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Factors associated with severe stigma among patients living with HIV/AIDS in Port Harcourt

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ABSTRACT

Introduction: Human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS) have been known as a stigmatizing illness. HIV/AIDS-related stigma, in its severe form, compromises the well-being of persons living with HIV/AIDS (PLWHA).

Aim: To identify the factors associated with severe stigma among PLWHA in Port Harcourt.

Material and methods: This was a hospital-based cross sectional study involving PLWHA attending anti-retroviral clinic of the University of Port Harcourt Teaching Hospital (UPTH) in Port Harcourt. Data on sociodemographic characteristics and stigma were obtained from 302 participants selected by systematic random sampling. Bivariate and multivariate analyses were performed to explore factors associated with severe stigma among PLWHA.

Results: Eighty-seven of the 302 respondents (28.8%) had severe stigma. PLWHA who were males, non-Christians, who had no formal education, and had no source of income had the highest proportion of severe stigma. Multivariate analysis revealed that source of income was a predictor for severe stigma among PLWHA (odds ratio 3.59; CI95% 1.45–8.90; $P = 0.006$).

Discussion: The findings in this study expose the negative influence of lack of income on the psychological being of PLWHA as those who had no source of income were more likely to experience severe stigma than those with a source of income.

Conclusions: Severe stigma is prevalent among PLWHA in Port Harcourt. The need for stigma prevention strategies among PLWHA is advocated especially among those with no source of income. Financial empowerment and creation of employment opportunities by Nigerian government in collaboration with non-governmental organizations could mitigate stigma among PLWHA.

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1. INTRODUCTION

Human immunodeficiency virus (HIV) infection and acquired immune deficiency syndrome (AIDS) is an emerging disease that has remained a major public health crisis in Nigeria, a country with a high number of people living with HIV second only to South Africa.¹ HIV and AIDS stigma has been identified as a significant challenge to the success of achieving universal access to HIV prevention, treatment, care and support.^{2,3} Also, HIV and AIDS are relatively more stigmatizing than other illnesses as the society views it as a behaviorally acquired and contagious disease.⁴

Stigma has emerged as a 'hidden epidemic' ravaging the society and it is promoted by socially-shared ignorance, fear, misinformation, and denial.⁵ It refers to attitudes and beliefs that lead people to reject, avoid, or fear those they perceive as being different.⁶ Severe stigma as perceived by the victims affects their self-esteem, disrupts their family relationships and limits their ability to socialize and obtain housing and jobs.⁷ Hence, adversely affecting the mental health of the victim.⁸

In Nigeria, a hospital based study carried out among persons living with HIV or AIDS (PLWHA) noted that 57.7% and 80% of the clients did not disclose their status to people outside their immediate families and employers respectively due to perceived stigma.⁹ Also, another study in South Africa among PLWHA, noted that almost all participants (95.8%) had experienced stigma.¹⁰ Stigma seem to occur pervasively among PLWHA. High stigma consciousness have been linked to lower CD4 count in PLWHA.¹¹ Furthermore, stigma in its severest form has been linked to poor mental health of the victims.⁷ Although studies have been done on stigma among PLWHA, scarcely is there any study that has elucidated the predictors of the severe form of stigma among this population. Hence, the need to explore factors associated with severe stigma among PLWHA. Identifying determinants of severe stigma among PLWHA could serve as a basis for instituting evidence based stigma preventive strategies among PLWHA.

2. AIM

This study therefore aimed to identify factors associated with severe stigma among PLWHA in Port Harcourt, Nigeria.

3. MATERIAL AND METHODS

This study was carried out in Port Harcourt, the capital of Rivers State. Rivers State is one of the 36 states in Nigeria. It is located in the south-south region of Nigeria and has a population of 5,185,400.¹² A hospital-based cross sectional study design was adopted in this study. The study population comprised of PLWHA attending the ante-retroviral (ARV) clinic in the University of Port Harcourt Teaching Hospital (UPTH).

The research and ethics committees of the University of Port Harcourt granted ethical approval for this research work. Written informed consent was obtained from the clients prior to their inclusion into the study. Anonymity and confidentiality of information were upheld in this study. Sample size was calculated based on the formula for cross sectional studies,¹³ based on the state prevalence of HIV of 15.2%,¹⁴ precision of 0.05 and α level of 0.05. Systematic sampling method was used to select the 302 participants in the study.

