
ORIGINAL ARTICLE**THE PHYSICAL HEALTH CONSEQUENCES OF INTIMATE PARTNER VIOLENCE AGAINST WOMEN IN AGARO TOWN, SOUTHWEST ETHIOPIA****Amare Deribew, MD, MPHE****ABSTRACT**

BACKGROUND: - *The physical health consequences of intimate partner violence are many and diverse. Population based studies on the problem are rare in Ethiopia. Therefore, the objective of this study was to assess the physical health consequences of intimate partner violence against women and the coping mechanisms in Agaro town, Southwest Ethiopia.*

METHODS: - *This community based cross-sectional study was conducted among 510 ever-partnered women in Agaro town from February 2 to 29, 2007. Eligible women were interviewed by trained 12th grade completed female enumerators using Amharic version of the structured WHO domestic violence questionnaire. Univariate and multivariate analysis techniques were carried out using SPSS for windows version 12.0.1.*

RESULTS: - *The prevalence of physical injury among victims of intimate partner violence was 65(37.3%). The most common types of physical injuries were abrasion/bruises 43(66%), puncture/cuts 29(45%) and dislocation 12(18.5%). Among women who sustained injury, a quarter of them had severe form of injury such as eye/ear injury, broken teeth, fracture and burn. All types of intimate partner violence (physical, sexual and emotional/psychological abuses) were significantly associated with poor perceived general health status of women. Seventy-five percent of women fought back their partner during the violence. Twenty-seven (42%) of the women sought help from different places. The common sources of help were elderly people 19(63%), hospital/health center 13(43%), police 8(27%), and women's affairs 8(27%). From those who went to health facilities, 8(61%) did not tell the real causes of the injury to the health professionals. More than half of the victims were not satisfied with the responses of the different sectors.*

CONCLUSION: *Prevalence of physical injury was very high. Intimate partner violence was associated with poor general health status. The health seeking behaviors of victims were poor. Multi-sectoral approach is recommended to educate the community to prevent intimate partner violence and injuries.*

KEY WORDS: *Physical health, Intimate partner violence, Agaro*

INTRODUCTION

Women are the backbone of society; however, they suffer from unfavorable conditions particularly in developing countries and receive the least benefits from social and family resources (1). Intimate partner violence (IPV) or domestic violence is the most common forms of violence against women (1). Morbidity due to violence is very high in women of childbearing age, like other communicable disease such as HIV/AIDS. Intimate partner violence occurs in all countries, irrespective of social, economic, religious or cultural groups. In population-based surveys from around the world, between 10% and 69% of women reported being physically assaulted by an intimate male partner at some point in their lives. The percentage of women who had been assaulted by a partner in the previous 12 months varied from 3% or less among women in Australia, Canada and the United States to 52% in Palestine (2, 3).

The physical health consequences of IPV are many and diverse. In the multicountry study of WHO, the prevalence of physical injury among ever abused women ranged from 19% in Ethiopia (Butajira) to 55% in Peru. Although the majority of ever injured women reported minor injuries (bruises, abrasion, cuts, puncture and bites), in some sites, more serious injuries like broken bones and teeth and burns were relatively common (4). Severe forms of injuries like hit by stick and using knives were reported in a study conducted in Gondar and Butajira (5, 6).

Literature showed that women who suffered from physical or sexual abuse or both were more likely to report poor or very poor physical and mental health. They were also more likely to have had problems of walking, carrying out daily activities, pain, memory loss, dizziness, and vaginal discharge (4, 7). Studies on the physical health consequences of IPV in developing countries like Ethiopia are rare. This study was conducted to assess the physical health consequences of

IPV against women and the coping mechanisms in Agaro town, Southwest Ethiopia.

METHODS

This community based cross-sectional study was conducted from February 2 to 29, 2007 in Agaro Town. Agaro town is located 480 km Southwest of Addis Ababa and 50 km West of Jimma .It has Five Kebeles (lowest administrative units) and 7333 households with a projected population of 32,866, where females constitute 52% of the total population (8).

