RESEARCH ARTICLE

Prevalence of depression and associated factors among adults on antiretroviral therapy in public hospitals of Kembata Tembaro Zone, South Ethiopia

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Keywords: Depression, HIV/AIDS, ART, Factors, Ethiopia

https://doi.org/10.52872/001c.38649

Journal of Global Health Neurology and Psychiatry

Background

Despite the commonness and its relationship with poor outcomes among Human Immunodeficiency Virus-infected adults, depression remains widely unrecognized, untreated, or undertreated in antiretroviral therapy clinic care. This study aimed to assess the prevalence and associated factors of depression among adult people living with HIV attending antiretroviral therapy clinics in public hospitals at Kembata Tembaro Zone, South Ethiopia, 2020.

Method

Multi centric facility based cross-sectional study was conducted on a sample of 393 HIV-infected adults in public Hospitals of Kembata-Tembaro Zone from March-April 2020. A simple random sampling technique was employed to select the study participants. Quantitative data were collected using a pretested and structured questionnaire. Multivariable logistic regression was used to assess factors associated with depression. P-value <0.05 was considered statistically significant.

Results

Among the study participants, 217(56.2%) were females, 230(59.6%) were married, 190(49.2%) were between the ages of 29-39 years, and 198(51.3%) attended primary education. The prevalence of depression was 44.3% (95%CI: 39.4%-49.2%). Being female (AOR=2.03,95%CI:1.21,3.40), living alone (AOR=3.09,95%CI:1.68,5.68), Having HIV related stigma (AOR=2.85, 95%CI: 1.73,4.71), poor social support (AOR=2.55, 95% CI:1.48,4.78), CD4 count less than 350 cell/ul (AOR=2.66, 95% CI:1.48,4.58) and Poor medication adherence (AOR=2.19,95% CI:1.32,3.65) were factors significantly associated with depression.

Conclusion

The prevalence of depression was high. Being female, living alone, having HIV-related stigma, Poor social support, CD4 count less than 350cell/ul, and poor medication adherence was associated with depression. Depression should be included as part of the routine consultation of HIV patients to warrant early detection and treatment.

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Introduction

Depression is a common mental disorder manifested by the signs and symptoms of poor appetite, sadness, sleep disturbance, poor concentration, and feeling of exhaustion. It has become one of the significant public health problems.[1] Globally, the total number of people with depression was estimated to exceed 300 million in 2015, which is equivalent to 4.4% of the world's population. It is the foremost cause of disability which contributed to almost 7.5% of all disabilities.[1,2] Currently, the burden of depression has been rising, and it was the third leading cause of disability in 2015.[3] Globally, it has been projected that depression will be the leading cause of disease burden by 2030.[4]

Depression seems to be given very little consideration in view of the effect that may have on the Human Immunodeficiency Virus (HIV) positive patients.

HIV remains to be the foremost global public health alarm. Globally, it is estimated 37.9 million people living with HIV. Of which 36.2 million were adults, 1.7 million people became newly infected with HIV, 770 000 people died with Acquired Immune Deficiency Syndrome (AIDS) related illnesses, and 23.3 million people with HIV (62%) were accessing Anti-Retroviral Therapy (ART) in 2018.[5]

In the framework of HIV/AIDS, depression is the most widespread among People Living with HIV (PLWH) than people without HIV. Despite the contradiction, meta-analysis has revealed that comorbid depression is almost twice more common in PLWH than in the overall population.[6]

In Ethiopia, studies conducted in a different part of the country showed that the prevalence of depression among HIV/AIDS Patients Attending ART Clinic as 41.7 % at Gimbi General hospital, Oromia region, west Ethiopia,[7] 45.8% at Harar Town, Eastern Ethiopia,[8] 20% at Dessie Referral Hospital, South Wollo, Amhara Region, Ethiopia,[9] and 48.6% at Hawassa University compressive specialized Hospital, Hawassa, southern Ethiopia.[10]

The co-existence of depression and HIV/AIDS would have resulted in poor health outcomes. The reasons for these are obstacles to treatment and deterioration of the medical consequences: including treatment resistance, more chance for recurrence, and increase demand for the utilization of medical resources, and increase morbidity and mortality of PLWH.[11]

Across low, middle, and high-income countries prevalence of depression among adult HIV/AIDS patients on ART approximately ranged from 13% to 78%.[12]

PLWH suffer from depression as they adapt to life with a chronic condition, experience or anticipate stigma, or manage ongoing life stressors.[13] Different studies have identified factors associated with depression. Such as female sex,

older age, unemployment, poor life events, a high number of HIV-related physical symptoms, low CD4 counts, impaired function, stigma, and poor social support.[13–15]

Development of the national mental health strategy in Ethiopia represents the federal ministry of Health's (FMOH) commitment to fill Ethiopia's need for accessible, operative, sustainable, and affordable mental health services.[11] However, depression among PLWH still did not receive satisfactory attention in HIV care service.

