baseline CD4 (cells/µL)					
0 - 199	72 (38.9)	114 (48.5)	5.466	0.141	0.448[0.214-0.939]
200 - 349	64 (34.6)	78 (33.2)			0.641[0.301-1.368]
350 - 499	27 (14.6)	25 (10.6)			0.954[0.399-2.280]
= 500	22 (11.9)	18 (7.7)			1
Current CD4 (cells/µL)					
0 - 199	23 (12.4)	28 (11.9)	2.014	0.569	NA
200 - 349	42 (22.7)	62 (26.4)			
350 - 499	44 (23.8)	63 (26.8)			
= 500	76 (41.1)	82 (34.9)			
Disclosure					
No	6 (3.2)	11 (4.7)	0.551	0.458	NA
Yes	179 (96.8)	224 (95.3)			
Duration of HIV Infection					
<5 years	124 (67.0)	159 (67.7)	0.175	0.916	NA
5 – 10 years	60 (32.4)	74 (31.5)			
>10 years	1 (0.5)	2 (0.9)			

*p-value on bivariate, **AOR-Adjusted Odds Ratio at 95% Confidence Interval,***Likelihood Ratio, NA-Not Applicable (as only variables with a p-value<0.15 at bivariate were logged into multiple logistic regression models)

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Among respondents in non-peer support group, age (χ^2=7.917, p=0.048), marital status (χ^2=8.677, p=0.034) and level of education of respondents (χ^2=15.552, p=0.001) were significant factors at bivariate level. However, on multivariate analysis, respondents with primary education had about three times the odds of having less knowledge than those with tertiary education (AOR 0.300, 95% CI: 0.155 – 0.583) and respondents having a baseline CD4 <200cells/µl were about two times less likely to have more knowledge than those with a baseline CD4 ≥ 500cells/µl (AOR 0.448, 95% CI: 0.214 – 0.939).

DISCUSSION

HIV-related knowledge in this study was found to be significantly higher among respondents in peer support groups (57.4%) than those not in peer support groups (44.0%). This finding is parallel to the findings in Ibadan, South West Nigeria, where those who belonged to support groups were significantly more knowledgeable about HIV-related issues and also reported more favourable attitudes towards the illness and its treatment than those not in peer support groups (p=0.00) (Olley, 2007). Similarly, there remained a significantly increased level of knowledge in HIV positive women involved in a randomised controlled Nigerian study (p= 0.017) (Holstad et al. 2012).

Participants in a qualitative study in South Africa benefitted from basic information about HIV/AIDS, HIV prevention strategies and general health maintenance received in the support group (Heyer et al, 2014). This finding is similar to another qualitative study in Limpopo Province, South Africa, where participants reported that they learned about HIV, basic facts, transmission, prevention and treatment in support-group meetings and though accessing care from various health facilities, they had not had accurate or adequate knowledge about HIV before they joined the support group (Mabunda, 2004).

Literacy was a major factor associated with poor knowledge among respondents in both study groups. Patients with low educational level had poor knowledge compared with those with a higher level of education. Similar findings between the level of literacy and HIV knowledge has been reported by Hong et al (2012). On multivariate analysis, this was also found to be a predictor of poor knowledge. Thus their low literacy level could result in lack of understanding of essential information related to their HIV treatment. Such patients require additional and revised education as they lack essential knowledge related to their HIV treatment hence may be at increased risk of transmission and re-infection due to their vulnerability in resource-limited settings (Wolf et al. 2005; Smith Fawzi et al. 2006).

Having a baseline CD4 <200cells/µl also predicted poor knowledge among respondents in non-peer support groups. To improve treatment outcome, counseling sessions on HIV transmission, treatment and adherence are provided by healthcare workers including doctors, nurses, pharmacists and trained peer educators (in the form of treatment support staff) before initiating patients on ART. This continues routinely while patients are still on ART. Patients presenting with a CD4<200cells/µl could be quite ill, hence following their poor state of health at presentation, they may not be able to actively benefit from the baseline education.

While some PLHIV may have no difficulties disclosing their HIV status, others may be reluctant to do so. A major concern in this study, though not statistically significant is the finding that respondents in peer support groups (94.5%) disclosed less than those not in peer support groups (96.0%). The concern with this gap is based on the fact that disclosure to significant others is among the many support services provided by peer support groups. On bivariate analysis, non-disclosure among respondents in peer support group was associated with poor knowledge. This was however not a predictor on multivariate analysis. For most respondents in a qualitative Nigerian study, the disclosure of HIV status was restricted to support group members or trusted relatives in anticipation of and/or return for care and support (Adedimeji et al. 2010). To avoid disclosure in some cases, participants enrolled for treatment or joined support groups in places far from their area of residence.

CONCLUSION

Findings from this study reveal that PLHIV belonging to peer support groups were more knowledgeable than those who did not belong to peer support groups. The knowledge so acquired can invariably promote behavioural modifications and adoption of healthy lifestyles, resulting in better treatment outcome. However, peer education within support groups should be designed to complement patients' literacy level, ensuring that each patient has the information suitable for reasoned decision making. Programme coordinators and researchers need to identify interventions that will address barriers to disclosure among peer support group members in the context.

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