An assessment of quality of care service provided to people living with HIV/AIDS by a secondary healthcare centre at Osogbo, Nigeria

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Abstract

Objective: The objective of this study was to assess the quality of service provided to people living with human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) at a secondary healthcare centre at Osogbo, Nigeria.

Design: Descriptive cross-sectional study design.

Setting and subjects: People living with HIV/AIDS (PLWHA) at the State Hospital, Osogbo, Nigeria.

Outcome measures: Quality of the services rendered to PLWHA.

Results: A total of 304 PLWHA were interviewed. Their ages ranged from 16-60 years, with a mean age of 35.5 ± 8.8 years. There were 212 (69.7%) female and 92 (30.3%) male respondents, 248 (81.6%) were married and 108 (35.5%) had a tertiary education. Approximately half (148, 48.7%) rated the quality of the services rendered to them at the hospital as excellent, 132 (43.4%) rated it as good, and 24 (7.9%) as fair. None rated the services rendered as poor or very poor.

Conclusion: The results of this study showed a good relationship between PLWHA and healthcare workers in general. Education, training and re-training of the health workers should be an ongoing exercise.

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Introduction

Human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) has spread worldwide, but the most devastating effects are found in sub-Saharan Africa.^{1,2} Since 1986, when the first AIDS patient was diagnosed in Nigeria, the prevalence with regard to sero-sentinel surveys pertaining to pregnant women in antenatal clinics increased from 1.8% in 1991, to 4.4% in 2005, and then decreased to 4.1% by 2010.^{2,3} The Nigerian HIV/AIDS disease burden is the third largest worldwide, after India and South Africa, with an estimated cumulative death of 1.5-million people, 2.86-million infected persons, and more than 2-million orphaned children.^{1,2} Access to combination antiretroviral (ARV) therapy in resource-poor countries is perhaps the most contentious issue that surrounds the response to the African epidemic today.^{4,5} ARV drugs dramatically improve the health and prolong the lives of people living with HIV/AIDS (PLWHA).6,7 However, the high cost and demanding clinical requirements place them out of reach of the vast majority of PLWHA, especially in resources-poor countries.3,7,8 In a country like Nigeria, where free treatment is offered to these patients, access is increasing and the number of patients on the ARV programme is growing daily.^{2,3,9}

In low- and medium-income countries, such as Nigeria, services provided at public health facilities are generally perceived by members of the public to be very poor. Phrases such as "mere consulting clinics" are used to describe the state of such facilities. 10,11 Patients face various problems in public hospitals in Nigeria, including overcrowding, consultation delays, receiving a poor reception, poor staff attitude and lack of proper staff guidance, as well as adequate staff and facilities. 12,13 PLWHA face further hindrances to good quality of care, for example, poverty, stigma and discrimination, lack of facilities catering to these patients and poor accessibility to existing facilities, e.g. transport and logistics problems.14,15

One of the most important hindrances to good quality of health care in Nigeria is stigma and discrimination. 16,17



A strong association of HIV with stigma, isolation and discrimination has been observed. 18,19 HIV is considered to be a "dirty disease". Infected individuals are perceived as a disgrace to their families. 20-23 It has been noted that the impact of discrimination on HIV-positive people is devastating.24,25 Discrimination could be understood as unfairly disadvantaging a person on the basis of some capacity or quality attributed to that person. 15,26,27 PLWHA often perceive stigmatisation all around them, even from close family members, as well as colleagues in places of work, schools and at religious gatherings.^{28,29} When stigmatisation is perceived by patients to emanate from healthcare workers, it can hinder treatment and discourage patients from accessing treatment that is on offer to them. ^{24,30,31} Therefore, it is important to assess the perception of this group of patients about their care, as well as their caregivers. Identifying and avoiding potentially problematic behaviour may be especially important for service providers, such as healthcare personnel, who regularly interact with HIV-positive clientele.32,33

Few studies in developing, comparative to those in developed, countries, have focused on the opinions of healthcare recipients in terms of their perceptions of the quality of healthcare delivery.34,35 However, in order to improve a healthcare system, it is paramount that a feedback system is established for periodic patient assessment with regard to quality of services received so as to provide feedback to management and staff.35,36

The objectives of the study were to determine patients' perspectives of the services rendered to them and experience of any stigma, and to obtain suggestions for the improvement of the health system in order for patients to be offered better care.

