INTIMATE PARTNER VIOLENCE AGAINST WOMEN IN WEST ETHIOPIA: MAGNITUDE, ASSOCIATED FACTORS, ADVERSE HEALTH EFFECTS, AND COMMUNITY PERCEPTIONS

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A DISSERTATION FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD) IN PUBLIC HEALTH

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ORIGINAL PAPERS

This dissertation is based on the following papers, which are referred to in the text by their Roman numerals:

I. Sileshi G Abeya, Mesganaw F Afework, Alemayehu W Yalew. Intimate partner violence against women in western Ethiopia: prevalence, patterns, and associated factors. *BMC Public Health 2011 11:913.*

II. Sileshi G Abeya, Mesganaw F Afework, Alemayeh W Yalew. Health effects of intimate partner violence against women: evidence from community based cross sectional study in western Ethiopia. (*Submitted)*

III. Sileshi Garoma, Mesganaw Fantahun, Alemayehu Worku. The effect of intimate partner violence against women on under-five children mortality: a systematic review and meta-analysis. *Ethiop Med J 2011,* 49 (4): 331- 339.

IV. Sileshi Garoma, Mesganaw Fantahun, Alemayehu Worku. Maternal intimate partner violence victimization and under-five children mortality in Ethiopia: a case-control study. *Journal of Tropical Pediatrics 2012; doi:10.1093/tropej/ fms018*

V. Sileshi Garoma Abeya, Mesganaw Fantahun Afework, Alemayehu Worku Yalew. Intimate partner violence against women in west Ethiopia: a qualitative study on attitudes, woman's response, and suggested measures as perceived by community members. *Reproductive Health 2012 9:14.*

ACRONYMS AND ABBREVIATIONS

AAS	Abuse Assessment Screen
AAU	Addis Ababa University
AOR	Adjusted Odds Ratio
AIDS	Acquired Immuno-deficiency Syndrome
ANC	Antenatal Care
CI	Confidence Interval
CEDAW	Convention on Eliminations of All Forms of Discrimination against Women
COR	Crude Odds Ratio
DHS	Demographic and Health Survey
DL	DerSimonian and Laird's
EDHS	Ethiopian Demographic and Health Survey
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
GBV	Gender Based Violence
HIV	Human Immune-deficiency Virus
IPVAW	Intimate Partner Violence Against Women
IRB	Institution Review Board
MDGs	Millennium Development Goals
OR	Odds Ratio
SD	Standard Deviation
SPH	School of Public Health
STIs	Sexually Transmitted Infections
SPSS	Statistical Program for Social Sciences
UN	United Nations
US	United States
UNICEF	United Nations Children's Fund
VAW	Violence against Women
WHO	World Health Organization

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ABSTRACT

Background

Intimate partner violence against women is a psychological, physical, and sexual abuse directed towards spouses. Globally it is the most pervasive yet underestimated human rights violation. Intimate partner violence against women is known to undermine the physical, mental and reproductive well-being of women and children. Since much of this is hidden inside the home, it is difficult to document it and work towards its prevention. Empirical data are needed to take appropriate measures in curbing the problem.

Objective

The overall aim is to assess the magnitude, associated factors and adverse health effects of intimate partner violence against women, and explore the community's perception towards such violence in East Wollega Zone, West Ethiopia.

Methods

Community-based cross-sectional and case-control studies were conducted from January to June, 2011 using standard World Health Organization multi-country study questionnaire. To assess the magnitude, associated factors, and adverse health effects of intimate partner violence against women, a sample of 1540 ever married/cohabiting women aged 15-49 years was randomly selected from urban and rural settings of the study area. To examine the association between intimate partner violence against women and under-five deaths, a sample of 858 biological mothers aged 15-49 years (286 cases and 572 controls) was included. Cases were biological mothers of the under-five deceased within two years preceding the survey, whereas controls were biological mothers of live under-five matched by age and sex of the child as well as area of residence. Data were double-entered into Epi DATA and analyzed using SPSS version 19 and STATA 11 and principally analyzed using logistic regression models.

Online databases were searched from the earliest entry to December 2010 for systematic review and meta-analysis to assess the effect of intimate partner violence against women on under-five

mortality. On the final search, 11 studies from developing countries were inputted into Metaesy add-in for MS Excel version 1.0.4 software for meta-analysis. Random effect model using DerSimonian and Laird's (DL) estimator was used to calculate the pooled estimates of the studies.

In addition, a total of 12 focus group discussions involving 55 men and 60 women were conducted from December, 2011 to January, 2012 to explore the perceptions of the community towards intimate partner violence against women. Discussants were purposively selected from the study area. The analyses followed the procedure for qualitative thematic content analysis.

Results

Lifetime and current (last 12 months) prevalence of intimate partner violence against women showed 76.5%; 95% CI, 74.4 to 78.6% and 72.5%; 95% CI, 70.3 to 74.7%, respectively. The joint occurrences of psychological, physical, and sexual violence were 56.9%. The patterns of the three forms of violence are similar across the time periods. Rural residents (AOR, 0.58; 95% CI, 0.34 to 0.98), literates (AOR, 0.65; 95% CI, 0.48 to 0.88), and women autonomy **(**AOR, 0.46; 95% CI, 0.27 to 0.76) were at decreased likelihood to have lifetime intimate partner violence against women. Yet, older women were nearly four times (AOR, 3.36; 95% CI, 1.27 to 8.89) more likely to report the incident. On the other hand, marriage by abduction (AOR, 3.71; 95% CI, 1.01 to 13.63), male polygamy (AOR, 3.79; 95% CI, 1.64 to 8.73), spousal alcoholic consumption (AOR, 1.98; 95% CI, 1.21 to 3.22), spousal hostility (AOR, 3.96; 95% CI, 2.52 to 6.20), and previous witnesses of parental violence (AOR, 2.00; 95% CI, 1.54 to 2.56) were factors associated with an increased likelihood of intimate partner violence against women.

Nearly two-thirds (64.1%) of physically abused women had injuries to their body parts. The vast majority (93.3%) experienced symptom of mental distress. Sixty four percent of the abused women compared to 41.7% of the non-abused ever had symptom of sexually transmitted infections. Furthermore, 16% and 7.2% of the abused women had unintended pregnancy and termination of pregnancy, respectively while only 11.3% and 4.8% of the non-abused had the same respectively. On the other hand, 82.2% of the cases and 68.6% of the controls ever experienced at least an incident of intimate partner violence against them while 61.9% and

50.9% of the respective groups had ever experienced all forms of intimate partner violence. Intimate partner violence against women is independently associated with symptoms of mental distress, sexually transmitted infections, unintended pregnancy and termination of pregnancy.

Mothers who have ever experienced controlling behavior in marriage were more than four times (AOR, 4.27; 95% CI, 0.97 to 18.89) as likely as mothers who did not to have under-five mortality. In addition, mothers who experienced two forms of violence at the same time were more than two times (AOR, 2.24; 95% CI, 1.31 to 3.85) as likely as mothers who did not to have under-five mortality. Ever experiences of the three forms of maternal intimate partner violence were more than two and half times (AOR, 2.55; 95% CI, 1.66 to 3.92) as likely to have the same. Similar effect was observed in meta-analysis, with the mean effect size, 0.23; 95% CI, 0.16 to 0.32 is significantly different from zero and the value of pooled Odds Ratio, 1.34; 95% CI, 1.12 to1.46).

In focus group discussions, most of the discussants confirmed that the community has divergent views on the acceptance of intimate partner violence against women. The act is acceptable in circumstances of practicing extra marital sexual affairs and suspected sexual infidelity. Most discussants perceived that the majority of women in their area tolerate the incident due to traditional beliefs, norms and attitudes of the community and very few, including victims, defend themselves against violent husbands/partners. Biased arbitration is marked by excluding women from reconciliatory local elders. The suggested measures by the community to stop or reduce violence against women targeted provision of education for individuals, family, community, and society.

Conclusion

In their lifetime, three out of four women experienced at least an incident of intimate partner violence against them. In the study area, various socio-demographic and behavioral factors are associated with intimate partner violence against women. Moreover, intimate partner violence against women negatively affects the physical, mental and sexual/reproductive health of women. Further, it is independently associated with under-five mortality. Measures suggested by the

community to stop or prevent the act were focused on provision of education about women's right to individuals, family, community, and society.

Recommendations

There are needs for an urgent attention at all levels including policymakers, stakeholders and professionals to alleviate the situation. Involving men in maternal and child health programs could be one strategy to address the issue of intimate partner violence against women. Moreover, efforts to dispel myths, misconceptions and beliefs of the community should be strengthened. Finally, extensive national studies are encouraged to address the issues of intimate partner violence against women and under-five mortality.

Keywords: *Intimate partner violence, Women, Risk factors, Health effects, Community perception, West Ethiopia*

1. INTRODUCTION

The world is moving fast in technological and educational advancement. In effect, this movement is contributing to the reduction of poverty and death due to disease. However, gender differentials in access and participation in development activities persist throughout the world. Moreover, the condition of violence against women in intimate relationships is increasing from time to time mainly in developing nations including Ethiopia (1-4). In these countries, intimate partner violence against women mostly occurs behind closed doors and is hidden from the public sphere (4, 5). Usually, the victims kept silence because of deep traditional norms and fear of later reprisal from the violent partners. The escalation of the issue is not realized by majority of the people including the educated and higher officials. However, the impact of intimate partner violence against women on the socio-economic development is enormous as it hinders the achievement of the Millennium Development Goals (MDGs) (6).

With regard to this, I initially developed the interest of researching intimate partner violence against women (IPVAW) in 1997 during my study for Master of Public Health in Reproductive Health (MPH/RH) at Jimma University. At that time, in the process of course work, I did one of my term papers on the systematic review of Gender Based Violence (GBV) and got a chance of reviewing various national and international documents and literature that helped me to realize the problem of GBV around the globe in general and in Ethiopia in particular. This led to writing my master's thesis on the assessment of sexual coercion among female youths and the study yielded impressing results. This created a big relevant affair for my future pursues. The problem of women, particularly the attack from their intimate male partners, is evident and basically, my awareness and concern about the issue increased from time to time. When recruited as a doctoral candidate, I was certain to study the situation of IPVAW to add new knowledge to the scientific community. In fact, I also aimed to forward appropriate recommendations for consideration by policy makers, program planners and implementers.

For this dissertation, four studies were conducted at different times. The first was a cross-sectional community based household survey which made Paper I and II and was conducted at the second phase of the research work. Study II was a systematic review and meta-analysis made

for Paper III and carried-out at the initial phase during the literature review. Then, during the 3rd phase, a population-based matched case-control study was conducted in the study area for Paper IV and at the same time for verification of Paper III. Finally, qualitative study for Paper V was undertaken to explore the community's perceptions of intimate partner violence against women. In general, the schematic representation of the research processes for the organization of the dissertation is shown as follows (see Fig. 1).

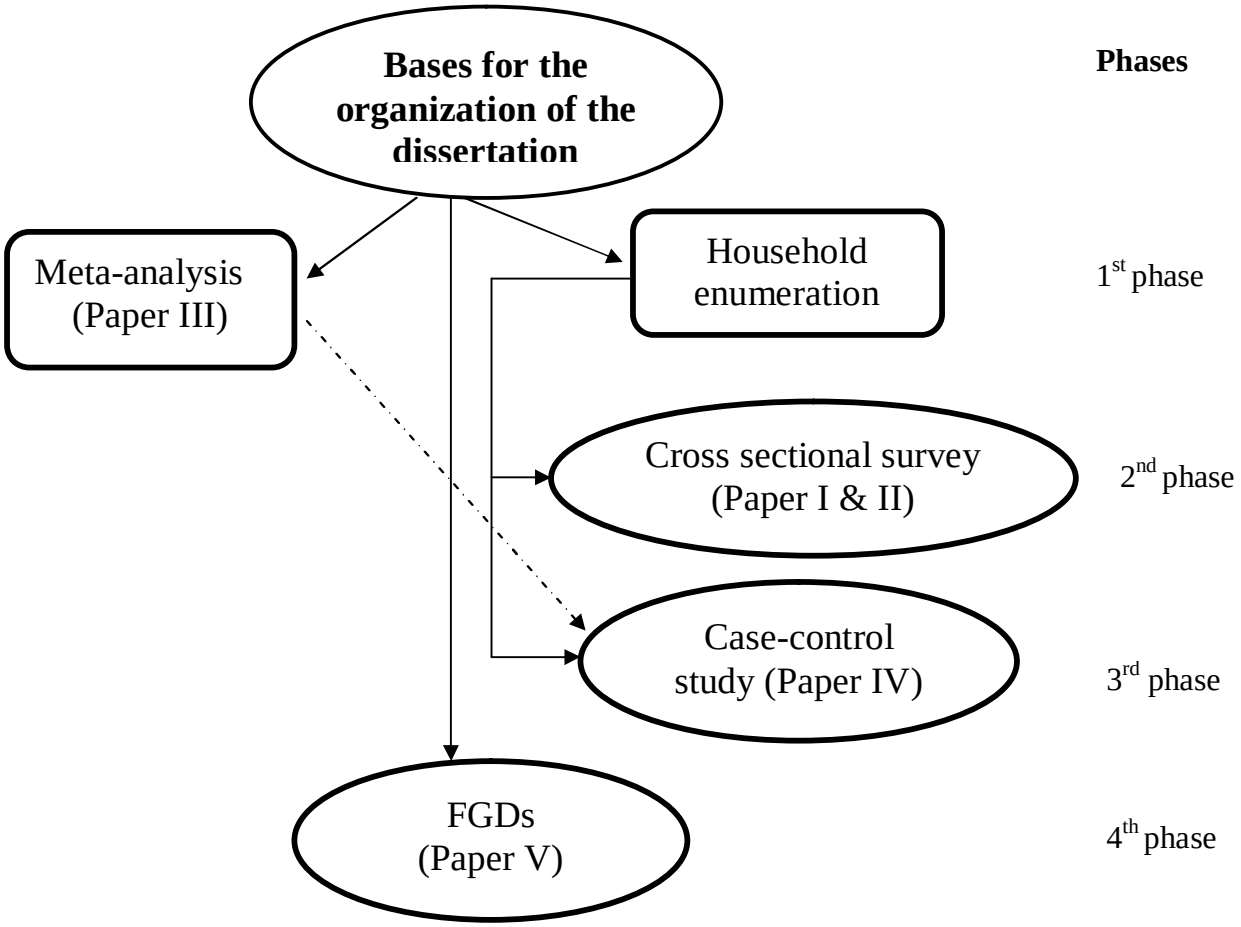


Figure 1: The overall research processes for the organization of the dissertation

Generally, in this dissertation the magnitude, patterns, associated factors, and adverse health effects of intimate partner violence against women and the perceptions of the community, women's response, and suggested measures to stop or reduce the act of IPVAW are reflected.

1.1. Background of the Study

Intimate partner violence against women (IPVAW) is the most pervasive yet under mined human rights violation in the world (1, 2, 7-9). In the past few decades, violence against women (VAW) has become increasingly recognized as a major health and human rights concern (2, 9-11). Evidences indicated that VAW, especially in the domestic setting is common in both developed and developing countries (4, 6, 9, 10, 12, 13), recognized as a serious public health problem (14) that prevents women's enjoyment of their fundamental freedom as well (7, 15, 16).

Historically, in the 1970s of the women's movement, women trained in such diverse fields as philosophy, literature, law, sociology, anthropology, and psychologists wrote about the experiences of women as victims of violence and sought a feminist ideology that viewed patriarchy as the root causes of violence against women. They saw rape, incest, and intimate violence from a criminal justice perspective and focused their attention on reforming criminal codes. Beginning in the 1990s, instead of viewing violence against women primarily as a criminal justice problem, they began to view it as a public health problem. And this paradigm shift took violence against women as a leading cause of death and morbidity worldwide, and emphasized on violence perpetrated against women by intimate partners (17, 18).

Later on, another shift occurred and following the 1993 World Conference on Human Rights that took place in Vienna, the 1994 International Conference on Population and Development (ICPD) held in Cairo, and the 1995 Fourth World Conference on Women conducted in Beijing, scholars and activists, especially those working in developing nations, have come to increasingly view violence against women as human rights issue rather than merely a criminal justice or a public health issue. This paradigm focuses attention on violence against women perpetrated by men (17-20). In relation to this, scholars recognized and highlighted violence against women and made specific recommendations for governments to take measures.

Moreover, in the 1995 Beijing Platform for Action, it was stated that there is a need for a stronger evidence-base regarding the magnitude and nature of the problem, in particular the identification of risk and protective factors in different cultural contexts. There is also a need to understand and measure the health consequences of VAW and the synergies between them, in

order to assess the real burden of disease related to it. Moreover, there is a need for information on interventions that are effective, feasible and sustainable in resource poor settings (21).

In 1996, the United Nations (UN) World Health Assembly recognized the prevention of violence, including violence against women, as a public health priority requiring urgent action and calling for public health interventions to combat violence and called on World Health Organization (WHO) to prepare special report (22). In 2002 the WHO published the first ever world report on violence and health (2), which included chapters on IPVAW. Recently, the UN Secretary General launched a multi-year campaign that will run from 2008-2015 to intensify action to end violence against women and girls. It was intended to coincide with the target date of the MDGs (23).

The definition of violence against women varies (2, 10, 24-26), but the most widely accepted definition is that established by *Declaration on the Elimination of Violence against Women* (DEVAW) and adopted by the UN General Assembly in 1993. This defines violence against women as "…any act of Gender-Based Violence (GBV) that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life" (24). Since women are disproportionately more affected than men (95% vs. 5%) GBV is often used interchangeably with VAW (10).

Likewise, WHO divides VAW into three broad categories according to who commits the violent act: self-directed violence, inter-personal violence, and collective violence (2, 10). However, the most common and universally occurring (85%) form of VAW is that perpetrated by a husband or other intimate male partner. Intimate partner violence against women (IPVAW) often called domestic violence (DV), battering or wife abuse, is the actual or threatened physical or sexual violence or psychological/emotional abuse directed towards spouse or ex-spouse (2, 9, 27). Thus, throughout this dissertation GBV, VAW, DV or wife abuses are to indicate IPVAW as it is the concern of these studies.

World Health Organization further captures different forms of IPVAW including physical violence ranging from slaps, punches, kicks, having arms twisted, or hair pulled to assaults with a weapon, homicide, burning by iron or hot materials. Sexual violence takes forms such as

unwanted sexual touching, forced or coerced sex, or forced participation in degrading sexual acts. These are frequently accompanied by emotional/psychological abuses such as constant belittling/criticism, intimidation, humiliation, or acts such as preventing a woman from seeing family and friends, economic restrictions, violence or threats against cherished objects and other forms of controlling behaviour. Moreover, men can harm women by limiting access to food and medical care, carrying out dowry-related deaths and honour killings, coercing them to have sex through rape and/or sexual harassment (2, 9, 10, 27).

