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Prevalence and Associated Factors of Intimate Partner Violence Among Married Women During COVID-19 Pandemic Restrictions: A Community-Based Study

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Abstract

Ethiopia has taken unprecedented preventive measures, such as confinement to home and closure of schools and offices to halt the spread of Corona virus pandemic in the country. Unfortunately, such orders may have been associated with intimate partner violence (IPV) against women but there is no study conducted to assess the magnitude of IPV during the lock-downs in the country. Thus, this study intended to investigate the prevalence and associated factors of IPV against women during the COVID-19 pandemic

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restrictions. A community-based cross-sectional study was conducted on sample of 617 married or cohabited women. A systematic random sampling technique was employed to identify and enroll women who are married. A logistic regression analysis was used to identify the predictors of IPV among women and all statistical analyses were carried out using STATA 14.2. In this study, amongst the 589 married women who were included in the analysis, 22.4% [95% CI: 19.1%, 25.9%] were experienced at least one form of IPV. Additionally, 11.0%, 20.0%, and 13.8% of women also experienced physical, psychological, and sexual IPV's respectively. After adjusting for covariate; being illiterate [AOR=2.37: 95% CI 1.29, 4.35], having illiterate husband [AOR=2.67: 95% CI 1.36, 5.21], having substance user husband (alcohol, chat or cigarettes) [AOR=2.75: 95% CI 1.42, 5.34], and community tolerant attitude to violence [AOR=2.97: 95% CI 1.17, 7.61] were the independent predictors of IPV amongst married women. In conclusion, the prevalence of IPV among married women was comparable to the national pre-COVID figure of IPV. Therefore, national and regional governments should work toward enhancing gender equality, coupled with addressing risk factors at multiple levels, using community- and institution-based approaches to prevent IPV and to specifically achieve SDG5 of eliminating violence against women by 2030.

Keywords

intimate partner violence, associated factors, COVID-19, married women, Ethiopia

Introduction

The World Health Organization (WHO) declared the coronavirus disease 2019 (COVID-19) as a pandemic due to the ease of spread and severity of the virus (Wu et al., 2020), and it caused an estimated 7 million cases and nearly half a million deaths (WHO, 2020a). As a direct result, countries across the world have taken different preventive measures to help reduce the spread, which include population movement restriction, confinement to home, school closure, and other social services, some of which have been seen to increase the risk of domestic violence against women (Davis et al., 2020; Dong et al., 2020; Hatchimonji et al., 2020; Lee, 2020).

Intimate partner violence (IPV) is defined by the WHO as “a physical, sexual, or psychological coercive act by a current or former partner or spouse to a woman” (WHO, 2012). IPV has increased during the COVID-19 crisis across the globe, remarkably in Africa (Duncan et al., 2020; Jarnecke & Flanagan, 2020; John et al., 2020; Mazza et al., 2020). According to a WHO report,

COVID-19 pandemic restrictions have created an opportunity for violence against women (Campbell, 2020; WHO, 2020b). For example, the government's stay-at-home order and closure of workplaces may have indirectly forced women to spend more time in home and ultimately, exposed these women to increased domestic violence by their partners. This scenario is supported by the CDC report, which states approximately one in four women report experiencing any form of IPV (Boserup et al., 2020).

Moreover, other studies have revealed that majority of economically disadvantaged women and young age women are prone to IPV. In addition, noneducated women, women whose partners control behavior and finance, and women who have alcohol drinking partners are the most common victims of IPV during COVID-19 pandemic restrictions (Mazza et al., 2020; Moreira & Da Costa, 2020; Roesch et al., 2020).

Specifically, Ethiopia has taken similar preventive and control measures to halt the spread of COVID-19. These include school closure, stay-at-home, social distancing, increased hand hygiene stations, creation of isolation centers, and establishment of state emergency at the national level (FMOH, 2020a, 2020b; Jemal et al., 2020). However, the federal government has not addressed any consequences due to these preventive measures such as IPV against women (Moreira & Da Costa, 2020).

Despite the increased reports of IPV cases during the ongoing COVID-19 pandemic (Duncan et al., 2020; Jarnecke & Flanagan, 2020; Taub, 2020; Van Gelder et al., 2020), there is a little research to assess the factors and magnitude of IPV during the pandemic. Therefore, this study aimed to assess the prevalence and associated factors of IPV against women during COVID-19 pandemic restrictions. Furthermore, the results of this study will offer vital information for policymakers, program planners, and other stakeholders who have interests to stop violence against women in developing nations including Ethiopia.

