

Assessing Self Care Practices of People Living with AIDS attending antiretroviral clinic Kafanchan, Kaduna State, Nigeria

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Abstract

Background: The shift from acute to chronic illness of HIV/AIDS requires a self-management model in which patients assume an active and informed role in healthcare decision. Promoting self-care management for people living with AIDS includes addressing complex issues such as keeping to treatment regimen, dietary pattern, physical exercise and seeking for social support. This study provides baseline information about the self-care practices of people living with AIDS attending antiretroviral clinic of General Hospital Kafanchan, Kaduna State, Nigeria.

Methods: A cross-sectional study was conducted at the antiretroviral clinic of General Hospital Kafanchan, Kaduna between August and September, 2014. A sample size of 412 People living with AIDS was selected using systematic sampling technique. A structured pre-tested questionnaire was used to collect data using four research assistants from the antiretroviral clinic who were trained on the purpose of the study, contents of the instrument and how to administer the instrument on clinic days while maintaining objectivity and confidentiality. Data were analyzed descriptively using frequencies, percentages, means and standard deviation. All analyses were performed using SPSS version 20.0 at 95% confidence interval.

Results: Respondents described their dietary pattern as good. Majority (88%) kept to their clinic appointment and did not miss taking their drugs as prescribed. Respondents felt more at home seeking support from family members, health workers and significant others. Most of the respondents embarked on exercises such as walking, running and doing physical work.

Conclusion: Self-care management practice is critical for people living with AIDS. There is need for continuous counseling and closer monitoring of people living with AIDS by health care providers to enable them sustain their self-care management. It is also suggested that physical exercise be included in their health education to promote health and wellbeing.

Keywords: Self-care practices; People living with AIDS; Kaduna; Nigeria

Introduction

HIV/AIDS is one of the major public-health problems worldwide. With the success of antiretroviral therapy (ART) in improving the quality of life of people living with AIDS (PLWA) and reducing morbidity and mortality, HIV has become a chronic manageable disease [1]. Like all other chronic diseases, it requires lifetime changes in physical health, psychological functioning, social relations, and adoption of disease-specific regimen based on choice and decision making. The shift from acute to chronic illness requires a self-management model in which patients assume an active and informed role in healthcare decision-making to change behaviours and optimize health and wellbeing [2]. There are many risk factors that contribute to the spread of HIV, including prostitution, high-risk practices among itinerant workers, high prevalence of sexually transmitted infections (STIs), clandestine high-risk heterosexual and homosexual practices, international trafficking of women, and irregular blood screening [3]. These individuals have significant roles to play in avoiding the risk behaviors. An estimated 36.9 million people are living with HIV around the world [3].

The U.S. Department of State [4] observed that epidemic is more concentrated and driven by high-risk behaviors. According to United Nations AIDS (UNAIDS) statistics, Nigeria accounts for about 10% of people living with HIV/AIDS (PLWHA) worldwide [6]. The HIV epidemic varies widely by region [4]. Some States have

more generalized epidemics that are sustained primarily by multiple sexual partners than others. Youth and young adults are vulnerable to HIV, with young women at higher risk than young men due to their young age at marriage and higher risk for sexual abuse than their male counterparts [5].

In 2010 HIV/AIDS prevalence rate in Nigeria was about 4%, Kaduna State had 5.1% on the average and some areas in southern Kaduna have doubled it. In the same year, Kafanchan had a prevalence of 11.4% followed by Kwoi all areas in southern Kaduna with 8.7% which was far above the national average. The high prevalence may be attributed to poor attitude of infected persons to receiving antiretroviral drugs in addition to lack of access. Although UNAIDS [6] noted that only a relatively few treatment-eligible people in the sub region are currently

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receiving ART due to lack of access, it was not certain whether those who have access follow the treatment regimen as required. .

From anecdotal reports and researchers' observations, despite the education given to clients who attend antiretroviral (ARV) clinic, some still engage in risky behaviours such as unprotected sex, drinking alcohol, smoking cigarette, use herbal medication. Some even take their drugs with alcohol. Centre for Disease Control and Prevention [7] notes that such risky behaviors lead to complications. This may imply that many people infected with HIV are not taking proper care of themselves.

Promoting self-care management for PLWA includes addressing complex issues such as social stigma and medication adherence. Disclosure of one's disease status to others and coping with social rejection are experiences that add stressors to the burden of living with an incurable infectious disease [8]. Souza [9] observed that HIV/AIDS is now a condition people live with in their lifetime as a result of improvements in ART, and suggests that person's mental and emotional adjustments to the illness as defined by the type of social support available to him can be understood.