Despite its connotation with a poor health outcome, limited studies were done on depression among adults on ART in Ethiopia in general and no studies in the study area in particular. We hypothesized that depression among PLWH would be more typical and correlated with different factors when comparing to general population. Therefore, this study aimed to assess the prevalence and associated factors of depression among adults on ART in the public Hospital of Kembata Tembaro zone, South Ethiopia. Findings from this study will provide background information that can be used by health policy makers for strategic future planning, priority setting and resource allocation for intervention among PLWH.

2. Methods

2.1. Study Design and Period

This multi-centric facility based cross-sectional study was conducted from March 2020 to April 2020.

2.2. Study Area

The study was conducted in public hospitals of Kembata-Tembaro Zone, Southern Nations, Nationalities, and Peoples' Regional State. The zone is located about 340 km South-west of the capital city of Ethiopia, Addis Ababa. Kembata-Tembaro zone had four governmental Hospitals; one General Hospital and three primary Hospitals. There were 976 adult HIV/AIDS patients who have treatment follow-up at the zone and among those 787 of them were adult HIV AIDS patients. In all of the public Hospitals, the ART clinics provide comprehensive HIV prevention, care, and treatment.

2.3. Study Population

Study participants were randomly selected adult HIV-positive patients who had treatment follow up during the study period in public Hospitals at Kembata-Tembaro zone.. . The study included people whose ages were 18 years and above (due to ethical issues) and people who were receiving Highly Active Anti-Retroviral Therapy (HAART) for at least six months. Because it is considered that patients on HAART may receive different positive living messages, improvement of drug side effects, immunological response, physical

improvement, and mental stability occur within three to six months. People who were unable to communicate or severely ill at the time of data collection were excluded from the study.

2.4. Sample size Determination

The sample size was calculated using EPI-info version 7.2 Software for the estimation of sample size for cross-sectional study (exposed and non-exposed). Taking 34.4% depression in unexposed group to HIV related stigma from a similar study conducted in Debrebirhan Referral Hospital,[16] 95% CI (1.96), power of 80% (0.84), 1:1 unexposed to exposed ratio to detect an odds ratio of 1.84 or greater. By adding a 5% non-response rate, the final sample size was 393.

2.5. Sampling procedure

Study populations were selected from four Hospitals. The sample size was allocated proportionally to each Hospital. The lists of potential participants were obtained from Adult ART register of each Hospital. A simple random sampling technique was used to select study subject. Data collection continued until the required sample size was achieved from each Hospital. The maximum appointment time in the ART is two months, those subjects who were already interviewed were marked X in order to avoid double recruitment.

2.6. Data collection

Pretested structured questionnaire was applied to collect data from each study participant. The questionnaire was adopted from related literature with a slight modification in line with this study. Socio-demographic data collected include; age, sex, residence, ethnicity, religion, marital status, educational level, monthly income, and occupation. Psychosocial data collected include; HIV-related stigma, social support, living condition, and lost jobs. HIV/AIDS-related data collected include; CD4 count, WHO HIV/AIDS stages, medication adherence, ART regimen, adverse drug reaction, and duration on ART.

2.7. Operational definition

Depression was assessed by using Patient Health Questionnaire-9 (PHQ-9) that has total sum score of 27 from 9 items; those respondents who score 5 and above from total sum were considered as depressed while respondents who score below 5 were considered as non-depressed.[17] Social support was assessed by using social support questionnaire (SSQ) that has total sum score of 6 from 6 items; those respondents who score higher than the mean considered as having good social support while respondents who score lower than the mean considered as having poor social support.[18] HIV related stigma was assessed by using HIV related Stigma scale that has total sum score of 50 from 10 items; those respondents who score higher than the mean from total considered have stigma while respondents who score lower than the mean considered as have no stigma.[19] Adherence was assessed by using a Morisky Medication Adherence

Scale questions that has total sum score of 4 from 4 items; those respondents who score 0 considered as non-adherent while respondents who score one and above considered as Adherent.[20]