Method

The Nigerian State Hospital, Osogbo, offers a secondary level of care and accepts patients from the whole of Osun State, Nigeria, and other surrounding states. It has a catchment population of close to five million. It is a free treatment general hospital with an antiretroviral (ART) clinic that provides free comprehensive HIV/AIDS care to patients. Currently, the ART clinic shares the same building with the hospital blood bank and is open to patients from 8h00 to 17h00 Monday to Friday. HIV counseling and testing are available on a daily basis, while ART therapy is provided on Mondays and Wednesdays. Patients who are very ill are admitted to the medical wards on a 24 hour-basis, while home-based care is provided to patients. Patients also access care at the antenatal clinic which promotes the prevention of mother-to-child HIV transmission. There are also medical and surgical services.

A descriptive cross-sectional study design was used. Inclusion criteria were consecutive patients who had accessed ARV treatment at the clinic for at least 12 months, but non-consenting patients and very ill patients were excluded. The required sample size of 272 was calculated using an appropriate statistics formula to estimate the minimum sample size in descriptive health studies (n = Z²pq/d²),³⁷ with 77% of PLWHA satisfied with the services rendered at an ART clinic situated at University College Hospital, Ibadan, Nigeria.3 The minimum sample size was increased by 10% to make provision for incomplete or non-responses and refusals. Pretested semi-structured questionnaires were administered to consenting PLWHA attending the State Hospital, Osun State, Nigeria, from November 2010 to January 2011. Obtained information from these patients included biographical data, their assessment of the services rendered in terms of quality of services, any indications of stigmatisation from any of the service points, the impact of the services on them and service areas in the hospital requiring improvement. The data were collated and analysed using SPSS® version 16. Descriptive and chisquare statistics was used for the analysis. P-value values < 0.05 were considered to be significant.

Permission to conduct the study was granted by the Osun State Hospital Ethics and Research Committee.

Results

A total of 304 PLWHA were involved in this study. There were 212 (69.7%) females and 92 (30.3%) males. Their ages ranged from 16-60 years, with a mean age of 35.5 ± 8.8 years. The age group 30-39 constituted the highest proportion of patients (120, 39.5%), followed by the age group \geq 40 years (100, 32.9%). Of the respondents, 248 (81.6%) were married, 44 (14.5%) were single, 8 (2.6%) were widowed and 4 (1.3%) divorced. Sixteen (5.3%) of them had no formal education, 88 (28.9%) had only primary education, 92 (30.3%) secondary education, and 108 (35.5%) tertiary education (Table I).

All of the patients had been on ARV treatment for at least one year. Two hundred and thirty-two (76.3%) had been receiving care at the ARV clinic for 12-24 months, and 72 (23.6%) for > 24 months at the time of interview.

All of the patients (304, 100%) had undergone HIV counselling and testing, and had been treated in the hospital for one or more medical problems. Of these, 280 (92.1%) had been on ARV treatment, 62 (20.4%) had benefited from home-based care, 36 (11.5%) had been admitted since recruitment into the ARV treatment programme, 56 (18.4%) had delivered babies in the hospital, and 8 (2.6%) had undergone at least one surgical procedure (Table II).



Table I: Socio-demographic characteristics of the study population

Socio-demographic characteristics	Frequency (n = 304)	Percentage	
Age group (years)			
16-18	8	2.6	
19-29	76	25	
30-39	120	39.5	
≥ 40	100	32.9	
Sex			
Male	92	30.3	
Female	212	69.7	
Marital status			
Single	44	14.5	
Married	248	81.6	
Divorced	4	1.3	
Widowed	8	2.6	
Highest level of education			
None	16	5.3	
Primary	88	28.9	
Secondary	92	30.3	
Tertiary	108	35.5	
Occupation			
Unemployed	8	2.6	
Trader	132	43.5	
Civil servant	64	21.1	
Artisan	80	26.3	
Student	12	3.9	
Police	4	1.3	
Clergy/Imam	4	1.3	

Most of the respondents (88.2-97.4%) did not notice any act that was suggestive of stigmatisation from the health workers. However, as indicated in Table III, the majority who reported stigmatisation experienced it from the cleaners (11.8%), pharmacists (7.9%) and laboratory staff (5.3%). Patients experienced the least stigmatisation from doctors (3.9%) and ward attendants (3.9%).