Social support has a major effect on the progression of illness. Sufficient social support and positive interpersonal relations positively affect one's physical and mental health related outcome [10]. Social relationships can be a form of social capital; people greatly benefit and succeed from the interaction and support they offer and receive from one another. The influential nature of social support is evident in that individuals with more social ties generally experience better physical and mental health [11]. Although social support has the potential to positively affect health and the path of disease progression, having few social ties can have equally negative effect. Poor quality of social support negatively affects overall health status and more specifically can impair immune functioning, a major health concern for PLWA [12]. Self-care is "the ability of individuals, families and communities to promote health, prevent disease, and maintain health and to cope with illness and disability with or without the support of a healthcare provider"[13]. It is therefore necessary to determine the self care practices (SCP) of PLWA attending the ARV clinic of General Hospital Kafanchan , Kaduna State.

Methods

Study design, area and period

An institutional based cross –sectional study was conducted in the ARV clinic of General Hospital Kafanchan , Kaduna State between August and September 2014. Kaduna state is one of the 36 states in Nigeria. Patients attending the ARV clinic were used as population for the study.

Sampling

The sample was drawn from a sampling frame of all diagnosed PLWA attending ARV clinic in General Hospital, Kafanchan, Kaduna State, Nigeria. Sample size of 384 was originally determined using power analysis with the formula: $n = \frac{Z^2 P (q)/d^2}{}$, where: n = Sample size; z = Confidence interval at 95%; p = Prevalence rate (taken at 50% = 0.5); q = 1 - p = 0.5; and d = Allowable error (taken as 5% = 0.05) [14]. Considering that some of the subjects may be lost due to incomplete data collection, 10% attrition rate was considered; hence the sample size was adjusted to 422. Systematic random sampling was used to select participants from a sample frame of clinic attendance.

Data collection

The instrument used for data collection was developed by the researchers based on extensive literature search on self-care practices of PLWA. The questionnaire was divided into 5 sections. Section A was on socio-demographic data, section B on dietary pattern, section C on self-care management on treatment regimen. Section D dealt on social support services sought for and utilized by PLWA while section E was on their physical exercises. A total of 23 items were generated for the study. A consultant physician in HIV Unit and two senior lecturers in Department of Nursing Sciences of University of Nigeria, Nsukka were requested to vet the instrument and critically assess the relevance of content and clarity of statements so as to establish the content validity. These specialists made various suggestions which were used to modify the questions before administration.

To establish reliability of the instrument, it was pilot-tested on 42 PLWA in ARV clinic of another hospital in Enugu, and the scores subjected to reliability test using Cronbach's alpha. The reliability coefficient of 0.81 showed that the instrument was very reliable. Self-care practices as used in this study refer to the dietary pattern, self-care management practice on treatment regimen, seeking and utilizing social support and physical exercise of PLWA.

Data quality control and collection

A one-day-training was conducted for four Registered Nurses working as permanent staff in the ARV clinic of the hospital who were used as research assistants. The training involved 40 minutes discussion on the objectives of the study, contents of the instrument and how to administer the instrument as well as assist the illiterate respondents to fill in their responses. Objectivity and confidentiality on information gathered were emphasized. Data collectors were requested to adhere strictly to contents of the instrument for data collection and entering. The administration of the copies of the questionnaire was done on clinic days. The copies of questionnaire were administered to each participant in the clinic as they waited for their test results and to receive treatment. In all the contacts in the clinic, self-introduction of researchers and research assistants were done, purpose of the study explained and informed consent was obtained from those who were willing to participate. They were advised to read the contents as carefully as possible and respond to each item as applied to them. For those who could not read and/or write, the researchers and research assistants helped by interviewing the respondents guided strictly by the contents of the questionnaire and filling in the responses as objectively as possible. Data collection lasted for a period of one month.

Data analysis

Relevant descriptive statistics were used to summarize the findings. Descriptive statistics including frequency, percentages, mean and standard deviation were used to present the data. All analyses were performed using statistical package for social sciences (SPSS) version 20.0 computer software programme (SPSS inc., IL: Chicago, USA) at 95% confidence interval.

Ethical consideration

Ethical approval was obtained from the Research Ethical Committee of the Ministry of Health Kaduna State (Ref. No. MOH/ADM/744. vol.1). All participants were fully informed of the objective and design of the study and a written consent was obtained for each participant

before participating in the study. Respondents were assured that confidentiality and anonymity will be maintained in all information given.

Results

Socio-demographic characteristics (Table 1)

Four hundred and twelve (412) PLWA consented to the study, giving a response rate of 97.6%. There were 288 (69.9%) females and 124 (30.1%) males. Majority of respondents were within the age range of 42-68 years; mean age was 49 (± 13.02) years. Most respondents 326(79.1%) were married; 349(84.7%) were Christians while 63(15.3%) were Moslems. About 178 (43.2%) had completed secondary education, 104(25.2%) primary, 78(18.9%) tertiary education, 52(12.6) had no formal education (Table 1).