Data on stigma were obtained from a three-item validated tool modified for HIV and AIDS.¹⁵⁻¹⁷ The tool comprised of uncomfortable component (do you feel other people are uncomfortable with you because of your disease?), avoidance component (do you feel other people are avoiding you because of your disease?) and inferior component (do you feel other people treat you like an inferior person because of your disease?). A 'yes' response was scored as 1 and a 'no' response scored as 0. The scores from each of the items are scored to obtain the total score, which ranges from 0 to 3. A score of 3 depicts severe stigma.¹⁵⁻¹⁷ Data on sociodemographic characteristics of age, sex, marital status, educational level, religion, source of income and category of income were obtained from the respondents.

The Statistical Package for Social Sciences (SPSS) version 20 was used in data analysis. Bivariate analysis was employed using χ^2 tests or Fisher's exact as appropriate. Variables with statistical significance of $P < 0.25$ were entered into multivariate analysis model in order to accommodate more variables in the model. Multivariate analysis was performed using unconditional binary logistic regression to determine predictors of severe stigma among PLWHA. P less than 0.05 was considered statistically significant. Odds ratio and 95% confidence intervals were calculated to determine the strength of association.

4. RESULTS

A total of 200 females (66.2%) and 102 males (33.8%) were involved in this study. The age range of respondents was 20 to 76 years. The mean ages of male and female respondents were 43.3 ± 9.6 years and 36.7 ± 9.1 years, respectively. The difference in the mean age was significant ($P < 0.001$) as shown in Table 1.

Eighty-seven of the 302 respondents had severe stigma giving a prevalence of 28.8%. The cross tabulation of severe stigma across sociodemographic characteristics showed that

Table 1. Mean ages of male and female respondents.

Gender	N	Age in years	
		Mean	SD
Male	102	43.26	9.627
Female	200	36.67	9.149

Comments: $t = 5.820$; $P < 0.001$.

Table 2. Bivariate analysis of severe stigma and sociodemographic factors.

Sociodemographic factors	Severe stigma			Total n (%)	
	Yes n (%)	No n (%)			
Age (years)					
20–29	15 (35.7)	27 (64.3)	42 (100.0)	$\chi^2 = 3.859$ $P = 0.425$	
30–39	37 (27.4)	98 (72.6)	135 (100.0)		
40–49	24 (28.9)	59 (71.1)	83 (100.0)		
50–59	10 (33.3)	20 (66.7)	30 (100.0)		
≥ 60	1 (8.3)	11 (91.7)	12 (100.0)		
Sex					
Male	35 (34.3)	67 (65.7)	102 (100.0)	$\chi^2 = 2.277$ $P = 0.131^*$	
Female	52 (26.0)	148 (74.0)	200 (100.0)		
Marital Status					
Currently single	31 (32.0)	66 (68.0)	97 (100.0)	$\chi^2 = 0.692$ $P = 0.406$	
Currently married	56 (27.3)	149 (72.7)	205 (100.0)		
Educational level					
None	1 (100.0)	0 (0.0)	1 (100.0)	Fisher's Exact = 8.200 $P = 0.029^*$	
Primary	14 (28.0)	36 (72.0)	50 (100.0)		
Secondary	35 (23.0)	117 (77.0)	152 (100.0)		
Tertiary	37 (37.4)	62 (62.6)	99 (100.0)		
Religion					
Christians	84 (28.1)	215 (71.9)	299 (100.0)	Fisher's Exact $P = 0.023^*$	
Non-Christians	3 (100.0)	0 (0.0)	3 (100.0)		
Income					
Without source of income	12 (57.1)	9 (42.9)	21 (100.0)	$\chi^2 = 8.835$ $P = 0.003^*$	
With source of income	75 (26.7)	206 (73.3)	281 (100.0)		

Comments: * Statistically significant $P < 0.25$.

Table 3. Multivariate analysis of severe stigma (dependent variable) and sociodemographic factors (independent variables) using binary logistic regression model.

