

Towards Improving the Health Outcome of Hiv aids Patients Receiving Antiretroviral Drugs in Low-Income Communities: Will Incorporating Food Supplementation Make a Difference?

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Abstract

The benefits of ART in assisting patients recover from debilitating health conditions and assuming their social responsibilities have been reported in Haiti, South Africa and Tanzania. However, lack of food may be a factor influencing the recovery of those on ART from debilitating health conditions. This paper discusses the possible impact of incorporating food supplementation in the care of individuals on ART in low income communities and health outcome in Nigeria. A sample of 1,621 respondents was collected using multi-stage and purposive sampling methods. Structured and in-depth interviews were used for data collection. SPSS (version 21) was used for quantitative data analysis while the qualitative data was analysed thematically. There are 46.3% men and 53.7% women. Generally, their income is low, 70.7% are earning less than N25, 000 (approximately \$125 USD) per month. It is evident that some low income HIV/AIDS patients receiving treatment in Nigeria, and perhaps in other low income communities lack food. Those who are unable to adequately feed themselves would experience longer period of recuperation from debilitating health conditions; thereby hiking the possibility of stigmatisation and tendency to avoid nearby treatment centres where they (HIV patients) would be sighted collecting drugs, which may sometimes lead to the inability to replenish exhausted stock of drugs, and treatment failure among low income earners. Food supplementation may assist in improving the health outcomes of HIV/AIDS patients if it is incorporated in the overall treatment package. It would also enhance sustainable fight against HIV/AIDS pandemic, given that effective preventive measures are in place against its continuous spread and those already infected are adequately cared for. Incorporating food supplementation in the overall treatment package of HIV/AIDS patients in low income communities who not able to adequately feed themselves would make a difference in their health outcomes. **Keywords:** HIV/AIDS; Antiretroviral; Health outcome; Low income; Food supplementation.

Keywords: HIV; Data Collection; Physical Exercise; Disease

Introduction

Human Immune Deficiency Syndrome (HIV) is a deadly disease that has killed over 39 million people globally, while over 35 million people are living with the disease since the first case was identified in 1981 [1]. Despite the programmes intervention to halt the spread of HIV, 3.6 million individuals are living with the disease in Nigeria [2]. Out of the figure living with HIV in Nigeria, 2, 224, 857 individuals were placed on Anti-retroviral Drug by the year 2013 [3]. The benefits of ART in assisting patients recover from debilitating health conditions and assuming their social responsibilities have been reported in Haiti South Africa and Tanzania [4-6]. However, lack of food may be a factor influencing the recovery of those on ART from debilitating health conditions. This paper discusses the possible impact of incorporating food supplementation in the care of individuals on ART in low income communities and health outcome in Nigeria.

Under normal healthy conditions, the nutritional requirements of individuals may vary based on their physical activities, age, sex, body size and composition, climate and physiological state; while absence of food, unhealthy diet and lack of physical activity are leading global risk to health [7]. The view that lack of food could be impediment to individuals' wellbeing was also expressed by authors who attributed hawking sex among women in Lagos, Ondo, Osun and Ekiti States in Nigeria to lack of food, unemployment and money [8,9]. Unhealthy sexual behaviours such as unprotected sex and outcomes of sexually transmitted diseases, unwanted pregnancies and abortion were observed among these women who traded sex for means of survival, food inclusive [8]. Other studies have also expressed similar opinion on the impact of poverty that could manifest in lack of basic needs including food on risky sexual behaviours and wellbeing [10-12]. Another author, Hunter [13] examined the influence of subsistence and conspicuous consumption on seeking sexual relationships that would yield benefits in form of gifts. The women in rural and urban areas of Kwa-Zulu Natal, South Africa who had multiple sexual partners collected gifts from them in order to pay bills including accommodation, clothing, food and maintenance of cell phones. Despite the glaring evidence suggesting that poverty may manifest in lack of basic needs including food to influence health behaviours, less attention has been given to the impact of lack of food on recuperation of HIV patients on ART in low income areas including Nigeria.

Methods

Evidence supporting our proportion in this paper has been derived from a sample of 1,621 (864 women; 757 men) respondents which was collected from 2 clinics (Mkar; Aliade) and other 2 locations (Jyovkundan; Udei) using multi-stage and purposive sampling methods. A probability sampling without replacement (raffle draws) was used in selecting Gwer West (urban area) and Guma (rural area) from the homogeneous settlements of Ichongu block; while Gboko (urban area) and Konshisha (rural area) were selected from the Ipusu using the same method. General Hospital, Aliade was then selected from Gwer West, while NKST Hospital, Mkar was selected from Gboko to obtain samples of those living with HIV. The table of random numbers was used in selecting Udei from Guma out of several other rural settlements such as Kaseyor, Yerwata, Ukohor, Umenga, Agasha, Daudu, Uluva, Yogbo etc. Similarly, Jovkyundan was selected from Konshisha out of other rural settlements such as Tse-Agberagba, Gungul, Korinya, Agbeede, Awajir, Tsuwe, Mbaakpur, Achoho, Iber, Akputu etc.