All of the patients rated the hospital positively when asked to rate the quality of the services rendered to them: 148 (48.7%) rated the services as excellent, 132 (43.4%) as good, and 24 (7.9%) as fair. None rated the services rendered in the hospital as poor or very poor. As many as 268 (88.2%) patients stated that the hospital services helped them to live positively with their disease, 24 (7.9%) did not think that the hospital had assisted them to live positively with their disease, while 12 (3.9%) were unsure. All of the respondents expressed a willingness to continue to access care provided by the hospital (Table IV).

When asked to state in which areas of the hospital patients would like to see improvements being made, the pharmacy

Table II: Services provided to persons living with human immunodeficiency virus/acquired immune deficiency syndrome since recruitment into comprehensive care

Services provided	Frequency (n = 304)	Percentage
HIV counselling and testing, and medical services	304	100
Antiretroviral therapy	280	92.1
Home-based care	62	20.4
Maternity services	56	18.4
Hospital admission	36	11.5
Surgery	8	2.6

HIV: human immunodeficiency virus

Table III: Assessment of the experience of stigma from healthcare workers by persons living with human immunodeficiency virus/ acquired immune deficiency syndrome

Health worker	No stigma (%)	Experienced stigma (%)
Doctors	292 (96.1)	12 (3.9)
Nurses	296 (97.4)	8 (2.6)
Pharmacists	280 (92.1)	24 (7.9)
Record staff	292 (96.1)	12 (3.9)
Ward attendants	292 (96.1)	12 (3.9)
Laboratory staff	288 (94.7)	16 (5.3)
Counsellors	296 (97.4)	8 (2.6)
Cleaners	268 (88.2)	36 (11.8)

Table IV: Opinion of respondents about the quality of service pertaining to human immunodeficiency virus/acquired immune deficiency syndrome care

	Frequency (n = 304)	Percentage		
Opinion				
General rating of the	General rating of the quality of the services			
Excellent	148	48.7		
Good	132	43.4		
Fair	24	7.9		
Area of service where improvement is desired				
Pharmacy	148	48.7		
Clinic	68	22.4		
Nursing	72	23.7		
Others	16	5.2		
Importance of the service in assisting patients to live positively				
Yes	268	88.2		
No	24	7.9		
Unsure	12	3.9		
Willingness to continue to access the service				
Yes	304	100		

Table V: The relationship between respondents' demographic characteristics and the importance of human immunodeficiency virus/acquired immune deficiency syndrome service care in assisting patients to live positively

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Variables*	Importance of service in assisting patients to live positively		X², df, p-value	
	Yes (%)	No (%)		
Age group				
< 35 years	112 (92.4)	24 (17.6)	7.042 1.0.005	
≥ 35 years	156 (92.9)	12 (7.1)	7.943, 1, 0.005	
Gender				
Male	92 (100)	0 (0)	17 701 1 0 001	
Female	176 (83)	36 (17)	17.721, 1, 0.001	
Marital status				
Married	216 (87.1)	32 (12.9)	4.50.4.0.000	
Not married	52 (92.9)	4 (7.1)	1.452, 1, 0.228	
Level of education				
None or primary	92 (88.5)	12 (11.5)	0.014, 1, 0.906	
Secondary or tertiary	176 (88)	24 (12)		
General rating of services				
Excellent	136 (91.9)	12 (8.1)	12.604, 2, 0.002	
Good	116 (87.9)	16 (12.1)		
Fair	16 (66.7)	8 (33.3)		

^{*:} chi-square statistic

Table VI: Respondents suggestions on how to improve the quality of services at the hospital

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Suggested ways to improve the quality of services	Frequency (n = 304)	Percentage	
Reduce waiting time before seeing the doctor	298	98	
Employ or deploy more staff to the clinic	276	91	
Employ PLWHA as clinic staff	269	88.5	
Merge the ARV clinic with other clinics in the hospital	264	86.8	
Teach staff communication skills	257	84.5	
Place a suggestion box in the clinic	253	83	
Increase time spent with the doctor	247	81	
Provide more than one month's supply of drug refill	204	67	

ARV: antiretroviral, PLWHA: persons living with human immunodeficiency virus/acquired immune deficiency syndrome

topped the list. One hundred and forty-eight respondents (48.7%) desired an improvement in the pharmacy services. This was followed by the clinic (68, 22.4%), care and support (48, 15.8%), and nursing services (24, 7.9%). Other identified areas were counselling, the wards, laboratory and records (4, 7.9%) (Table IV).

