

HIV-related Perceived Stigma and Associated Factors among Patients with HIV, Dilla, Ethiopia: Cross-Sectional Study

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Research

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Abstract

Background

Understanding HIV-related perceived stigma has importance in improving quality of patients and provides a better tackling of HIV stigma.

Objective

The aim of the study was to assess the prevalence and associated factors of perceived stigma among Patients with HIV attending clinic at Dilla University Referral Hospital.

Method

In this Institution based cross-sectional study, a 10-item perceived HIV stigma scale was used to assess HIV-related perceived stigma. Oslo social support scale was used to assess social support related factors. Bivariate and multivariate binary logistic analysis were done to identify associated factors to HIV-related perceived stigma

Results

The prevalence of HIV-related perceived stigma by using perceived HIV stigma scale among Patients with living HIV was 42.7%. Patients who are age groups 25-30 years (AOR=2.8, 95% CI: 5.72-11.5), age groups 31-39 years (AOR=1.11, 95% CI: 1.26,4.65), Females (AOR= 2.4, 95% CI: 1.28- 4.33), divorced marital status (AOR= 8.9, 95% CI: 3.52-10.61), widowed marital status (AOR= 3.0, 95% CI: 2.74-7.60), Primary educational status (AOR=7.5, 95% CI: 3.45-9.74) and Study participants those who use alcohol (AOR=1.0 95% CI: 1.57-2.11) were more likely to have HIV-related perceived stigma.

Conclusion

This calls a holistic approach for the prevention and intervention of HIV-related perceived stigma. Emphasis should also be given for HIV-related perceived stigma.

Introduction

HIV-related perceived stigma remains pervasive and affects people with HIV the right to fully participate in their communities, affecting all aspects of people's lives, including access to treatment and care, and access to work Negative impact of HIV-related stigma (1) poor HIV outcome(2). People living with HIV may feel shame and fear of discrimination (3).

Perceived stigma may lead to a series of consequences such as non-disclosure of HIV infection seclusion, depressive symptoms, and suicidal ideation and attempt(4,5). Due to this effect, PLWH have to cope both with the manifestations of the disease, complex treatment regimen and societal stigma at the same time

(6, 7). HIV/AIDS related stigma and discrimination can be directed at infected people as well as their Friends, families, care takers and others(8, 9)

Perceived stigma greatly affect the quality of life PLWH, their family members and the health care providers who works with them(10) and cause serious care limitation(11). stigma can also cause serious social and psychological damage and significantly increases loneliness, depression, anxiety, non-disclosure of HIV status and overall poor health outcomes (12, 13).

Sub Saharan Africa contributed 76%(29 million) of the total HIV infected people(14). In Ethiopia the adult prevalence rate is estimated at 2.4% and the incidence rate is 0.29% (15,16,17)

A recent systematic review found that over the last decade, evidence –based effective programming to reduce stigmatizing and discrimination attitude has expanded substantially (18).However almost no country has prioritized activities to reduce or eliminate them in their national plans or program (19). People who experience stigma report a range of negative effects including loss of income or job, Isolation from communities and inability to participate as a productive member of society(20,21,22).

Globally 30%-80% of people living with HIV experience stigma during their life time (23). Study under taken among North Bengal medical college attending ART center revealed that 25.8% had perceived stigma(24). The study in Iran among women living with HIV reveals among PLWH had 69.7%(25).

A study in Chennai substantiated the perceived stigma was 26% of the PLWH had actually experienced stigma(26). Other study reveal the prevalence of perceived stigma among people living with HIV attending ART clinic at university of Port Harcourt Teaching Hospital, Nigeria is 59.9%(27). A quantitative descriptive and cross sectional study in Ethiopia, Addis Ababa were non adherent and adherent to ART medication 36.2% and 10% perceived stigma respectively (28).