2.8. Reliability and Validation of Instrument

The questionnaire was first prepared in English, translated into Kambatissa (local language), and then re-translated back to English by language expert. The pre-test was carried out in one hospital which was not included in the actual study. Based on the result, data collectors were reoriented and the questionnaire was modified as necessary. The principal investigators and supervisors made day-to-day on-site supervision during the whole period of data collection. The reliability coefficients for HIV related stigma and social support scale items were 0.92 and 0.86 respectively.[18,19]

2.9. Data Collectors' Recruitment and Training

Four nurses and two public health masters were recruited as data collectors and supervisors respectively. Data collectors were trained for 2 days on interviewing techniques, the study's purpose, and ethical aspects.

2.10. Data processing and analysis

Data were entered into Epi Data version 3.1 and exported to SPSS version 20 for analysis. Descriptive statistics like, mean, frequency were computed and presented by using text, tables and graph. Colinearity diagnostic test was conducted to check for colinearity between independent variables. The tolerance values for all of the independent variables were larger than 0.10. Model fitness was also checked by using Hosmer–Lemeshow Goodness-of-Fit Test (p = 0. 260). Binary logistic regression was undertaken to see association between dependent and independent variables. Variables having a p-value of <0.25 in binary logistic regression were transferred to multivariable logistic regression. Odds ratios at 95 % CI were computed to measure the strength of the association between the outcome and the explanatory variables. P-values less than 0.05 were considered as statistical significant in the multivariate analysis.

3. Results

A total of 386 study participants out of 393 in the study provided an overall response rate of 98%.

3.1. Socio – demographic characteristics of respondents

The mean age of the respondents was 36.0 (SD ± 8.4 years).. Of the 386 respondents, 217 (56.2%) were female, 230 (59.6 %) were married, 190 (49.2%) were between the ages of 29-39 years. More than half, 198 (51.3%) attended primary education, 281 (72.8%) were protestant religion followers, 276(71.5%) were Kembata by ethnicity. A majority, 135(35.0%) were house wives and 201 (52.1%) were rural residents while 135 (35.0%) earned ≤ 500 ETB per month (Table 1).

Table 1. Socio demographic characteristics of respondents in public Hospitals, Kembata Tembaro zone, South Ethiopia, 2020 (n=386).

Variable	Category	Frequency	Percent
Sex	Male	169	43.8
	Female	217	56.2
Age in years	18-28	67	17.4
	29-39	190	49.2
	40-50	98	25.4
	>50	31	8.0
Residence	Urban	185	47.9
	Rural	201	52.1
Educational status	No education	61	15.8
	Elementary school (1-8)	198	51.3
	High school (9-12)	88	22.8
	College diploma and above	39	10.1
Marital status	Single	60	15.5
	Married	230	59.6
	Divorced	61	15.8
	Widowed	35	9.1
Occupational status	Student	21	5.4
	Housewife	135	35.0
	Farmer	105	27.2
	Merchant	66	14.5
	Government employees	59	14.0
Monthly income(ETB)	≤500	135	35.0
	501-1000	130	33.7
	1001-1500	41	10.6
	>1500	80	20.7

3.2. Psychosocial and Clinical related characteristics of respondents

Among the study participants, 277(71.8%) lived with their family, and 343 (88.9%) didn't lose a job due to HIV /AIDS-related illness. More than half of (51.6%) have HIV-related stigma, and 217(56.2%) have good social support from their families or other supportive bodies. Two hundred sixty-six respondents (68.9%) were at WHO clinical stage I, and 18.9% were at WHO clinical stage II. More than two-thirds (69.4%) were with CD4 count greater than 350 cells/μl. Nearly two-thirds (63.2%) had good adherence. From all study participants, 335(86.8%) had no HAART related side effect, 345(89.4%) were in the first line of the drug, and 359 (93.0%) were on HAART for more than twenty-five month (Table 2).

3.3. Prevalence of depression among PLWH

The prevalence of depression among adult PLWH was 44.3% (95% CI: 39.4% - 49.2%). Based on the cut of point ≥ 5, out of a total of 386 respondents, 171 (44.3%) had depression.

Table 2. Psychosocial, clinical and medication adherence related characteristics of respondents in public Hospitals, Kembata-Tembaro zone, South Ethiopia, 2020 (n=386).

