


Intimate partner violence in the postpartum period and its associated factors among women attending a postnatal clinic in Central Ethiopia

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Abstract

Objective: Intimate partner violence may affect women at any stage of their lives, including during pregnancy and after childbirth, and can have major health consequences for both the mother and the child. Therefore, the study was aimed to assess intimate partner violence against postpartum women and its associated factors among women attending the postpartum clinic in Central Ethiopia, 2021.

Methods: The hospital based cross-sectional study design was implemented among postpartum women attending Sendafa Beke Hospital from September to October 2021. Systematic random sampling procedure was used to select 414 eligible postpartum women. Data were collected using a structured interviewer administered questionnaire. The data were entered into Epi Info and exported to SPSS version 24 for analysis. All variables with p-value < 0.05 under adjusted odds ratio were taken as statistically significant associated factors with postpartum intimate partner violence.

Results: A total of 414 postpartum women participated in the study with a 97% of response rate. The prevalence of postpartum intimate partner violence was 31.4%. The study identified that monthly income 1000–5000 birr (adjusted odds ratio = 3.4; 95% confidence interval = 1.08, 10.5), partners' alcohol consumption (adjusted odds ratio = 0.17, 95% confidence interval = 0.06, 0.45), decision-maker of household affairs (adjusted odds ratio = 4.8; 95% confidence interval = 1.5, 15.1), and infant's sex (adjusted odds ratio = 0.03; 95% confidence interval = 0.02, 0.063) were significantly associated with postpartum intimate partner violence.

Conclusion: According to the findings of this study, nearly one-third of postpartum women were violated by their intimate partner after childbirth. Postpartum intimate partner violence was found to be associated with monthly income, partners' alcohol intake, decision-maker of household affairs, and infant's sex. To reduce the magnitude of the problem, different efforts should require from health professional, community, and government. The policy makers, planners and other concerned bodies establish appropriate strategy to prevent and control violence against women.

Keywords

Postpartum violence, physical, psychological, sexual, Ethiopia

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Introduction

According to the Ethiopian Ministry of Health, the country's high poverty rate, low income, and low educational level are the main factors of community bad health. Ethiopia has a low literacy rate when compared to other countries, with an adult literacy rate of 51.77% (male 59.24% and female 44.42%) in 2017.^{1,2}

Intimate partner violence (IPV) occurs when a woman's intimate partner takes action against her that has a harmful impact on her physical, psychological, or sexual well-being over the course of her life. IPV is a major women's health issue that affects women all over the world, particularly during pregnancy and after childbirth.³

IPV may affect women at any stage of their lives, including during pregnancy and after childbirth, and can have major health consequences for both the mother and the child. Women who have been abused by an intimate partner are more likely to devalue themselves, have low self-confidence, and have difficulty adapting to new situations, such as pregnancy and the postpartum period.⁴

One-third of childbearing women experience physical and sexual assault from their intimate partner at some point in their life. Only 20% of female victims reported intimate relationship abuse by their intimate partner, while the majority of victims remained silent.⁵

As a result of physical and psychological abuse by an intimate partner during the postpartum period, women are more vulnerable to ill health following childbirth.^{6,7} The national survey of the United States revealed that physical IPV was reported by 21.3% of women after childbirth with and 78% of them reported they had never experienced IPV before pregnancy.⁸

According to World Health Organization (WHO) investigations on partner violence, 8%–34% of pregnant women are at high risk of being violated by their husbands during pregnancy, and the physical, psychological, and/or sexual violence may persist after the babies are born. This implies that, for postpartum women, the period following childbirth is not free of violence.^{9,10}

During pregnancy and the postpartum period, more than a quarter of African women reported physical, sexual, and psychological forms of intimate partner violence. Postpartum intimate partner abuse survivors are less likely to care for their children.^{11,12}

Several studies have identified factors associated with IPV, such as income, educational status, and women's recognition of violence as normal,¹³ husband's alcohol consumption, suspicion paternity, sex of the newborn (female), partner's unfaithfulness (cheating) and jealousy, use of family planning methods, inappropriate family care,⁶ family size, marital status, and number of childbirths.¹⁴

IPV is related with the most serious consequences such as human rights violation, and the major public health concern with substantial implications for women's physical, psychological, sexual, and reproductive health.¹⁵ The consequences

of violence occurring during pregnancy or the postpartum period can be devastating, putting women's and infants' lives at risk.¹⁶