Methods

Study Design and Setup

An institutional based cross sectional study was conducted at Dilla University Referral Hospital Anti-Retroviral clinic from April- May 2019. Dilla University Referral Hospital is found in Dilla Town (the capital of Gedeo Zone) Southern National's Nationalities and People Region and away 360 km from Addis Ababa, the capital city of Ethiopia. Patients receiving inpatient treatment and critically ill patients with difficulty of communication were excluded.

Sample Size Determination And Technique

It was determined by Level of significance (0.05), Power (0.50) with z = 95% confidence interval and the value of "p" (p = proportion of prevalence) was taken as prevalence of perceived stigma among People Living with HIV which was found to be 61.1%(done in Jimma town, Ethiopia)(29). Then by adding 10% of

non-respondents then, total sample size for this study is 403. The study also used systematic random sampling technique from to select study subjects.

Data Collection And Instruments

The instruments had included Socio-Demographic characteristic which mainly focuses on age, sex, education, occupation, marital status, religious view of the study participants, and others. Oslo item 3 social support scales which is 3-item questionnaire and HIV stigma index validation survey were used. The outcome variable, HIV-related perceived stigma felt by HIV patients, was collected by 10-item perceived HIV stigma scale that consisted of four-point Likert scale questions (1 = strongly disagree, 2 = disagree, 3 = agree 4 = strongly agree) of their HIV status.

Data Processing and Analysis

The coded Data was checked, cleaned by entering into epi.info version 7.1 and then exported into Statistical Package for the Social Sciences (SPSS window version 20).

The Descriptive summary using frequencies, percentage and median were used to present study results. Both bivariable and multivariable binary logistic regression were computed to identify factors associated with HIV-related perceived stigma candidates for multivariable regression to control possible confounders. In the final model, variables with p-values of < 0.05 were considered as having a statistically significant association with alcohol use at a corresponding 95% CI.

Result

Socio-Demographic Characteristics

Most of the study subjects 206 (51.1%) participants were females. 135 (33.5%) respondents were at the age of > 39 years, 206 (51.1%) were married and 193 (47.9%) respondents were orthodox in religion. Concerning ethnicity, 193 (47.6%) and 112(27.8%) of them were from Oromo and Gedeo ethnic group, respectively. The majority 182 (45.2%) respondents had secondary school education, 124 (30.8%) participants were government employee. Majority of the total respondents 161 (40.0%) of them were live with their children 159 (39.5%) were have poor social support and 244 (60.5%) were have strong social support more than half of the respondents 223 (55.3%) were use substance and 192 (47.6%) were second stage of HIV.

Table 1

Socio-Demographic characteristics of study participant in ART clinic, DURH, 2019

Variable		Frequency	Percentage (%)
Age	18–24	30	8.7
	25–30	124	30.8
	31–38	130	32.3
	> 39	135	33.5
Sex	Male	197	48.9
	Female	206	51.1
Marital status	Single	102	25.3
	Married	206	51.1
	Divorced	56	13.9
	Widowed	39	9.7
Religion	Orthodox	182	45.2
	Protestant	123	30.2
	Muslim	90	23.3
	Catholic	8	2.0
Ethnicity	Gedeo	133	33.0
	Oromo	150	37.2
	Amara	85	21.1
	Other ^A	14	3.5
Educational status	Can't read and write	8	2.0
	Primary education	34	8.4
	Secondary education	182	45.2
	Higher education	179	44.4
Occupation	Un employee	58	14.4
	Governmental employee	130	32.3
	Retire	22	5.5
Other ^A =Silte, Tigre, Gurage, Other ^B =farmer, daily labor			

Variable		Frequency	Percentage (%)
	Business man	103	25.6
	Student	34	8.4
	House wife	47	11.7
	Other ^B	9	2.2
Income	> 1000	73	18.1
	1000–2500	87	21.6
	2500–4000	115	28.5
	< 4000	128	31.8
Living status	With family	102	25.3
	Alone	117	28.8
	With relative	26	5.7
	With children	162	40.2
Other ^A =Silte, Tigre, Gurage, Other ^B =farmer, daily labor			

Prevalence of HIV-related Perceived Stigma among people living with HIV

The overall prevalence of Perceived Stigma was found to be 169 (42.7%).