Methods and Materials

Study Setting and Participants

The community-based, cross-sectional study was conducted from June 26, 2020 to July 10, 2020 in Dessie administration city to assess the prevalence of IPV and its determinants among married women living during the COVID-19 pandemic restrictions. Dessie is located 401km away from the capital city of Ethiopia, Addis Ababa. It is also the capital city of South Wollo zone, it has five sub-cities, and 26 kebeles (lower administrative units).

According to the city's administration plan commission report (CAPCR, 2020), it has a total population of 422,471. Of these, 224,332 (53.14%) are females.

All married/cohabitated women who are living in Dessie since the pandemic was declared were included in this study. However, women who had serious illness and unable to communicate during data collection period were excluded in this study.

Sample Size Determination and Sampling Techniques

The final sample size was determined using a single population proportion formula with assumptions: 5% type I error, 95% confidence intervals (CI), design effect of 2, 24% proportion for physical and emotional violence from Ethiopian Demographic and Health Survey (EDHS)-2016 report (Central Statistical Agency - CSA/Ethiopia & ICF, 2017). The maximum sample size was considered after checking various parameters of measurement from prevalence and associate factors. Then, the researchers added 10% to compensate for the nonresponse of participants and the final sample size became 617.

$$n = \frac{(Z\alpha/2)^2 (P) (1-P)}{d^2}$$

Where: n = required sample size, $Z\alpha/2$ = critical value for normal distribution at 95% confidence level (1.96), p = proportion of physical and emotional IPV among married women, d = 0.05 (5 % margin of error), and DEFF= design effect to compensate loss of efficient of sample power.

Out of five sub-cities, two sub-cities (Menafesha and Hotie sub-cities) were selected using lottery method. The calculated sample size was proportionally allocated into four randomly selected kebeles. There were a total of 4,320 married women in the randomly selected kebeles (i.e., Kebele-1 = 990, Kebele-2 = 1,120, Kebele-3 = 1,080, and Kebele-4 = 1130). A systematic random sampling technique was employed to enroll the study participants. Accordingly, every seventh participant was selected using a systematic random sampling technique till the required sample size reached.

Study Variables

Dependent variable. Any IPV against women (yes/no), in which women who experienced at least one of the three types of IPV (i.e., physical, sexual or emotional violence) were classified as having experienced any IPV during the COVID-19 pandemic.

Independent variables. Sociodemographic characteristics (age, age at marriage, educational level, occupation status, average monthly income, religion, family size, husband education level, husband occupation), women and the husband's substance use (alcohol, chat, cigarette), female autonomy

related (head of household, financial control, decision on family planning and other family related issues), community practice that support IPV against women, and polygamy practice.

Data Collection Tools and Techniques

A questionnaire was adapted from a study done in Ethiopia to assess the reliability of the tools for the assessment of domestic violence against women in a low-income country settings (Semahegn et al., 2019), EDHS-2016 (Central Statistical Agency - CSA/Ethiopia & ICF, 2017), and WHO-2005 multi-country (WHO, 2005) violence against women assessment tools and modified in contexts. The questionnaire was prepared in English and consisted of sociodemographic characteristics, substance use-related (alcohol, chat, cigarette/shisha, or IV drug), female autonomy-related, community-based traditional practice-related, and 18 items for IPV-related questions. The IPV-related questions included six physical IPV, eight psychological IPV, and four sexual IPV related questions.

Physical IPV. Women who experienced any of the following: (a) Has he pushed or shoved you, shaken you, or thrown something at you? (b) Has he punched or hit you with his fist, or twisted your arm or with something that could hurt you? (c) Has he slapped, kicked, dragged, or beaten you? (d) Has he attacked you with a knife, gun, or other type of weapon? (e) Have you been scalded or burnt purposefully by your husband? (f) Has he choked at you that may disgracing you in the last three months?

Emotional IPV. Women who experienced any of the following abusive acts: (a) Have you felt bad until you hated yourself for blasphemy? (b) Have you been threatened by your husband with an object such as a stick, belt, knife, gun, or other type of weapon? (c) Have you been ignored or shown indifference by your husband? (d) Has he belittled or humiliated you in front of other people? (e) Have you been denied by your husband on your basic personal needs? (f) Have you been intentionally not involved by your husband on decision-making in the family? (g) Have your husband intentionally made you sad or angry? (h) Have you intentionally threatened to hurt your family, relatives or anything you love in the last three months?