Recent studies suggest that the consequence of intimate partner violence during postpartum period also include the postpartum psychiatric complications like postpartum depression (PPD). This might be considered as the main health problem of the community, affecting women's and infants' health and causes poor mother–child bond.^{17–19}

Furthermore, maternal morbidity and mortality from homicide, suicide, and drug-related overdose are the significant health consequences during a postpartum period. Suicide is the worst consequence of intimate partner abuse, with 54.3% of deaths occurs on pregnancy and after childbirth.^{20,21} The risk of death is three times higher in developing nations than in developed countries; however, this worrying condition has gotten little attention.²²

The impact of violence on children is another detrimental consequence of intimate partner abuse after childbirth. Children who have witnessed or heard their mothers' violence are more likely to have anxious relation with their parents. It also has an impact on a child's emotional stability in stressful, hostile, or unpleasant condition.²³

Domestic violence has an impact on the value of motherhood, as well as the ability of both women and their spouses to care for and feed their children.²⁴ IPV against postpartum women tends to have a negative impact on breastfeeding behaviors, such as a lower chance of continuing to feed, a lack of interest in breastfeeding, and a higher likelihood of weaning early. It may interfere with breastfeeding due to nipple pain and discomfort, leading in insufficient milk production as a result of sadness, self-doubt, body negative, and concern.^{24–26}

Health practitioners can use postnatal care (PNC) to assess IPV against women and plan for its prevention through proper partner counseling. However, there are major gaps in information when it comes to managing postpartum IPV, and most Ethiopian research has concentrated on IPV during pregnancy. Much less is known about postpartum violence and how it may be linked to women's health problems.^{27,28} Postpartum IPV is even more common than the violence during pregnancy.²⁷ As a result, the goal of this study was to determine the prevalence of IPV and associated factors among postpartum women attending Sendafa Beke Hospital in Central Ethiopia in 2021.

Methods

Study design, period, and area

The hospital-based cross-sectional study was carried out from September to October 2021 at Sendafa Beke Hospital in Oromia regional state, Ethiopia, which is about 38 km to north of Addis Ababa, the country's capital. Sendafa Beke Hospital was established in 2009 and currently serving more than 100,000 people and providing more than 1274 child immunization and postnatal services (PNC) per year.

Population

Postpartum women who came to Sendafa Beke Hospital for postpartum and child immunization services were source population. The study populations were postpartum women attending postpartum and child immunization services at Sendafa Beke Hospital during study period. All eligible women who visited postpartum or child immunization clinic during data collection period were participated in the study. Study subjects whose partners were diagnosed with mental illness during the study period, as well as those who were unable to complete the required information due to serious illness, were excluded.

Sample size determination and sampling procedure

The single population proportion formula used to calculate the sample size, with a 95% confidence level and 5% margin of error used with a proportion (p) of 50% because no similar study was conducted in the region/Ethiopia. Finally, 422 eligible postpartum women sampled by systematic random sampling techniques. The individual clients who visited a postnatal clinic approached using a sampling interval of $K=3$ (N/n , where N is the average number of clients who visited child immunization and postnatal clinic and n is the final sample size calculated).

Data collection instruments and techniques

A structured questionnaire was prepared after a detailed review of the literature of different studies.^{3,5,6,10,14–16,19,23} Sociodemographic characteristics, reproductive characteristics, and behavior of women and her partner-related characteristics were all included in the questionnaire. The tool reliability test was checked by Cronbach's alpha, which indicated that 0.79. Two midwives were collected using the pre-tested version questionnaire after pre-testing on 5% of the total sample size at Chanco Hospital. The women were interviewed alone in a separate room arranged for this purpose. The data collectors gave the awareness for the study participants about IPV at the end of the interview. However, eight of study participants refused for the interview.

Statistical analysis

The data were entered into Epi Info and then exported to SPSS version 24 for further analysis. Descriptive analysis (such as frequencies, percentages, mean values, and standard deviation) and inferential analysis was performed. Bivariate and multivariable logistic regressions used to see the association between the outcome variable and the independent variables. The strength of the association was determined using an odds ratio, and the significance of the association was determined using a p-value and a 95% confidence interval (CI). All variables with p-value ≤ 0.25 at

bivariate were considered as a candidate for multivariable analysis and those variables with a p-value ≤ 0.05 in multivariable analyses were taken as statistical significant associated factors with postpartum IPV. Model goodness-of-fit was tested by the Hosmer–Lemeshow model and the forward stepwise (likelihood ratio) method was used.