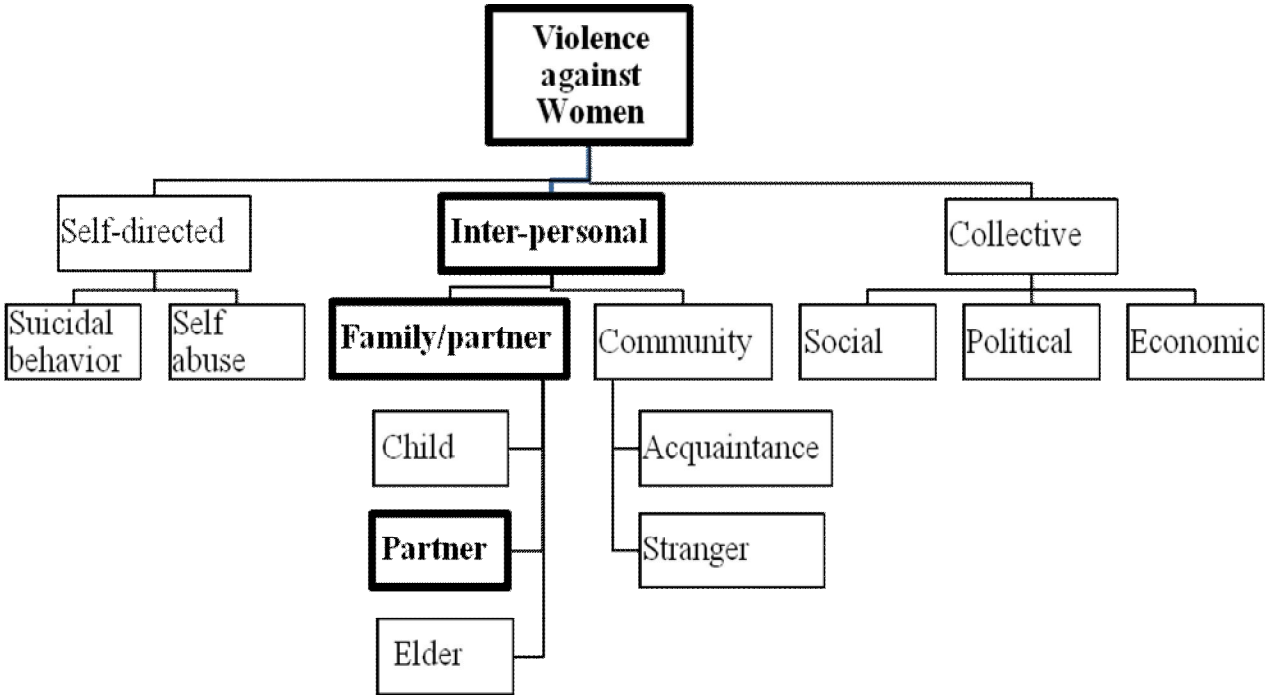


Figure 2**:** WHO typology from the world report on violence and health, 2002

Through the United Nations Millennium Declaration (2000), UN Member States pledged to combat all forms of violence against women and to implement the convention on the elimination of all forms of discrimination against women as part of a commitment to implementing the principles and practices of human rights, including the rights of women (2, 24). However, many experts view IPVAW as a symptom of the historically unequal power relationship between men and women, and argue that over time this imbalance has led to pervasive cultural stereotypes and attitudes that perpetuate a cycle of violence (28).

Basically, two theories, however, have heavily influenced IPVAW etiology research; social learning theory, or the idea that violence may be transmitted from one generation to the next, and

the feminist theory, or the idea that male dominance in society affects interpersonal relationships (8, 10, 27, 29, 30). Whatever the case, several complex and interconnected social and cultural factors are involved; all of them being manifestations of unequal power relations between men and women (31). Indeed, the majority of researchers on IPVAW have examined and described the associated factors using ecological model- the dominant one that integrates many other explanations and widely used in public health operates at the level of individual, relationship, community and society/country (4, 30, 32, 33).

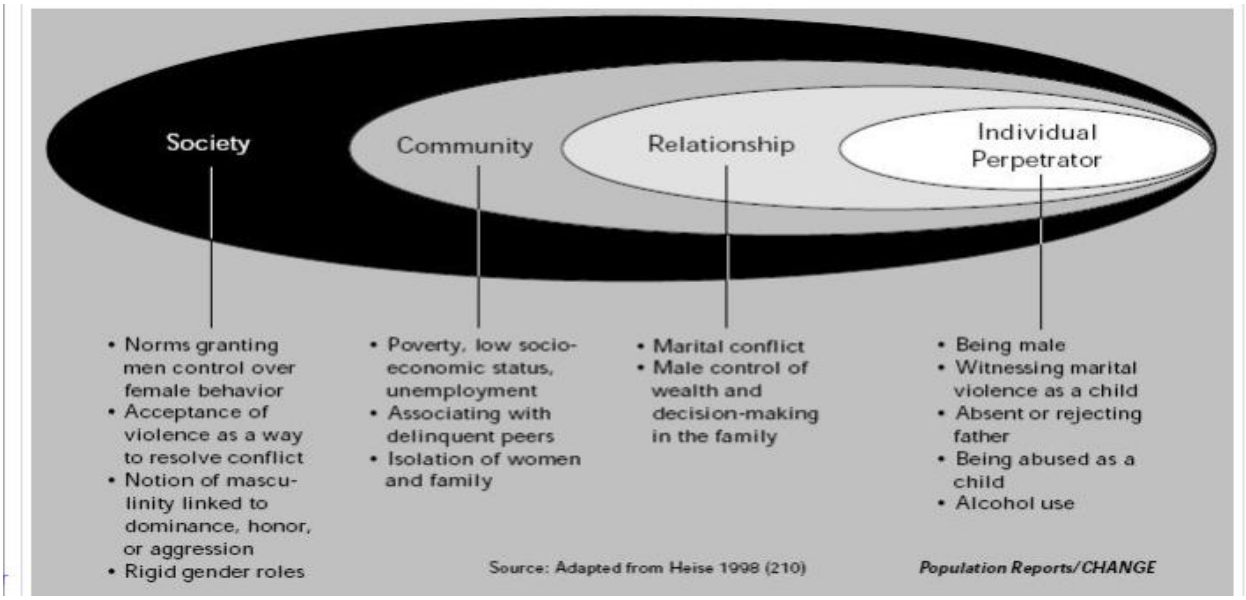


Figure 3**:** An integrated framework for understanding violence against women (adapted from Heise, 1998).

As a public health issue, however, accurate and comparable data on IPVAW are needed to strengthen advocacy efforts, help policy makers understand the problem and guide the design of preventive interventions (18, 34). Here, measuring violence and its cause or risk factor presents many challenges (2, 3, 35), because countries are at varying stages in the development of their data systems. There is also a great variation in the completeness, quality, reliability, and usefulness of available information (3, 35). On the other hand, many acts of violence are never recorded because they are not reported to authorities (2, 35). In some cases when violence is reported to authorities, it is not well documented since the way that abuse is defined affects how data are gathered. Moreover, inadequate definitions of violence can obscure the important aspects of the problem (3). Furthermore, lack of consistency in definitions and data collection makes it difficult to compare data across communities or nations (5, 9).

The government of Ethiopia has issued a relatively large amount of gender-friendly legislation and policies, including the National Women's Policy issued in 1993. This was based on the concept of respect for human and democratic rights without distinction. Despite this, as well as other legislative acts, judicial and educational policies and efforts to address the situation by government agencies, non-governmental organizations and civil society organizations, it is clear that women remain highly vulnerable in Ethiopia and continue to suffer from violence and denial of their rights in one form or another (36).

1.2. Statement of the Problem

Intimate partner violence against women exists to some degree in virtually all societies and all socio-economic, religious and cultural groups (2-4, 10, 37). Even though the most accurate data on the prevalence of IPVAW comes from cross-sectional population-based surveys (9), the prevalence estimates can vary depending on how the researchers define violence, the questions they ask, the timeframes they explore, and the sample characteristics (10, 37). Irrespective of all these issues, IPVAW occurs in global epidemic proportions and the rate is comparable to those for cancer, cardiovascular disease, HIV and AIDS, malaria and traffic accidents. It is a serious cause of death and incapacity as cancer and greater causes of illness than traffic accidents and malaria combined (1, 27, 38, 39).

The factors and processes that contribute to IPVAW are not clearly known and understanding the causes is substantially more difficult than studying a disease. For example, a disease usually has a biological basis and occurs within a social context, but IPVAW is entirely a product of its social context (1, 33). The causes of IPVAW have been investigated from diverse perspectives including feminism, criminology, development, human rights, public health and sociology. Consequently, various explanations have emerged from these empirical and theoretical inquiries (2, 3, 27).

Although in a cross-sectional survey it is not possible to demonstrate causality between violence and health problems or other outcomes, the findings give an indication of the forms of association, and the extent to which different associations are found (3, 32, 40). Moreover, evidences show that IPVAW undermines the social and health conditions of women and their

children (2, 10, 29, 34, 41). It has also been proved that it is associated with morbidity and mortality (14, 27). More generally, IPVAW is known to have immediate and long term consequences on psychological, physical, and reproductive health of women (7, 14, 27). These impacts are not limited to the victimized women only but may also threaten the survival of their children (15).

In many countries IPVAW and reproductive health often remain distinct despite the framing of both issues as essential components of women's right and the growing evidences concerning them (42, 43). In particular, linkages are generally inadequately addressed at the service level: services that explicitly address IPVAW are seldom integrated into women's reproductive health services, and there are few initiatives to integrate reproductive health services into a multi-sectoral response to IPVAW (41, 42, 44).

Although women represent 49.8% of the population in Ethiopia and highly contribute to socio-economic development, they occupy lower status than men. Moreover, they experience longer working days, low levels of education, and lack of adequate assignments in leadership and decision making positions (36). Consequently, the physical, sexual and reproductive, and mental health issues are known to be among the health and social problems of the women and little has been done to establish links with IPVAW (5).

Moreover, in many low-income countries death during childhood is declining, but in Sub-Saharan Africa like Ethiopia it is still a major public health problem (15, 45). One of the priorities in the Health Sector Development Plan (HSDP) IV of Ethiopia is improving child health, with a goal to reduce the infant mortality rate to 31 per 1,000 live births and the under-five mortality rate to 68 per 1,000 live births by 2015 (46, 47). With only four years left to achieve the Millennium Development Goals (MDGs 4), in the results of EDHS of 2011 the infant mortality rate was 59 per 1,000 live births and the under-five mortality rate was 88 per 1,000 live births (48). Studies have reported that child mortality is mainly the results of poor household care and health care seeking practices (49-52). Evidences are emerging to link child death with maternal experiences of IPV victimization, (15, 53, 54), though there are conflicting results (55-57)

Generally, despite higher levels of both IPVAW and child mortality in developing countries, information about the association between the two in these countries is limited (15, 53). Studies from Ethiopia on IPVAW are few irrespective of lifestyles, customs and culture of the population (5, 36, 58). Moreover, population-based study on IPVAW is hardly found in western part of Ethiopia. Thus, this dissertation aimed to assess the magnitude, patterns, associated factors, and adverse health effects of IPVAW including under-five deaths and explore the attitude of the community towards the matter and women's responses, and suggested measures for combating the act of violence against women. It is mainly based on population-based survey, discussion with community members, and literature search.

1.3. The Study Context

Ethiopia is one of the patriarchal societies where many communities embrace various types of violence against women. Intimate partner violence against women continues to be significant - a serious human rights and public health issue - and is endemic throughout Ethiopia. It takes many forms, including sexual violence/rape, wife beating (domestic violence), early and forced marriage and abduction. It impacts the physical, emotional, psychological and social well-being of women. The increased prevalence of IPVAW and general negative perceptions, attitudes and traditional beliefs about women together with their abilities and roles are abundant throughout Ethiopia (58).

In Ethiopia, rural women in particular tend to marry at a very young age compared to their husbands. The median age at first marriage for women is about 16.5 years vs. 23.2 years for men and 11.0% of women are living in a polygamous union (48). Marriage by abduction is another traditional practice that is known to exist in Ethiopia. In the 2005 Ethiopian DHS, about 8% of married women reported to have had marriage by abduction (58).

Apart from such traditions, the other major impediments are absence of gender sensitive laws or failure of implementing existing laws. Thus, Ethiopian women are still denied their basic rights although Ethiopia has adopted a progressive Constitution (1995) that protects women's rights in a very qualified manner and has ratified several international legal instruments like CEDAW and others.

The condition in East Wollega zone of Oromiya region where the study was conducted is not different. Most of the marriages in the study area are concluded on four principles: parent's decision, male supremacy, interference of relatives, and elders' governance (59). When entering into marriage, during marriage and at its dissolution, it is the male counterpart that plays a dominant role in all their life, the wife remains supporter and submissive to the idea of the husband (60). The family arbitration system used for settling inter-household disputes is conducted mainly by older men who want to maintain the subordinate position of women (36). Overall, this has created a fertile ground for IPVAW.

Ever increasing rate of population pressure from excessive in-migration from Amhara region, urban poverty, unemployment and strikingly high and ever increasing HIV/AIDS prevalence rate are among the zone's socio-economic problems (61). According to a report from East Wollega zonal Women's Affairs Office, in the year 2009-2011, IPVAW was the problem of the area (61).

Table 1 below shows the types of IPVAW reported in two years period. For example, disputes between 150 couples were recorded in the year 2010/11 of which 130 were attached to the legal system and had legal decisions. However, 20 of the cases were solved after they were counseled and referred to the local elders. In the same year, 34 rape cases were registered and in 23 of these, the perpetrators were convicted. The number of abduction during the same year was 24 (61).

Table 1: Types of intimate partner violence against women from annual reports of Women's Affairs Office in East Wollega Zone, Western Ethiopia, during the years 2009/2010 and 2010/2011.

Types of violence	**2009/2010**	**2010/2011**
Physical violence/beating/ lost body parts	200	150
Abduction	20	24
Polygamy	34	32
Rape	37	34
Early marriage	20	13
Marriage without interest of the women	16	32
Homicide	4	4
Verbal insult	25	-
Different sexual violence	28	9

1.4. Literature Review

1.4.1. The Magnitude of Intimate Partner Violence against Women

Several population-based studies in the world showed that between 10% and 60% of women who have ever been married or cohabited have experienced at least one incident of physical violence from a current or former intimate partner (1, 27, 37, 38). From these 40% to 75% of women who are physically abused by a partner are injured by this abuse at some point in life (27). Also, worldwide the lifetime prevalence of IPVAW (physical and sexual violence) has been suggested to be between 10% and 71% in marriage or current partnerships (27, 38, 62-64).

Although evidence does exist, the issue of IPVAW and its underlying determinants in developing countries including Ethiopia remain inadequately understood (14, 27). Available studies indicate that 13-49% of women have ever been hit or otherwise physically assaulted by an intimate partner in sub-Saharan African countries with 5-29% reporting physical violence in the year before the survey (9, 32, 65). The lifetime prevalence of IPVAW in sub-Saharan Africa is reported at 20-71% in marriage or current partnerships (4, 63). The prevalence is, however, suspected to be under-estimated due to under-reporting and a lack of standardized methodology.

World Health Organization multi-country study on domestic violence and women's health conducted on 24,000 women of 15-49 years from 15 sites in 10 countries including Ethiopia provides one of the first opportunities to examine IPVAW across different cultures and socio-economic settings (3, 4). The findings show that between 13% and 61% of ever-partnered women experienced physical abuse by an intimate partner and the range of reported sexual partner violence was from 6% to 59%. The range of women who reported either sexual and/or physical violence by partner was 15% to 71% (4, 11). These figures are greater than those previously reported in many countries, due to the special measures used in the study to enhance safety and disclosure of violence.

Report from some African countries in 2008 showed high prevalence of IPVAW (66). In Zambia, for instance, DHS data indicated that 27% of ever-married women reported being beaten by their spouse/partner in the past year and 59% of Zambian women have ever experienced a violence by someone since the age of 15 years (66). In Kenya, 43% of 15-49 year

old women reported having experienced some form of IPVAW in their lifetime, with 29% reporting an experience in the previous year; 16% of women reported having ever been sexually abused, and for 13%, this had happened in the year preceding the study (66). Similarly, in Tanzania, 47% and 31% of ever-partnered women have ever experienced physical violence and sexual violence respectively (3, 66).

In rural Ethiopia, 49% of physical violence on ever-partnered women has been reported while sexual violence rises to 59%. In addition, a considerable overlap between sexual and physical violence during women's life time was found to be 42% (3, 5, 66). The level of overlap between physical and sexual violence differs: some men are physically violent only, while, some are sexually violent only and some are physically, sexually, and psychologically violent making the condition the worst (5).

Community based studies around Gonder and Kofele (Arsi zone) of Ethiopia have shown lifetime prevalence of IPVAW of 50.8% and 52.6%, respectively (67, 68). These clearly indicate how much IPVAW is prevalent across the countries in Africa where the Ethiopian case seems exceptional and needs to be investigated for further information and appropriate measures.

1.4.2. Factors Associated with Intimate Partner Violence against Women

Researchers have increasingly recognized that there is no single factor that explains why some individuals behave violently towards others, or why violence is more prevalent in some communities than in others. Using Heise's ecological model the factors operates at the level of individual, relationship, community and society/country (4, 30, 32, 33).

Individual Factors

At the individual level are factors related to biological and personal history that may increase the likelihood that an individual become a victim or perpetrator of violence. These include being male or female, history of abuse as a child, witnessing marital violence in the home, the frequent use of alcohol and drugs, low educational or economic status, and membership in marginalized and excluded communities (30).

Alcohol Use

The prominent role of alcohol has been highlighted in several studies, and results have shown that alcohol consumption played a significant precipitating role in incidents of violence (65, 69). Heavy alcohol consumption by men (and often women) is associated with intimate partner violence because alcohol is thought to reduce inhibitions, make cloud judgments, and impair ability to interpret social cues (70).

Researchers have noted that alcohol may act as a cultural "timeout" for antisocial behaviour. Thus, men are more likely to act violently after drinking alcohol, because they do not feel they will be held accountable for their behaviour. In some settings, men have described using alcohol as a premeditated act to enable them to beat their partner because they feel that this is socially expected of them (33). In Canada, for example, women who lived with heavy drinkers were five times more likely to be assaulted by their partners than those who lived with non-drinkers (2). In rural Uganda, a systematic relationship between sexual coercion and alcohol consumption by the male partner was also evident. Women whose male partners frequently consumed alcohol prior to sex were almost three times more likely to report sexual coercion compared with women whose partners never consumed alcohol before sex (65). In Ethiopia, physical violence was about five times (AOR=4.65; 95% CI: 3.13-6.91) more likely to occur among women whose male partners consume alcohol frequently (67).

Low Income

Women's lack of economic resources underpins their vulnerability to violence. Poverty forces many women and girls into occupations that carry a relatively high risk of sexual violence such as sex work (2). Studies indicate that most IPVAW often comes from the same population of men whom women depend on for support and protection (8). Moreover, women who themselves earn little or none have limited choices when wanting to leave a violent relationship and may face barriers in securing housing and support as a result of the associated cost of leaving (71). While it may seem a solution for a woman experiencing violence to leave the violent relationship, it may be that doing so will leave her economically worse off.

Education and Empowerment of Women

Research suggests that education for women has a protective effect, even when controlling for income and age (3). Lower educational level of women is associated with increased risk of violence. In Cambodia, for example, 21% of women who have no education report having ever experienced violence, compared with 17% of those with primary education and 12% of those with secondary or higher education (32). This may imply women with higher education have a greater range of choice in partners and more ability to choose to marry or not, and are able to negotiate greater autonomy and control of resources within the marriage.

The possible link between women's status (empowerment) and domestic violence has also received considerable attention, with several studies revealing that increased status as reflected by women's control over resources or membership in group-based savings and credit programs is associated with significantly lower rates of domestic violence (72). Women who are engaged in paid employment are hypothesized to have more say over financial and other household matters than women who are not active in the labour market (32). However, in some studies when women have greater achieved status than their husbands, there is an increased risk of marital violence (32, 73). In Peru, for example, 46% of working women earning cash report having ever experienced domestic violence, while 36% of non working women report the same (32).

Witnessed Violence as a Child (Inter-generational Transmission of Violence)

One of the most systematic findings from previous studies relates to the inter-generational transmission of violence. This is the witnessing as a child of violence between parents, and it is emerging as a strong predictor of subsequent domestic violence (32, 65, 69). Male children who see their mother being abused by their father are at a higher risk of becoming abusers in their intimate relationships as adults, while female children are more likely to enter abusive spousal relationships as adults (74). Moreover, violence is a learned behaviour: For instance, boys who witness or experience violence as children are more likely to use violence against women as adults, and a history of sexual abuse distorts perceptions about sexual violence and the risk of HIV infection (75-77).

In Ethiopia, for example, women who were victims of physical or sexual violence by partners were more likely to report that their own mothers or their mothers-in-law had been physically

abused, and that their husbands had been physically abused during childhood than women who had not been victims of physical violence (5). Another study showed domestic violence was 13 times (OR=12.99; 95% CI: 9.11, 18.52) more likely to occur among women with family history of violence than their counterparts (67). However, the study in this area uses measures of childhood violence based on retrospective reports, and the measurement of adult violence is based on self-reports of behaviour frequency. Both of these measures may contain substantial recall bias (error) because of limitations of memory or inaccurate reporting.

Relationship Factor

The relationship/family level factors include those that increase risk because of relationship with peers, intimate partners and family members. These are people in a person's closest social circle who can shape his/her behaviour and range of experiences. At this level, the relationship includes male control of wealth and decision-making authority within the family, history of marital conflict, and significant interpersonal disparities in age, economy, education, or employment status (30).