Factors associated with HIV-related Perceived Stigma among people living with HIV

In Bivariate analyses, age, sex, marital status, occupation status, ethnicity, educational status, income, living status, HIV stage, substance use, social support and living status were analyzed. Multivariate logistic regression was also used to analyze associations between variables which have p value of < 0.2 in Bivariate logistic regression. After adjusting for possible covariates, age, sex, marital status, ethnicity, educational status, occupational, living status, HIV stage was significantly associated with HIV-related perceived stigma among patients living with HIV with p-value < 0.05.

Age groups 25–30 years were 2.8 times more likely to have perceived stigma as compare to age 18–24. (AOR = 2.8, 95% CI: 5.72–11.5).

Age groups 31–39 years were 1.1 times more likely to have perceived stigma as compared to age 18–24. (AOR = 1.11, 95% CI: 1.26,4.65)

Females were 2.36 times more likely to have perceived stigma as compared to males (AOR = 2.36, 95% CI: 1.28–4.33).

Study participants those had divorced marital status were 8.93 times more likely to have perceived stigma as compared to single (AOR = 8.93, 95% CI: 3.52–10.61).

Study participants those had widowed marital status were 2.99 times more likely to have perceived stigma as compared to single (AOR = 2.99, 95% CI: 2.74–7.60).

Primary educational status 7.5 times more likely to develop perceived stigma as compared to participants who can't read and write (AOR = 7.5, 95% CI: 3.45–9.74).

Study participants those who use alcohol were 1.01 times more likely to have perceived stigma as compared to khat (AOR = 1.01 95% CI: 1.57–2.11).

Table 2

Bivariate and Multivariate analysis of factors associated with HIV-related Perceived Stigma 2019.

Variables		Perceived stigma		COR(95%CI)	AOR(95%CI)
		No	Yes		
Age (n = 395)	18–24	11	3	1	1
	25–30	61	63	3.78 (1.0-4.23)	2.88 (5.72–11.5)**
	31–39	86	44	1.87(0.50–7.07)	1.11 (1.26–4.65)**
	> 39	73	62	3.11(0.83–11.66)	1.97 (0.457–8.54)
Sex (n = 395)	Male	115	82	1	1
	Female	116	90	1.08 (0.73–1.61)	2.36(1.28–4.33)**
Marital status (n = 395) Widowed	Single	68	34	1	1
	Married	124	82	1.32 (0.80–2.18)	1.55(0.74–2.54)
	Divorced	19	37	3.90 (1.95–7.76)	8.93 (3.52–10.61)***
	Widowed	20	19	1.90 (0.9–4.03)	2.99 (2.74–7.60)**
Educational status(n = 395)	Can't read and write	4	4	1	1
	Primary education	8	26	3.25 (0.66–16.04)	7.50 (3.45–9.74)***
	Secondary education	114	68	0.60 (0.14–2.46)	6.11 (0.409–9.258)
	Higher education	105	74	0.71 (0.17–2.91)	8.39 (0.54–12.33)
Substance use (n = 395)	Khat	56	27	1	1
	Alcohol	70	79	1.61 (1.04–2.50)	1.01 (1.57–2.11)*
	Cigarette	2	0	0.54 (0.30–0.96)	0.18 (0.07–1.46)
HIV stage(n = 395)	Stage 1	104	92	1	1
P* $<$ 0.05, P** $<$ 0.01, P*** $<$ 0.001					

Stage 2	93	76	0.92(0.61–1.4)	1.48 (0.870–2.53)
Stage 3	34	4	0.13 (0.05–0.39)	0.14(0.041–1.51)
P* $<$ 0.05, P** $<$ 0.01, P*** $<$ 0.001				

Discussion

The study has tried to determine the prevalence of HIV-related perceived stigma and associated factors among people living with HIV attending Ante-retroviral clinic at Dilla University Referral Hospital .thus the prevalence of HIV-related perceived stigma was found to be 42.7%.