Sexual IPV. Women who experienced any of the following: (a) Have you been physically forced by your husband to have sex when you did not want to? (b) Have you been intentionally denied or avoided sex by your husband? (c) Did you have sexual intercourse when you did not want because you were afraid of what he might do latter? (d) Has he forced you to do something sexual that you found degrading or humiliating in the last three months?

The questionnaire was translated into the local language (Amharic) and back to English to keep its consistency. The tool was pretested on 5% (21 participants) of samples other than selected kebeles in Dessie and some amendments were made based on the pretest findings. Two days training were provided for data collectors and supervisors regarding the sensitivity and personal nature of the questions, objective, and how to approach study participants with ensuring their privacy. Personal protective equipment such as examination gloves, facemasks and alcohol-based sanitizers were provided for the data collectors and supervisor. Then, data was collected using trained female health extension workers by ensuring the privacy of the study participants.

Data Management and Analysis

The data was checked for completeness, coded, recoded, and entered into Epi data version 3.1 software and exported to Stata version 14.2 for analysis. The descriptive analysis was done and the results were presented using texts, frequency tables, figures and median with interquartile range.

A bivariate logistic regression analysis was done to assess the association between the dependent variable with each independent variable. The sociodemographic factors (women age, age at first marriage, women education, women occupation), women substance use, husband substance use in the last three months, polygamy, female autonomy, and living in the community which is tolerant to violence against women were the independent variables included in the bivariate analysis. Thus, independent variables with p -value less than .25 were considered in the final model. Correlation between independent variables was assessed but we did not find any correlation between independent variables. The model fitness was also checked using Hosmer-Lemeshow model fit-ness test. Finally, multivariable logistic regression analysis was done to control potential confounders and to identify the factors associated with IPV amongst women. A statistical significance level was declared at a p -value of less than 0.05.

Operational Definitions

Partner. A person who has relationship with the women either in the form of marriage or cohabitation in the last three months.

Substance use. The women or her husband use either alcohol, chat, cigarette in the last three months.

Female autonomy. Includes the autonomy of the women to decide on family planning choices and usage, financial control, and equally lead the household with her partner.

Results

Sociodemographic Characteristics of Participants

In this study, a total of 589 married women were involved with a response rate of 95.5%. The median age of the participants was 32 (with Inter Quartile Range of 13) years. In this study, 132 (22.4%) of the women were married before the age of 18 years, 126 (21.4%) of participants were illiterate, 333 (56.5%) of the women were housewife, and 471 (80%) of the women had less than five family sizes (Table 1).

Table 1. Sociodemographic Characteristic of Women, Dessie Town, Northeast Ethiopia, July, 2020.

Lis of Variable	Variable Category	Frequency (n = 589)	Percentage (%)
Age	16–25	109	18.5
	26–35	281	47.7
	> 35	199	33.8
Family size	≤ 5	471	80.0
	> 5	118	20.0
Age at the first marriage	< 18	132	22.4
	≥ 18	457	77.6
Religion	Orthodox	304	51.6
	Muslim	269	45.7
	Others+	16	2.7
Women education	Illiterate	126	21.4
	Primary	121	20.5
	Secondary and above	342	58.1
Partners educational status	Illiterate	98	16.7
	Primary	99	16.8
	Secondary	164	27.8
	Tertiary	228	38.7
Women's occupation	House wife	333	56.5
	Merchant	97	16.5
	Employee	119	20.2
	Others++	40	6.8

(continued)

Table 1. continued

Lis of Variable	Variable Category	Frequency (n = 589)	Percentage (%)
Partner occupation	Merchant	202	34.3
	Government employee	205	34.8
	Self-employee	116	19.7
	Others*	66	11.2
	≤1000	69	11.7
Income	1001–2000	110	18.7
	2001–3000	76	12.9
	3001–4000	59	10.0
	> 4000	275	46.7

Note. Others+ (Protestant, Catholic), Others++ (daily laborer, student, NGO-employee, self-employee), Others* (daily laborer, driver, NGO-employee, student, self-employee, Carpenter).

Lifestyle and Behavioral Characteristics of Participants

In this study, 103 (17.5%) of the women reported that polygamy is common practice for men in their community and only 70 (11.9%) of women were autonomous upon their decisions regarding their issues. Regarding substance use, one-fourth (25.3%) of women had used substances (alcohol, cigarette, and chat) in the last three months and one-third of their partner (32.6%) had used any form of substances in the last three months (Table 2).