The study assessed the dietary pattern of PLWA. The one month recall of their appetite for food was good 299(72.6%) followed by fair 53(12.9%). Consumption of fruits and vegetables was described as very good 300(72.8) and good 112(27.2%). More than half 225(54.6%) ate three times a day with almost the same number 210(51.0) taking balanced diet once a day (Table 2).

For self-care management practice on treatment regimen by PLWA majority 363(88.3) claimed they kept their clinic appointments always while 49(11.3) kept it sometimes (Table 3). Major reasons for

Variables		f	%
Age range	18-32years	41	10.0
	33-47years	150	36.4
	48-62years	157	38.1
	63-77years	64	15.5
	Mean \pm Std. Dev.	48.88 \pm 13.02	
Sex	Female	288	69.9
	Male	124	30.1
Ethnic group	Hausa	332	80.6
	Igbo	68	16.5
	Yoruba	1	0.2
	Others	11	2.7
Marital status	Married	326	79.1
	Single	86	20.9
Religion	Islam	63	15.3
	Christian	349	84.7
Educational attainment	None	52	12.6
	Tertiary	78	18.9
	Secondary	178	43.2
	Primary	104	25.3
Occupation	Farming	156	37.9
	Business	165	40.1
	Civil servant	59	14.3
	Student	24	5.8
	Housewife	8	1.9

Table 1: Demographic characteristics of respondents (n = 412).

		n = 412	
Dietary pattern		f	%
Description of appetite for the past one month	Very Good	39	9.5
	Good	299	72.6
	Fair	53	12.8
	Poor	21	5.1
Description of consumption of fruits and vegetables	Very Good	300	72.8
	Good	112	27.2
	Fair	0	0.0
	Poor	0	0.0
Number of times of food intake each day	Once	8	2.0
	Twice	59	14.3
	Three Times	225	54.6
	≥ 4 Times	120	29.1
How often do you take balanced diet?	Once a Day	210	50.9
	2-3 Times/Day	102	24.8
	Once a Week	2	0.5
	2-3 Times/Week	98	23.8

Table 2: Dietary pattern of PLWHA.

not keeping to clinic appointments were personal 21(42.9%) and forgetfulness 15(30.6%). Similarly majority 361(87.6%) claimed that they have never missed taking their drugs while 51(12.4%) had missed taking their drugs and the main reason was forgetfulness 40(78.4%). About 340(82.5%) did not take any other treatment alongside ARV drug while 46(11.2%) took nutritional supplements and 9(2.2%) took herbal treatment with ARV drug. Reasons for taking other drugs in addition to ARV drugs were availability 41(56.9%) and accessibility 9(12.5%). About 87.9% did not take alcohol but those that took alcohol, 22(5.3%) took it once a week, 20(4.9%) several times a week while 6(1.5%) took daily.

Majority 398 (96.6%), said they sought support from family members of PLWA 398 (96.6%), followed by healthcare workers 391 (94.9%), friends 387 (93.9%), community 372 (90.3%), colleagues 338 (82.0%) while the least support utilized came from HIV support group 228 (55.3%) (Table 4).

Fourteen (3.4%) respondents did not engage in any form of exercise. More than half 264 (64.1%) engaged in walking and running, about one third 134 (33.7%) said they exercised 5 – 7 times a week, while 87 (21.9%) 1 – 2 times a week. The least duration for the exercise was 10 minutes for 43 (10.8%) respondents while the highest duration was 3 – 4 hours for 90 (22.6%) respondents. Those who did not engage in any form of exercise did so because they felt weak, were not instructed to do so by a health provider and felt it was not good for their condition (Table 5).

Discussion

Most of the respondents described their dietary pattern as good and with good appetite for food. This finding is in line with the findings of a similar study [15] where majority of the patients had an average of three meals per day. This result may imply that their condition does not weigh them down as to reject food. Again, having good appetite for food may indicate that they are aware of the need to keep healthy and cope with their illness.