Variable	Category	Frequency	Percent
Living condition	Alone	109	28.2
	with family	277	71.8
Lost jobs due to HIV illness	Yes	43	11.1
	No	343	88.9
HIV related stigma	Yes	199	51.6
	No	187	48.4
Social support	Good	169	43.8
	Poor	217	56.2
WHO Clinical stage	I	266	68.9
	II	73	18.9
	III	25	6.5
	IV	12	5.7
CD4 count (current) in cells/ul	≤ 350	118	30.6
	>350	268	69.4
Adherence to medication	Poor	142	36.8
	good	244	63.2
Drug side effect (current)	Yes	51	13.2
	No	335	86.8
Drug regimen	first line	345	89.4
	second line	41	10.6
Duration on HAART(in month)	6-12	18	4.7
	13-24	14	3.6
	≥25	354	91.7

3.4. Factors associated with depression among PLWH

In bivariate logistic regression analysis, sex (AOR= 2.27, 95 % CI: 1.50,3.451), marital status; divorced (AOR= 3.31, 95 % CI: 1.56, 7.01), widowed (AOR= 2.87, 95 % CI: 1.20, 6.85) living condition(AOR= 6.41, 95 % CI: 3.88,10.60), lost job (AOR= 1.51, 95 % CI: 0.80, 2.86), HIV-related stigma (AOR= 2.79, 95 % CI: 1.84, 4.23), social support (AOR= 4.43, 95 % CI: 2.85, 6.89), CD4 count (AOR= 3.29, 95 % CI: 2.09, 5.18),, WHO HIV/AIDS clinical-stage; ; stage II (AOR= 2.66, 95 % CI: (1.56, 4.54), stage III (AOR= 2.11, 95 % CI: (0.92, 4.83), stage IV (AOR= 1.99, 95 % CI: (0.83,4.77) drug regimen(AOR= 1.52, 95 % CI: (0.79,2.91) and medication adherence (AOR= 2.74, 95 % CI: (1.78, 4.19), were factors found to be associated with depression among respondent living with HIV at p-value <0.25 (Table 3).

In multivariable logistic regression analysis; sex (AOR= 2.03, 95 % CI: 1.21, 3.40), living condition (AOR=3.09 ,95% CI :1.68, 5.68), HIV/AIDS related stigma (AOR=2.85, 95 % CI: 1.73, 4.71), social support (AOR=2.55, 95% CI: 1.48, 4.78), CD4 count (AOR=2.66, 95% CI: 1.48, 4.58) and medication adherence (AOR=2.19 , 95% CI: 1.32, 3.65) were significantly associated with depression among PLWH at P-value less than 0.05 (Table 4).

Table 3. Simple binary logistic regression model of factors associated with Depression among respondents, in public Hospitals, Kembata Tembaro Zone, South Ethiopia, 2020 (n=386)

Variable	Category	Depression		COR(95%CI)	P-value
		Yes	No		
Sex	Female	115	102	2.27 (1.50,3.451)	< 0.001
	Male	56	113	1	
Marital status	Married	82	148	0.83 (0.46, 1.48)	0.534
	Divorced	42	19	3.31 (1.56, 7.01)	0.002
	Widowed	23	12	2.87 (1.20, 6.85)	0.017
	Single	24	36	1	
Living condition	Alone	82	27	6.41 (3.88, 10.60)	< 0.001
	With family	89	188	1	
Lost job	Yes	23	20	1.51 (0.80, 2.86)	0.200
	No	148	195	1	
HIV/AIDS related stigma	Yes	112	87	2.79 (1.84, 4.23)	< 0.001
	No	59	128	1	
Social support	Poor	129	88	4.43 (2.85, 6.89)	< 0.001
	Good	42	127	1	
CD4 count	≤350	76	42	3.29 (2.09, 5.18)	< 0.001
	>350	95	173	1	
WHO HIV clinical stage	Stage II	45	28	2.69 (1.58, 4.59)	<0.001
	Stage III	14	8	2.93 (1.19, 7.24)	0.019
	Stage IV	9	6	2.51 (0.87,7.28)	0.088
	Stage I	103	173	1	
Drug regimen	Second line	22	19	1.52 (0.79,2.91)	0.204
	First line	149	196	1	
Medication adherence	Poor	85	57	2.74 (1.78, 4.19)	< 0.001
	Good	86	158	1	

4. Discussion

Our study found that nearly half of the participants had depression. Participants who had; a lower CD4 cell count, poor drug adherence, and poor social support were more likely to suffer from depression. Besides, having HIV-related stigma, living alone, and being female were also positively associated with depression.