The source population was all women of reproductive age group (15-49 years) in the study area who had intimate partner. The study population constituted sampled women of reproductive age group who had intimate partner and who lived in the study area for more than 6 months.

This article is part of a survey which was conducted to assess the association between IPV and mental illnesses (9). Since the main aim of the study was to assess the association between IPV and mental illnesses, sample size was determined using two proportion sample size formulae by Epi-Info version 3.3.2. The assumptions for the sample size calculation were prevalence of depressive disorder (P1) among those who have violence of 17.15%, prevalence of depressive disorder among women who have no violence of 7%, OR being detected of 2.75, 95% confidence level, 90% power. The above proportions and the OR were taken from other study (5). This gave a total sample size of 468. Adding 10% for non-response rate, the total sample size was 515.

To identify the eligible women, census was done in the five Kebeles. The sample size was distributed to each Kebeles based on probability proportional to size allocation. Households which had eligible women were selected by systematic sampling using house numbers. In the selected household, eligible women were interviewed using structured questionnaire. If there were two eligible women in the same household, one was selected by lottery method.

Violence was assessed using Amharic version of the structured WHO domestic violence questionnaire which was used in Butajira (4, 5). The instrument was pretested on 10% of the sample size on similar population. The contents of the questionnaire consisted of socio-demographic variables of respondents, history of life time and 12 months experience of any form of violence (physical and sexual violence), types of injury, perceived general health status and coping mechanisms after injury.

Data were collected by 10 trained female high school complete students who were given 5 days of training using training manual. There was strict supervision by the principal investigator and medical interns.

Data were edited, coded and entered into computer and analyzed using SPSS for Windows version-12.0.1. Descriptive analysis was done to see the prevalence and types of injuries. Bivariate analysis was done to see association between any forms of violence and perceived general health status of women. To control the effect of confounding factors, stepwise logistic regression model was carried out. Variables which had statistically significant association in the bivariate analysis were included in the multivariate model.

Ethical clearance was obtained from Jimma University. Permission was sought from Jimma Zonal Health Bureau and the District Health Office in Agaro town. The aim of the study was explained to the respondents and verbal consent was obtained. To ensure confidentiality issues, interview was conducted privately (in the absence of any person around) and the names of the respondent were not written on the questionnaire. The right of the respondent not to participate or withdraw from the study was respected. Physically abused women were advised to visit the near by health institution.

The following operational definitions were used in the study:

Physical violence: Any violent act using force that may cause physical harm to a woman. It includes pinching, slapping, kicking with legs, biting or using any material like stick, belt, knife and gun to hurt the women. A woman was said to have physical abuse if she had experienced one of the above violent acts.

Sexual violence: The three different behaviors which were used in the WHO multi-country study (4) were used to measure sexual violence. According to this definition, a woman experienced sexual violence if she had one of the following: being forced to have sexual intercourse against her will; having sexual intercourse because she was afraid of what her partner might do if she did not; or being forced to do something sexual that she thought was degrading or humiliating.

Psychological/emotional abuse: It included uttering humiliating words like insulting, physical intimidation, and threats to hurt the women or someone she likes.

Intimate partner violence- any form of violence (sexual or physical or emotional/psychological) by current or former husband or unmarried domestic partner who sleeps with the women for more than a month.

Physical Health consequence-This includes perceived general health status and physical injuries.