An eight page questionnaire with closed and open ended questions was used for quantitative data collection amongst 805 HIV seropositive clinic attendees and 796 HIV seronegative individuals on background characteristics, motivations for sexual relationships, sero-discordant relationships, risky sexual behaviours, and treatment received at clinic centers. The target groups were individuals including men and women aged between 18 and 65 years old, who were presumed to be sexually active, in relationship (partners), had tested for HIV prior to the study, and were either HIV positive or negative. The sample excluded those below the age of 18 years; those with AIDS and opportunistic infections, pregnant women and those who were mentally ill.

At the completion of data collection, the responses were coded and entered into Statistical Product and Service Solution (SPSS) version 21 software, which has provision for the Generalised Linear Regression with Cumulative Link, was used for the analysis of quantitative data. However, in this article, percentage distribution of relevant variables has been used to indicate the magnitude of the issues in questions while further insight has been drawn from the qualitative data.

Qualitative Methods

In this segment of data collection, purposive sampling was used in selecting 20 respondents who participated in in-depth interviews. Five individuals were selected in each

location. The interviews were conducted in Tiv language using a guide with questions on structural factors, background characteristics, knowledge and attitude towards HIV, risky sexual behaviours poverty, stigma and discrimination. An audio recorder was used for recording the discussions during the in-depth interviews for the purpose of transcription after the data collection sessions. The data were transcribed and analysed by the researcher following the principles of concurrent transformative strategy (either nested or concurrent triangulation). It ensures that better insight would be obtained from the qualitative data to provide deeper understanding of some findings from the quantitative. The findings from qualitative data provided further insight into the intricacies of living with HIV under low income and the desire for incorporating food supplementation as component of care available for those living HIV at the treatment centres.

Results

Most of the respondents in this study, 1,488 (92.9%) are between the reproductive ages of 18 and 49 years, while 133 (7.1%) are above the age of 50 years. The young people are more sexually active and more exposed to the risk of HIV/AIDS; thus, they constitute a higher percentage of respondents in the present study. Amongst the respondents, 7.6% have not obtained formal education, while 11.7% have completed only primary education. The percentage of completion of secondary education seems to be high (47.5%) because all respondents who have completed some form of secondary education (the junior secondary school) are in

this category. The respondents who have completed some form of higher education (Diploma, Higher Diploma, First degree, Postgraduate) are 530 (33.1%).

Eight hundred and twenty (51.2%) of the individuals, slightly more than half of the total respondents are in marital relationships, while the rest, 781 (48.8%) are single, just with variations in social circumstances of death of a partner (widowed), divorced, separated and not officially married according to the tradition

Majority of the respondents, 1,186 (74.1 %) earn less than twenty five thousand naira (AUD 168.91) a month, while few others, 30(1.9%) earn more than one hundred thousand naira (AUD 675.67) a month. As shown in Table1, most of the respondents are engaged in low income earning ventures such as subsistence farming and petty businesses. All the respondents in the study who are living with HIV were placed on the ART at the time of the interviews. Some have taken ART for over one but less than 3 years (291; 36.1%), some for over three but less than 5 years (206; 25.6%), while 149 (18.5%) have been taking ART for over 5 years at the time of the interview.

Some of the respondents have shown a dislike for HIV. Seven hundred and thirty seven (92.6%) respondents who were HIV negative said they "will feel bad if infected with HIV" (see Table 4.51), though they have people are close to them living with HIV. The individuals known to the respondents as living with HIV/AIDS are mostly friends (563; 35.2%), husband or wife (189; 11.8%), sister (219; 13.7%) and brother (176; 11.0%). Others are parents (38; 2.4%) and children (27; 1.7%; see Table 1).

Variables	Frequency	Percent
Income		
Less than 25,000	1186	74.1
25,000-49,000	287	17.9
50,000-90,000	98	6.1
100,000+	30	1.9
Total	1601	100
Need Money		
Strongly disagree	291	18.2
Disagree	671	41.9
Agree	512	32
Strongly agree	127	7.9
Total	1601	100
Period of time Respondents with HIV have collected HIV Drug		
Less than one year	159	19.8
One to less than 3years	291	36.1
Three to less than 5years	206	25.6
5years +	149	18.5