Age

Differences in spousal age in which the husband is older than the wife are theorized to imply power imbalances in the relationship. Age often confers seniority; ascribed power associated with age intersects with the power associated with maleness in many cultures such that a wife younger than her husband may be at a comparative disadvantage. On the contrary, women who are older than their husbands are most likely to report having experienced violence from their partner (32). In Dominican Republic, for example, 27% of women married to a younger man report having ever experienced violence compared to an average of 18% of women married to someone older than themselves (32).This might imply for the young man being jealous thinking the spouse has an affair with somebody else.

Nevertheless, Fernandez argued that as a woman's age increases, she often grows in social status and becomes not only a wife but also a mother, and perhaps a more economically productive or socially influential member of her community. Thus, older women are less likely to report current experience of abuse than young women (78). For example, in urban Bangladesh, 48% of women of 15-19 years of age reported IPV in the last 12 months before the study whereas the

figure during the same period was only 10% for women of 45-49 years of age (3). In urban Peru, the incidence was 41% among women aged 15-19 years compared to only 8% among those aged 45-49 years (3). This pattern may reflect in part that younger men tend to be more violent than the older ones. In this case, violence tends to start early in many relationships but is likely to grow less in some settings as older women are less vulnerable to violence. On the other hand, this may be justified for older women could be less likely to remember or report violence, particularly incidents that took place many years previously (79).

Age at First Union and Number of Children

Women married at young age and those who have multiple children are more likely to report experiences of violence (32). History of IPVAW is usually found to be more prevalent among families with many children. Several studies indicate that the risk of experiencing violence is positively associated with women's number of children (42, 80, 81). For example, in Peru, 22% of women who have no children report ever experiencing IPVAW compared with 38%, 45%, and 53% of women with one or two, three or four, and five or more children, respectively (32). This relationship can be conceptualized for more children in a household are associated with less income per capita. The insufficient resources may lead to exacerbated levels of stress for the head of the household, and this may lead to violence. However, the relationship may work in another direction (32). The existence of greater numbers of children in a household is a result, rather than a cause, of spousal violence. This indicates that women who are subjected to partner violence may be less able to control their own sexuality and fertility than those not subjected to violence.

Marital Status

Women who were separated or divorced generally reported a higher lifetime prevalence of all forms of violence than currently married women (3). The possible explanation for this is that separated or divorced women are more willing to disclose experiences of violence because they have less fear of negative consequences of disclosure perhaps because they are more willing to recognize their ex-partner's behaviour as violent once they are no longer with him. Also, cohabiting women (living with a partner but not married) reported higher lifetime prevalence of violence by an intimate partner than married women (3). Study in China showed that

significantly greater number of cohabited women experienced IPVAW compared with married women (65% vs. 33%, $P<0.001$) (82).

Occupation

In developing societies where agricultural land is inherited exclusively by sons, women are more likely to be culturally devalued and hence at a higher risk of violence. In India, for example, 22% of women whose husbands were in agriculture had ever experienced violence, as compared to 17% of women whose husbands were in non-agricultural occupations (32).

A qualitative study among victims of IPVAW indicated that employment can play a critically important, positive role in the lives of IPV victims. Steady employment and income were crucial factors in their ability to leave their partners. From this study, employment made them feel "competent," reduced social isolation, provided them with distraction from and alternate perspective on their abusive home lives, and gave them a sense of purpose in life (83). This could explain that women are autonomous and empowered when they have their own income and lead their livelihood. Indeed, this is not always true in the Ethiopian context where most of the households are headed by men.

Education and Employment of Men

Inability to meet social expectations of successful manhood can trigger a crisis of male identity. In such conditions, partner violence is a means of resolving this crisis because it allows expression of power that is otherwise denied (33). The associations between IPVAW and situations in which husbands have lower status or fewer resources may also be substantially mediated through ideas of successful manhood and crises of male identity (3, 84).

The literature suggests that where men are of higher educational status than women, thus having both higher ascribed (on the basis of gender) and achieved (on the basis of higher educational attainment) statuses, they are more likely to assert unequal, and even violent, power in the relationship (73). In North America, for example, differences in education and occupational prestige convey risk, whereas, in India employment differences are more important (33). In Cambodia, 25% of women whose husbands have no education report having ever experienced violence, compared with 18% of women whose husbands have only primary education and 12% of women whose husbands have secondary or higher education (32).

Community Factor

Community level factors refer to contexts in which social relationships are embedded such as schools, workplaces and neighborhoods. These include women's isolation and lack of social support; community attitudes that tolerate and legitimize male violence; and high levels of social and economic disempowerment including poverty. Violence is rooted in the way society is setup, in cultural beliefs, power relations, economic power imbalances and the masculine idea of male dominance (85). In societies of such characteristics, women are less empowered from an early age to manage their sexual and reproductive lives. Traditionally there will be a cultural sanction that denies women and children from independent legal and social status and supports the inherent superiority of male (81, 85).

Attitudes towards IPVAW

Intimate partner violence against women is a complex issue to research as the extent and forms of its occurrence remain largely hidden and there is a great degree of social acceptance of the issue. Research from different cultural settings has demonstrated partner violence as widely accepted and justified, and perceived by both women and men as normal in married life (3). Studies have inquired into the justification of wife-beating under a variety of circumstances, ranging from disobedience and disrespect to in-laws, to infidelity and alcohol abuse. Among the most persistent circumstances in which violence is justified by women are those related to perceptions of non-performance of domestic duties or non-compliance with expectations (3, 53). Qualitative research from various settings has also suggested that rates of violence by an intimate partner may be higher in settings where the behavior is normative, and where women and men believe that marriage grants men unconditional sexual access to their wives (3).

Studies in rural Ethiopia showed that women who had experienced physical or sexual partner violence were more likely than non-abused women to believe that a man would be justified in beating his wife if she did not complete her household work on time, if she disobeyed her husband, if she refused to have sex with him, if she asked him about other girlfriends and if he suspected that she was unfaithful (5, 67). Moreover, in 2005 EDHS, it was found out that a sizeable proportion of women (81%) believe that a husband is justified in beating his wife for at least one of the specified reasons (58). This is not unexpected because many traditional customs in Ethiopia, as in many other countries, teach and expect women to accept, tolerate and even

rationalize wife beating. This impedes women's empowerment and has serious health consequences.

In a study from Cape Town, South Africa, violent men justified wife beating if she refused sex or challenged the man's control over the relationship (86). In India, men agreed that violence is justified if the wife is sexually unfaithful (79%), disrespectful to family elders (77%) and disrespectful to the husband (75%) (87).

Evidence from rural Uganda also showed that 16% and 28%, 22% and 27%, and 60% and 87% of men and women respectively believed that beating is justified when a woman refused to have sex, adopted contraception without the permission of her partner, and was unfaithful (65). In addition, in this study the attitudes condoning domestic violence were more common among younger men and women. Similarly, many rural communities in Ethiopia embrace various types of violence against women and even claim to have women who go to the point of saying: "If my husband does not beat me, it means that he does not love me," and similar other sayings that justify violence are common (5, 88). In general, evidence points to the fact that men and women justify and accept violence for various reasons that are embedded in existing social norms.

However, studies from different parts of the world showed women who had been physically or sexually abused were more likely to believe that a married woman could refuse to have sex with her husband if she were sick. Non-abused women also expressed their belief more often than abused women that a wife could refuse sex with her husband if he mistreated her (5, 63). A study in China also indicated that most women agreed on the acceptability of a married woman refusing sexual intercourse with her husband if she did not want, if he was drunk, if she was sick, or if he mistreated her (82). This attitude is a marked improvement over the traditional cultural values that required a woman to be obedient to her husband always, especially in terms of sexuality.

Societal/Country Factor

At societal level are the larger macro-level factors that influence VAW such as gender inequality, religious or cultural belief systems, societal norms and economic or social policies that create or sustain gaps and tensions between groups of people. At this level, rigid gender roles that entrench male dominance and female subordination, tolerance of violence as a means

of conflict resolution, inadequate laws and policies for the prevention and punishment of violence, and limited awareness and sensitivity on the part of law enforcement officials such as courts and other social service providers are included (89).

Societies also differ in their approach to IPVAW. Some countries, for example, have far reaching legislation and legal procedures with a broad definition of rape that includes marital rape and with heavy penalties for those convicted. Commitment to preventing or controlling VAW is also reflected in an emphasis on police training, appropriate allocation of resources to the problem, and support for victims to get medical and legal services (2). On the other hand, there are countries like Ethiopia with an approach to the issue where conviction of a suspected perpetrator on the evidence of the woman alone is not allowed, where certain forms of IPVAW are specifically excluded from the legal definitions, and where the victims are strongly deterred from bringing the matter to the court because of fear of being punished for filing an unproven violence (66, 90).

As mentioned above, there is a consistent list of events said to trigger IPVAW such as not obeying husband, talking back, not having food ready on time, failure to care adequately for the children or home, questioning about money or girlfriends, going somewhere without husband's permission, refusal to have sex when the husband wants, or expressing suspicions of infidelity (3, 72, 91-93). All of these constitute transgression of gender norms especially in every patriarchal society where women are expected to be seen and never to be heard. The situation is not so different even in today's Ethiopian settings in spite of various projects and programmes by civil society organisations.

Legal Aspects of IPVAW

It has been mentioned that legal systems that fail to protect women or discriminate against women, and cultural systems that legitimize violence are among the factors that conspire to perpetuate VAW (5). Laws concerning rape vary tremendously from one country to another. Some developed countries have strict laws that impose stiff penalties for several years, and with penalties increasing sharply in cases where the victim was under age, gang raped or where a gun or other weapon was involved. In some countries, perpetrators may be penalized with a lifelong

imprisonment (Nigeria, South Africa). In some others, a rapist may be penalized with an imprisonment up to 25 years (Argentina, Egypt, and Ethiopia) (5).

In Ethiopia, wife battering and marital rape are the most common forms of domestic violence that occurs in the home context (5). Although, the Federal Democratic Republic of Ethiopia Criminal Code of 2005 has a specific provision on violence against marriage partner or a person cohabiting in an irregular union (Article 564) that points out the applications of relevant provision of code (555-560), it focuses only on bodily injury (90).

In all the articles, domestic violence or wife beating is simply treated as one of the offences committed by a person against another under the general provisions stated for "bodily injury". This criminal code could not provide women with the required degree of protection from violence in the private sphere. In addition to the loophole, most women do not want to take such cases to court for fear of future reprisal as a result of absence of legal protection order under the penal law (94). Many women also fear that their marriage will be dissolved as they are economically dependent. On the other hand, few women who want to take their cases to the police could not proceed because of the deeply entrenched social pressure against taking the case to the court. Even those women who proceed with their case are often not treated well by law enforcement agencies due to lack of gender sensitivity. Moreover, wife abuse cases have a high probability of failure due the lack of admissible evidence, as the crime is committed behind closed doors (94).

The 2005 Criminal Code also addresses the question of rape and other sexual outrages in Articles 620-627, according to which the act is “punishable with rigorous imprisonment from five to 25 years” and the relevant provision does not prescribe a more severe penalty in situations where the victim becomes pregnant; or where the criminal transmits to the victim a venereal disease with which he knows he was infected; or where the victims is driven to suicide by distress, anxiety, shame or despair. In these cases, the relevant provision of this code shall apply concurrently (90). On the other hand, the criminal code does not recognize marital rape as crime by ignoring the act of compelling a woman to submit to sexual intercourse within wedlock.

The act of abduction is also recognized by the Criminal Code as the carrying of women by violence or after obtaining her consent to it by intimidation, trickery or deceit (Art. 587). Accordingly, the act of abduction is punishable with rigorous imprisonment from three to ten years. However, where the act of abduction is accompanied by rape, the perpetrator shall be liable to the punishment prescribed for rape in this code (90). Further, Art 597 of the Criminal Code punishes who so ever by violence, threat, deceit, kidnapping or by giving of money or other advantage to the person having control over a women or a child, recruits, receives, hides, transports, exports or imports a woman or a minor for the purpose of forced labour is punishable with rigorous imprisonment from five years to ten years, and a fine not exceeding fifty thousand birr (90). Even though laws against IPVAW exist on paper apparently for women's protection, there are social and legal constraints which prevent women from utilizing their legal rights.

1.4.3. Adverse Health Effects of Intimate Partner Violence against Women

Psychological/Mental Health Consequences

The psychological consequences of IPVAW can be as grave as the physical effects (14, 94). Around the world, mental health problems such as emotional distress, and suicidal behaviour are common among women who have suffered from intimate partner violence (2). Depression is one of the most common consequences of IPVAW frequently cited in most literatures. A study in Agaro town, southwest of Ethiopia, for example, showed that women who experienced any form of violence were 2.8 times more likely to develop depression than non-abused ones (95). In addition, women who suffer from violence are at a higher risk of developing stress and anxiety disorders, including post-traumatic stress disorder (PTSD) and suicidal ideation and attempts (5, 14).

A study in Michigan, United States, found that 59% of women who had experienced severe abuse in the previous 12 months had psychological problems compared to 20% of those who reported no abuse (3). Similarly, in WHO’s multi-country study, ever partnered women who had physical intimate partner violence were found to be much more likely to have ever thought of suicide and attempted it than their counterparts (3).

Physical Health Consequences

The physical health consequences of IPVAW include physical injuries (such as fractures and abdominal/thoracic injuries), and chronic health conditions like chronic pain and gastrointestinal disorders (14, 32). It is a major cause of injury to women, ranging from relatively minor cuts and bruises to permanent disability and death (14).

In studies by US Accident and Emergency Department, for example, 11-13% of injured women whose mechanism of injury and relationship with perpetrators has been recorded were found to have been battered (14). Even though it was not a population-based study, it showed that injuries were common for IPVAW after some other factors like vehicle accidents.

In a WHO multi-country study, the prevalence of injury among women who had ever physical intimate partner violence ranged from 19% in Ethiopia to 55% in Peru (3). The study also showed women who had ever experienced physical or sexual partner violence, or both, were significantly more likely to report poor or very poor health than their counterparts. Similarly, a community-based study in rural Ethiopia showed that 28% of women who had ever experienced physical partner violence (49%) had been injured at least once. Moreover, nearly half of the women (44%) reported having been forced to have sex with their husbands during the beatings (5). The main injuries reported by women in the study were abrasions or bruises accounting for 39%, sprains and dislocations (22%), injuries to eyes and ears (10%), fractures (18%), broken teeth (6%) and others (5).

Besides, battered women also had significantly more than average self-reported gastrointestinal symptoms (e.g. Loss of appetite, eating disorders) and diagnosed functional gastro-intestinal disorders (e.g. chronic irritable bowel syndrome) associated with chronic stress. Self reported cardiac symptoms such as hypertension and chest pain have also been associated with IPV (14, 96). The mechanisms for such cases have not been thoroughly investigated but it may be hypothesized as from stress of violent relationships.

In its extreme form, violence can be fatal. Worldwide, an estimated 40% to over 70% of homicides of women are committed by intimate partners, often in the context of abusive relationships. By contrast, only a small percentage of men murdered are killed by their female

partners, and in such cases, the women often are defending themselves or retaliating against abusive men (27).

Sexual and Reproductive Health Outcomes

Intimate partner violence against women is associated with negative reproductive health consequences including gynecological disorders, pelvic inflammatory disease, STIs/HIVAIDS, unintended pregnancies and poor obstetric outcomes. Other gynecological consequences include vaginal bleeding or infection, chronic pelvic pain and urinary tract infections (14, 27, 32, 42). Moreover, violence before and during pregnancy has serious health consequences for both mother and children. It leads to high-risk pregnancies, a range of pregnancy-related problems including miscarriage, pre-term labour, foetal distress and low birthweight (25, 97, 98). In addition, violence during pregnancy may pose a threat to the life and health of the mother and the foetus, because physical violence is associated with miscarriage, late entry into prenatal care, still birth, premature labour and birth, and low birthweight (2, 3, 10).

Unwanted/Unintended Pregnancy

Partner violence limits women's right to reproductive decisions. The consequential sexual coercion or male control affects woman's choice regarding conception, frequently leading to unplanned and unwanted pregnancies (99). Unintended pregnancy is an important consequence of violence against women (3, 100). Moreover, rape increases the risk of unintended pregnancy. A woman's fear of violence from her husband or partner may make her fear to raise the issue of contraceptive use, leading to unintended pregnancy. A study of women in Colombia, for example, found that women who experienced intimate partner violence had higher rates of unintended pregnancy (101).

Lack of sexual autonomy associated with the experience of domestic violence can have several different fertility-related outcomes including large number of births, births that are unwanted, short intervals between births, and low contraceptive use especially in relation to expressed need for fertility control (80). An association of violence and higher fertility is revealed in many researches although the direction of causality remains unclear (80). However, for example, in Cambodia, 60% of women who have ever experienced violence say that the birth was wanted at the time it was conceived, compared with 71% of women who have never experienced violence.

The proportion of unintended pregnancy among women experiencing IPVAW was 40% compared to 29% for non violent women (32).

A similar study, in the Dominican Republic showed women who have experienced violence are almost twice as likely as those who have not to have a birth that was not wanted at all (32). Lower contraceptive use among women who have experienced violence is also suggested by the higher fertility and unwantedness of the last birth (102). Women who have experienced violence tend to have higher total need for family planning than women who have not experienced violence. For example, in Cambodia, Egypt, and India, women who have experienced violence have higher unmet need and similar or lower contraceptive use rates than women who have not experienced violence (32).

Violence during Pregnancy

Worldwide, one woman in every four is physically or sexually abused during pregnancy, usually by her intimate partner (103-107). It is obvious that maternal health and birth outcomes partly depend on the care received by the mother during pregnancy and delivery. The safe motherhood initiative proclaims that all pregnant women must receive basic antenatal care by professionals (108). However, some research in middle and low income countries suggests that women who have experienced violence are more likely than other women to delay seeking antenatal care (109). In Egypt, for example, mothers who were abused received ANC for only 32% of births compared with 41% of births for mothers who were not abused (32).

Studies from dozens of countries found that the prevalence of physical abuse during pregnancy was between 3% to 11% in industrialized countries, and 4% to 32% in developing countries (3, 26, 32, 110). In India, for example, 16% of all deaths during pregnancy resulted from partner violence (2). However, the majority of studies carried out with pregnant women have been clinical or hospital-based and hence most population-based studies have not focused on pregnant women (111). In Africa, the prevalence of IPV during pregnancy ranges from 2% to 57% (n = 13 studies) with meta-analysis yielding an overall prevalence of 15.23% (95% CI: 14.38 to 16.08%) (112). The prevalence and severity of IPVAW during pregnancy is expected to be higher if the study were to be carried out using community based study design.

According to the WHO multi-country study on domestic violence and women's health, the proportion of ever-pregnant women who were physically abused during at least one pregnancy ranges from 4% to 12% and between one quarter and a half of these women were punched or kicked in the abdomen. Over 90% were abused by the biological father of the child they were carrying (3). Violence before and during pregnancy has serious health consequences for both mother and child because it leads to high risk pregnancies and a range of pregnancy related problems including miscarriage, pre-term labour, foetal distress and low birthweight (25, 111, 113). In Nicaragua, for example, 16% of the low birthweight in the infant population could be attributed to physical abuse by a partner during pregnancy (25, 114). In the same country, abuse during pregnancy was also found as an independent risk factor for LBW. Sixteen percent of LBW was attributed to physical abuse by a partner during pregnancy and a significant association between abuse during the index pregnancy and small for gestational age was also found (111).

Induced Abortion

Intimate partner violence against women is positively associated with adverse pregnancy outcomes such as abortions and miscarriages (115). In a WHO multi-country study on domestic violence and women's health, ever pregnant women who had ever experienced physical or sexual partner violence or both were significantly more likely to report induced abortions and miscarriages (3). Similarly, in a survey of illegal abortion conducted in Addis Ababa, Ethiopia, showed that 10% of pregnancies in abortion seekers occurred due to rape (116).