RESULTS

From the total 515 study subjects, 510(99%) were interviewed successfully. The mean age of the respondents was 33.1(SD±10.9), the majority (40%) being in the age group of 25-34 years. Oromo and housewives constituted 239 (47%) and 331 (65%) of the

study population, respectively. Illiterate respondents (Table-1) accounted for 104(20.4%) of the study population

Table 1. Socio-demographic characteristics of ever partnered women of reproductive age group (n=510), Agaro town, February 2007

Variable	Number (%)
Educational status of women	
Illiterate	104(20.4)
Elementary	206(40.4)
Secondary and above	200(39.2)
Ethnicity	
Oromo	239(46.9)
Gurage	95(18.6)
Amhara	77(15.1)
Dawro	42(8.2)
Keffa	29(5.6)
Yem	10(2.0)
Tigre	8(1.6)
others [‡]	10(2.0)
Age group	
15-24	94(18.4)
25-34	207(40.6)
35-44	120(23.5)
>44	89(17.5)
Occupation	
Housewife	331(64.9)
Merchant	68(13.3)
Daily laborer	62(12.2)
Government employee	27(5.2)
Farmer	9(1.8)
Jobless	6(1.2)
Other [‡]	7(1.4)

[‡] Other include: Wolaita, Agnauk, silitie

[‡] NGO employee

Detailed description of the magnitude and types of violence is published elsewhere (10). In this study, 166(32%) and 171(33%) of women experienced physical and sexual violence in their lifetime, respectively. Emotional abuse was more common than physical and sexual abuses.

When asked about their perception on their general health status, 212 (42%) of the women rated their general health status as poor to very poor. Women who experienced physical, sexual and emotional/psychological abuses were more likely to report to have poor to very poor health status. After controlling the effect of age, excessive alcohol use, and educational status, sexually abused women were 2.2 times more likely to have poor perceived general health status than the non-abused ones, OR=2.23(95% CI: 1.5,3.2). Other types of violence had the same effect on the perceived general health status. Among many socio-demographic variables, age of the women was the only independent predictor of poor general health status. After

controlling the effect of any form of violence, alcohol use and educational status, women who belonged to the age group 35-44 were 1.8 times more likely to have poor health status than those whose age were between 15-24, OR=1.8(95%CI=1.05,3.35) (Table-2).

When women who experienced IPV were asked whether they had physical injury, 65(37.3%) reported to have had some form of physical injury. From those who sustained physical injury, 24(37%) of them lost their consciousness. In 20% of the cases, the loss of consciousness was longer than one hour. Majority 39(63%) of the injuries occurred within the last one year. The most common types of physical injury were abrasion/bruises 43(66%), puncture/cuts 29 (45%), and dislocation 12(18.5%). Severe forms of physical injury such as eye/ear injury, penetrating injury, fracture and burn constituted 8(12.3%), 3(5%), 2(3%) and 1(1.5%) of all the injuries, respectively (Table-3).

With regard to the coping mechanisms, 49(75%) fought back their partner during the violence and 27(42%)

sought help from different places. In 26 (53%) of the cases, the fight back aggravated the violence. The common source of help were elderly people 19(63%), hospital/health center 13(43%), police 8(27%), women affairs 8(27%), religious leaders 5(17%) and court 4(13%) (Table-4).

Table 2. Predictors of perceived general health among ever partnered women of reproductive age group (n=510), Agaro town, February 2007

Types of violence ever experienced	Perceived General health		Crude OR (95% CI)	Adjusted OR (95% CI) [†]
	Poor to very poor	Good to very good		
Emotional abuse				
Yes	114	119	1.75(1.2, 2.4))	1.5(1.01, 2.3)
No	98	179	1	1
Physical abuse				
Yes	90	76	2.15(1.47, 3.1)	2.0(1.4, 3.0))
No	122	222	1	1
Sexual abuse				
Yes	94	77	2.23(1.5, 3.3)	2.2(1.5,3.2)
No	118	221	1	1
Age(years)				
15-24	33	63	1	1
25-34	78	129	0.8(0.46, 1.3)	0.9(0.53, 1.43)
35-44	62	58	1.74(1.01, 3.15)	1.82(1.05, 3.35)
>44	41	48	1.4(0.85, 2.3)	1.4(0.87, 2.4)