Variables

Dependent variable. IPV in the postpartum period.

Independent variables. Sociodemographic characteristics (maternal age (in years), marital status, maternal, educational status, husband's educational status, maternal occupation, maternal religion, residence, family size, average monthly income), reproductive characteristics (choice of intimate partner, length of current relationship/marriage (years), partner having another wife, HIV status, sex of newborn), and partner's behavior and related characteristics on violence (partner's alcohol consumption, women's alcohol consumption, acceptance of IPV, dominance in decision-making of household affairs and partner's use of illegal drugs).

Operational and term definitions

Sexual violence. Forcing sex on a woman without her agreement, having sex when she does not want it, and having strange types of sex that injure her.^{6,7}

Physical violence. Slapping, punching, kicking, beating with any object, twisting the arms, strangulation, and using a knife or gun against women are all examples of physical violence.^{6,7}

Psychological or emotional violence. Physical intimidation, threats of abandonment, uttering degrading words (insulting), confinement to house, and withholding money are examples of psychological or emotional violence.^{6,7}

Index of current pregnancy status. Intention to have the child before conception. IPV against women after childbirth: category for IPV (physical, psychological, and/or sexual violence) against women after childbirth: given the code as 1 and no IPV (physical, psychological, and/or sexual violence) against women after childbirth: given code 0.⁷

Ethical approval and informed consent

Ethical clearance was taken from Salale University Ethical Review Committee with Ref. No. SLUERC/123/2021 and permission for the study was taken from Sendafa Beke hospital. Data were collected after full informed written consent taken from study participants and confidentiality of the information was maintained throughout the data collection. Written informed consent was obtained from all subjects and legally authorized representatives of minor subjects before

Table 1. Sociodemographic characteristics of postpartum women at Sendafa Beke Hospital, September to October 2021 (n=414).

Variables		IPV		Total
		Yes	No	
Maternal age (in years)	<18	2 (0.5%)	5 (1.2%)	7 (1.7%)
	18–23	23 (5.6%)	40 (9.7%)	63 (15.2%)
	24–29	28 (6.8%)	113 (27.3%)	141 (34.1%)
	30–35	34 (8.2%)	97 (23.4%)	131 (31.6%)
	>36	43 (10.4%)	29 (7.0%)	72 (17.4%)
Marital status	Married	121 (29.2%)	273 (65.9%)	394 (95.2%)
	Single	2 (0.5%)	1 (0.2%)	3 (0.7%)
	Divorced	0	8 (1.9%)	8 (1.9%)
	Widowed	4 (1.0%)	0	4 (1.0%)
	Separated	3 (0.7%)	2 (0.5%)	5 (1.2%)
Maternal educational status	No formal education	36 (8.7%)	31 (7.5%)	67 (16.2%)
	Primary	52 (12.6%)	80 (19.3%)	132 (31.9%)
	Secondary	21 (5.1%)	77 (18.6%)	98 (23.7%)
	Tertiary	21 (5.1%)	96 (23.2%)	117 (28.3%)
Husband's educational status	No formal education	26 (6.3%)	38 (9.2%)	64 (15.5%)
	Primary	47 (11.4%)	92 (22.2%)	139 (33.6%)
	Secondary	28 (6.8%)	68 (16.4%)	96 (23.2%)
	Tertiary	29 (7.0%)	86 (20.8%)	115 (27.8%)
Maternal occupation	Government employee	21 (5.1%)	83 (20.0%)	104 (25.1%)
	Non-government employee	6 (1.4%)	19 (4.6%)	25 (6.0%)
	Housewife	44 (10.6%)	101 (24.4%)	145 (35.0%)
	Self-employed	55 (13.3%)	60 (14.5%)	115 (27.8%)
	Student	4 (1.0%)	21 (5.1%)	25 (6.0%)
Maternal religion	Orthodox	100 (24.2%)	170 (41.1%)	270 (65.2%)
	Protestant	13 (3.1%)	59 (14.3%)	72 (17.4%)
	Muslim	17 (4.1%)	50 (12.1%)	67 (16.2%)
	Others	0	5 (1.2%)	5 (1.2%)
Residence	Urban	97 (23.4%)	240 (58.0%)	337 (81.4%)
	Rural	33 (8.0%)	44 (10.6%)	77 (18.6%)
Family size	<3	39 (9.4%)	82 (19.8%)	121 (29.2%)
	3–6	69 (16.7%)	192 (46.4%)	261 (63.0%)
	>7	22 (5.3%)	10 (2.4%)	32 (7.7%)
Average monthly income	1000–5000	70 (16.9%)	141 (34.1%)	211 (51.0%)
	5001–10,000	53 (12.8%)	105 (25.4%)	158 (38.2%)
	>10,000	7 (1.7%)	38 (9.2%)	45 (10.9%)