Sexually Transmitted Infections (STIs)/HIV and AIDS

The positive association of STIs and IPVAW is based on research that finds high rates of forced sex among women who are abused by their male partners. In this case there is a lesser ability to negotiate and use condoms and access counselling and testing, and a higher prevalence of risky sexual behaviors and drug use (14, 27). In most countries, the self-reported prevalence of STIs among women who have experienced violence is at least twice higher than that among women who have never experienced violence and it is significantly and positively associated with the likelihood of reporting an STI or its symptoms (32, 117).

Worldwide, for many women the threat of violence exacerbates their risk of contracting HIV. This is to mean fear of violence prevents women from accessing HIV/AIDS information, being tested, disclosing their HIV status, accessing services for the prevention of HIV transmission to infants and receiving treatment and counselling, even when they know they have been infected (32). In these regards, studies show the increasing links between IPVAW and HIV infection (117-119). Cases of violence by men who discovered that their partner had contracted HIV or other STIs were reported in South Africa. In this, the fear of ostracism and violence in the home is an important reason why pregnant women refuse to have HIV test or do not return for their result (10). This is evidenced by a study among South African women receiving ANC in Soweto that showed IPVAW is significantly associated with HIV sero-positive (120).

Investigators have hypothesized several ways in which the epidemics of HIV and violence overlap in the context of women's lives. First, coercive sexual intercourse may directly increase women's risk for HIV through physiological trauma (91, 121, 122). Second, violence and threats of violence may limit women's ability to negotiate safe sexual behaviors (122, 123). Third, women who have been sexually abused during childhood may participate in more sexual risk-taking behaviour as adolescents or adults, thereby increasing their risk for HIV infection (124).

Gynecological Problems

In addition to the aforementioned reproductive health problems, sexual and physical abuse appear to be connected to some common gynecological problems including pelvic pain, vaginal discharges, painful menstruation, pelvic inflammatory disease and sexual dysfunction (difficulty in orgasms, lack of desire). Many of these will be aggravated when sexually transmissible infections occur, (27, 96) with fistula cases, and if the women had been circumcised. A study in the United States, for example, found that the prevalence of women with gynecological problems among victims of spousal abuse was three times higher than the average (14).

Under-five Child Mortality and IPVAW

Under five mortality is a sensitive indicator of the socio-economical situation in a country and a key issue considered in the Millennium Development Goals (MDG) with specific objectives set to reduce child mortality by two-thirds by 2015 from the baseline at 1990. However, data used to monitor progress suggest that this goal may not be reached, especially in sub-Saharan Africa and

Southern Asia (125). Because of these, more efforts are needed for this target to be met, including increasing our understanding of factors contributing to the complex conceptual framework of child health (126). A study that controlled for other factors affecting infant and child mortality in Nicaragua found that one third of all child deaths was attributable to the experience of spousal violence by the mother and the risk of death was more than six times greater for mothers exposed to IPVAW (15). Moreover, children of abused mothers are more likely to be malnourished and less likely to be immunized than other children (32).

In Cambodia, for example, 19% of children of mothers who have not experienced violence have received none of the required vaccinations, but this proportion is 26% among children of mothers who have ever experienced violence (32, 127). These data provide evidence that children of mothers who have experienced violence are disadvantaged in their access to life saving routine immunizations. Generally, the relationship between IPVAW and under five deaths is mediated through chronic stress of the mother, possibly affecting both the fetus and the care provided to the child.

1.4.4. Women's Responses to IPVAW (Coping Mechanism)

Women use different strategies such as tolerance, temporary or permanent separations, seeking outside help, and physical self defense from the violent husbands/partners (128). In a WHO multi-country study on domestic violence and women's health conducted in 10 countries, the interviewer was the first person with whom many abused women had ever talked about their partner's physical violence (3). From the same study, two-thirds of women in Bangladesh who had been physically abused by their partners and about a half in Samoa and Thailand provinces had not told anybody about such violence prior to the interview. However, about 80% of physically abused women in Brazil and Namibia city had told someone - usually family or friends - and in these settings still two out of ten women had kept silent and tolerated the incident. Relatively few women in any setting had told staff of formal services or individuals in a position of authority about the violence (3).

In rural Ethiopia, 39% of the women had never talked to anyone about the violence (5). It has been reported from the same area that husbands regard "talking back" from their wives as a serious offence to their dignity and punish the women physically (129). The fact that so many

women do not discuss the violence with anyone indicates that they either consider it as a normal feature of life that is not worth mentioning, or are ashamed of the violence, and therefore prefer to suffer in silence. Again, from the same study 6% of victims of physical violence reported to have fought back to defend themselves and 30% had left home on one or more occasions to escape violence (5). Clearly, very few women try to fight back in self-defense. This may be a strategy by itself to minimize the damage that can be inflicted by a very angry partner, as in Ethiopian culture, for women to hit a man would be regarded as very shameful (5).

In a WHO multi-country study, over half of physically abused women (55% to 95%) reported that they had never sought help from formal services (health services, legal advice, shelter) or from people in positions of authority (police, women's affairs, non-governmental organizations, local leaders, and religious leaders). In Namibia city and Peru, however, 20% of such women contacted the police. In addition, in the United Republic of Tanzania city, 20% sought help from health care services (3). The most frequently stated reasons for seeking help were related to the severity of the violence, its impact on the children, or encouragement from friends and family. Not seeking help and low use of formal services reflect the limited availability. However, in countries with relatively well supplied resources for abused women, barriers such as fear, stigma and the threat of losing their children stopped many women from seeking help.

On the other hand, from the same study (WHO multi country) between 19% and 51% of women who had been physically abused by their partner had ever left home for at least one night and between 8% and 21% reported leaving 2-5 times. Women mainly reported going to their relatives and to a lesser extent to friends or neighbors (3). Again, these patterns are likely to reflect the availability of places of safety for both the women and their children. It is based on culturally specific factors relating to the acceptability of women leaving or staying somewhere without their partner.

1.4.5. Prevention of Intimate Partner Violence against Women

For preventing IPVAW, initiatives that have addressed laws and policies, institutional reforms, community mobilization, and individual behaviour change strategies should be established or strengthened. Some experts maintain that to successfully address IPVAW on a global level, national governments and communities must strengthen the capacity of their political, legal, and

law enforcement institutions. In some countries, for example, legal and political institutions may hinder rather than help women seeking information, assistance, and protection from violence (13). Strong legislation and legal procedures are needed on its side to combat the problem (5). Many experts maintain that addressing possible weaknesses in these institutions is especially crucial in some developing countries where national government infrastructures may be weakened by poverty, corruption, or other factors (13). Some have increasingly advocated the value of providing women with education and training to prevent and address violence and gender discrimination in both public and private life (12).

Given the scale and the complex nature of IPVAW, it is very difficult to make a claim that an example of best practice is universally applicable. However, the experience of working on this issue showed that the prevalence of IPVAW can only be reduced through a combination of sustained, strategic and comprehensive measures to address both the short-term requirements of individual victims, such as health-care and bringing the perpetrators of violence to justice. Moreover, longer-term cultural and attitudinal changes are required to challenge its acceptance (2, 4, 10, 96). This involves working with communities to find local solutions to the problem of violence. Working at the national, regional and international policy and decision-making levels to bring about lasting change is important as well.

Besides, reproductive health care providers are responsible to overcome misconceptions about women who have experienced intimate partner violence including the assumption that such women must have done something to warrant violence or that partner violence is not a serious issue (4). Confronting and changing negative or blaming attitudes is a key challenge particularly as such attitudes may be deep-rooted among health workers in some settings. Hence, IPVAW is driven by gender and power inequalities. Fundamentally it requires providers to change the issue of power and abuse in their own lives (4, 96).

1.5. Dissertation Theoretical/Conceptual Frameworks

For later analysis, an ecological framework was adopted and modified based on the reviewed literatures and the objective of the study. In the framework, individual, relationships, community, and societal/structural level factors are the most basic to be associated with IPVAW. The frameworks include forms of IPVAW: physical, sexual and psychological violence. The time

frame is to refer to whether the violence occurred during the life time or recent (last 12months). The severity of physical violence varies from moderate to severe. Moreover, IPVAW is associated with a variety of adverse health effects (physical, sexual/reproductive, and mental) of women and children. The framework also shows the measures/responses women take when experiencing IPVAW and the associated outcomes (Fig. 4).

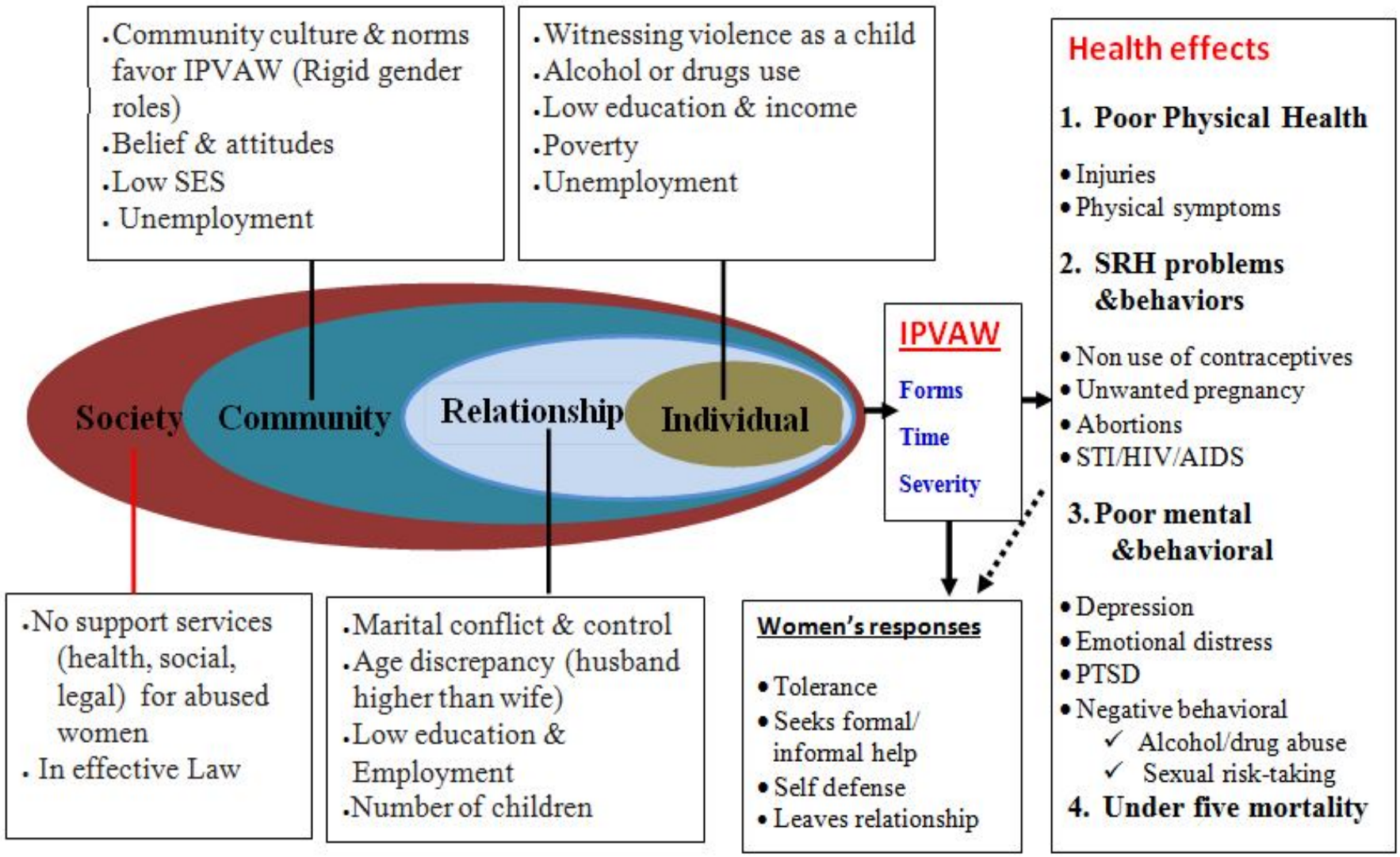


Figure 4**:** Conceptual framework for factors, adverse health effects, and women's response to intimate partner violence against women (an ecological framework of Heise L, 1998).

1.6. Rationale of the Study

Violence against women by intimate male partner has been identified as a major public health and human rights problem in the world today. Since much of this is hidden inside the home, it is difficult to document and prevent it. Until recently, most research on violence has been from the developed nations and has been institution-based which may be less relevant in the context of the developing world. Researching domestic violence is relatively a new area for the developing world and it is at the stage of description (1, 4).

In 1995, the Beijing Platform for Action of the UN conference on women identified lack of reliable data on the root causes, magnitude and consequences of IPVAW as a major obstacle in the search for solutions to address the problem (21). Based on the recommendations from the conference, WHO conducted a multi- country study on domestic violence and women's health using validated and cross-culturally tested instruments. Subjects of the study were over 24,000 women from 15 study sites in 10 different countries including Ethiopia. WHO recommended conducting of new studies using this approach to expand the existing database and enhance the growing body of consistent and comparable information on this problem (3).

According to WHO multi-country study, the life time prevalence of physical or sexual violence or both is the highest (71%) in Butajira province of Ethiopia. Moreover, in the same study, 54% of women reported that they had suffered physical and/or sexual violence committed by their intimate partners over the preceding year versus 17% who reported similar episodes prior to the year before (4). These data may indicate that high prevalence of IPVAW is an obvious continuation of situations of violence and new studies might be able to go into this question in greater depth through seeking factors associated with remaining in or going out from situations of violence.

Similarly, in 2004 domestic violence was identified as priority area for research in Ethiopia, because despite the fact that there have been many anecdotal and somewhat pathetic stories of women being violated in various forms, there was lack of evidence to substantiate these allegations (41). Besides, in Ethiopia, like in many African countries, the status of women today is determined by the kind of girlhood they have had. Traditional values, cultural norms as well as socializing processes all appear to confer a low status on Ethiopian women (36). For effective

integration of women into the mainstream of the development process, it is necessary to identify and plan to eliminate or at least reduce the incidence of acts and situations which are dehumanizing against their status and productive roles. One set of such dehumanizing factors derives from various forms of IPVAW.

Empirical data is therefore needed to serve as convincing grounds for policy makers to enforce the already existing laws and stress the need for new laws to curb violent acts perpetuated against women and thereby safeguard the rights of women. In addition, the output of this study like the association of IPVAW and child survival differentials, will contribute additional knowledge to the scientific community.

Finally, researches conducted in other parts of the country (5, 67, 68, 94) were mainly quantitative and they lack the how, and why part of human perceptions, attitudes and beliefs in detail. Nevertheless, the present study used a mixed method research combining both quantitative and qualitative study design to understand multifaceted perceptions, attitudes, and beliefs of the community in relation to IPVAW. In addition, research on this problem has not been conducted in the western part of the country where this problem is expected to increase because of the persistent rigid gender norms and relatively low socio-economic status of the community (130). Moreover, the impact of IPVAW on child survival was not well assessed in the Ethiopian context.

The study does not necessarily ask new questions, since the reality of a culture of silence around issues of IPVAW has been long acknowledged especially in the context of Reproductive Health (RH) problems of the women including HIV and AIDS. It however builds on this acknowledgement by articulating the specific contextual examples and addressing specific issues.

2. OBJECTIVES

2.1.General Objective

The overall objective of this study is to assess the magnitude, associated factors, and adverse health effects of intimate partner violence against women in East Wollega zone, Ethiopia.

2.2. Specific Objectives

- To determine the magnitude and patterns of intimate partner violence against women in East Wollega zone, Ethiopia (Paper I).
- To identify the associated factors of intimate partner violence against women in East Wollega zone, Ethiopia (Paper I).
- To investigate the adverse health effects (physical, mental, and reproductive health) of intimate partner violence against women in East Wollega zone, Ethiopia (Paper II).
- To examine the associations between maternal intimate partner violence victimization and under-five death in East Wollega zone, Ethiopia (Paper III and IV).
- To explore the perceptions of the community on attitudes to IPVAW, women response, and suggested measures in East Wollega zone, Ethiopia (Paper V).

2.3. Study Questions/Hypothesis to be answered by the PhD Work

In this dissertation the following research questions are to be answered:

1. Is the prevalence of IPVAW high or low in the study area?
2. Are socio-demographic factors (area of residence, education of women and men, SES, and age at marriage/cohabiting and number of children) associated with intimate partner violence against women?
3. Are behavioral factors (alcohol drinking, male polygamy, and husband/partner hostility) associated with intimate partner violence against women?
4. Is the experience of intimate partner violence against women associated with health problem (physical, sexual/reproductive, and mental) of women?
5. Is mothers IPV victimization associated with under-five mortality?

3. MATERIALS AND METHODS

3.1. Study Area and Population/ Setting

East Wollega zone is one of the nineteen zonal administrations of Oromiya National Regional State (the biggest region in Ethiopia). The zone is situated in the western sub-region about 331 kilometres to the west of the Ethiopian capital, Addis Ababa. It is contiguous with the following western Orormiya sub-regional zones and Western Ethiopian Regional states: West Shewa and Horro Guduru Wollega in the East, West Wollega and Benishangul Gumuz Regional State in the West, Benishangul Gumuz and Amhara Regional State in the north, and Ilubabor and Jimma in the south.

In its entirety, East Wollega zone is divided into one Local Urban Government (Nekemte Town is the capital of the zonal administration) and 17 districts/*woreda*s (*the lower administrative units in government structure*), which are further subdivided into six sub-cities and 315 *kebeles* (*the lowest administrative unit*) out of which 287 *kebeles* were situated in rural areas and the rest in urban areas of the zone (131). The 2011/12 projected total population of East Wollega zone is 1,610,816 out of which 789, 299 (49%) are males and the rest 821, 516 (51%) are females. Of this population, 13% reside in towns and the remaining 87% are in the countryside. The average family size for the district is assumed to be 5.3 (5.2 for urban and 5.4 for rural) (131). Among the major ethnic groups living in the zonal administration, the Oromo nation is more than 95% of the total population. Others include Amhara, Gurage, and Tigre in descending order. Regarding religious compositions, Christianity (Orthodox and Protestant) and Muslims are the two dominant religions in the zone.

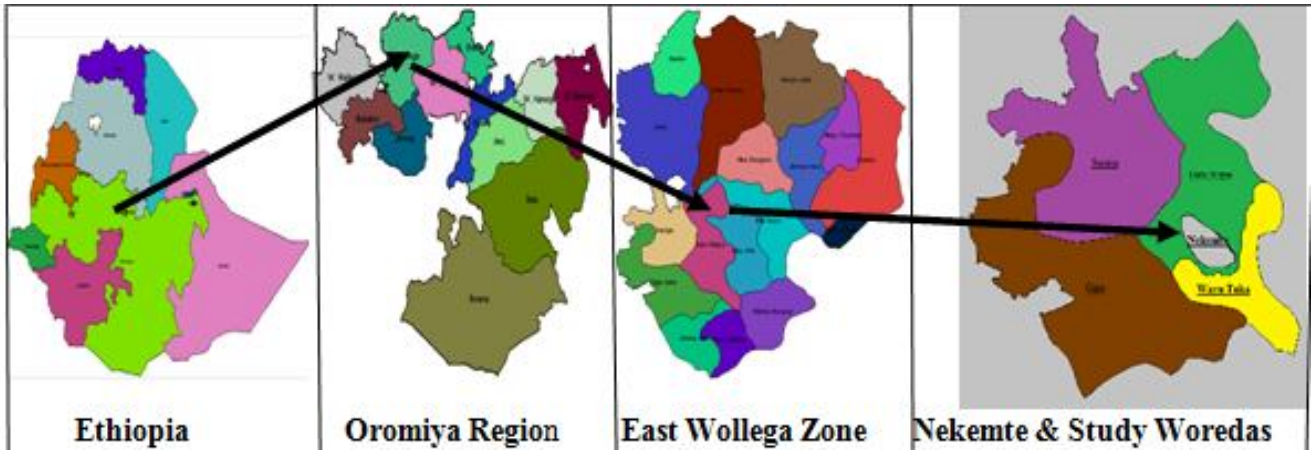


Figure 5**:** Map of the country, region, zone, and study area (from left to right)

Regarding infrastructure and social services, Nekemte Town has one hospital and two health centers which are government owned, and various private and faith-based health institutions. The town has 24 hours electric power, postal service, automatic telephone, water supply and all weather roads. Similarly, the study *woreda*s have more than one government owned health center each, health posts, infrastructures like telephone services, and dry weather roads. In the study area there are six high schools and 30 primary and junior secondary schools. The rural communities are largely dependent on traditional agricultural activity (subsistence farming), whereas the urban population (Nekemte Town) lives off businesses ranging from small to large scale.