Most PLWA in this study kept their clinic appointments and did not miss taking their drugs. Several studies have documented good adherence to treatment among PLWA [16-18]. However, the fact that

Treatment regimen		f	%
How often clinic appointments are kept (n =412)	Always	363	88.1
	Often	49	11.9
	Rarely	0	0
	Never	0	0
Reasons for missing clinic appointments (n= 49)	Distance	7	14.3
	Forgetfulness	15	30.6
	Lack of Time	6	12.2
	Personal	21	42.9
Number of times prescribed drugs are ever missed	None	361	87.6
	Once a week	40	9.7
	Several times a week	6	1.5
	Every day	2	0.5
	Several times in a month	3	0.7
Reasons for missing prescribed drugs (n=51)	Forgetfulness	40	78.4
	Ineffectiveness of treatment	4	7.8
	Lack of time	4	7.8
	Personal reasons	3	5.9
Other treatment taken alongside with prescribed drugs (n=412)	Herbal products	9	2.2
	Nutritional supplements	46	11.2
	Others (paracetamol, malaria drugs, flagyl, etc)	17	4.1
	None	340	82.5
Reasons for taking other treatment (n=72)	Cheaper	1	1.4
	Accessible	10	13.9
	Availability	41	56.9
	Others (fever, body pains, headache, diarrhoea, etc)	20	27.8
How often alcohol is taken (412)	Never	362	87.7
	Once a month	22	5.3
	Once a week	20	4.9
	Several times a week	6	1.5
	Every day	2	0.5

Table 3: Self-care management practice on treatment regimen by PLWA.

Support services	f	%
HIV support group	228	55.3
Family members	398	96.6
Friends	387	93.9
Colleagues	338	82.0
People in the community	372	90.3
Health care workers	391	94.9

Table 4: Social support services sought for and utilized by PLWA n = 412.

as many as 11.9% and 12.4% failed to keep their appointments and to take their drugs as prescribed respectively is worrisome because this is a major issue in the management of chronic diseases. Similar reasons for such failures have been reported by other researchers [16-18]. Knowledge of the reasons for poor self-care management practice for treatment regimen is important in the development of interventions for good patient outcomes.

It appears that PLWA received tremendous social support from their family members, health workers, friends, community and colleagues as the result on social support sought for and utilized showed. This may be attributed to the awareness being created and campaigns mounted to eliminate stigma and discrimination of PLWA. This finding is supported by Wang and Li [19] where participants reported relatively

high levels of social support, but in contrast to the study of Mbonu, Van Den Borne and De Vries [20] where only few participants experienced positive support from their immediate family after disclosure of their positive HIV status. Social support has been found to be significantly associated with better quality of life and fewer depression symptoms [21]. This shows the important role that family life and social support network can play in encouraging better health outcomes among PLWA. Social support has a major effect on the progression of illness. Exclusion from social ties with family and significant others can cause great distress among individuals and may lead to poor self-care and depressive symptoms [22].

Majority of PLWA were involved in one form of physical exercise or the other with running and walking being the dominant exercise followed by farming. This is because farming is the dominant occupation in the area of study and most of the people walk a long distance to their farms. This finding is in contrast with the study by Frantz and Murenzi [23] where majority of the participants were found to be inactive. Respondents that did not embark on any exercise gave reasons of being weak; felt it was not good for their condition and that they were not aware of the importance of exercise. Similar reports on barriers to physical activity by PLWA have been cited which include lack of motivation, lack of time, and fear of worsening the disease [23].

Certain limitations of this study should be taken into account

Physical exercises		f	%
Type of exercise being performed	Walking and Running	264	64.1
	Farming	76	18.4
	Others (swimming, bicycling, football, volley ball)	40	9.7
	Domestic works	18	4.4
	None	14	3.4
Frequency of exercising (n = 398)	1-2 times/week	87	21.9
	3-4 times/week	126	31.7
	5-7 times/week	134	33.7
	> 7times/ week	51	12.8
How long exercise is done in a week (estimate)	10 minutes	43	10.8
	20-30minutes	125	31.4
	1-2hours	140	35.2
	3-4hours	90	22.6
Reasons for not engaging in exercise	Always feel weak	8	57.1
	Not good for my condition	2	14.3
	Not aware of the importance	2	14.3
	Others (No time, not interested, etc)	2	14.3

Table 5: Physical exercises undertaken by PLWA (n = 412)

when interpreting the findings. Only PLWA attending ARV clinic at General Hospital Kafanchan comprised the target population, therefore the result cannot be generalized and may not represent other health institutions. The study was cross-sectional in design; hence, causality cannot be established. The use of self-reported data is prone to a number of biases that could affect the reliability and validity of the findings. There could also be recall biases and self-presentation. The use of a standardized tool on HIV self-management for people living with HIV/AIDS may have provided more robust information on self-care practices of PLWA.

Conclusion

The self-care practices of PLWA in this study could be said to be good based on the findings. Respondents felt more at home seeking support from their family members and health workers. There is need for continuous counseling and closer monitoring of PLWA by health workers to help them sustain their self-care management practices. It is also suggested that physical exercise be included in health education of PLWA by healthcare providers.

Competing Interests

The authors declare that they have no competing interests

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