IPV: intimate partner violence.

the study. However, the legally authorized representatives were not present during the interview.

Ethical issues were considered in all steps of the study. The privacy and anonymity of study subjects were preserved by omitting their names from the questionnaire and storing and their data in a secure location.

Results

Sociodemographic characteristics of study participants

A total of 414 postpartum women were included in the study making the response rate of 98.6%. The sociodemographic characteristics of the study subjects and their partners are described in Table 1. More than one-third, 142 (34.1%) of

postpartum women were in the age group of 24–29 years. One hundred thirty two of study subjects, 132 (31.9%) and 139 (33.6%) of their partners' educational level was primary education, respectively. The majority, 394 (95.2%), of the women participated in the study were formally married to their partner, 270 (65.2%) of them Orthodox in religion, 337 (81.4%) urban in residence, 261 (63%) had three to six family size, and about half of them, 211 (51.0%), get 1000–5000 Ethiopian birr (ETB) average monthly income (Table 1).

Reproductive characteristics of postpartum women

The result from the table of reproductive characteristics indicated that the majority, 232 (56.0%), of the study participants

Table 2. Reproductive characteristics of postpartum women at Sendafa Beke Hospital, September to October 2021 (n=414).

Variables		IPV		Total
		Yes	No	
Who choose your intimate partner?	Family	57 (13.8%)	80 (19.3%)	137 (33.1%)
	Myself	55 (13.3%)	177 (42.8%)	232 (56.0%)
	Colleague	18 (4.3%)	27 (6.5%)	45 (10.9%)
Length of current relationship/marriage (years)	1–3	27 (6.5%)	62 (15.0%)	89 (21.5%)
	4–6	35 (8.5%)	81 (19.6%)	116 (28.0%)
	6–9	9 (2.2%)	59 (14.3%)	68 (16.4%)
	10–12	12 (2.9%)	43 (10.4%)	55 (13.3%)
	>12	47 (11.4%)	39 (9.4%)	86 (20.8%)
Partner having another wife	Yes	8 (1.9%)	6 (1.4%)	14 (3.4%)
	No	122 (29.5%)	278 (67.1%)	400 (96.6%)
HIV status	Positive	4 (1.0%)	4 (1.0%)	8 (1.9%)
	Negative	126 (30.4%)	280 (67.6%)	406 (98.1%)
Sex of newborn	Male	116 (28.0%)	58 (14.0%)	174 (42.0%)
	Female	14 (3.4%)	226 (54.6%)	240 (58.0%)

IPV: intimate partner violence.

Table 3. Partner's behavior and related characteristics on violence among postpartum women at Sendafa Beke Hospital, September to October 2021 (n=414).

Partner's alcohol consumption	Never	27 (6.5%)	135 (32.6%)	162 (39.1%)
	Sometimes	81 (19.6%)	132 (31.9%)	213 (51.4%)
	Frequently or Always	22 (5.3%)	17 (4.1%)	39 (9.4%)
Women's alcohol consumption	Never	78 (18.8%)	192 (46.4%)	270 (65.2%)
	Sometimes	52 (12.6%)	90 (21.7%)	142 (34.3%)
	Frequently or Always	0	2 (0.5%)	2 (0.5%)
Acceptance of intimate partner violence	Accept	22 (5.3%)	13 (3.1%)	35 (8.5%)
	Do Not Accept	108 (26.1%)	271 (65.5%)	379 (91.5%)
Dominance in decision making of household affairs	Equally	48 (11.6%)	219 (52.9%)	267 (64.5%)
	Husband	72 (17.4%)	52 (12.6%)	124 (30.0%)
	Wife	10 (2.4%)	13 (3.1%)	23 (5.6%)
Partner's use of illegal drugs	Yes	2 (0.5%)	1 (0.2%)	3 (0.7%)
	No	128 (30.9%)	283 (68.4%)	411 (99.3%)

chosen their intimate partner by themselves, and 116 (28.0%) reported that their length of relationship with their partners was 4–6 years. Only 14 (3.4%) of women's partner had another wife, 8 (1.9%) of study participants were positive for HIV status, and most, 240 (58%) of postpartum women gave birth to female baby (Table 2).