In this study, the prevalence of depression among adult HIV/AIDS patients on ART was 44.3 % (95% CI: 39.4% - 49.2%). This figure was in line with studies conducted in Ethiopia Gimbi general Hospital, southwest Ethiopia,[7] Harar town, eastern Ethiopia[8] and Alert Hospital, Addis Ababa[21] and Tigray region[22] with the prevalence of 41.7%, 45.8%,41.2%, and 43.9% respectively.

However, the result of this study was lower than Brazil,[23] India,[24] and Sudan,[25] with the prevalence of 53.5%, 58.7%, and 63.1% % respectively. The difference could be attributed to the socio-demographic factors, study setting, and sample size differences. Compared to our study, the small sample size was used for studies conducted in India and Brazil.

Table 4. Multiple binary logistic regression model of factors associated with Depression among respondents, in Public Hospitals, Kembata Tembaro Zone, South Ethiopia, 2020 (n=386)

Variable	Category	Depression		AOR(95%CI)	P-value
		Yes	No		
Sex	Female	115	102	2.01(1.20, 3.38)*	0.008*
	Male	56	113	1	
Marital status	Married	82	148	0.92 (0.46, 1.86)	0.828
	Divorced	42	19	1.19 (0.49, 3.03)	0.712
	Widowed	23	12	1.65 (0.57, 4.74)	0.349
	Single	24	36	1	
Living condition	Alone	82	27	3.17 (1.72, 5.85)	< 0.001*
	With family	89	188	1	
Lost job	Yes	23	20	0.88 (0.39, 1.97)	0.758
	No	148	195	1	
HIV/AIDS related stigma	Yes	112	87	2.70 (1.64, 4.46)*	< 0.001*
	No	59	128	1	
Social support	Poor	129	88	2.53 (1.47, 4.35)*	0.001*
	Good	42	127	1	
CD4 count	≤350	76	42	2.55 (1.42, 4.58)*	0.002*
	>350	95	173	1	
WHO HIV clinical stage	Stage II	45	28	1.66 (0.86, 3.20)	0.236
	Stage III	14	8	1.72 (0.58, 5.05)	0.337
	Stage IV	9	6	1.46 (0.41, 5.17)	0.161
	Stage I	103	173	1	
Drug regimen	Second line	22	19	1.08 (0.46, 2.54)	0.851
	First line	149	196	1	
Medication adherence	Poor	85	57	2.20 (1.32, 3.67)*	0.002*
	Good	86	158	1	

Note: P-value for hosmer and lemeshew test = (0. 239).

Significant association (* = p-value < 0.05)

In contrast, the finding of this study was higher than what was obtained in previous studies at Cameron,[26] Nigeria,[27] Uganda ,[20] East Africa[17] and Debrebirhan Referral Hospital, North Showa, Ethiopia[16] with the prevalence of 26.7%, 39.6%, 8.1%, 38.9% and 38% respectively. The discrepancy might be due to variation in socio-demographic factors; sample size, study time, study population, and study design. Compared to our study, the study population recruited was age 21 years and above in Cameroon, and a large sample size for the study was conducted in Uganda. We used a cross-sectional study design, whereas a study reported from East Africa used a systematic review and meta-analysis.

The present study revealed that female respondents were significantly associated with depression. Female conferred twofold increased odds for depression relative to the male which was supported with the studies done at Entebbe district in Uganda (AOR =2.04, 95% CI: 1.88, 4.75)[20] and

Debirebirhan Referral Hospital in Ethiopia (AOR=2.07, 95% CI: 1.07, 3.98).[16] The possible gender discrepancy found in this study could be due to biological, psychological, and socio-cultural factors.

Our study findings also suggest that the living condition of the study participants was significantly associated with depression among HIV/AIDS patients on ART. Those respondents who were living alone were 3 times more likely to have depression when compared to those respondents who were living with the family that was in agreement with studies conducted at Hawassa University Comprehensive Specialized Hospital and Yirgalem General Hospital, south Ethiopia (AOR = 1.94, 95% CI: 1.06, 3.56).[28] This might have happen that lack of interpersonal relationships between family, friends, and other community members with HIV patients can lead to depression.

Concerning the HIV related stigma status of the study participants, that HIV related stigma was significantly associated with depression. The odds of depression among respondents with HIV related stigma about 3 times more likely as compared to the odds of depression among respondents who had no HIV related stigma. This was consistent with studies conducted in Ethiopia at Alert Hospital, Addis Ababa (AOR = 3.60, 95 % CI 2.23, 5.80[21] and at Hawassa University Comprehensive Specialized Hospital, Hawassa (AOR=2.83, 95% CI 1.78, 4.48).[28] This might be having HIV related stigma might be associated with Self isolation which can increase a sense of depression and complicate relation with family, friend and other community members.