[†] Adjusted for age, educational status, alcohol and chat use

Table 3. Types of physical injury among ever partnered women of reproductive age group (n=65), Agaro town, February 2007

Types of physical injury	Percent [§]
Abrasion, bruises or scratches	66.2
Cuts, punctures	44.6
Sprain/dislocation	18.5
Eye/ear injury	12.3
Penetrating/deep injury	4.6
Fracture	3.1
Broken teeth	3.1
Burn	1.5
Other types of physical injury	4.7

[§]Percentage may exceed 100 due to multiple injuries in the same women

Table 4. Place where help was sought for the injury (n=30) among ever partnered women of reproductive age group, Agaro town, February 2007

Source/place of help	Percent [¶]
Elderly people	63.3
Hospital	43.3
Police	26.7
Women affairs	26.7
Religious leader	16.7
Court	13.3
Social services	3.3
Other areas	6.7

[¶] Percentage may exceed 100 since one woman may visit different sources of help

From those who went to health facilities, 8(61%) did not tell the real causes of the injury to health professionals. More than half of the women were not satisfied with the help they got from the different places.

The common reasons why they sought help from the different places were; being unable to tolerate the violence 15(53%), pressure from friends 9(32%), threatened to be killed 8(28.6%), forced to leave home 8(28.6%), seeing the suffering of children 4(14.3%), and severity of injury 4 (14.3%). Thirty-eight (58%) of the victims did not seek any help anywhere. The common reasons of not seeking help were not to aggravate the violence 26(25.6%), violence is usual and could not cause severe injury 23(24.4%), being afraid of separation 21(22.3%), fear of losing children 20(21.3%), not to be blamed 10(11.6%), and perceived that no help will be obtained 5 (6%).

DISCUSSION

To the best of the author's knowledge, this study is the first of its kind in the study area in assessing the physical consequences of IPV and the coping mechanisms. Use of WHO questionnaires applied in many settings, rigorous training of data collectors and supervision were some of the measures taken to improve the validity of the study. However, despite its contribution in generating important information, this study had some limitations like exclusion of rural settings because of resources constraints and difficulty of inferring causality due to the cross-sectional nature of the study.

The prevalence of physical injury in the study area (37.3%) is much higher than the findings of many settings which were included in the WHO multicountry study (4). It is comparable with studies conducted in other developed countries (11-14).

The prevalence of injury in this study was higher than that of the Butajira where 28% of women had physical injury. However, the types of injury reported in this study were similar to the Butajira study (5). Among women who sustained injury, a quarter of them had severe form of injury such as eye/ear injury, broken teeth, fracture and burn which is consistent with findings from Butajira (5). Significant number of women who sustained injury (36%) lost their consciousness indicating the seriousness of the problem.

All types of IPV were significantly associated with poor perceived health status. Literatures showed that perceived health status is a good proxy for morbidity status (15, 16). The association of violence and physical symptoms is supported by many literatures (4, 5, 17). Among the socio-demographic variables, old age was associated with poor perceived general health status. Literature showed that morbidity due to reproductive health problems and/or other medical health problems are more common among old women than the youth (18).

Three quarter of the women fought back to defend themselves from violence which is consistent with studies conducted in Brazil and Peru (4) but higher than that of Butajira where only 6% of women fought back to defend themselves (5). Urban and rural women of Ethiopia might have differences in fighting back to protect themselves from violence. For rural women it may be shameful to fight back the men due to cultural influences. This might not be the case for urban women like the women in the present study. Significant numbers of victim of violence (28%) were forced to leave their home which was similar to similar with a report from Butajira (5).

About 40% of respondents sought help from different sources showing poor health seeking behaviors of the respondents. Of those who went to the health institution, majority of them did not tell the true causes of injury which is consistent with other studies (4, 5). The low health seeking behaviors of victims of violence would make the physical and psychological consequences of the injury more severe. Significant number of them did not seek help because they perceived that the injury was simple. About 21 (22.3%) of women did not seek help because they were afraid of separation. The economic dependency of women might be the reason for not seeking help. From those who sought help, majority of them consulted the elderly people and the health institutions. Only 13% of women went to court or legal a service which is in agreement with other study (4). Among women who sought help, majority of them were not satisfied with the service they received from the different sources. This might be an indication that serious attention is not given for IPV by the different stakeholders including the legal services.