Table 2. Lifestyle and Behavioral Characteristics of Women and Husbands in Dessie Town, Northeast Ethiopia.

Variable	Category	Frequency (n = 589)	Percentage (%)
Women use substances (alcohol, chat, cigarette) in life time	No	432	73.3
	Yes	157	26.7
Women use substances (alcohol, chat, cigarette) in the last 3 months (n = 157)	No	8	1.4
	Yes	149	25.3
Frequency of women's substance use	Daily	6	1.0
	One or more a week	23	3.9
	One or more in 2 weeks	19	3.2
	Sometimes	101	17.1

(continued)

Table 2. continued

Variable	Category	Frequency (n = 589)	Percentage (%)
Partner use substances (alcohol, chat, cigarette) in the last 3 months	No	397	67.4
	Yes	192	32.6
Frequency of partners substances use (n = 192)	Daily	46	7.8
	One or more a week	21	3.6
	One or more in 2 weeks	13	2.2
	Sometimes	112	19.0
Community tolerant attitude to women violence	No	564	95.8
	Yes	25	4.2
Polygamy allowed for men	No	486	82.5
	Yes	103	17.5
Female Autonomy	No	519	88.1
	Yes	70	11.9

Intimate Partner Violence Against Women

In this study, the overall prevalence of at least one form of IPV (i.e., either physical, sexual or psychological) among married women was 22.4% [95% CI: 19.1%, 25.9%]. Besides, 11%, 20%, and 13.8% of the women had experienced physical, psychological, and sexual IPVs respectively. The study also revealed that 7.3% of the women had experienced all forms of IPVs (physical, psychological, and sexual IPVs) (Figure 1).

Factors Associated with IPV Against Women During COVID-19 Pandemic Restrictions

The selected covariates include age of women, age at marriage, women education level, women occupation, family size, husband and women substance usage, women autonomy, polygamy practice, and women living in a community that support violence against women.

In this study, the odds of IPV among illiterate women was twice as great compared to women who had attended secondary and above education levels (AOR [Adjusted Odds Ratio] = 2.37: 95% CI 1.29, 4.35). Similarly, women who had illiterate husbands were three times higher odds of IPV compared to

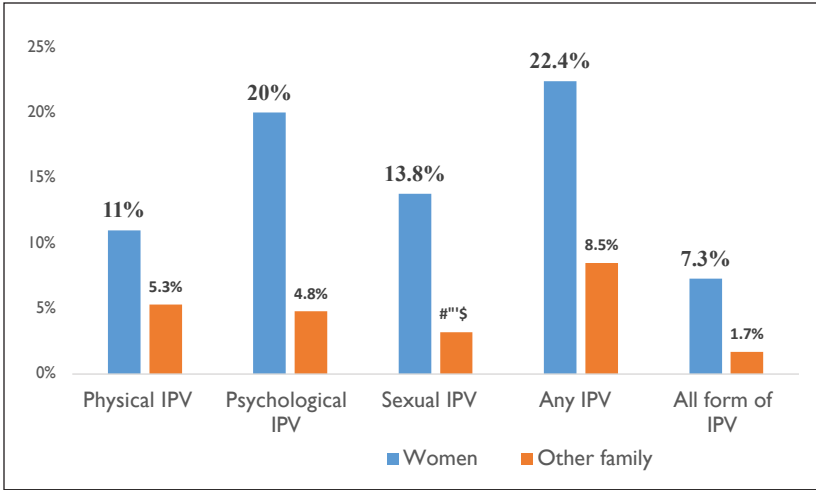


Figure 1. Types of IPV the women and other family members experienced in Dessie town, northeast Ethiopia.

their counterparts (AOR = 2.67; 95% CI 1.36, 5.21). This study revealed that women's husband who were substance users (alcohol, chat, or cigarette) had three times higher risk of IPV compared to those women who had nonuser husbands (AOR = 2.75; 95% CI 1.42, 5.34). The odds of IPV among women in a community tolerant to violence was three-folds higher compared to their counterparts (AOR = 2.97; 95% CI 1.17, 7.61). However, current age of women, age at marriage, women occupation, family size, women substance usage, polygamy practice, and women autonomy were not significantly associated with the IPV (Table 3).

Discussions

This study indicated that the prevalence of any IPV amongst married or cohabitated women was comparable to the national prevalence of domestic violence that was conducted prior to the pandemic. The multivariable logistic regression analysis showed that the woman and husband's education level, husband substance use, and community tolerant attitude toward women violence were the independent predictors of IPV amongst women.