The result of this study also indicated there was a statistically significant association found between social support and depression. This shows that participants who had poor support 2.55 times tend to have depression than those without social support. This result is in agreement with a study conducted in Ethiopia, at Alert Hospital, Addis Ababa (AOR = 2.02, 95 % CI: 1.25, 3.27)[21] and at Hawassa University Comprehensive specialized Hospital, Hawassa (AOR=2.53, (95% CI 1.70, 9.13).[28] This might be due to worry about telling about their status and some might choose to withdraw due to pressure from the stigma and hopelessness that can limit social support, which in turn leads to depression.

For clinical-related variables in this study, high depression scores were significantly associated with low CD4 count. This finding supported by studies reported in Cameroon (AOR =3.70, 95% CI: 1.45–9.09)[19] and in Hawassa University Comprehensive Specialized Hospital, Hawassa, Ethiopia (AOR=2.317, 95% CI: (1.10, 4.84).[28] This might be due to patients with lower CD4 count are probably having more symptoms of HIV infection and consequently more emotional and physical disability.

Respondents who had poor medication adherence were 02 times more likely to develop depression when compared with those who had good medication adherence. Our finding consistent with studies done in Cameron (AOR= 5.04,

95% CI 2.84–8.97)[25] and in Alert Hospital, Addis Ababa, Ethiopia (AOR = 1.61, 95 % CI: 1.02, 2.55).[21] The possible explanation might be due to poor medication adherence that has been brought in the emergence of drug-resistant strains of HIV. This increases the viral load that leads to immune suppression and poor health outcome. This can be explained by the fact that patients with a more severe and progressive illness would be more likely to be depressed.

The limitation of this study is that because of the self-reported information, data might be potentially susceptible to the interviewers and social desirability bias. Since the entire sample was taken from Hospitals, the findings of this study might not be generalized to other irrelevant settings. In other words, the study did not include PLWHA who were attending health centers, private health institutions, and who did not visit any health institutions.

4.1. Conclusion

In conclusion, the prevalence of depression among PLWH receiving HAART was high.. Being female, living alone, having HIV-related stigma, poor social support, CD4 count <350 cells/ul, and poor medication adherence was significantly associated with depression among PLWH. We recommend integration of multi sectors and civil society, including Partners, faith-based and community-based organizations to create awareness and prevention programs that are targeted at improving women's health, reducing HIV-related stigma, and strengthen social support among PLWH. Within the clinical setting, depression should be included and promoted as part of the routine consultation of HIV/AIDS patients in order to ensure early detection and treatment. Referrals to a psychiatric clinic and to support groups should be considered for further depression management. Moreover, assessment of living conditions, HIV-related stigma, and Poor social support among PLWH should be strengthened. Finally, further studies on risk factors of depression among PLWH should be conducted to strengthen and broaden the current findings.

Conflict of interest statement

The authors declare no conflicts of interests.

Ethics approval and consent to participate

The study was reviewed and approved by Hawassa University College Medicine and Health sciences, school of public health. The ethical clearance was obtained from Hawassa University Institution Review Board. Permission was obtained from Kembata-Tembero Zonal health department and Hospital administration to conduct the study. Prior to interview, all participants enrolled to the study were received written informed consent about the study. Respondents were insured about the confidentiality of information obtained and they were not being asked to tell their names. They were also told that they have the right to withdraw from the study at any time during the interview.

Availability of data and materials

The data that support the findings of this study are available upon reasonable request.

Funding

The study was fully funded by Hawassa University, College of Medicine and Health Sciences.

Competing interests

The authors declare that they have no competing interests.

Authors' contribution

AG wrote the proposal, participated in data collection, analyzed the data and drafted the paper. TY and WT approved the proposal, participated in data analysis and revised subsequent draft of the paper. All authors read and approved the final manuscript.

Acknowledgments

We would like to thank Hawassa University College of Medicine and Health Sciences for providing us the opportunity to carry out this study. Our gratitude also goes to Kembata Tembaro Zone Health department and Public Hospitals, study participants and data collectors for their valuable contribution in the realization of this study.

Submitted: September 02, 2022 BST, Accepted: September 30, 2022 BST

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