In conclusion, the prevalence of physical injury among victims of violence was very high in the study area. All types of IPV were associated with poor perceived general health which is a proxy for morbidity status. The health seeking behaviors of the victims of violence was very low. A multi-sectoral approach involving relevant stakeholders is needed to educate the community about IPV, its consequences and preventive methods. The education should focus on women to increase their awareness including the health seeking behavior. Existing laws and policies should also be enacted to protect the rights of women.

ACKNOWLEDGMENTS

The researcher is very grateful to the Research and Publication Office of Jimma University in sponsoring the study. I acknowledge the community for the study area in providing me the necessary information.

REFERENCES

1. WHO. World report on violence and health, World Health Organization, Geneva, 2002
2. Heise L, Ellsberg M, Gottemoeller M. Ending violence against women. Baltimore, MD, Johns Hopkins University School of Public Health, Center for Communications Programs, 1999 (Population Reports, Series L, No. 11).
3. Violence against women: a priority health issue. Geneva, World Health Organization, 1997 (document WHO/FRH/WHD/97.8).
4. WHO Multi-country study on Women's health and domestic violence against women. WHO, 2005
5. Gossaye Y, Deyessa N, Berhane Y et al. Women's Health and Life Events Study in Rural Ethiopia. *Ethiopian.J.Health.Dev.*2003;17(special issue):1-41
6. Yigzaw T, Yibrie A, Kebede Y. Domestic violence around Gondar in Northwest Ethiopia. *Ethiopian.J.Health.Dev.*2004;18(3):133-139
7. Ann L, Keith E, Ileanna A et al. Physical and mental health effect of intimate partner violence for women and men. *Am J Prev Med*, 2002;23(4):260-268)
8. Central Statistical Authority. The 1994 Population and Housing Census of Ethiopia, results of the OROMIYA REGION, Addis Ababa, Ethiopia, April 1996.
9. Deribew A. The mental Health Consequences of Intimate Partner Violence against Women, Southwest Ethiopia, August 2007(In press, Tropical doctor)
10. Deribew A. The magnitude and risk factor of Intimate Partner violence against women, Southwest Ethiopia, June 2007(In press, Ethiopian J. Health Sciences).
11. Rand M, Strom K. Violence-related injuries treated in hospital emergency departments. *Bureau of Justice Statistics, Special Report*, 1997:1-11.
12. Fanslow J, Norton R, Spinola, C. Indicators of assault-related injuries among women presenting to the emergency department. *Annals of Emergency Medicine*, 1998, 32:341-348.
13. Kyriacou DN, Agnlin D, Taliaferro E et al. Risk factors for injury to women from domestic violence against women. *New England Journal of Medicine*, 1999, 41:1892-1898.
14. Thompson M, Saltzman LE, Johnson H. Risk factors for physical injury among women assaulted by current or former spouses. *Violence Against Women*, 2001, 7:886-899.
15. McDonough P, Duncan JG, Williams D, House J. Income dynamics and adult mortality in the United States, 1972 through 1989. *American Journal of Public Health*, 1997, 87:1476-1483.
16. Sorlie PD, Backlund E, Keller JB. US mortality by economic, demographic, and social characteristics: the National Longitudinal Mortality Study. *American Journal of Public Health*, 1995, 85:949-956.
17. Campbell JC. Health consequences of intimate partner violence. *Lancet*, 2002, 359:1331-1336.
18. Buvinic M, Medici A, Fernandez E, Torres C. In: Jamison D et al(ed). Disease control priorities in developing countries, 2006, Oxford University press.