Influence of Socio-Demographic Factor on the Infection Rate of Opportunistic Infection with Persons Living With HIV/Aids

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DOI: https://dx.doi.org/10.51244/IJRSI.2025.1210000147

Received: 22 January 2025; Accepted: 16 October 2025; Published: 10 November 2025

ABSTRACT

HIV/AIDS is a Global Health challenge it had become the primary cause of death in certain countries person with Hiv/Aids infections, although the prevalence and incidence rate varies from country to country the study was therefore design to investigate the role of socio-demographic factor sex and age on the infection rate of opportunistic disease among persons living with Hiv/Aids in the study area. The study investigated Art centres with the study area. A structure questionnaire with a reliability coefficient of 0.70 was used for data collection. The findings of the study showed that socio-demographic factor sex and age have no significant relationship with the rate of infection of the disease among person living with HIV/Aids. But it continues re-orientation of the study group with enhance prevention especially with younger age group which are more prone to unhealthy healthy behavior. Hence it was recommended that health programme planners should consider orientation of the respondents against Opportunistic infections.

Keywords: influence; factors, infection, opportunistic, persons, HIV/AIDS

INTRODUCTION

AIDS is a term which has become universally recognised in a relatively shoot period of time. AIDS is an acronym for Acquired Immune Deficiency Syndrome. In some countries, AIDS has already become the primary cause of death in person between the age of 20 -40 years (WHO, 2014). According to Lee, (2008) Acquired Immune Deficiency Syndrome (AIDS) is considered to be a disease. It is a depression of the immune system of the individual which is caused by a special type of virus -a retro-virus which disposes one to suffer from serious relapses and the development of Lypho proliferative diseases. The Aids virus belongs to the group retro-viruses. Retroviruses have characteristics which make them different from other human viruses. Opportunistic infections (OIs) are infections which occur more frequently and severely among persons with deteriorated immune system most especially with persons living with HIV\AIDS (centre for disease control and prevention, 2018). World Health organisation (2019) asserted that HIV infected individuals a Vulnerable to Opportunistic Infections but prevalence and incidence of HIV (Chu and Selwyn, 2011).

HIV infects vital cells in the human immune system ,such as helper T cells specifically CD4 T Cells (Castillo et al , 2015), HIV infection result in low level of CD4+ T Cell and eventual killing of infected CD4+ T Cell by CD8+ Cyto-toxic lymphocytes that recognise infected cells . The cell mediated immunity is lost when CD4+T cell number depreciates below a critical level and this makes the body become progressively more susceptible to opportunistic infections which leads to the development of AIDS (Earg, Mohl and Joshi, 2012). Opportunistic infection do present with symptoms. According to Brian (2015), common opportunistic infections include (but are not limited to Oral (thrush) candidiasis infections of the gastrointestinal or genitourinary tract, including non albicans candida infections, Coccidioidomycosis, Cryptoccosis, Crytococcosis, Crytomegalovirus, Cryptosporidiosis, Herpes simplex related bronehitis ,pneomonitics, Histoplasmosis, Recurrent pneumonia, Tuberculosis and Mycobacterial aviwul complex

In Imo state, in Nigeria epidemiology call management of the infection, there is an urgent need to understand the public awareness of the infection. In this study we investigated the influence of socio demographic factor on

the infection rate of opportunistic infection with persons living with HIV\AIDS. Community awareness is very much needed in this regard to adopt precautionary Measures like personal hygiene and having healthy life style. The study therefore, investigated the relationship between demographic profiles, age, sex, and educational level and opportunistic infection rate.

METHODOLOGY

A survey was Conditioned in various Art centre within the study area. Sample comprised of 2,470. Random sampling was used to select individuals for interviews Age 18-25= 295, Age 26-33=480, Age 34 -41=510, Age 42-49=560, Age 50 -60=625, Total 2,470 for sex. Male =1040 and female =1430 Total =2470.Informed consent was taken from the participants. ART centers derived urban, and rural area were selected for sampling. A self-developed comprehensive and well organised questionnaire which covered the domains of Age and sex and opportunistic infection rate among the sampled groups.