The relationship between some of the respondents' demographic characteristics and the importance of the service of HIV/AIDS care towards assisting in living positively is shown in Table V. A higher proportion of males than females (100% vs. 83%) were positively impacted by the hospital. Furthermore, respondents who generally rated the services as high were also positively impacted by the hospital (p-value < 0.05).

In response to the request to suggest ways in which to improve the quality of service at the hospital, the following was proffered: the need to reduce waiting time to see the doctor (98%), employ or deploy more staff to the ART clinic (91%), and employ more PLWHA as clinic staff (89%) (Table VI).

Discussion

The patients surveyed in this study had all accessed the HIV counselling and testing services, as well as other medical services at the hospital. Generally, the results indicated a good relationship between patients living with HIV/AIDS and health workers. The respondents' expression of willingness to continue to access care at the hospital further confirmed this relationship. However, respondents suggested that there should be an improvement in certain areas.

PLWHA may have a heightened sensitivity to the behaviour of others, which may signal bias or discrimination. 15,24,25 Negative perceptions may also serve as a hindrance to assessing care.³⁸⁻⁴⁰ This study evaluated the perception of patients with HIV/AIDS about the healthcare workers taking care of them. Two hundred and sixty-eight patients (88.2%) stated that the hospital services helped them to live positively with their disease. Those who had undergone surgery reported good treatment in theatre. These findings are similar to those reported in a previous study carried out in Ibadan³ in which 77% of patients were satisfied with their caregivers. This type of response differs from that which is commonly observed in healthcare centres, where it is common for PLWHA to be discriminated against. 15,41,42 For example, discrimination has been observed to manifest itself as denial of services through claims that "there are not enough beds", or "the doctor is not here", or outright refusal of admission.^{24,25,29} However, in the present study, none of the patients reported that they had been denied treatment or admission. This shows that the healthcare workers at this hospital under consideration were positively motivated to care for PLWHA.

In general, most patients (280, 92.1%) rated the services rendered to them as either excellent or good. This is a very good status quo. Most patients (88.2-97.4%) did not feel stigmatised by the health workers. This implies a good caring attitude and understanding of the client status by health workers in this hospital. Nonetheless, all health



workers, particularly those with a poor caring attitude and understanding of patients' status, should be given training and re-training on patient-centered care, communication skills and stigma reduction, to further improve the quality of service. Various studies have shown the importance of ongoing staff education in improving the quality of service that is provided to clients. 22,23,28,29

The study also revealed that a higher proportion of male, than female, respondents, were positively impacted by the hospital, and that respondents who generally rated the services as high were positively impacted by the hospital services. In a study carried out by Fekadu et al on client satisfaction at a specialised hospital with a university health service, a higher proportion of females than males reported greater satisfaction with the services.39 Reasons for these opposing findings need further investigation in order to subsequently further improve and increase patient's access to hospital services.

There is always potential to improve quality of service and it is important to aim high. For example, as suggested by most respondents, merging the ART clinic with other clinics, rather than having the current separate clinic for PLWHA in the hospital, could reduce stigma if properly implemented. Other recommendations for the improvement of hospital services included a need for a reduction in the time spent waiting to see doctors, employing or deploying highly motivated staff to the ART clinic, and hiring more PLWHA as clinic staff. These suggestions are similar to those that have been made in other studies carried out elsewhere. 3,24,29 PLWHA will probably be more comfortable and feel less stigmatised if they have HIV-positive staff caring for them. Other suggestions for improved service included placing a suggestion box in the centre and increasing the amount of time spent with doctors.

Conclusion

In conclusion, services that are currently rendered at a secondary health care centre to PLWHA are generally to patients' satisfaction. Only some areas of the hospital attracted a few complaints. Suggestions for service improvement included employing PLWHA as ART clinic staff, and offering all workers, particularly new recruits (before they attend to these patients), adequate training on patient-centered care, communication skills and stigma reduction. This should lead to improved service provision and assist patients in accessing the health facility without fear of poor or discriminatory services.

This cross-sectional study, conducted to identify areas that needed to be improved in HIV/AIDS services provided by the State Hospital, Osogbo, was limited. Although every effort was made to reassure participating patients of the purpose of the study, and the questionnaires were administered anonymously to consenting patients, some might still not have provided their honest opinion because of fear of reprisal, while others could have given socially acceptable answers, e.g. social desirability bias. Some respondents could also have recall bias.