3.2. Study Design

This dissertation is based on cross-sectional and matched case-control study designs to address the objectives. In order to determine the magnitude, associated factors, adverse health effects and community perceptions of IPVAW, the study utilized community-based cross-sectional study designs with quantitative and qualitative research methods. To examine the associations between maternal intimate violence victimization and under-five death, a matched case control study design was employed. In addition, systematic review and Meta-Analysis was employed to see the pooled effect of the association between maternal IPV victimization and under five mortality.

3.3.Timeframe of the Study

To determine the magnitude, identify associated factors and investigate adverse health effects of intimate partner violence against women, the study was conducted between January and April 2011. To examine the associations between maternal intimate violence victimization and under-five deaths the study was carried out from May to June 2011. To explore the perceptions of the community on IPVAW focus group discussions were conducted from December 2011 to January 2012.

3.4.Source and Study Population

The source population to address the objectives set to determine magnitude, associated factors and adverse health effects of IPVAW were all ever-married/cohabited women of reproductive age (15-49 years) in the study area. The study population included inhabitants of the selected

households from randomly selected sub-cities in Nekemte Town and rural *kebeles* in four districts.

To review the effect of IPVAW on under-five mortality using meta-analysis, the study population was women of child bearing age groups (15- 49 years) and under-five children. They were included according to the relevance of the studies inputted into the meta-analysis. For investigation of the associations between maternal intimate partner violence victimization and under-five deaths, all mothers who have given life births five years preceding the survey were the source population and all biological mothers of the deceased under-five children with their corresponding controls two years before the study period were taken as a sample. *Cases* were defined as biological mothers with live-born children that died as under-five within two years preceding the survey. Each deceased child matched with two controls by known confounding variables (sex, age at death and area of residence). *Controls* were defined as biological mothers of surviving under-five children during the same period.

3.5. Inclusion and Exclusion Criteria

For the study aiming at assessing the magnitude, associated factors and adverse health effects, all ever-partnered/cohabited women of 15-49 years of age who have lived for at least six months in the study area were included. On the other hand, women who were unable to communicate and had a hearing loss and those critically ill during the survey were excluded from the survey.

For the study aiming at examining the associations between maternal intimate partner violence victimization and under-five death, all biological mothers who resided in the study area for at least six months and reported deaths of their under-five, and with corresponding two controls were included. On the other hand, mothers out of marriage/cohabitation and those who were foster mothers of deceased or alive children were excluded from the survey.

3.6. Sample Size

The study *kebeles* were first stratified into urban and rural. To calculate optimal sample size for estimating the magnitude of IPVAW, the following assumptions were made: expected prevalence of IPVAW is 49% (5), 95% confidence level, margin of error (desired precision between sample and population parameter) of 4%, a design effect of 2, and 25% contingency for

possibilities of non-response (132). The following single population proportion formula was used to calculate the sample size:

n= [[(Zα/2)^2 * P (1-P)]/d^2 * deff]/ (1-non-response rate)

Z= percentile of the standard normal distribution

P= proportion of study population experiencing physical violence from other study (5)

d = desired precision of the estimate

n = total sample size

deff = design effect for the multi-stage nature of the sampling procedure (133, 134).

Accordingly, a sample size of 1533 women was calculated. However, to represent the urban and rural distribution, 15% of the population from urban and 85% from rural (58, 135) were used so that the sample size was increased to 1600.

To calculate the sample size for identifying associated factors and adverse health effects of IPVAW, STATCALC application of Epi-Info 3.5.1 statistical software was used by considering alcohol use by male intimate partner and unintended pregnancy from other studies (32, 136). The proportion of women experiencing physical abuse by intimate male partner who never used alcohol (among controls) of 23% (main exposure variable), 95% CI, 80% power of the study, and control to case ratio of 2:1 to detect the odds ratio of 2.13 which is estimated from other study (136). Accordingly, 106 women experiencing physical abuse by their male intimate partners who used alcohol, and 212 women whose male intimate partners did not use alcohol made a sample size of 318 and with design effect of 2 and 10% contingency for possible non-response a total of 700 sample was calculated.

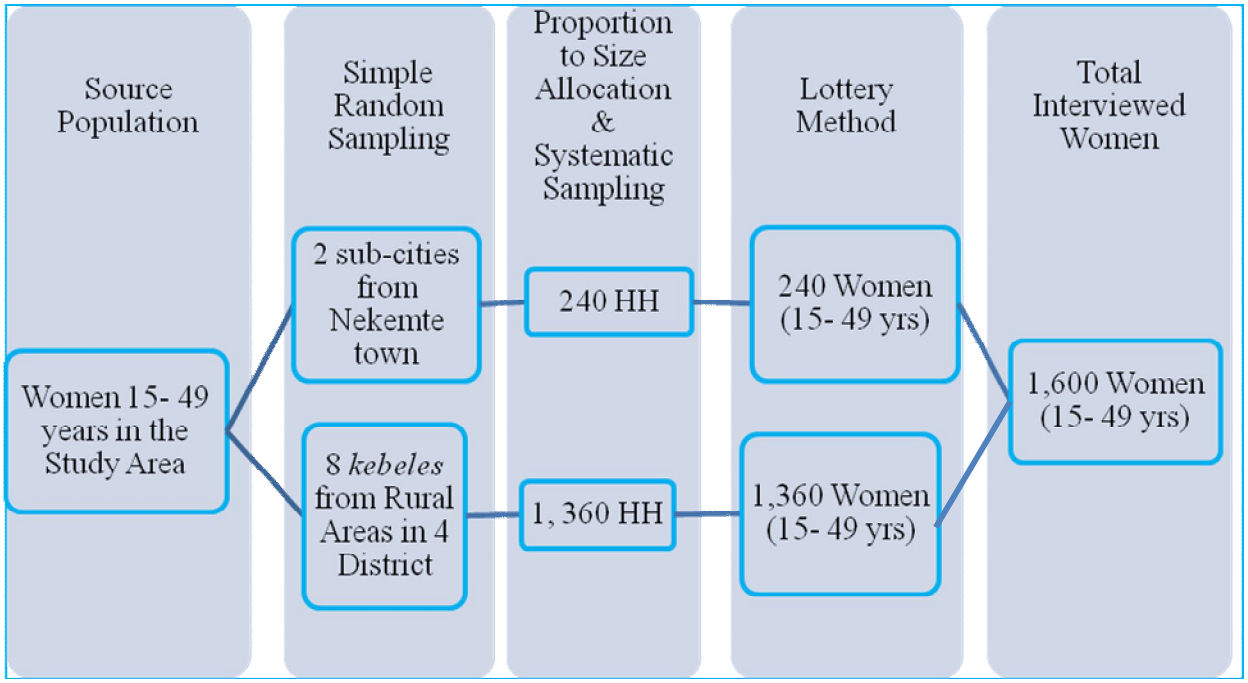
Similarly, for investigating the adverse effects of intimate partner violence against women, unintended pregnancy was considered as main outcome of interest. Since the difference on the outcome between exposed and non-exposed was minimal for unintended pregnancy among the different health outcomes, it gave the maximum sample size to address the aforementioned objectives. To this effect, the following assumptions were made to calculate the sample size: 40% and 29% of women have the outcome among exposed and non-exposed groups, respectively (32), a 5% type I error, 80% power to detect the assumed difference, a ratio of

exposed group to unexposed group of 2:1, design effect of 2 and contingency of 10%. Hence, 506 unexposed and 1012 exposed women (a total of 1,518) were required for the study. However, as this study was part of a survey which was conducted to assess the magnitude of intimate partner violence against women, a larger sample size of 1,600 was included.

To examine the association between maternal intimate partner violence victimization and under-five deaths, the sample size was also computed using STATCALC application of Epi-info 3.5.1 statistical software considering the proportion of intimate partner violence against women among controls of 37% and 47% for cases, 95% CI, 80% power of the study, and cases to controls ratio of 1:2 to detect an odds ratio of 1.51 (101). Accordingly, with the addition of 10% contingency for possible non-response, 977 biological mothers (319 cases and 658 controls) were needed. Based on the national census, 15% from Nekemte Town and 85% from rural *kebeles* were included proportionally into the study (58) (see Table 2).

3.7. Sampling Method

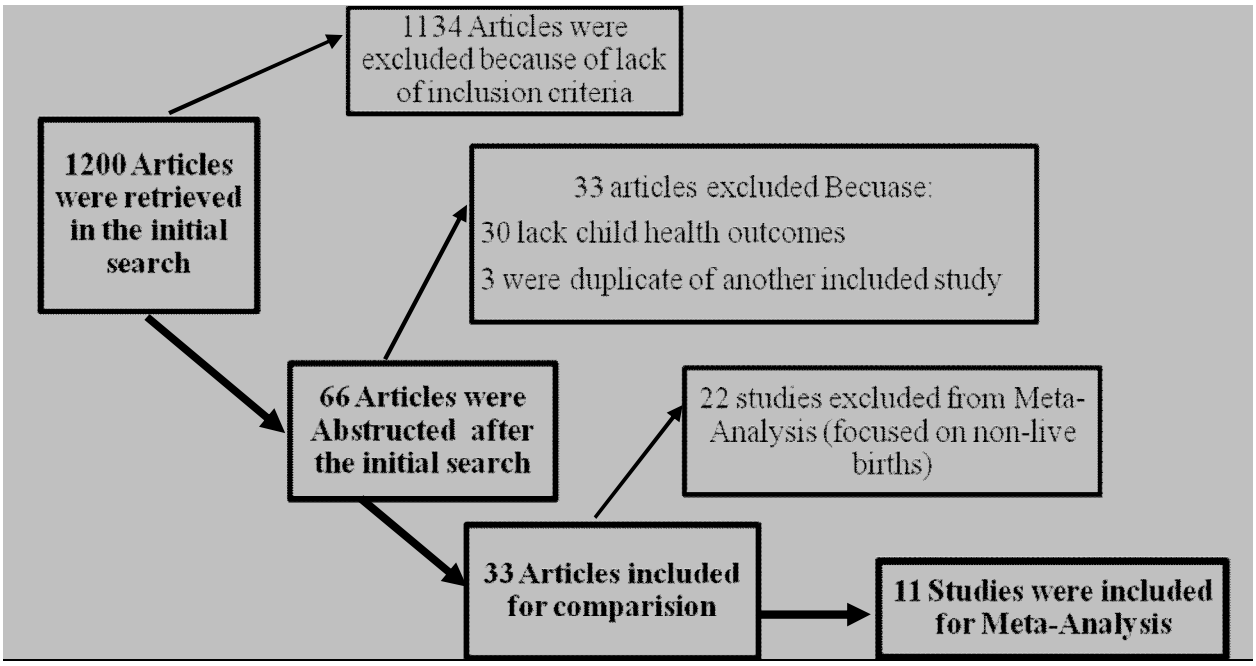
For the first study, respondents were selected principally using multistage sampling technique. Initially, two sub-cities out of six in Nekemte Town and eight *kebeles* out of 50 in four districts within a distance of 20-30 kilometers away from the town were randomly selected to represent the rural community. In the selected sub-cities and *kebeles,* household census and numberings were carried out prior to data collection. After identifying households with the target groups, proportion to sample size allocations (PSS) of the households to each sub-city and *kebele* was carried out based on the total number of selected households they have. Once again, systematic random sampling was used to identify the target from the selected households as a study unit. In a situation where the household has two or more eligible subjects, only one was selected using Kish grid (lottery) method to control the potential intra-household correlation (137).



KEY: HH: Selected Households

Figure 6: Schematic presentation of sampling procedure for 15-49 years ever married/cohabited women in East Wollega zone, January to April, 2011.

In reviewing the effect of intimate partner violence against women on under-five mortality, online bibliographic databases were systematically searched from Google Scholar, Pub Med, Medline, and Cumulative Index to Nursing and Allied Health Literature (CINAHL) from their earliest entries to December, 2010 for relevant information on the issue. The search strategy was augmented by a review of the bibliographies of published and unpublished studies. Keywords included "domestic violence" or "intimate partner violence" and "infant death," "child death," or "under-five mortality". In the initial search, 1200 articles were retrieved and of these, 66 appeared to be potentially meeting the inclusion criteria (victims with under five outcomes) for the study. Then, a more precise search was conducted using the keywords and keyword phrases of “IPV associated with: children death, infant death, child health outcomes”. This more exact search yielded 33 potentially relevant citations. These were, again, thoroughly reviewed and reference lists of targeted and relevant researches were examined for additional publications. Of the 33 studies identified, 11 met the inclusion criteria to be inputted into meta-analysis.



NB: Articles may have been excluded for more than one reason
Figure 7**:** Flowchart of study selection

Most studies were conducted in developing countries. Five studies were conducted in Africa: Kenya, Egypt, Malawi, Rwanda, and Ethiopia. The rest were conducted in India, Nicaragua, Bangladesh and Honduras. Of the studies, two were case-control (15, 97), three (57, 114, 138) were cohort, two were National Family and Health Surveys (NFHS) equivalent to an Indian version of DHS (56, 139), and one was a review of DHS data from five countries (126). The sample size of the study participants ranged from 422 case and control mothers in Nicaragua (15) to 43,348 women of 15-49 years who gave birth during a specified period of time in India (56). In general, a total of 87, 394 women were included in the meta-analysis.

A similar method as the one mentioned above was used to examine the associations between maternal intimate partner violence victimization and under-five death. Household census and numbering in the study area was done to identify deceased under-fives and the corresponding alive children during the period of two years preceding the survey. The alive under-fives were matched with those deceased by age categories of 0-28 days, 29 days-11 months and 12-59 months. Here, proportion to sample size allocation (PSS) was carried out based on the total number of selected households having eligible. Ultimately, systematic random sampling was used to identify the target study units from the selected households where applicable. Biological

mothers of both the deceased (cases) and living children (controls) were asked for the experiences of intimate partner violence in their lifetime and pregnancy of the index child.

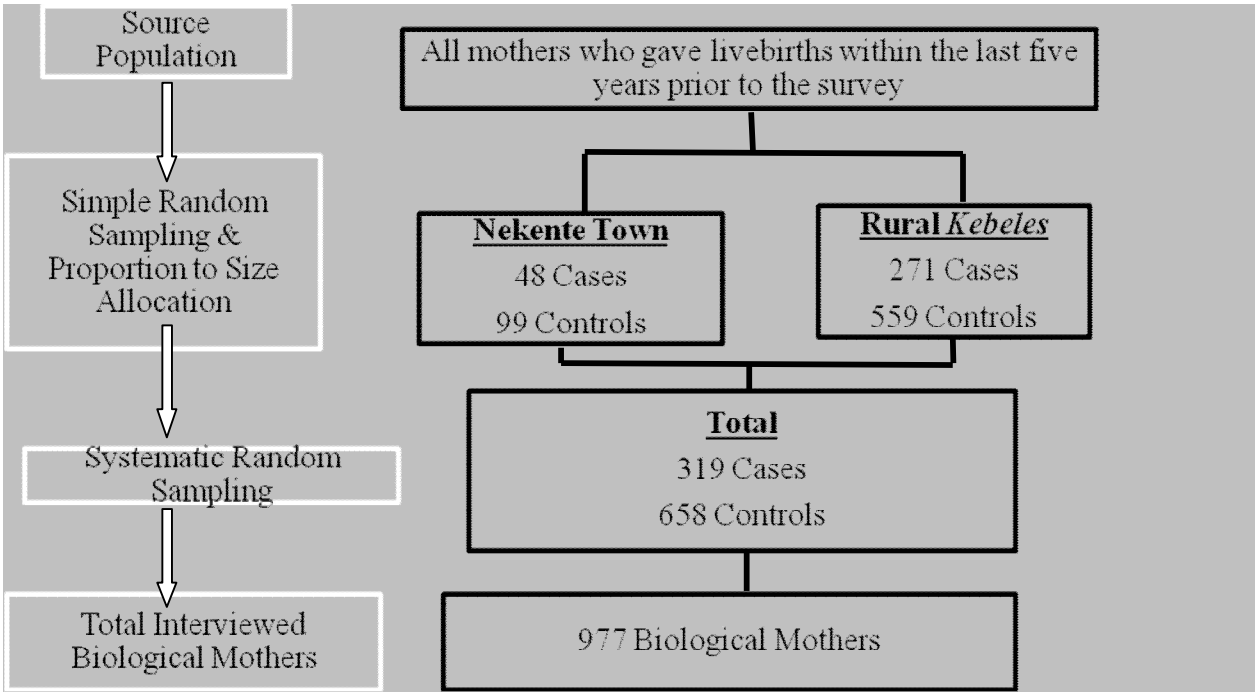


Figure 8: Schematic presentation of sampling procedure for biological mothers of under-five deaths with their corresponding controls in East Wollega Zone, May to June 2011.

For qualitative study, the number of focus group discussion was determined by saturation of ideas - until a point where no more new ideas emerged. A total of 12 focus group discussions comprising of 115 discussants (55 male and 60 female) was conducted. Four groups were from urban (two groups of males and two of females) and eight groups were from rural residents (four groups of males and four of females). The discussants were employees from different sectors, religious and community leaders, elders and residents of the study area. Each group consisted of 8-12 participants. The discussants were selected with criteria of being ever married/cohabited, having not been involved in the previous survey and their ability to express their views on an issue (140, 141). They were selected using purposive sampling method with the support of the local leaders and health care professionals as they were well familiar with the conditions of the area. The FGDs were categorized by sex, area of residence and employment statuses to capture heterogeneity among different subgroups and to allow for homogeneity within a group (142).

3.8. Data Collection

3.8.1. Data Collection Tools

For the studies of the magnitude, associated factors, adverse health effects of intimate partner violence against women and its association with under five mortality, the data collection tool (questionnaire) was adapted from the WHO multi-country study of domestic violence and women's health (143) with some modifications according to the local contexts and the objectives of the study. The questionnaire was translated into regional language (*Afan Oromo*) and back translated into English by experts to ensure accuracy. The questions and statements were grouped and arranged according to proposed objectives. The questionnaire consisted of direct questions about whether respondents (women) have experienced intimate partner violence by current/ex-partner in their lifetime and during the past 12 months preceding the survey. Follow-up questions were also included to explore whether or not the violence was ongoing (143) .

Furthermore, the questionnaire included Abuse Assessment Screen (AAS) tools designed by the US Nursing Research Consortium on Violence (113, 144) to further inquire if pregnant women have ever experienced intimate partner violence exerted against them. The questionnaire is a well-researched instrument used to evaluate physical and sexual abuse and it consists of questions that help to determine the frequency and severity of injuries as well as the perpetrator and body site injuries. Questions relating to their reproductive health history (family planning use, symptoms of STIs, pregnancy intention and termination), use of health services, other specific physical symptoms and mental distress, smoking habit and alcohol use were all included in the instrument. Information as to whether the woman or her partner had seen/heard her/his father hitting her/his mother during childhood was also included. Additionally, variables for estimation of socio-economic status of the household were incorporated (16). These were adapted by the research team based on the local context and the objectives of the research.

To review the effect of intimate partner violence against women on under-five mortality, a pre-specified abstraction form was used. The abstracted data included information regarding the authors, specific journals, years of publication, countries, study design, study population, outcome measures, statistical analyses, and study limitations.

For the qualitative study of community perceptions of intimate partner violence against women, open-ended unstructured discussion guide (thematic guide) were partially adopted from WHO multi-country study on women's health and domestic violence and modified by the researcher on the types of violence inflicted on females from their husbands/partners, the instigator for the occurrences of dispute, the consequences, coping mechanisms, community attitudes and responses to intimate partner violence against women, perceived measures, the available and use of social and legal services for the victims and the current statuses of women's violence at the study area. The thematic guide for the factors involved in the occurrences of intimate partner violence against women was prepared based on the ecological model (30) of understanding IPVAW. During data collection and initial analyses, this pre-understanding was put within brackets (145).