The inclusion criteria were general public, adults of any gender in selected ART centres in the study area, 18 years and above will at least with primary grade level of education. Only those participants were enrolled and interviewed who has given written consent before participating in the study and fulfilled the inclusion criteria. The questionnaire included recourse of sex and age about opportunistic infection rate among individuals in this domains. Responses were recorded “yes’’ “No’’ and “Not sure’’ Analyses were performed using frequency and percentages.

RESULTS

Social demographic profile of the study group in relation to HIV/AIDS Opportunities infections.

Table 1: Social demographic profile of the study group in relation to HIV|AIDS Opportunities infections.

Social demographics	Total	No	%	Yes	%
18-25	295	144	48.8	157	51.2
26-33	480	227	47.3	253	52.7
34-41	510	247	48.4	263	51.6
42-49	560	290	51.8	270	48.2
50-60	625	334	53.4	291	46.6
Total	2470	1242	50.3	1228	49.7
Sex					
Male	1040	535	57.4	505	48.6
Female	1430	707	49.8	723	50.6
Total	2470	1242	50.3	1228	49.7
Education level					
Female	360	172	47.8	188	52.2
Primary	430	214	49.8	216	50.2
Secondary	970	487	50.2	483	49.8
Postsecondary	710	369	52.0	341	48.0
Total	2470	1242	50.3	1228	49.7

The Table shows the relationship between social demographic profile of the study group and the prevailing rate of opportunistic infection (OI). The rate (OI) was found to be slightly higher among the younger age groups (51.2%) For 18-36 years, 52.7% for (26-33 years) compared to the rate among the older group (48.2%) of 42 - 49 years, 46.6 % at (50 -60 years). However, age was not found as a significant associating factor for opportunistic infection in this Study (P=0. 0225), indicating that the fewer differences observed are very likely to have occurred by chance. Similar to age, the sex of the patients was not found to be significantly associated with opportunistic infection (P= 0.326), as well as the level of participants education (P= 0.623). Through not significant , the OI occurred more among females(50.6%) than male (48. 6 %) at more risk of about one fold For Female (OR=1.08) 95% CL= 0.92,1.28).

The odds were lower among the higher education participants compared to those without any formal form of

education , For example there were 15% (OR =0.85,) 95% secondary education Level and 9% (OR =0.91), 95% CL= 0.71, 1.16) Lower Odds among Secondary education Level Group Compared to the non-formal education group.

DISCUSSION

Age was not found as a significant association Factor of OI in this study, but the rate of OI in this study, but the rate of OI was found to be slightly higher among the younger age groups Compared to the rate among the older age group. This is Likely because the younger age groups are compared to the rate among the older age group. This is likely among the older age group. This is likely because the younger age groups are more likely to engage in risky sexual behaviours. Similary some other studies (lawn et al , 2005), Okonko, et al, (2018), which reported higher risk of OI For younger age, Compared to older age , This is contrary to findings in Girma et al,(2022) which reported that older age was a strong risk factor for developing Opportunistic infections such as tuberculosis, oral Condisis, chronic dermatitis ,chronic diarrhoea diseases, and herpes Zoster were more prevalent among other adults. Similar to age, the sex of the patients was not found to be significantly associating with opportunistic infection in the study .This study Findings is in congruent with findings with Okonko et al, (2020), For Which More Women were infected with OIS than men but sex showed significant association with major OIS in his Study such as IS, Candida and HBV, In Sutini et al., (2024), the prevalence of OIS was reported higher among Female as well as the divorced\separated. However, it has been argued that gender that gender those not play any significant role in the rate of opportunistic infection among persons living with HIV\AIDS (Odaibo et al., 2013).

CONCLUSION

Some socio -demographic factor such as age and sex are not significantly associated with the rate Opportunistic disease infection but the study found that the younger age groups are more infection prone than the older adult due to engagement in risky sexual behaviour. Similarly sex was also not found to be a strong factor to be significantly associated with opportunistic infection in the study group.

RECOMMENDATION

It was recommended that

1. HIV\AIDS prevention, care and treatment programmes should be provided to patient on time to check response to peculiar challenge associated with the disease.
2. It is urgent to develop a Measurement and evaluation framework for the treatment and management of OIS in PLWHA.
3. The word health body, the National health agency\Federal ministry of health should undertake feasible health education and promotion strategies that will increase awareness among persons living with HIV\AIDS.
4. Associating risk factor and other related diseases should be other related diseases should be adequately be made known to PLWHA

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