Total	1601	100
Age	Frequency	Percentage
18-19yrs	163	10.2
20-24yrs	293	18.3
25-29yrs	342	21.4
30-34yrs	336	21
35-39yrs	120	7.5
40-44yrs	136	8.5
45-49yrs	98	6.1
50-54yrs	67	4.2
55-59yrs	35	2.2
60+	11 0.7	
Total	1601	100
Relationship Status		
Married	820	51.2
Single	527	32.9
Widowed	123	7.7
Divorced	59	3.7
Separated	65	4.1
Cohabiting	7	0.4
Total	1601	100
Education		
No formal schooling	122	7.6
Primary	188	11.7
Secondary	761	47.5
Tertiary	530	33.1
Total	1601	100
whether they will feel bad if infected with HIV Response		
Strongly disagree	30	3.8
Disagree	29	3.6
Agree	307	38.6
Strongly agree	430	54
Total	796	100
Knowledge of someone living with HIV Knowledge		
Yes	1504	93.9
No	97	6.1
Total	1601	100
Relationship of Respondents with someone living with HIV/AIDS		
Husband/Wife	189	11.8
Brother	176	11
Sister	219	13.7
Friend	563	35.2
Parents	38	2.4
Children	27	1.7
Others	292	18.2
Don't know	97	6.1
Total	1601	100

Table 1: Table 1 Socio-economic Characteristics of Respondents and HIV/AIDS Variables.
Derived from Timiun, 2017 [14].

A glimpse at the qualitative data reveals the desire of the people in the communities with regard to treatment of those living with HIV/AIDS. A respondent stated that HIV patient receiving drugs would be better if they are also given food. She said “the government and other individuals should assist in providing food for those infected, the suffering is so much to be borne by the individuals alone” (Male, 35yrs; Married; Secondary; Farmer).

Another respondent expressed a similar view by opining that “food is important, those who are HIV positive should be assisted to get good food” (Female, 38 years; JSS 3 junior secondary school, Widow; Business – Tailoring). Furthermore, the issue of food supplementation for HIV/AIDS patients was stressed by another female respondent corroborating the importance of this type of intervention in the treatment of HIV patients. According to her, “they should give those infected food. They should also give them money to do business (Female, 40yrs; Civil servant; married; Primary). To another, “those people with HIV need food, so they should provide them with money and good food. This will help them to be strong and live longer” (Female; Farmer; 60 years; Primary; Widow) Further still, other respondents added their voice by emphasising that “they should help them because it not good to allow them die like that. For me, if I have money, I will buy good food for them” (Female, Farmer; 22years, Primary; Married). Another respondent who also empathised with HIV patients said “If I have money, I will give those infected with HIV, so that they can buy what they need. I will also give them food”(Female, Farmer; 23years; Secondary; single) Wrapping up the evidence supporting the need for introduction of food supplementation in the treatment of HIV/AIDS patients is the submission of one of the patients who stated that “apart from the drugs that the government is giving us, they can also provide food. If you eat good food, you will be healthier, so let them help us with good food” (Male, 45yrs; Driver, Secondary; married).

Discussion

Some of the leading health risk factors are good food and physical exercise among [7]. However, it is only when an individual has energy to move his or her body that physical exercise can be possible, alluding to the importance of food and healthy diet to the wellbeing of almost all people including those who are ill. On the other hand, the capability of a well administered Anti-retroviral treatment in assisting those suffering from HIV/AIDS

recuperate is not in doubts [4-6]. The fight against HIV/AIDS pandemic can only be complete when those already infected are properly cared for, and there are also very effective measures in place to prevent the continuous spread of HIV/AIDS. In Nigeria specifically and Sub-Saharan Africa in general, the victory over the spread of HIV/AIDS has been very slow due to poverty and its manifestations [10,15,16]. Given these conditions of lack of food among HIV/AIDS patients receiving treatment in low income communities, recuperation period would be longer; thereby hiking the possibility of stigmatisation and tendency to avoid treatment centres where they (HIV patients) would be sighted collecting drugs; they travel longer distances to other drug centres outside their immediate communities, incurring additional burden of high transportation cost leading to inability to replenish exhausted stock of drugs and treatment failure among low income earners [17]. To improve the health outcome of low income HIV patients who are receiving treatment but unable to adequately feed themselves, I suggest that food supplementation should be incorporated into the treatment package. It will positively impact on the psychological and physical wellbeing of the patients as expressed by some of them in the study.

Conclusion

The ability of Anti-retroviral therapy to assist HIV/AIDS patients recover from debilitating health conditions cannot be contested. However, lack of adequate food constitutes health risk among those receiving treatment. It is evident that low income HIV/AIDS patients receiving treatment in Nigeria, and perhaps in other low income communities lack food. Those who are unable to adequately feed themselves would experience longer period of recuperation from debilitating health conditions; thereby hiking the possibility of stigmatisation and tendency to avoid treatment centres where they (HIV patients) would be sighted collecting drugs, which may lead to inability to replenish exhausted stock of drugs and treatment failure among low income earners. Food supplementation may assist in improving the health outcomes of HIV/AIDS patients if it is incorporated in the overall treatment package. It would also enhance sustainable fight against HIV/AIDS pandemic, given that effective prevention measures are in place against its continuous spread and those who are already infected are adequately cared for. Incorporating food supplementation in the overall treatment package of HIV/AIDS patients in low income communities who are not able to adequately feed

themselves would make a difference in their health outcomes.

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