In this study, the overall prevalence of any IPV among women was 22.4% which is higher than a studies conducted in Nigeria (15.2%; Oyediran & Feyisetan, 2017), and South Africa (15%; Sania et al., 2017). The discrepancy might be explained by the differences in the measurement and classification of

Table 3. Factors Associated With IPV During COVID-19 Restrictions in Dessie Town, Ethiopia.

List of predictors	Variable Category	At Least One Form of IPV			COR (95%CI)	AOR (95%CI)
		Yes # (%)	No # (%)	No # (%)		
Women's age	16-25	25(22.9)	84(77.1)	1.00	1.00	
	26-35	60(21.4)	221(78.6)	0.91 (0.54, 1.54)	0.812 (0.45, 1.47)	
	>35	47(23.6)	152(76.4)	1.04 (0.59, 1.81)	0.65 (0.34, 1.24)	
Women education	Illiterate	44 (33.3)	82 (17.9)	2.81 (1.75, 4.46)	2.37 (1.29, 4.35)*	
	Primary	33 (25.0)	88 (19.3)	1.95 (1.19, 3.20)	1.64 (0.93, 2.91)	
	Secondary+	55 (41.7)	287 (62.8)	1.00	1.00	
Partner education level	Illiterate	39 (29.5)	59 (12.9)	3.52 (2.05, 6.04)	2.67 (1.36, 5.21)*	
	Primary	24 (18.2)	75 (16.4)	1.71 (0.95, 3.05)	1.17 (0.59, 2.33)	
	Secondary	33 (25.0)	131 (28.7)	1.34 (0.79, 2.26)	0.92 (0.51, 1.67)	
	Tertiary	36 (27.3)	192 (42.0)	1.00	1.00	
Women occupation	Housewife	77 (58.3)	256 (56.0)	1.00	1.00	
	Merchant	27(20.5)	70 (15.3)	1.28 (0.76, 2.14)	1.23 (0.69, 2.19)	
	Employee	21(15.9)	98(21.4)	0.71 (0.42, 1.22)	1.04 (0.54, 1.99)	
	Others [†]	7(5.3)	33(7.3)	0.70 (0.30, 1.65)	0.61 (0.24, 1.52)	

(continued)

Table 3. continued

List of predictors	Variable Category	At Least One Form of IPV			COR (95%CI)	AOR (95%CI)
		Yes # (%)	No # (%)			
Women used substance in the last three months	Yes	61 (46.2)	96 (21.0)	3.23 (2.14, 4.86)	1.60 (0.82, 3.13)	
	No	71 (54.8)	361 (79.0)	1.00	1.00	
Husband used substances in the last three months	Yes	71 (53.8)	121 (26.5%)	3.23 (2.16, 4.82)	2.75 (1.42, 5.34)*	
	No	61 (46.2)	336 (73.5)	1.00	1.00	
Polygamy practice in the community	Yes	32 (24.2)	71 (15.5)	1.74 (1.08, 2.78)	1.27 (0.74, 2.18)	
	No	100 (75.8)	386 (84.5)	1.00	1.00	
community tolerant attitude to violence against women	Yes	12 (9.1)	13 (2.8)	3.41 (1.52, 7.68)	2.97 (1.17, 7.61)*	
	No	120 (90.2)	444 (97.2)	1.00	1.00	
Women age at first marriage	<18	38 (28.8)	94 (20.6)	1.00	1.00	
	>=18	94 (72.2)	363 (79.4)	0.64 (0.41, 0.99)	0.84 (0.51, 1.41)	
Women autonomy on decision making	Yes	19 (14.4)	51 (11.2)	1.34 (0.75, 2.36)	1.19 (0.63, 2.26)	
	No	113 (85.6)	406 (78.8)	1.00	1.00	

Note. *p < 0.05. Otherst (daily laborer, student, NGO-employee, self-employee), AOR = adjusted odds ratio; COR = crude odds ratio; CI = confidence interval.

any IPV. For instance, some of the researchers combined together physical and emotional IPV but the current study combined the three domains of IPV together. Besides, the sociocultural differences (Alsaleh, 2020) and discrepancy in the strength of legal frames implemented to control violence against women at national and district levels may account for the differences.