Partner's behavior and related characteristics on violence

The finding of this study revealed that more than half (51.4%) of the partners sometimes consumed alcohol and 270 (65.2%) the women never consumed the alcohol during study period. The majority, 379 (91.5%), of the women reported that they did not accept about the violence from their partner (Table 3).

The prevalence of IPV during postpartum period

According to this study, the overall prevalence of any form of IPV (physical, psychological, and/or sexual violence) experienced by women from their current partner after child-birth is 31.4%. Psychological violence was the most prevalent type of violence, specifically being insulted 104 (80%), followed by physical, being slapped 71 (54.6) and sexual violence, and being had sex when not wanting to because of fear, 52 (40%) (Table 4).

Factors associated with postpartum IPV among women attending Sendafa Beke Hospital, 2021 (n=414)

An average monthly income, partner's alcohol consumption, sex of newborn, decision-maker of household affairs, partner

Table 4. The prevalence of any form of intimate partner violence (physical, emotional, and/or sexual violence) experienced by women from their recent partners during current postpartum period (n = 130).

Type of violence		IPV	Frequency	%
Physical	Being pushed?	Yes	45	34.6
		No	85	65.4
	Being slapped?	Yes	71	54.6
		No	59	45.4
	Being punched with fist	Yes	23	17.7
		No	107	82.3
	Being kicked or dragged?	Yes	33	25.4
No		97	74.6	
Being choked or burnt	Yes	15	11.5	
	No	115	88.5	
Being threatened?	Yes	16	12.3	
	No	114	87.7	
Psychological	Being insulted?	Yes	104	80
		No	26	20
	Being belittled/humiliated?	Yes	34	26.2
		No	96	73.8
	Being scared/intimidated on purpose?	Yes	23	17.7
		No	107	82.3
Being threatened to hurt her or someone she cares about	Yes	38	29.2	
	No	92	70.8	
Sexual	Being physically forced to have sex?	Yes	51	39.2
		No	79	60.8
	Being had sex when not wanting to because of fear?	Yes	52	40
No		78	60	
Being forced to do something sexual which is humiliating?	Yes	5	3.8	
	No	125	96.2	
Overlapping occurrences	Physical and psychological?	Yes	74	56.9
		No	56	43.1
	Physical and sexual?	Yes	45	34.6
		No	85	65.4
	Psychological and sexual?	Yes	54	41.5
		No	76	58.5
Physical, psychological, and sexual	Yes	62	47.7	
	No	68	52.3	

IPV: intimate partner violence.

having another wife, and women acceptance of IPV were variables with p-value of less than or equal to 0.25 at the bivariate logistic regression and were taken to multivariable logistic regression analysis for significance association.

Variables with a p-value less than or equal to 0.05 and a 95% CI; average monthly income, partner's alcohol intake, household decision-maker, and sex of newborn were all found to be significantly associated with postpartum IPV.

Participants whose average monthly income 1000–5000 birr were 3.4 times more likely to have experienced IPV during the postpartum period compared to those with average monthly income greater than 5000 birr (adjusted odds ratio (AOR)=3.4; 95% CI=(1.08, 10.5)).

Correspondingly, compared with postpartum women whose partners consume alcohol frequently, women whose partners never consumed alcohol were 83% less likely to

experience postpartum IPV (AOR=0.17, 95% CI=0.06, 0.45).

The study also revealed that participants whose partners were decision-makers of household affairs were 4.8 times more likely experienced postpartum intimate violence compared to those participants who were decided on household affairs by themselves (AOR=4.8; 95% CI=1.5, 15.1). The women who gave birth to male infants were 97% less likely abused by their intimate partner compared to those who gave birth to female infants (AOR=0.03; 95% CI=0.02, 0.063) (Table 5).