According to this study the prevalence of HIV-related perceived stigma and associated factors among people living with HIV attending Ante-retroviral clinic was lower than the study conducted in Jimma Town was 61.1% (29) and in Nigeria 59.9%(27). The difference might be due to the socio-economical status of the study setting, sample size of the study, the influence of cultural and religious norms of the society.

The study is higher than A study conducted in Addis Ababa (36.2%) and 10%(28) The reason for the noted difference might be attitude of the society in the study area, cultural variation, and educational status of the society and norms of the society.

Age groups 25–31 and 31–39 years were 2.8 and 1.1 times more likely to have HIV-related perceived stigma as compare to age 18–24 years respectively(29). The reason noted that this level of age is high productive level; in terms of work, family and social relationship within the society accordingly and expect more role at this level of age.

Females were 2.4 times more likely to have HIV-related perceived stigma as compare to males (25).The hormonal difference which may play important and are more vulnerable for gender discrimination, and neglect. They may suffer more perceived stigmas because the community views them as having been promiscuous at least once in their lifetime when they are infected with HIV.

Study participants those had divorced marital status were 8.9 times more likely to have HIV-related perceived stigma as compare to singles (25). This might be due to infected with this HIV might cause divorcing of study participants. Study participants those had widowed marital status were 3.0 times more likely to have perceived stigma as compare to singles (25). This is might be due to decreasing of family and friend support with being HIV infected and widowed due its morbidity and mortality.

Primary educational status 7.5 times more likely to develop HIV-related perceived stigma as compare to participants who can't read and write the study participants (25).it might be little awareness of having HIV makes them stigmatize, cultural influence, norm of the society and educational status.

Study participants those who use alcohol were 1.0 times more likely to have HIV-related perceived stigma as compare to khat (25). This might be that drinking alcohol and khat chewing are interrelated. Therefore, this study gives additional evidence for planning appropriate intervention in drinking alcohol and khat chewing HIV infected patient who are on ART at clinic.

Conclusion

The prevalence of HIV-related perceived stigma is high in the study among Patients with living HIV. Of great concern is the large numbers of patients with living HIV who have HIV-related perceived stigma remain undetected in the study area.

Being female, Patients who are age groups 25–30 years, age groups 31–39 years, divorced marital status, widowed marital status, Primary educational status and Study participants those who use alcohol were more likely to have HIV-related perceived stigma. Therefore; this calls a holistic approach for the prevention and intervention of HIV-related perceived stigma. Emphasis should also be given for HIV-related perceived stigma.

Limitation of the Study

Participants were enrolled from government ART clinics which might not be representative for patients who do not attend government ART.

The cross-sectional nature of the study design might not show the cause and effect relationships between HIV-related perceived stigma and other variables

Abbreviations

AOR: adjusted odd ratio; CI: confidence interval; COR: crude odd ratio; DURH: Dilla University Referral Hospital; ETB: Ethiopian Birr; SD: standard, HIV : Human immune Viruses, WHO: World Health Organization. PLWH: people living with HIV, ART: Antiretroviral treatment

Declarations

Ethics approval and consent to participate

The study was ethically approval by the Institutional Review Board (IRB) of Dilla University. Formal permission was also obtained from Hospital Director and finally written consent was obtained from each participant during data collection. All participants were well informed about the aims and purpose of the study. The right was given to the study participants to refuse or withdraw from participation at any time during data collection without loss of any entitlement.

Consent for publication:

Not applicable

Availability of data and material

The data used to support the findings of this study are included within the article.

Conflicts of Interest: The author declares that he has no conflicts of interest.

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Author Contribution

YA conceived the research question, participated in the proposal development, data collection, analysis, interpretation, critically reviewed and approved the manuscript.

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