3.8.2. Pre-test of the Instrument

Pre-test of the instrument was conducted in one of the sub-cities and rural *kebeles* on 10% of the total sample size. In accordance with the findings of the pre-test, minor modifications were made to the questionnaire. Finally, the sub-city and *kebele* where the pre-testing was conducted were excluded from the main study in order to avoid potential community fatigue.

3.8.3. Data Collectors

In quantitative study, a total of five household enumerators and 20 female interviewers who had completed high school education and five field supervisors (medical officers) were involved in data collection through community-based household surveys. They were recruited from their respective area using the criteria of familiarity with the culture of the community, ability to speak the local language, past experience of survey, acceptance by the community, and willingness to take part as an interviewer or supervisor. They were trained for seven consecutive days**.** The training included the basic principles of interviewing, general aspects of gender and IPVAW, clarifications and discussion on each question item followed by group exercise (role plays), presentations and discussions. They were also exposed to practical field exercise for 2 days. The revisions and discussions were incorporated into the final version of the questionnaire.

Figure 9: Data collectors taking training and in the field work

Data extraction was done by the principal investigator to review the effect of IPVAW on under-five mortality. The abstracted data and information were compared again and again, and consensus discussion was used to resolve differences with the other research team. The final reviews of the abstracted data were compared with the initial set of articles that met the inclusion criteria and incorporated as necessary.

Two trained female research assistants (a social worker and an anthropologist) moderated the female group activities while the principal investigator and male medical anthropologist guided the male groups. One female and one male assistant from the team organized the FGDs and handled tape recordings. The discussions were tape-recorded and all observations made were recorded as field notes. The discussions were conducted in a quiet place to encourage free discussion without any threats and each lasted for 60-90 minutes.

Figure 10**:** Female (left) and Male (right) FGD Participants

3.9. Measurements

The set of dependent and independent variables were different across the papers included in the dissertation. On the one hand, variables that have been theoretically, empirically and conceptually linked to IPVAW or its outcomes were taken as independent variables. They included place of residence, age, level of education, occupation, socio-economic status of the household, marital status, alcohol consumption, witnessing inter-parental violence as a child, marriage by abduction, age at first marriage, number of children, and husband's fighting habit with other people in the community. However, to determine the association of intimate partner violence against women with different adverse health outcomes and under-five mortality, the lifetime experience of IPVAW was considered as independent variable.

On the other hand, in the assessment of the magnitude and associated factors of intimate partner violence against women, the dependent variables were considered following conventional definitions of the lifetime and current (past 12 months) experiences. The definitions are based on modified version of the revised Conflict Tactics Scale (CTS2) which is considered to have high reliability and constructive validity (1, 146-148). Hence, intimate partner violence against women is considered if the woman experienced one or more incidents of physical, sexual, or psychological abuse (4). Once women were found to have experienced physical violence, they were asked whether it happened in the last (index) pregnancy and if the physical violence resulted in physical injury to the body parts.

Other dependent variables for determining adverse health effects of intimate partner violence against women include physical injury, use of family planning methods, unintended pregnancy, terminated pregnancy, symptoms of STIs, and symptoms of mental distress. In here, mental health was assessed using self-reporting questionnaire having 20 questions (SRQ-20), developed by WHO to screen for emotional distress validated in many settings (40). In addition, under-five mortality was considered as an outcome variable of interest in this dissertation.

3.10. Data Management (Processing and Analysis)

With regard to data management, all completed interview forms were reviewed by a field supervisor and inspected/checked by the principal researcher. Forms with missing data or inconsistencies were returned to the interviewers for correction. Besides, dummy tables that

consider the main research questions were drafted after designing the questionnaires; the data were categorized and coded on a well-drafted coding sheet. On top of this, the pre-coded responses were double entered into EPI data version 3.1 by trained personnel under continuous supervision of the principal researcher. Later it was exported to IBM SPSS statistical software for windows version 19 and STATA 11.0 for data checking, cleaning, and bi-variable and multi-variable analysis. Data transformations such as recoding and re-categorization of variables were performed based on the objectives of the analysis. Responses to any questions coded as "missing," "don't know," or "refused to answer" were excluded from the analyses.

Hence, age of the respondents was categorized within 15-19, 20-34, and 35-49 years. Marital statuses of respondents were categorized into currently married, currently cohabited, and separated/divorced/widowed. The educational status of respondents were categorized into no formal education (unable to read and write or read and write without having formal schooling), primary (1-6th grade), and secondary and above (grade seven and above).

Moreover, socio-economic index was constructed with household asset data including ownership of a number of consumer items ranging from television to bicycle or car as well as dwelling characteristics, such as source of drinking water, sanitation facility, the type of materials used for flooring and roof, and number of bedrooms in the household. Each asset was assigned weight (factor score) generated through principal component analysis, and the resulting score was standardized in relation to normal distribution with mean of zero and standard deviation of one. Each household was then assigned score for each asset, and the scores were summed up for each household. In this assignment, individuals were ranked according to the score of the household in which they resided. For analytic purposes, the weighted scores were ranked into quintiles: very poor, poor, middle, rich, and very rich and single asset/wealth index was developed for the whole sample (40, 149, 150).

For the analysis of the magnitude, associated factors, adverse health effects of intimate partner violence against women and its association with under-five mortality, women included in the survey were the unit of analysis. The analysis focused on the preset conceptual framework of the study. Thus, descriptive, bi-variable and multi-variable analyses were done based on the

objective of the study. Finally, the results of the analyses were presented using frequency/contingency tables, graphs, charts and narratives.

To determine the associations between different explanatory and outcome variables, those that show significant association at bi-variable analysis (P< 0.05) were selected and entered one at a time into the model for further multi-variable regression analysis. In this case, binary logistic regression analysis was applied to control potential confounders and predict population parameters. The strengths and directions of the associated factors were explained (reported) using both crude and adjusted odds ratios, at the statistical significance of 95% confidence level and *p*-value of < 0.05. Mean, median and standard deviation were calculated for the independent variable (e.g. age). Crude and matched adjusted odds ratios and their 95% CI was used to assess whether intimate partner violence against women is independently associated with increased risk of under-five mortality using conditional logistic regression model.

The normality of the distribution of continuous variables (respondent's and husband's/partner's age, age at first marriage, number of births) was assessed using various options including statistical tests (Kolmogorov-Smirnov and Shapiro-Wilk tests) and visual evaluation of histogram. Age of the respondents and husbands/partners was found normally distributed. Multi-Collinearity of independent predictor variables was also assessed using Pearson correlation and those with r-value of less than 0.6 were used in model fitting. Collinearity between categorical variables was assessed by looking at the values of variance inflation factor (VIF) and those larger than 10 were excluded from the fitted model (151, 152).

For systematic review and meta-analysis, data were inputted into *Metaesy add-in* for MS Excel version 1.0.4 software. Visual description and presentation of original studies was made using forest plot (153). Odds ratios with 95% CI and tests of heterogeneity were performed with appropriate model. The studies heterogeneity was evaluated with the Cochrane Q-test statistic, of which a *p*-value <0.1 was used to declare statistical heterogeneity (154). In the analysis, the Cochrane Q-test statistic indicated significant heterogeneity among studies (P=0.01). In addition, to quantify the effect of heterogeneity, I^2 statistic was performed. The I^2 statistic is a measure of the proportion of variability (inconsistency) between studies due to chance as opposed to actual differences between study populations. In this process, I^2 value greater than 40% was considered

to represent important heterogeneity (154, 155). In this analysis, the I^2 was found to be 68.61% indicating medium heterogeneity between studies. Hence, random effect model was used in the analysis and variation between studies was assessed using DerSimonian and Laird's (DL) estimator which is the most common and widely used model in heterogeneous studies (154). In the analysis, the effect size measurement was done by transforming point estimates of an individual study using appropriate statistical techniques. Pooled OR was manually calculated from the mean effect size using derived formula from $g_i = \frac{\sqrt{3}}{\Pi} \ln (OR_i)$ where g_i is the mean effect size of DL model in this analysis (154, 155).

To analyse qualitative information, each FGD session was tape-recorded and transcribed verbatim in the regional language (*Afan Oromo*). Later, it was translated into English by the principal investigator together with the moderators. To assure the validity of the translation, another person, proficient in both languages checked and commented on it so as to incorporate changes into the report. Many of the post-FGD questions and interactions were not recorded to include into the analysis. Following the steps of qualitative thematic content analysis (83, 156, 157), the texts were imported into the Open Code 2007 program to facilitate the coding process (54). After reading the transcripts, the researcher performed open coding of the texts, constantly comparing similarities and differences among groups by going back to the original text. In the next step, selective coding was performed and relevant codes were further conceptualized leading to the development of categories. Several categories were taken together to form themes. During the coding process, relevant quotations from transcripts were put into memos and incorporated to illustrate main ideas during the write-up. Finally, understanding of multiple forms of information collected and triangulation of different data sources was made to verify the findings.

3.11. Data Quality Assurance

The quality of the data was assured from the very beginning in the designing of the study up to the interpretation of the findings. Mainly, the studies were designed to address the objectives and draw the optimum findings using both cross-sectional and case-control designs, and meta-analysis as well.

The adoption of WHO standard and internationally validated data collection tools was used to collect both quantitative and qualitative data. To make questions clear and easily understandable, the tools were translated into regional language (*Afan Oromo*) and back translated into English by experts fluent in both languages to ensure the validity and consistency of the questions. The tools/questionnaires were pre-tested to modify according to the local context, which in turn helped to correct ambiguous questions before data collection.

Recruitment of research team was performed with the help of local leaders and health institutions. Priority was given for experienced individuals who had ever carried-out the task of interviewing for similar activities. Since the study involved sensitive issues, female data collectors were assigned for easy communication and to minimize incidence of wrong and non-responses.

Intensive training was given for seven days to the members of research team on quantitative survey and additional five days were used for qualitative study team using the training manual adopted from WHO multi-country study on women's health and domestic violence. The training manual was modified based on the objectives of the study and included the introduction of GBV in general and IPVAW in particular, reviewing the global and national prospective of IPVAW, briefing the general objective of the study, and discussing the questions sequentially. The manual also included techniques of interviewing and how to approach the respondents particularly on sensitive issues during data collection and how to keep confidentiality. In addition, a standard field work manual developed by the WHO on violence study was adopted and strictly used by all research teams.

Respective supervisors were assigned for household enumerators and interviewers to help and re-orient them on daily bases. They also supervise the data generation process by attending the field work and cross checking the questionnaire for completeness and omissions. Debriefing was done on daily bases with the principal investigator. The principal investigator was also actively engaged and randomly checked all the activities on daily basis. To ensure quality of data and minimize inter-interviewer variation, ~5% of the respondents were re-interviewed at random by the principal researcher and supervisors. For the FGDs, a good quality tape recorder was used for

recording of the information. Before each session, the recording levels and batteries were checked.

The collected data were extensively cleaned for completeness and consistency by supervisors and principal researcher. Each questionnaire was given a unique code number and the data were double entered into computers using data entry template by different data entry clerks. Validation was done for consistency, omissions and outliers during and after data entry. Any identified errors were corrected after revising the original data using the code numbers. The qualitative transcripts were rigorously coded by three different coders (research team) using Open code qualitative software. Reading and coding of the transcript were made several times until inter-coder agreement was achieved. Interpretation of the results was verified by four people from member of the study participants in the community (member checking).

3.12. Ethical Considerations

To undertake community based studies, the research proposal was examined and screened for scientific and ethical integrity by the institution's review board (IRB), the highest body for approving research in the College of Health Sciences, Addis Ababa University. To this effect, a letter with green light to carry out the study was issued and an official letter was written to the regional and local authorities by the school of public health. Formal permission and consent was secured from administrative officials at different levels.

Moreover, World Health Organization (WHO) guidelines on ethical issues related to violence research was strictly adhered to ensure the safety of the respondents and interviewers from aggressive partner (29, 158). This was implemented as follows: for the purpose of data collection, the study was framed and introduced to the community, household members and respondents as the study of "women's health and life experiences" to reduce any events of violence perpetrated on study participants for disclosing the problem of violence in the family. Introduction, purpose of the study, method of the interview and policy of confidentiality was attached to the cover page of the questionnaire and explained to the participants prior to initiating the interview.

Before the interview, participants were informed that they have full right to agree or disagree to participate in the study and also withdraw any time during the interview. All interviews took place in complete privacy except for children under two years of age. In this regard, the interviewers were equipped with several strategies of maintaining privacy such as by using dummy questions and interrupting interviews about mothers and children health. This was developed by the principal investigator for use in the case of someone arriving at the place or entering the room while a woman is being interviewed (143, 158). For respondents aged between 15 and 17 years, assent was obtained from parents or guardians.

The interview was conducted anonymously. The interviewees were given an opportunity to ask questions, and the expected duration of participation in the interview was pre-informed (1 to 1.20 hour). Moreover, in developing the questionnaire, effort was made to make the questions clearly worded and specific that it can be easily answered by the respondents. All interviews were done in the regional language (*Afan Oromo*). During data collection, four of the interviewees who suffer from serious psychological distress and said they were considering suicide were referred to the nearby health institution (Nekemte Hospital Psychiatric clinic) for counseling. Further, information about available local health services was provided to all respondents. In fact, the study did not involve any undue financial or non-financial inducement. The subjects were not persuaded or influenced in anyway by local officials or health service providers to take part in the study. Similarly, their consent was secured to have their photo on important issues and to display in the dissertation.

In addition to all the information mentioned above, informed consent was obtained in advance from the respective FG discussants to record their responses. Notes were taken to be able to capture the interaction between participants. They were also told to switch-off the audiotape, if they feel that there are issues which should not be recorded. The researcher ensured that all collected information is kept and used in such a manner that confidentiality, anonymity and privacy of all participants are maintained, bearing in mind the sensitivity of the topic. In general, Table 2 shows the summary of the methods applied in this dissertation.

3.13. Operational Definitions

Cases - Biological mothers of children born alive but died later before the age of five and within the last two years preceding the survey time.

Controls - Biological mothers of surviving under-five matched with known confounding factors (age, sex, and area of residence) for the deceased under five.

Conflict tactic scale - The most commonly used instrument for violence against women research. It has several subsets of questions for assessing different forms of violence and is a behaviorally specific approach (1, 146-148).

Controlling behaviour within marriage - This was measured using seven questions on whether the husband commonly attempted to restrict women's contact with her family or with friends, insisted knowing where she was all the time, whether he ignored her or treated her indifferently, whether he expected her to seek permission for seeking health care for herself, whether he constantly was suspicious that she was unfaithful, and whether he got angry if she spoke with another man (159).

Emotional violence – A response to one or more of four questions, whether the women was prevented from visiting family or friends, ongoing humiliation, economic restrictions, and other forms of controlling behaviors by intimate male partners (159).

Family planning use - Ever use of family planning methods (modern and traditional).

Intimate partner – This includes any current or former spouse, boyfriend, or dating partner or any person with whom the respondents had ever been romantically or sexually intimate.

Intimate partner violence against women (IPVAW) – This is an exposure to one or more of physical, sexual, or psychological abuse (4).

Physical violence - Refers to whether or not the women had at least one incident of the six violent acts classified as moderate physical violence (slapped/thrown something at, pushed/shoved) or had severe physical violence (hit with fist or something, beaten/kicked or dragged, being chocked or burnt, and threatened using knife or gun) (3).

Member checking - This is a process through which respondents verify data and the interpretations thereof (160). Four of the participants received a copy of our transcripts for review, clarification, and suggestions. Suggested changes were made, and transcripts re-sent for verification.

Mental distress - A mental status determined using self-reporting to 20 questions (SRQ-20), developed by World Health Organizations (40).

Patriarchy - A system where men are vested with the power of ruling and controlling societal, communal and family affairs solely and where land and housing rights and family decision making responsibility ultimately belong to men (72).

Sexually Transmitted Infections (STIs) - The lifetime experiences of at least one symptom of STIs (32).

Sexual violence – This is when the woman experienced at least one of the following: physically forced to have sexual intercourse when she did not want, had sexual intercourse when she did not want to because she was afraid of what the partner might do, or forced to do something sexual that she found degrading or humiliating out of the norm (3).

Terminated pregnancy - The lifetime experiences of either spontaneous (miscarriage) or induced abortion (32).

Under-five mortality - The death of a child between birth and five years of age.

Unintended pregnancy - The lifetime experiences of either unwanted or unplanned pregnancy (32).

3.14. Summary of the Study Method

Table 2 summarizes the objectives, study design, study population, sample size, data collection method and analysis for the different components of the study.

Table 2**:** Summary table of study objectives and methods for the study of intimate partner violence against women in East Wollega Zone, Western Ethiopia

Paper	Objectives	Study Design	Study Population	Sampling Method/ Study Selection	Sample Size	Study Period	Data Collection Method	Data Analysis
I	Determine the Magnitude and associated factors of IPVAW	Cross-sectional, Household Survey	Ever partnered women (15- 49 years)	Random Sampling [a]	1600[a] = 1540[b]	January to April, 2011	Interview using questionnaire	Descriptive and Logistic Regression Analyses
II	Investigate the adverse health effects of IPVAW	Cross-sectional, Household Survey	Ever partnered women (15- 49 years)	Random Sampling [a]	1600[b] = 1540[c]	January to April, 2011	Interview using questionnaire	Descriptive and Logistic Regression Analyses
III	Review the effect of IPVAW on under- five mortality	Meta-analysis	Ever partnered women (15- 49 years) and Under-five	Literature Search	11 studies	From earliest entries to December, 2010	Web based search of literatures	Meta-Analysis based on Random Effect Model
IV	Examine the associations between maternal IPV victimization and under-five death	Matched case-control	Biological mothers of under-five (cases- mothers of deceased and Controls- mothers of alive)	Random Sampling [a]	319 cases 658 controls & a total of 977[a] = 858[b]	May to June, 2011	Interview using questionnaire	Descriptive and Conditional Logistic Regression Analyses
V	Explore the community perceptions of IPVAW	Cross-sectional, Qualitative	Male and female community members (15 years & above)	Purposive Sampling	12 FGDs (115 discussants)	December, 2011 to January, 2012	Focus Group Discussions (FGDs)	Thematic Content Analysis

NB: [a] = either simple or systematic random sampling, [b] = planned sample size, [c] = actual sample collected

4. MAIN FINDINGS/RESULTS

Even though the detailed results are found in the individual papers annexed, the main findings of this dissertation (Papers I-V) are described and presented below.

4.1. Magnitude of Intimate Partner Violence against Women (Paper I)

A total of 1540 study subjects completed the interview making a response rate of 96.3%. Thirty eight respondents were not willing to participate, nine were not contacted after three visits and fourteen were involved partially and could not be obtained to complete information. Most of the respondents (84.2%) were rural residents and 78.6% were in the age range of 20-34 years. The mean age of the respondents was 28.4 years ($\pm$5.7SD).

Of the respondents, 1178 (76.5%; 95% CI, 74.4 to 78.6%) had experienced intimate partner violence against women (IPVAW) in one form or another at some point in their lifetime. Also, 1117 (72.5%; 95% CI, 70.3 to 74.7%) of them experienced such incidents in the last 12 months preceding the survey. Most acts of IPVAW were part and a parcel of a continuing abuse rather than an isolated event and had too little variation in pattern. They were revealed in a similar way during the lifetime of the respondents and the last 12 months as well. Similarly, most respondents experienced act of IPVAW from once to many times in their lifetime and during the last 12 months. The act of forced sexual intercourse in marriage/cohabiting relationship considered marital rape was 58.7% and 51% in lifetime and last 12 months, respectively (see Table 3).

Table 3: Prevalence (lifetime and last 12 months) and frequency of different forms of intimate partner violence against women among ever married/cohabited women aged 15-49 years in East Wollega Zone, Western Ethiopia, January to April 2011.