Discussion

According to this study, 31.4% of women have suffered from any form of postpartum IPV (physical, psychological, and/or

Table 5. Factors associated with postpartum intimate partner violence among postpartum women attending Sendafa Beke, September 2021, n=414.

Variables		IPV		COR (95% CI)	AOR (95% CI)
		Yes	No		
Maternal educational status	No formal education	36 (8.7%)	31 (7.5%)	0.2 (0.1, 0.4)	1.2 (0.4, 3.6)
	Primary	52 (12.6%)	80 (19.3%)	0.35 (0.2, 0.63)	1.6 (0.7, 3.4)
	Secondary	21 (5.1%)	77 (18.6%)	0.8 (0.42, 1.6)	0.72 (0.32, 1.6)
	Tertiary	21 (5.1%)	96 (23.2%)		
Husband's educational status	No formal education	26 (6.3%)	38 (9.2%)	0.5 (0.3, 1.05)	1.05 (0.43, 2.5)
	Primary	47 (11.4%)	92 (22.2%)	0.7 (0.4, 1.2)	0.9 (0.44, 1.9)
	Secondary	28 (6.8%)	68 (16.4%)	0.8 (0.45, 1.5)	0.95 (0.41, 2.2)
	Tertiary	29 (7.0%)	86 (20.8%)		
Family size	<3	39 (9.4%)	82 (19.8%)	1.3 (0.8, 2.1)	0.95 (0.24, 3.8)
	3–6	69 (16.7%)	192 (46.4%)	0.23 (0.09, 0.5)	0.91 (0.29, 2.9)
	>7	22 (5.3%)	10 (2.4%)		
Average monthly income	<1000	70 (16.9%)	141 (34.1%)	0.4 (0.16, 0.9)	1.8 (0.58, 5.6)
	1000–5000	53 (12.8%)	105 (25.4%)	0.37 (0.15, 0.87)	3.4 (1.08, 10.5)*
	>5000	7 (1.7%)	38 (9.2%)		
Partner's alcohol consumption	Never	27 (6.5%)	135 (32.6%)	6.4 (2.9, 13.5)	0.17 (0.06, 0.45)*
	Sometimes	81 (19.6%)	132 (31.9%)	2.1 (1.04, 4.3)	0.54 (0.22, 1.32)
	Frequently or Always	22 (5.3%)	17 (4.1%)		
Women acceptance of IPV	Accept	22 (5.3%)	13 (3.1%)	0.24 (0.12, 0.48)	0.45 (0.17, 1.15)
	Do Not Accept	108 (26.1%)	271 (65.5%)		
Partner having another wife	Yes	8 (1.9%)	6 (1.4%)	0.33 (0.11, 0.97)	5 (0.85, 3.1)
	No	122 (29.5%)	278 (67.1%)		
Decision-maker of household affairs	Equally	48 (11.6%)	219 (52.9%)	0.16 (0.09, 0.25)	0.8 (0.28, 2.4)
	Husband	72 (17.4%)	52 (12.6%)	0.55 (0.12, 0.69)	4.8 (1.5, 15.1)*
	Wife	10 (2.4%)	13 (3.1%)		
Sex of newborn	Male	116 (28.0%)	58 (14.0%)	0.031 (0.02, 0.06)	0.03 (0.02, 0.06)*
	Female	14 (3.4%)	226 (54.6%)		

COR = crude odds ratio; AOR = adjusted odds ratio; 95% CI = 95% confidence interval.

*Statistically significant at $p \leq 0.05$; | = reference

sexual assault) by their current spouse following childbirth. The study indicated that postpartum IPV was substantially associated with average monthly income, partner's alcohol usage, household decision-maker, and the sex of newborn. The prevalence of postpartum IPV (31.4%) in this study was comparable with the study done in United States (33.8%), Brazil (25.6%), and Beijing, China (32.5%).^{5,8,13}

The finding of this study is much lower than the findings of study conducted in Bangladesh (49.7%).¹² A possible reason for the difference may be due to differences in socio-cultural characteristics. For instances, the study in Bangladesh conducted in the rural residents while this study done in the districts' capital town. Another reason for the discrepancy might be the difference of time after childbirth when data collected, that is, data for study in Bangladesh was obtained from women who gave birth the past 6 months while this study collected the data from women who delivered the past 6 weeks.