Conflict of interest

There was no conflict of interest.

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References

- 1. Nigerian Federal Ministry of Health. HIV/STI Integrated Biological and Behavioural Surveillance Survey (IBBSS); 2007.
- 2. Nigerian Federal Ministry of Health. 2010 National HIV Seroprevalence Sentinel Survey among pregnant women attending antenatal clinics in Nigeria. Abuja: Department of Public Health; 2011.
- 3. Olowookere SA, Fatiregun AA, Ladipo MMA, Aken'ova YA. Reducing waiting time at a Nigerian HIV treatment clinic: opinion from and the satisfaction of people living with HIV/AIDS. J Int Assoc Physicians AIDS Care (Chic). 2012;11(3):188-191.
- 4. UNAIDS/WHO. AIDS epidemic update, December 2009 [homepage on the Internet]. c2011. Available from: : http://www.unaids.org/jc1700_epi_update_2009_en.pdf
- 5. Allison DG, Kelvin MD. Clinical review ABC of AIDS. HIV infection and AIDS in the developing world. BMJ. 2001;322(7300):1475-1478.
- 6. Dixons S. McDonalds S. Roberts J. The impact of HIV and AIDS on Africa's economic development. BMJ. 2002;324(7331):232-234.
- Johnbull OS, A hole of human immunodeficiency virus, HIV/AIDS and hunger in Nigerian communities. Saudi Med J. 2008;2(4):622-623.
- 8. Olowookere SA, Fatiregun AA, Favemi AF, Hospital based care for people living with HIV/AIDS in Ibadan, Southwestern Nigeria. Asian Pacific J Trop Med. 2009;2(2):68-71.
- 9. Idigbe EO, Odutolu O, Okonkwo P, et al. Evaluation of the Nigeria national antiretroviral treatment training programme. J Soc Aspects HIV/ AIDS.2006;3(3):488-502.
- 10. Imhonopi D, Urim UM. A sociological appraisal of economic self-reliance: the failure of state-owned enterprises in Nigeria. Int J Sociol Anthropol. 2010;2(10):236-243.
- 11. Das J. The quality of medical care in low-income countries: from providers to markets. PLoS Med. 2011;8(4):e1000432.
- 12. Iliyazu Z, Abubakar IS, Abubakar S, et al. Patient satisfaction with services obtained from Aminu Kano Teaching Hospital, Kano, Northern Nigeria. Niger J Clin Pract. 2010;13(4):371-378.
- 13. Olukoga A, Folayan M, Olukoga T, et al. Healthcare workers' perceptions of hospitals' institutional structure. Am J Trop Med Publ Health. 2011;1(3):79-88
- 14. Partners for Health Reformplus, DELIVER, and POLICY Project. Nigeria: Rapid assessment of HIV/AIDS care in the public and private sectors. Bethesda: The Partners for Health Reformplus Project, Abt Associates Inc; 2004.
- 15. Reis C, Heisler M, Amowitz LL, et al. Discriminatory attitudes and practices by health workers toward patients with HIV/AIDS in Nigeria. PLoS Med. 2005;2(8):e246.
- 16. Adebajo SB, Bamgbala AO, Oyediran MA. Attitudes of health care providers to persons living with HIV/AIDS in Lagos State, Nigeria. Afr J Reprod Health. 2003:7(1):103-112
- 17. Amosu AM, Degun AM, Makinde CM, et al. An assessment of specific knowledge and attitude of healthcare providers towards people living with HIV/AIDS in Ibadan, Nigeria. Ann Biol Res. 2011;2(2):255-264.
- 18. Kaiser Family Foundation. Kaiser public opinion spotlight: attitudes about stigma and discrimination related to HIV/AIDS, 2006 [homepage on the Internet]. c2010. Available from: http://www.kff.org/spotlight/hivstigma/upload/Spotlight_Aug06_ Stigma-pdf.pdf
- 19. Reingold AL, Krishnan A. The study of potentially stigmatizing conditions: an