However, this study has a prevalence lower than the studies conducted in United States (25% Boserup et al., 2020), EDHS report (34%; Central Statistical Agency - CSA/Ethiopia & ICF, 2017), north western Ethiopia (78%; Semahegn et al., 2013), a review of 36 studies in Ethiopia (37%; Kassa & Abajobir, 2020), Kuwait (71%; Alsaleh, 2020), and Turkey (57.2%); Neslihan Keser Özcan* et al., 2016). This could be justified by the differences in the time frame of the studies, the measurement and classification of any IPV. For example, in our study a woman was asked about their experience of any IPV during the pandemic in Ethiopia, which is a short period compared some of the previous studies those reported experience of IPV at any time or 12 months ago. In addition, the previous studies included the women who sought medical care while this study was community-based only. Subsequently, this may underestimate the prevalence of IPV in our study.

Furthermore, the odds of IPV among illiterate women was twice greater compared to women who had attended secondary and above educations in this study. Similarly, women who had illiterate husbands were three times higher to be violated by their partners compared to their counterparts. These findings are similar to studies conducted in south west Nigeria (Ajala., 2017b), Ethiopia (Abeya et al., 2011; Alebel et al., 2018), Eastern Sudan (AbdelAzziem et al., 2014), and Zambia (Stephen Lawoko, 2006). This could be justified by the fact that illiterate women may not have the knowledge towards the legal legislatives to protect their right, available health services, and refusal to harmful societal norms. Additionally, the illiterate husbands may not be considered violent against women because of their poor knowledge regarding the legal rights of their wife/partners. Therefore, the illiterate women and husbands are more likely to be violated by their intimate partners compared to the literate women.

This study revealed that women who had a substance user (alcohol, chat, or cigarette) husband were three times greater to be violated compared to those women who had not substance user husbands. This finding is similar with the studies conducted in Awi Zone and western Ethiopia (Abeya et al., 2011; Semahegn et al., 2013), Uganda (Black et al., 2019), Nigeria (Ajala., 2017a), South Africa (Sania et al., 2017), Phillipine , Eastern Saudi (N Pearce & Afifi., 2011), and Eastern Sudan (AbdelAzziem et al., 2014). This could be justified by use of substances such as alcohol drinking, smoking or khat chewing can affect the thinking and cognitive potential of the users.

Therefore, women living with substance user husbands/partners are more likely to be violated compared to those living with non-user husbands.

Finally, in this study, women who live in the community tolerant to violence had three-folds greater odds of IPV compared to their counterparts. This finding is in line with a study done in Kuwait (Alsaleh, 2020). In Ethiopia, there are sociocultural and religious barriers which inhibit women's autonomy. For instance, only one in five (19.9%) women had reported their violence to the legal authorities (Deribe et al., 2012). The women's reasons for failing to report to the legal system were related to not knowing where to go, the need to obey community norms and values, and not wanting to expose their personal issue.

Limitation of the study. First, this study was limited to married or cohabitated women. Thus, the findings may not represent unmarried women in the region. Second, the prevalence of IPV might be underestimated because of the personal nature of the problem and under-reported. Finally, the study was not supplemented with qualitative methods since the FGD or other qualitative methods increase risk of COVID infection during data collection.

Conclusions

The study revealed that the prevalence of IPV among married women during COVID-19 restrictions was high. Hence, based on this prevalence, we can infer to the target population (all married/cohabitated women) in the region. The multivariable logistic regression analysis showed that a woman's education level, husband's education level, husband substance use, and community tolerant to violence were the independent predictors of IPV amongst women. Therefore, national and regional governments should work toward enhancing gender equality, coupled with addressing risk factors at multiple levels, using community- and institution-based approaches to prevent IPV and to specifically achieve Sustainable Development Goal 5 of eliminating violence against women beyond COVID-19 pandemic by 2030. Furthermore, the accessibility of education for women should be strengthened at local and national levels. Moreover, qualitative studies are recommended to explore the socio-cultural practices that support women violence in the community.

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Availability of Data and Materials

All materials and data related to this article are included in the main document of the manuscript. However, if anyone has any interest to have raw data, he/she can contact the corresponding author.

Ethical Issues and Consent to Participate

Ethical approval was obtained from Dream Science and Technology Institutional Health Research Ethics Review Committee with approval letter of DSTC/DHS/002/2020. Then, permission letter was written for Dessie city administration office. We had obtained verbal consent from individual study participants before beginning of data collection. The women who were victims of IPV at the time of data collection were reassured and counseled. However, women who experienced severe IPV and were in need of help were taken to Dessie referral hospital counseling care units. We avoided personal identifier to ensure confidentiality and anonymity of study participants.

Declaration of Conflicting Interests


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