Forms of IPVAW (n= 1540)	Lifetime	Last 12 months		Frequency in the current (the last 12 months)			Frequency before 12 months		
	Number %	Number	%	Once	A few times (2-5)	Many times (>5)	Once	A few times (2-5)	Many times (>5)
Emotional/Psychological violence:									
• Insulted/made feel bad	1,030 (66.9)	914 (59.4)		230 (24.9)	565 (36.7)	119 (7.7)	207 (13.4)	539 (35.0)	278 (18.1)
• Humiliated in front of others	536 (34.8)	485 (31.5)		190 (12.3)	219 (14.2)	76 (4.9)	113 (7.3)	303 (19.7)	120 (7.8)
• Intimidated on purpose	599 (38.9)	524 (6.5)		190 (12.3)	271 (17.6)	64 (4.2)	134 (8.7)	327 (21.2)	131 (8.5)
• Threatened/hurt/frightened someone they cared about	281 (18.3)	242 (15.7)		114 (7.4)	96 (6.2)	32 (2.1)	79 (5.1)	143 (9.3)	56 (3.6)
❖ Inflicted at least one episode of psychological abuse	**1081 (70.2)**	**984 (63.9)**		**394 (25.6)**	**680 (44.2)**	**207 (13.4)**	**300 (19.5)**	**746 (48.4)**	**366 (23.8)**
Physical violence									
Moderate physical violence:	**961 (62.4)**	**961 (62.3)**		**288 (18.7)**	**595 (38.6)**	**118 (7.7)**	**237 (15.4)**	**631 (41.0)**	**262 (17.0)**
• Slapped/thrown something	893 (58.0)	797 (51.6)		222 (14.4)	495 (32.1)	78 (5.1)	179 (11.6)	511(33.2)	200 (13.0)
• Pushed or shoved	621 (40.3)	540 (35.1)		159 (10.3)	324 21.0)	59 (3.8)	145 (9.4)	371(24.1)	108 (7.0)
Severe physical violence:	**835 (54.2)**	**757 (49.2)**		**230 (14.9)**	**521 (33.8)**	**82 (5.3)**	**161 (10.5)**	**517 (33.6)**	**266 (17.3)**
• Hit with fist or something else	649 (42.1)	581 (37.7)		164 (10.6)	375 (24.4)	42 (2.7)	110 (7.1)	367(23.8)	170 (11.0)
• Kicked, dragged or beat	570 (37.0)	490 (31.8)		97(6.3)	338 (21.9)	57(3.7)	66 (4.3)	305(19.8)	193 (12.5)
• Choked or burnt	142 (9.2)	125 (8.1)		39 (2.5)	76 (4.9)	9 (0.6)	21(1.4)	103(6.7)	23 (1.5)
• Threatened or used weapon (gun, knife)	86 (5.6)	80 (5.2)		27 (1.8)	47 (3.1)	7 (0.5)	16 (1.0)	55(3.6)	23(1.5)
❖ Inflicted at least one episode of physical violence	**1056 (68.6)**	**964 (62.6)**		**379 (24.6)**	**749 (48.6)**	**160 (10.4)**	**290 (18.8)**	**769 (49.9)**	**388 (25.2)**
Sexual violence:									
• Physically forced to have sex	904 (58.7)	786 (51.0)		160 (10.4)	417(27.1)	208(13.5)	126 (8.2)	432 (28.1)	333 (21.6)
• Threatened to have sex	712 (46.2)	622 (40.4)		116 (7.5)	317 (20.6)	199 (12.9)	105 (6.8)	319 (20.7)	282 (18.3)
• Imposed sex that is degrading/humiliating	127(8.3)	108 (7.0)		29 (1.9)	70 (4.5)	10 (0.6)	26 (1.7)	79 (5.1)	24 (1.6)
❖ Inflicted at least one episode of sexual violence	**948 (61.6)**	**847 (55.0)**		**204 (13.2)**	**500 (32.5)**	**250 (16.2)**	**165 (10.7)**	**499 (32.4)**	**394 (25.6)**
At least one of the three forms of violence	**1178 (76.5)**	**1117 (72.5)**							

In the same manner, examination of proportion of women who experienced the three forms of IPVAW during the current (last 12 months preceding the survey), previous (a year before the survey), or at any time of their marital/cohabiting relationship indicated that out of 76.5% of respondents with such experiences, about 75.8% had the incident in the previous year and 72.5% had it in the last 12 months. Almost similar patterns were seen for the three forms of violence during the aforementioned periods (Fig. 11). These patterns revealed that the percentage of current, previous, and lifetime experiences of IPVAW are almost similar.

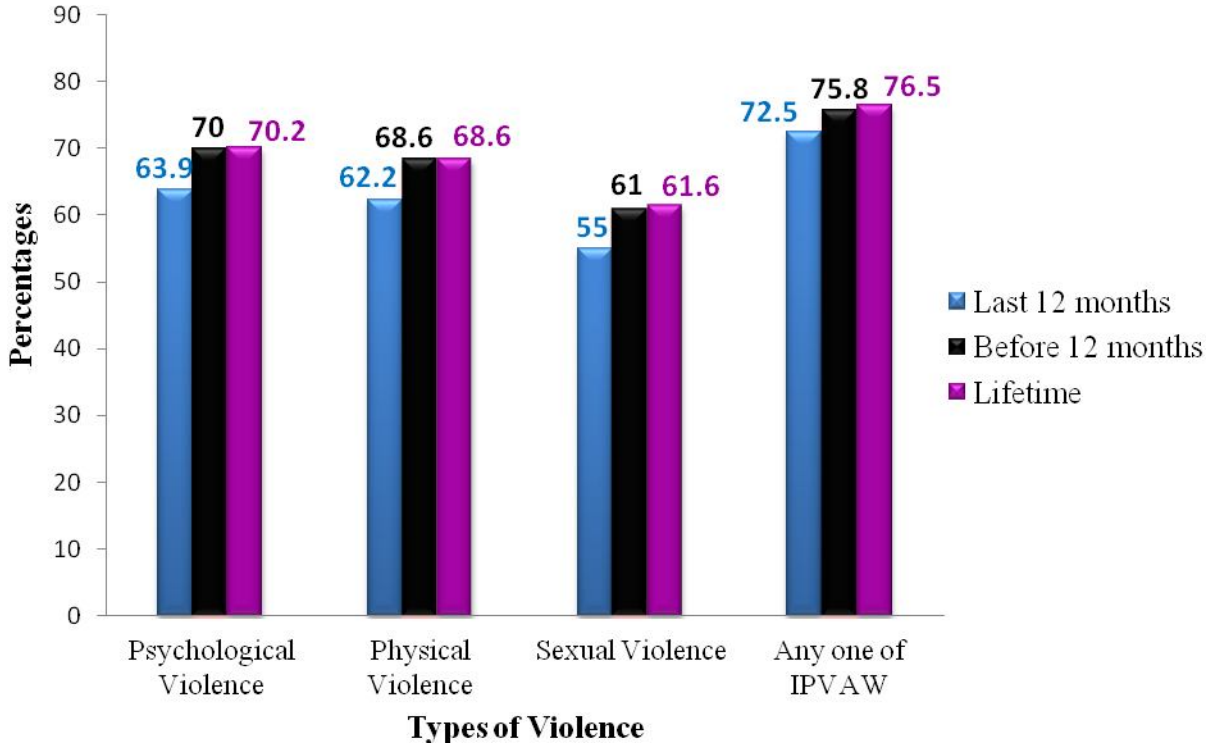


Figure 11**:** Percentage of the different forms of intimate partner violence against women among ever married/cohabited women aged 15-49 years during the current, previous and lifetime experiences in East Wollega Zone, Western Ethiopia, January to April 2011.

Likewise, the patterns for the joint occurrences of different forms of IPVAW showed that physical violence was less likely to occur in an isolated form (0.9%) compared to psychological and sexual violence (2.5%). However, the joint occurrence of psychological and physical violence accounted for 9.2%. It exceeds the overlapping of 1.8% for psychological + sexual violence and 2.8% for physical + sexual violence. On the other hand, a greater proportion (56.9%) of the women experienced multiple forms of violence from their intimate partners at the same time (Fig. 12).

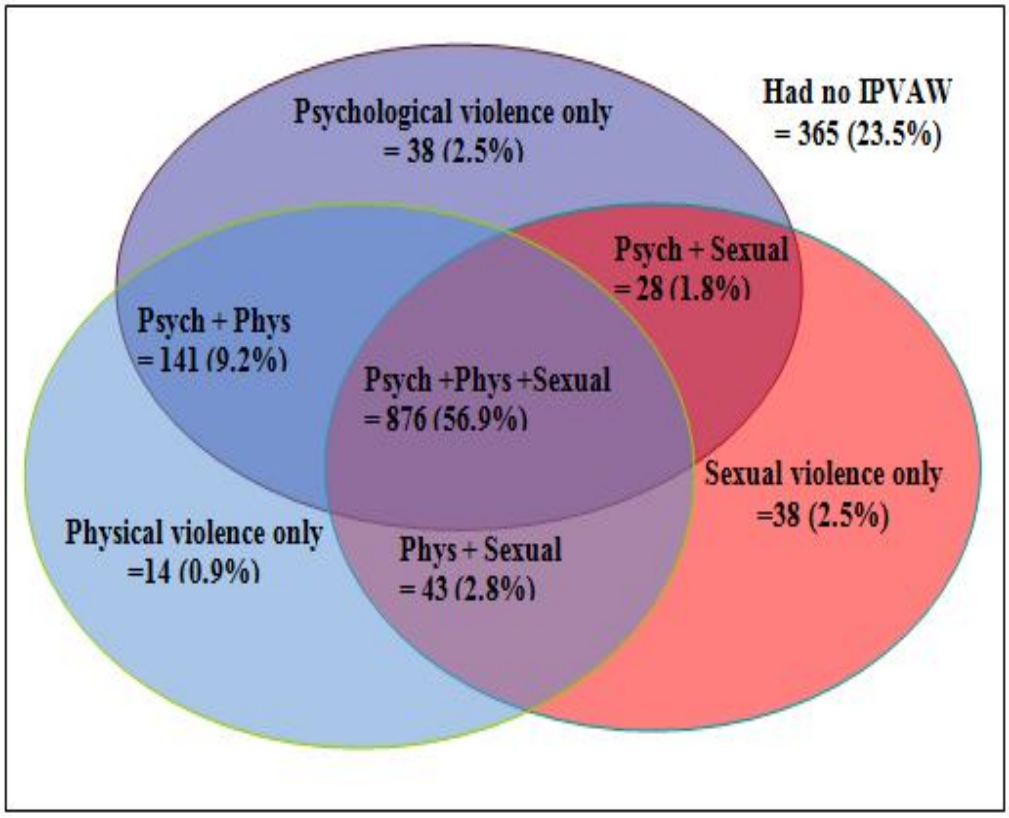


Figure 12**:** Venn diagram illustrating overlaps between lifetime experiences of psychological, physical and sexual violence reported by ever married/cohabited women aged 15-49 years in East Wollega Zone, Western Ethiopia, January to April 2011.

4.2. Associated Factors of Intimate Partner Violence against Women (Paper I)

A number of socio-demographic, cultural, and behavioral factors were identified as significant predictors of lifetime and current experiences of intimate partner violence against women (Table 4 and Table 5).

Socio-demographic factors

Compared to urban dwellers, rural dwellers were less likely to report lifetime IPVAW (AOR, 0.58; 95% CI, 0.34 to 0.98). However, this association was no more significant after controlling for other factors during the last 12 months. In the same way, compared to respondents aged 15-19 years, those aged 35-49 were about four and three times (AOR, 3.36; 95% CI, 1.27 to 8.89)

and (AOR, 2.75; 95% CI, 1.10 to 6.86) more likely to report lifetime and current experiences of IPVAW.

The protective effects of education for both women as victim and men as perpetrator were found to be significant in the lifetime and current experiences of IPVAW after controlling for age, occupation and socio-economic statuses. However, those women who have equal educational statuses with their husbands/partners were (AOR, 1.67; 95% CI, 1.05 to 2.68) more likely to report current experiences of IPVAW than women with greater educational status than their husbands/partners. This association was also noteworthy in lifetime experiences of IPVAW before adjusting for the variables in the model. Similarly, autonomous or female headed respondents engaged in different activities were (AOR, 0.46; 95% CI, 0.27 to 0.76) less likely to report lifetime IPVAW compared to jobless women (housewives).

Similarly, compared to respondents from the very poor households, those from the poor (AOR, 0.65; 95% CI, 0.44 to 0.97), the rich (AOR, 0.61; 95% CI, 0.40 to 0.94) and the very rich were (AOR, 0.66; 95% CI, 0.44 to 0.99) less likely to report lifetime IPVAW. These associations were found to be significant for current experiences of IPVAW (Table 4).

Table 4: Odds ratios (OR) and 95% confidence intervals (95% CI) from logistic regressions predicting intimate partner violence against women among ever married/cohabited women aged 15-49 by selected socio-demographic variables in East Wollega Zone, Western Ethiopia, January to April 2011

Variables (n=1540)	Lifetime IPVAW			Recent (last 12 months) IPVAW		
	No (%)	COR (95%CI)	AOR (95% CI)	No (%)	COR (95%CI)	AOR (95% CI)
Residence:						
Urban	214 (87.7)	1.00 (Reference)	1.00 (Reference)	17 (80.3)	1.00 (Reference)	1.00 (Reference)
Rural	965 (74.4)	0.41 (0.27 - 0.61)**	0.58 (0.34 - 0.98)*	33 (71.1)	0.60 (0.43 t- 0.84)*	0.92 (0.58 - 1.47)
Age:						
15-19 years	18 (64.3)	1.00 (Reference)	1.00 (Reference)	18 (64.3)	1.00 (Reference)	1.00 (Reference)
20-34 years	901 (74.5)	1.62 (0.74 - 3.56)	1.56 (0.63 - 3.85)	850 (70.4)	1.35 (1.02 - 1.78)*	1.25 (0.54 - 2.91)
35- 49 years	260 (85.5)	3.28 (1.42 - 7.58)*	3.36 (1.27 - 8.89)*	249 (81.9)	1.38 (1.02 - 1.86)*	2.75 (1.10 - 6.86)*
Educational level:						
No formal education	710 (77.3)	1.00 (Reference)	1.00 (Reference)	22 (74.3)	1.00 (Reference)	1.00 (Reference)
Primary (1-6 grade)	289 (72.4)	0.82 (0.57 - 1.18)	0.65 (0.48 - 0.88)*	16 (67.2)	0.71 (0.55 - 0.91)*	0.63 (0.48 - 0.84)*
Secondary and above (≥7 grade)	180 (80.6)	0.63 (0.42 - 0.94)*	0.72 (0.45 - 1.17)	22 (74.8)	1.02 (0.73 - 1.44)	0.71 (0.46 - 1.10)
Occupation of respondents:						
No job	1020 (76.8)	1.00 (Reference)	1.00 (Reference)	963 (72.5)	1.00 (Reference)	1.00 (Reference)
Student/employee/trader	90 (79.6)	1.18 (0.74 - 1.90)	0.87 (0.50 - 1.52)	87 (77.0)	1.27 (0.81 - 2.00)	1.18 (0.71 - 1.97)
Housemaid	24 (96.0)	7.25 (0.98 - 53.79)	5.29 (0.66 - 42.69)	23 (92.0)	4.36 (1.02 - 18.58)*	3.99 (0.87 - 18.37)
Female headed (d/f work)	44 (59.5)	0.44 (0.27 - 0.72)*	0.46 (0.27 - 0.76)*	44 (59.5)	0.56 (0.34 - 0.90)*	0.58 (0.35 - 0.97)
Partner's educational level:						
No formal education	413 (79.3)	1.00 (Reference)	1.00 (Reference)	394 (75.6)	1.00 (Reference)	1.00 (Reference)
Primary (1-6 grade)	411 (73.5)	0.73 (0.55 - 0.96)*	0.73 (0.55 - 0.99)*	393 (70.3)	0.76 (0.58 - 1.00)*	0.73 (0.59 - 1.04)
Secondary and above (≥7 grade)	344 (76.6)	0.86 (0.63 - 1.16)	0.74 (0.43 - 1.29)	320 (71.3)	0.80 (0.60 - 1.04)	0.71 (0.51 - 0.98)*
Difference of education:						
Women higher	110 (71.7)	1.00 (Reference)	1.00 (Reference)	100 65.8)	1.00 (Reference)	1.00 (Reference)
Equal educational status	496 (79.7)	1.55 (1.04 - 2.33)*	1.63 (0.97 - 2.73)	470 (75.6)	1.61 (1.20 - 2.36)*	1.67 (1.05 - 2.68)*
Woman lower	563 (74.6)	1.16 (0.78 - 1.71)	1.36 (0.67 - 2.76)	537 (71.1)	1.28 (0.86 - 1.86)	1.44 (0.76 - 2.76)
Wealth quintile:						
Very poor	250 (82.0)	1.00 (Reference)	1.00 (Reference)	239 (78.4)	1.00 (Reference)	1.00 (Reference)
Poor	239 (74.7)	0.65 (0.44 - 0.96)*	0.64 (0.43 - 0.96)*	228 (71.3)	0.68 (0.48 - 0.99)*	0.70 (0.48 - 1.02)
Medium	241 (75.8)	0.69 (0.47 - 1.02)	0.71 (0.47 - 1.07)	228 (71.7)	0.70 (0.49 - 1.01)	0.76 (0.52 - 1.11)
Rich	197 (73.2)	0.60 (0.40 - 0.90)*	0.61 (0.40 - 0.94)*	186 (69.1)	0.62 (0.43 - 0.90)*	0.65 (0.44 - 0.97)*
Very rich	251 (76.5)	0.72 (0.49 - 1.06)	0.66 (0.44 - 0.99)*	236 (72.0)	0.71 (0.49 - 1.02)	0.69 (0.47 - 1.02)

Adjusted for all variables in the model

COR – Crude odds Ratio, AOR – Adjusted Odds Ratio, CI: confidence interval. P- Value <0.05, ** P- Value <0.001,*

Note: - variables not entered in the model because they were not found to be significant in bivariate analysis (e.g. marital status, religion, and ethnicity)

Cultural and behavioral factors

The associations of cultural and behavioural factors showed that women married by abduction (AOR, 3.71; 95% CI, 1.01 to 13.63), to polygamous husbands or cohabiting with multiple partners (AOR, 3.79; 95% CI, 1.64 to 8.73), to those who take heavy alcohol (drunkard) (AOR, 1.98; 95% CI, 1.21 to 3.22), and those married to hostile husbands/partners (AOR, 3.96; 95% CI, 2.52 to 6.20) remained associated with increased risks of experiencing lifetime IPVAW. These associations were also found to be significant with incidents of IPVAW in the last 12 months.

In addition, compared to women who got married/cohabited at the age of 10-14 years, those who married at 15-19 (AOR, 3.41; 95% CI, 1.31 to 8.89), 20-24 (AOR, 2.93; 95% CI, 1.10 to 7.78), and 25 and above years were (AOR, 4.26; 95% CI, 1.27 to 14.2) more likely to report experiences of IPVAW during the last 12 months.

Those who witnessed parental violence as a child were twice (AOR, 2.00; 95% CI, 1.54 to 2.56), and more than one and half times (AOR, 1.66; 95% CI, 1.17 to 2.37) as likely to report lifetime and current experiences of IPVAW, respectively. Furthermore, respondents whose husbands/partners themselves were beaten by someone in the family during childhood were nearly two times (AOR, 1.89; 95% CI, 1.17 to 3.03), and more than twice (AOR, 2.11; 95% CI, 1.41 to 3.15) as likely to report lifetime and current experiences of IPVAW (Table 5).

Table 5**:** Odds ratios (OR) and 95% confidence intervals (95% CI) from logistic regressions predicting intimate partner violence against women among ever married/cohabited women aged 15-49 by selected cultural and behavioral variables in East Wollega Zone, Western Ethiopia, January to April 2011.