Independent variables*	Coefficient <i>B</i>	Odds ratio (95% CI)	<i>P</i>
Gender			
Male	0.379	1.46 (0.86–2.47)	0.157
Female**			
Educational level			
(In ordinal scale)	–0.234	0.79 (0.55–1.14)	0.214
Income			
Without source of income	1.277	3.59 (1.45–8.90)	0.006***
With source of income**			
Constant	–0.002		0.998

Comments: Hosmer and Lemeshow tests: $P = 0.864$, * Religion was not included in the model as one of the cells contained a zero value, ** Reference category, *** Statistically significant $P < 0.05$.

the highest proportions of severe stigma occurred among those aged 20 to 29 years (35.7%), males (34.3%), currently single (32%), with no formal education (100%), non-Christians (100%) and those with no source of income (57.1%) as shown in Table 2. Bivariate analysis showed that sex, educational level, religion and source of income were significantly associated with severe stigma at statistical significance of $P < 0.25$.

Multivariate analysis using binary logistic regression showed that source of income was the only independent variable associated with severe stigma. PLWHA who had no source of income were approximately four times more likely to experience severe stigma than those with a source of income (OR 3.59; 95%CI 1.45–8.90; $P = 0.006$) as shown in Table 3.

5. DISCUSSION

Similar to present study, several studies^{18–21} across the globe have also explored sociodemographic factors associated with the experience of stigma among PLWHA. This is not surprising as these factors could serve as basis for instituting interventions aimed at limiting and preventing severe stigma among PLWHA. Curtailing stigma among PLWHA is vital for their optimal mental health.⁸

The finding that sex of PLWHA was not significantly associated with the occurrence of severe stigma in present study is consistent with studies by Abrahams and Jewkes in South Africa¹⁰ and Berkley-Patton et al. in USA.²² However, it contrasts with a study by Nattabi et al. in Uganda,²³ which found an association between sex and experience of stigma, noting that female PLWHA had significantly higher prevalence of stigma than male PLWHA. Also female gender was closely associated with HIV related stigma in a longitudinal study carried out in five cities in USA by Martinez et al.⁴ Moreover, these other studies focused on occurrence of stigma generally while this study focused on the occurrence of severe stigma. In spite of the differences reported, there is a dire need to institute measures to prevent the occurrence of stigma among persons living with HIV irrespective of their gender.

The age of PLWHA was not related to the experience of stigma unlike a study in Uganda, which reported that PLWHA who were above 30 years were significantly more likely to experience stigma than those aged 30 years and below.²³ The dissimilarities in the study population could account for the observed differences; while the study in Uganda comprised of PLWHA who were less than 49 years in age, the present study had a wider age range of respondents with the maximum age being 76 years. Also, cultural differences could be attributed to the disparity of findings. However, the findings of present study implies that individual counseling programs on reducing perceived stigma among PLWHA should be non-age specific that is, all age groups should be involved.

This study found that non-Christians had significantly higher prevalence of severe stigma than Christians. The

location of this study which comprised of a predominantly Christian population could contribute to this disparity. Noteworthy, most people living with HIV or AIDS express faith as important in coping with HIV.²⁴ However, there is need for health care providers to put into cognizance the religion of their clients when rendering services to PLWHA in order to offer targeted counseling on prevention of stigma. The present study found that PLWHA who had no source of income were approximately four times more likely to experience severe stigma than those with source of income. This subtly exposes the protective influence of the presence of source of income on the occurrence of severe stigma among PLWHA. Therefore, empowerment programs for PLWHA who have no source of income could reduce the impact of stigma amongst them.

Although the present study has added to the existing literature on the factors associated with severe stigma among PLWHA, the cross sectional design of the study is a limitation as the identified factors do not reveal causality. Also, the hospital based nature of the study may limit the generalizability of the findings. The authors therefore advocate for more studies using community based population and the employment of analytical study designs.

6. CONCLUSIONS

Severe stigma occurs among PLWHA attending the ARV clinic in UPTH, Port Harcourt. Age, sex, education and marital status were not significantly related to the occurrence of severe stigma while source of income was significantly associated with severe stigma in this study. Stigma prevention strategies should include financial empowerment and provision of employment opportunities for PLWHA with no source of income, through the collaborative efforts of government and non-governmental organizations.

Conflict of interest

None declared.

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