- - epidemiologic perspective. Fogarty International centre. Stigma and global health: developing a research agenda [homepage on the Internet]. 2001. c2010. Available from: http://www.stigmaconference.nih.gov/Reingoldpaper.htm
- 20. Whetten K, Relf S, Whetten R, et al. Trauma, mental health, distrust, and stigma among HIV-positive persons: implications for effective care. Psychosom Med. 2008;70(5):531-538.
- 21. Herek GM, Capitanio JP, Widaman KF. HIV-related stigma and knowledge in the United States: prevalence and trends, 1991-1999. Am J Pub Health. 2002:92(3):371-377
- 22. Brown L, Trujillo L, McIntyre K. Interventions to reduce HIV/AIDS stigma: what have we learned? Population Council [homepage on the Internet]. 2001. c2010. Available from: http://www.popcouncil.org/pdfs/horizons/litrvwstigdisc.pdf
- 23. Holzemer WL, Uys LR. Managing AIDS stigma. J Soc Aspects HIV/AIDS. 2004;1(3):165-174
- 24. Vanable PA, Carey MP, Blaire DC, Littlewood RA. Impact of HIV related stigma on health behaviors and psychological adjustment among HIV-positive men and women. AIDS Behav. 2006;10(5):473-482.
- 25. Mbonu CN, van den Borne B, De Vries NK. Stigma of people with HIV/AIDS in sub-Saharan Africa: a literature review. J Trop Med. 2009;2009:145891.
- 26. Rao D, Kekwaletswe TC, Hosek S, et al. Stigma and social barriers to medication adherence with urban youth living with HIV. AIDS Care. 2007;19(1):28-33.
- 27. Ware NC, Wyatt MA, Tugenberg T, Social relationships, stigma and adherence to antiretroviral therapy for HIV/AIDS. AIDS Care. 2006;18(8):904-910.
- 28. Mahendra VS, Gilborn L, Bharat S, et al. Understanding and measuring AIDSrelated stigma in health care setting: a developing country perspective. J Soc Aspects HIV/AIDS, 2007;4(2):616-625.
- 29. QAP Tanzania HIV Stigma Study Team. Evaluation of knowledge, attitudes, and practices of health care providers toward HIV-positive patients in Tanzania. Bethesda: LLC; 2007.
- 30. Rintamaki LS, Scott AM, Kosenko KA, Jensen RE. Male patient perceptions of

- HIV stigma in health care contexts. AIDS Patient Care STDs. 2007;21(12):956-969.
- 31. Tarakshwar N, Krishnan AK, Johnson S, et al. Living with HIV infection: perceptions of patients with access to care at a non-governmental organization in Chennai, India. Cult Health Sex. 2006;8(5):407-421.
- 32. Bharat S. Perception of AIDS in Mumbai: a study of low income communities. Psychology and Developing Societies. 2000;12:43-65.
- 33. Uebel KE, Nash J, Avalos A. Caring for the caregivers: models of HIV/AIDS care and treatment provision for health care workers in Southern Africa. J Infect Dis. 2007:196 Suppl 3:S500-S504.
- 34. Sharma JK, Narang R. Quality of healthcare services in rural India: the user perspective. Vikalpa. 2011;36(1):51-60.
- 35. World Health Organization. Consultation meeting on the accreditation of health service facilities for HIV care. Standards for quality HIV care: a tool for quality assessment, improvement, and accreditation. Geneva: WHO; 2004.
- 36. Young GJ, Meterko M, Desai KR. Patient satisfaction with hospital care: effects of demographic and institutional characteristics. Med Care. 2000;38(3):325-334.
- 37. Kish L. Survey sampling. New York: John Wiley; 1965.
- 38. Bargat KV, Pal DK, Lodha RS, Bankwar V. Clients' satisfaction with antiretroviral therapy services with Hamidia Hospital Bhopal. Nat J Community Med (India). 2011;2(2):241-243.
- 39. Fekadu A, Andualem M, Yohannes HM. Assessment of clients' satisfaction with health service delivery at Jimma University Specialized Hospital. Ethiop J Health Sci. 2011;21(2):101-109
- 40. Tateke T, Woldie M, Ololo S. Determinants of patient satisfaction with outpatient health services at public and private hospitals in Addis Ababa, Ethiopia, Afr J Prim Health Care Fam Med. 2012;4(1):1-11.
- 41. Nyblade L, Stangl A, Weiss E, Ashburn K. Combating HIV stigma in health care settings: what works? J Internat AIDS Soc. 2009,12:15.
- 42. Holzemer WL, Uys LR. Managing AIDS stigma. J Social Aspects HIV/AIDS. 2004:1(3):165-174.