This study is much higher than studies done in Malaysia (4.94%), Sweden (3.3%), Zambia (8.1%), Brazil (10.1%), Dares Salaam, Tanzania (9%), and Mumbai, India

(18%).^{3,10,14,16,19,23} The possible reason for this difference might be the difference of sample size and sociocultural difference.

The study revealed that women with an average monthly income ranged from 100 to 5000 birr were more likely to experience postpartum intimate partner violence compared to those with average monthly income is greater than 5000 birr. This is in line with qualitative research conducted in Wolaita district, Ethiopia, which showed that family's financial problems often contributed to violent events.⁶ This may be because couples with insufficient monthly income may have instable behavior against family and can abuse their wives.

The study also showed that women's partners who never consume alcohol were less likely to be violated by their husbands compared with those who consume frequently. This is comparable to studies conducted in Malaysia, Brazil, Wolaita, and systematic review of Ethiopia.^{1,3,4,13}

The most likely rationale for this is that husbands who drink alcohol regularly become drunk, unable to take responsibility for family, subject their wives to intimate abuse.

Similarly, this study also revealed that women whose partner decides on the household affairs were more likely to be suffered from the IPV compared to those women who were decided on household affairs by themselves. This is supported by systematic review study done in Ethiopia¹⁵ which indicated that women's decision-making power associated with IPV. This may be because postpartum women suffered when all household affairs decided by their husbands due to the decision depend on only the husbands' interest.

Those who gave birth to male infants were less likely to be violated with their intimate partner during postpartum period than who gave birth to female babies. This is consistent with qualitative study in Wolaita, Ethiopia,⁶ which showed that postpartum women suffered from postpartum intimate partner violence due to giving birth to female infants. The reason might be due to sociocultural believes that giving birth to female baby makes the family to be undermined.

Strengths and limitations of the study

While earlier studies have focused on IPV occurring during pregnancy, this study is the only quantitative research on IPV occurring during the postpartum period in our nation. The study's drawback was the response rate; the reasons for the hesitation to participate could be related to partner abuse and the fear of disclosure when the woman's partner accompanied her to the health facility. Another weakness was that our study did not take into account the IPV's consequences.

Conclusion

The result of this study revealed that nearly one-third of postpartum women violated by their intimate partner after childbirth. Average monthly income, partners' alcohol consumption, decision-maker of household affairs, and sex of newborn were factors found to be associated with IPV after childbirth. To reduce the magnitude of the problem, different efforts are required from health professional, community, and government. Education regarding gender equality and empowering women by strengthening efforts of the individual, society, and local power establishments could also lessen the factors associated with postpartum IPV. The policy makers, planners, and other concerned bodies should establish appropriate strategy to prevent and control violence against women.

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Author contributions

All of the authors contributed to the proposal development, questionnaire development, data collecting process, and analysis. The

final version of the article was read by all authors, who gave their approval for it to be considered for publication. Conceptualization: Dejene Edosa Dirirsa, Tinsae Abeya Geleta, and Mathewos Mekonnen. Data curation: Dejene Edosa Dirirsa, Adugna Alemu Desta, and Germa Tufa Melese. Formal analysis: Dejene Edosa Dirirsa, Adugna Alemu Desta, and Germa Tufa Melese. Funding acquisition: Dejene Edosa Dirirsa. Investigation: Dejene Edosa Dirirsa, Tinsae Abeya Geleta, and Shimellis Tadese Abebe. Methodology: Dejene Edosa Dirirsa, Shimellis Tadese Abebe, and Adugna Alemu Desta. Project administration: Dejene Edosa Dirirsa. Resources: Dejene Edosa Dirirsa. Software: Shimellis Tadese Abebe and Adugna Alemu Desta. Validation: Tinsae Abeya Geleta. Visualization: Dejene Edosa Dirirsa and Tinsae Abeya Geleta. Writing—original draft: Dejene Edosa Dirirsa. Writing—review & editing: Dejene Edosa Dirirsa and Shimellis Tadese Abebe.

Data availability

The data used in this study is available upon reasonable request from the principal investigator.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical approval

Ethical approval for this study was obtained from Salale University of Ethics Research Committee (REC) with the approval number SLUERC/123/2021.

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Informed consent

Written informed consent was obtained from all subjects and legally authorized representatives of minor subjects before the study.

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Supplemental material

Supplemental material for this article is available online.

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