Variables (n=1540)	Lifetime IPVAW			Current (last 12 months) IPVAW		
	No (%)	COR (95%CI)	AOR (95% CI)	No (%)	COR (95%CI)	AOR (95% CI)
Marriage proposed by:						
Both	1026 (75.5)	1.00 (Reference)	1.00 (Reference)	972 (71.6)	1.00 (Reference)	1.00 (Reference)
Family and others	88 (78.6)	1.19 (0.74 - 1.90)	1.11 (0.56 - 2.19)	82 (73.2)	1.08 (0.70 - 1.67)	0.87 (0.46 - 1.66)
Abduction	63 (91.3)	3.40 (1.50 - 7.93)*	3.71 (1.01 - 13.63)*	61 (88.4)	3.02 (1.43 - 6.37)*	3.02 (0.93 - 9.76)
Current marriage of partner:						
Monogamous	1012 (74.9)	1.00 (Reference)	1.00 (Reference)	960 (71.1)	1.00 (Reference)	1.00 (Reference)
Polygamous	163 (87.6)	2.37 (1.51 - 3.74)**	3.79 (1.64 - 8.73)*	154 (82.8)	1.96 (1.32 - 2.92)*	2.51 (1.26 - 4.97)**
Respondent's drinking habit:						
Never drinks	530 (77.8)	1.00 (Reference)	1.00 (Reference)	485 (71.2)	1.00 (Reference)	1.00 (Reference)
Drinks occasionally (lightly)	392 (70.6)	0.68 (0.53 - 0.88)*	0.59 (0.41 - 0.84)*	380 (68.6)	0.88 (0.69 - 1.13)	0.82 (0.54 - 1.25)
Drinks always (heavily)	256 (84.2)	1.52 (1.06 - 2.17)*	1.07 (0.68 - 1.67)	251 (82.6)	1.91(1.36 - 2.69)*	1.51 (0.87 - 2.60)
Partner's drinking habit:						
Never drinks	392 (73.7)	1.00 (Reference)	1.00 (Reference)	361 (67.9)	1.00 (Reference)	1.00 (Reference)
Drinks occasionally (lightly)	341 (69.2)	0.80 (0.61 - 1.05)	0.86 (0.56 - 1.32)	329 (66.7)	0.95 (0.73 - 1.23)	0.92 (0.60 - 1.41)
Drinks always (heavily)	424 (78.1)	2.40 (1.73 - 3.34)**	1.98 (1.21 - 3.22)*	408 (83.8)	2.47 (1.81-3.31)*	1.88 (1.17 - 3.01)*
Fighting habit of partner:						
No	714 (70.3)	1.00 (Reference)	1.00 (Reference)	689 (65.4)	1.00 (Reference)	1.00 (Reference)
Yes	412 (91.5)	4.57 (3.20 - 6.53)**	3.96 (2.52 - 6.20)**	403 (89.8)	4.64 (3.34-6.46)*	4.17 (2.65 - 6.55)**
Age at first marriage:						
10-14 years	23 (63.9)	1.00 (Reference)	1.00 (Reference)	21 (58.3)	1.00 (Reference)	1.00 (Reference)
15-19 years	738 (75.9)	1.78 (0.89 - 3.58)	1.80 (0.78 - 4.15)	707 (72.7)	1.91 (0.97 - 3.75)	3.41 (1.31 - 8.89)*
20-24 years	359 (79.4)	2.18 (1.07 - 4.47)*	1.96 (0.83 - 4.62)	334 (73.9)	2.02 (1.01 - 4.05)*	2.93 (1.10 - 7.78)*
25 and more years	47 (79.3)	2.17 (0.85 - 5.50)	2.63 (0.87 - 7.99)	44 (75.9)	2.25 (0.92 - 5.49)	4.26 (1.27 - 14.2)*
Respondent witnessed family violence :						
No	325 (68.7)	1.00 (Reference)	1.00 (Reference)	302 (63.8)	1.00 (Reference)	1.00 (Reference)
Yes	764 (81.4)	2.00 (1.54 - 2.56)**	1.65 (1.14 - 2.38)*	731 (77.8)	1.99 (1.56 - 2.54)**	1.66 (1.17 - 2.37)*
Partner heard or seen violence as a child:						
No	357 (68.5)	1.00 (Reference)	1.00 (Reference)	334 (64.1)	1.00 (Reference)	1.00 (Reference)
Yes	505 (80.7)	1.92 (1.46 - 2.52)**	1.75 (1.12 - 2.74)*	480 (76.7)	1.84 (1.42 - 2.38)**	1.32 (0.84 - 2.08)
Partner beaten as child:						
No	514 (68.6)	1.00 (Reference)	1.00 (Reference)	477 (63.7)	1.00 (Reference)	1.00 (Reference)
Yes	287 (86.4)	2.92 (2.06 - 4.14)**	1.89 (1.17 - 3.03)*	282 (84.9)	3.22 (2.30 - 4.50)**	2.11 (1.41 - 3.15)**

COR – Crude Odds Ratio, AOR – Adjusted Odds Ratio, CI: Confidence Interval. P- Value <0.05, ** P- Value <0.001*

Note: - variables not entered in the model because they were not found to be significant in bivariate analysis (e.g. Khat chewing, number of children, dowry…)

4.3.Adverse Health Effects of Intimate Partner Violence against Women (Paper II)

The effects of intimate partner violence against women on women's health showed that of the 1056 (68.6%) who had experienced lifetime physical IPVAW, 987 (64.1%) had been injured at least once in their lifetime. Minor injuries such as scratch, abrasion and bruises were most commonly reported by 60.1% of the women. In their lifetime, about one-third (31.5%) experienced severe forms of physical violence like cuts, punctures and bites. Besides this, women experienced the most severe forms of violence like sprains and dislocations (22.5%), burns (6.8%), injuries to the eyes and ears (5.3%), fractures (3.8%), broken teeth (1.2%) and other forms of injuries (0.3%). Due to these events, nearly one-third (28.5%) of the women reported to have ever had loss of consciousness of which, 104 (10.6%) reported that the unconsciousness lasted for more than an hour. Although 86 (8%) of them were injured badly and needed medical attention, only 69 (6.5%) received health care at least once for their injuries (Table 6).

Table 6**:** Distribution of physically abused women aged 15-49 years according to their body injuries in East Wollega Zone, Western Ethiopia, January to April 2011.

Variables	During lifetime	
	Number	Percentage
Types of physical injury (N= 987)		
Cuts, punctures, bites	485	31.5
Scratch, abrasion, bruises	925	60.1
Sprains, dislocations	346	22.5
Burns	105	6.8
Penetrating injury, deep cuts, gashes	33	2.1
Broken eardrum, eye injuries	81	5.3
Fractures, broken bones	59	3.8
Broken teeth	18	1.2
At least one of the above	987	64.1

The result of this study indicated that 64% of women who have experienced lifetime IPVAW also had at least one symptom of STI compared to 42% for their counterparts. About one-third (32.8%) reported burning sensation during urination and other symptoms like genital itching and unusual discharge from genitalia accounted for 26.0% and 13.4%, respectively (Fig. 13).

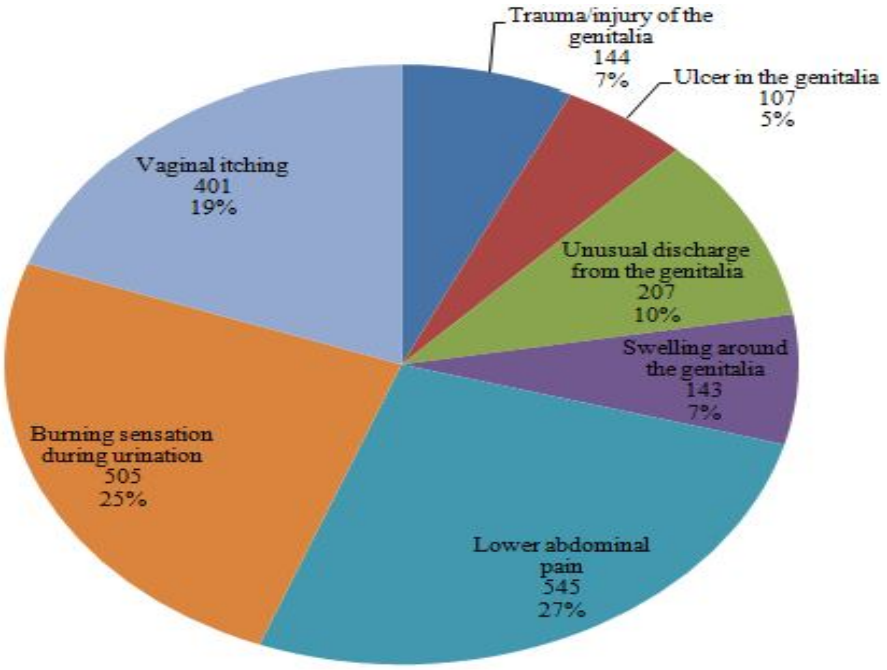


Figure 13**:** Distribution of women reported lifetime symptoms of sexually transmitted infections in East Wollega Zone, Western Ethiopia, January to April 2011.

In relation to STIs, nearly one-third (31.1%) of women who had experienced IPVAW perceived risks of contracting HIV and AIDS compared to one-quarter (25%) of those without such experiences. On the other hand, more than one in every six (16.3%) women had experienced both IPVAW and unintended pregnancy at least once in their lifetime but only 11.3% of non-abused women reported to have had such an experience. Termination of pregnancy was reported by 82 (7.2%) of abused women but the figure was only 17 (4.8%) for their counterparts. Similar patterns were seen for mental health problems of the women in the study area (*see Table 7*).

Table 7**:** Proportion of women who experienced selected reproductive health indicators and mental health problems in East Wollega Zone, Western Ethiopia, January to April 2011.

Indicators for the outcomes of IPVAW	**Life time experiences of IPVAW**				**P-value**
	No	**%**	**Yes**	**%**	
Reported symptoms of STIs:					
No	211	58.3	424	36	<0.001
Yes	151	41.7	754	64	
Perceived risk of HIV and AIDS:					
No	262	75.1	778	68.9	0.028
Yes	87	24.9	351	31.1	
Had unintended pregnancy:					
No	321	88.7	986	83.1	0.021
Yes	41	11.3	192	16.3	

Terminated pregnancy:					
No	339	95.2	1064	92.8	0.114
Yes	17	4.8	82	7.2	
Had mental distress:					
No	32	8.8	71	6	0.015
Yes	330	91.2	1107	94	
Used family planning methods:					
No	164	45.3	481	40.8	0.131
Yes	198	54.7	697	59.2	

In multi-variable analysis, after other potential factors such as age of the women, educational level, area of residence, and SES were controlled (161), women who reported lifetime experience of sexual violence were nearly twice (AOR, 1.71; 95% CI, 1.15 to 2.55) more likely to have one or more symptoms of mental distress. Moreover, women who experienced at least one or more form of IPVAW were (AOR, 1.40; 95% CI, 1.10 to 2.31) more likely to report symptoms of mental distress.

Moreover, women who experienced psychological, physical, sexual, and at least one or more form of IPVAW in their lifetime were more than two times (AOR, 2.79; 95% CI, 2.23 to 3.50), (AOR, 2.68; 95% CI, 2.14 to 3.35), (AOR, 2.18; 95% CI,1.76 to 2.70), and (AOR, 2.46; 95% CI, 1.93 to 3.14) as likely to have at least one symptom of STIs in their lifetime, respectively. Besides, women who had experienced physical violence (AOR, 1.31; 95% CI, 1.01 to 1.69), sexual violence (AOR, 1.39; 95% CI, 1.09 to 1.77), and at least one or more form of IPVAW (AOR, 1.35; 95% CI, 1.02 to 1.78) were more likely to perceive risk of contracting HIV and AIDS compared to their counterparts. On one hand, none of the different forms of IPVAW were significantly associated with ever use of family planning. On the other hand, women who reported lifetime experience of psychological (AOR, 1.44; 95% CI, 1.04 to 1.99), physical (AOR, 1.49; 95% CI, 1.07 to 2.05), sexual (AOR, 1.63; 95% CI, 1.20 to 2.22), and at least one or more form of IPVAW (AOR, 1.46; 95% CI, 1.01 to 2.09) were more likely to have unintended pregnancy. Once again, lifetime experiences of physical violence (AOR, 1.79; 95% CI, 1.08 to 2.97) and at least one or more form of IPVAW (AOR, 1.79; 95% CI, 1.02 to 3.15) were more likely to be associated with termination of pregnancy (Table 8).

Table 8: Adjusted odds ratios (OR) and 95% confidence intervals (95% CI) from logistic regressions assessing the association of mental health problem and selected reproductive health indicators with IPVAW among ever married/cohabited women age 15-49 years in East Wollega Zone, Western Ethiopia, January to April 2011.

Forms of IPVAW (n=1540)	**Mental Health Problems AOR (95% CI)**	**Symptoms of STIs AOR (95% CI)**	**Perceived Risk of HIV & AIDS AOR (95% CI)**	**Use of Family Planning AOR (95% CI)**	**Unintended Pregnancy†** **AOR (95% CI)**	**Terminated Pregnancy§** **AOR (95% CI)**
Emotional violence:						
No	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Yes	1.46 (0.97-2.21)	2.79 (2.23-3.50)**	1.24 (0.95-1.61)	0.99 (0.78-1.25)	1.44 (1.04-1.99)*	1.45 (0.90-2.34)
Physical violence:						
No	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Yes	1.24 (0.81-1.88)	2.68 (2.14-3.35)**	1.31 (1.01-1.69)*	1.13 (0.90-143)	1.49 (1.07-2.05)*	1.79 (1.08-2.97)*
Sexual violence:						
No	1.00 (Reference)	1.00	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Yes	1.71 (1.15-2.55)**	2.18 (1.76-2.70)**	1.39 (1.09-1.77)*	0.93 (0.75-1.16)	1.63 (1.20-2.22)*	1.41 (0.90-2.20)
At least one or more form of IPVAW:						
No	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Yes	1.40 (1.10-2.31)*	2.46 (1.93-3.14)**	1.35 (1.02-1.78)*	1.14 (0.89-1.47)	1.46 (1.01-2.09)*	1.79 (1.02-3.15)*

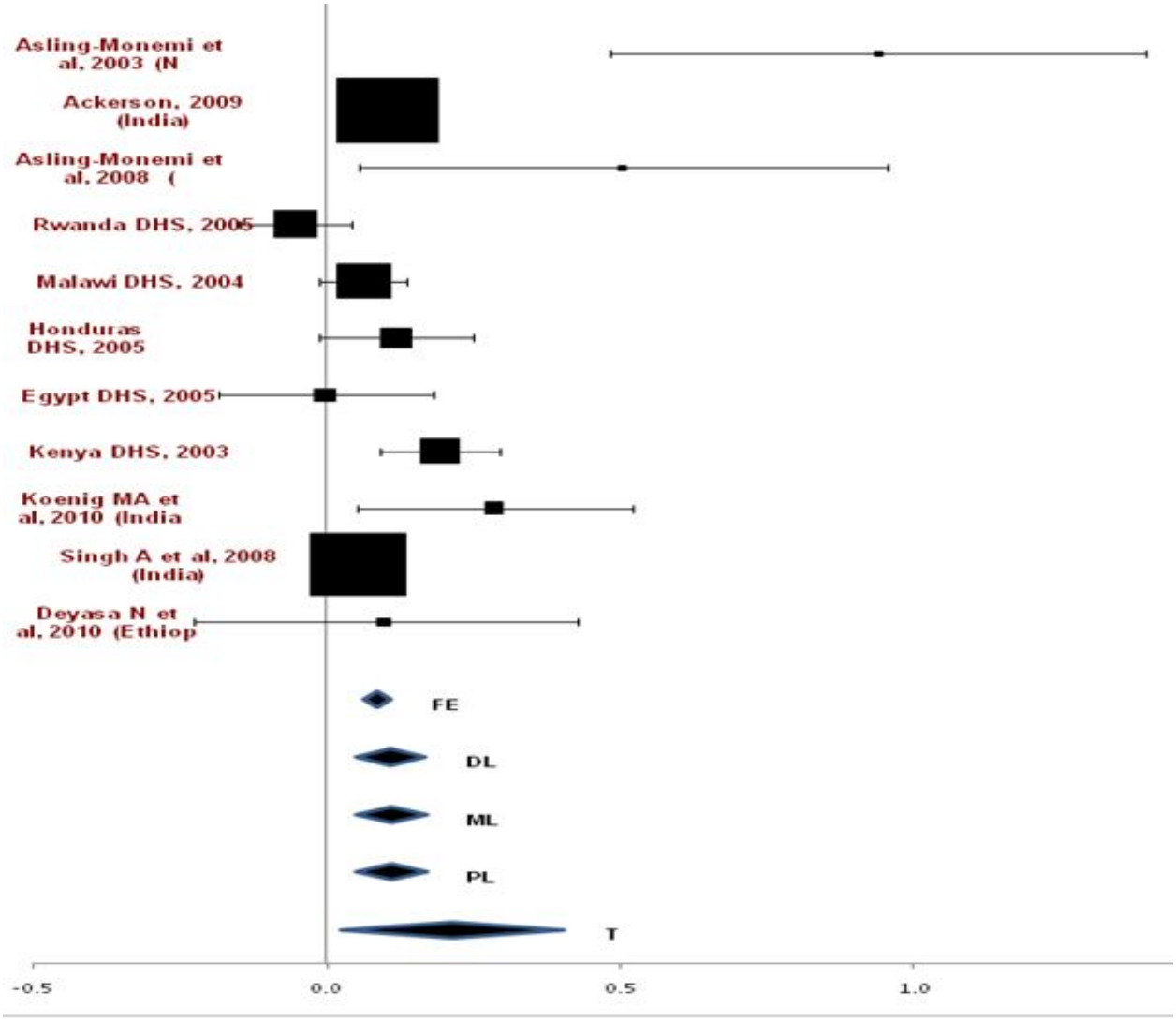
†*Unwanted/mistimed pregnancy,* §*Induced/spontaneous abortion, STI- Sexually transmitted infection*
** P- Value <0.05, ** P- Value <0.001*
NB- Adjusted for age of the women, education level, area of residence, and SES

4.4. Review of the Effect of Intimate Partner Violence against Women on Under-Five Mortality (Paper III)

The result of meta-analysis showed that mothers who reported IPV were more likely to have under-five mortality than their counterparts. The distribution of the studies using funnel plots showed symmetrical (not shown) suggesting the absence of publication bias that indicated the possibility of reporting summary estimates of the analysis. According to random effect DL model, the combined mean effect size, 0.23; 95% CI, 0.16 to 0.32 was observed, and it was significantly different from zero (Table 9). With reference to the cutoff points for the effect size recommended by Cohen (154, 155), the level of effect is moderate. In addition, the value of pooled OR, 1.34; 95% CI, 1.12 to 1.46 was computed.

Table 9: Results of studies included in systematic review and Meta analysis

Study Authors, Year, Country	**Abused Mothers**	**Non-abused Mothers**	**Point Estimates (95% CI)**	**Effect Size Lower and Upper (95% CI)**
Deyasa, N. et al. 2010 (Ethiopia)	45	426	1.40 (0.73-2.34)	0.101 (-0.227-0.428)
Singh, A. et al, 2008 (India)	5288	38060	1.10 (1.02-1.18)	0.053 (0.012-0.093)
Koenig, MA. et al. 2010 (India)	770	3139	1.68 (1.14-2.57)	0.286 (0.052-0.520)
Rico, E. et al. 2003 (Kenya)	517	2655	1.42 (1.18-1.71)	0.193 (0.091-0.296)
Rico, E. et al. 2005 (Egypt)	1264	2230	1.00 (0.72-1.43)	0.000 (-0.183-0.183)
Rico, E. et al, 2005 (Honduras)	377	9541	1.24 (0.98-1.57)	0.117 (-0.011-0.249)
Rico, E. et al. 2004 (Malawi)	1786	4481	1.12 (0.98-1.28)	0.063 (-0.011-0.136)
Rico, E. et al. 2005 (Rwanda)	826	1229	0.91 (0.77-1.09)	-0.052 (-0.148-0.044)
Asling-Monemi, K. et al. 2008 (Bangladesh)	325	723	2.52 (1.09-5.57)	0.505 (0.056-0.955)
Ackerson, 2009 (India)	11577	18889	1.21 (1.13-1.30)	0.105 (0.067-0.144)
Asling-Monemi, K. et al, 2003 (Nicaragua)	26	396	6.34 (2.32-7.3)	0.940 (0.484-1.396)
Pooled OR and Random DL mean effect size			**1. 34 (1.12-1.46)**	**0.234 (0.160-0.318)**



*NB: **FE-fixed effect model, DL- DerSimonian and Laird's, ML- maximum likelihood, PL- profile likelihood, $_T$- tau***

Figure 14: Forest plot indicating the overall effect size of intimate partner violence against women on under-five mortality.

To control the possible effect of confounders, stratified analysis was made for under-two and under-five based on the available data from the studies included in the meta-analysis. This was to observe the magnitude of the average effect sizes and the pooled OR across the category. The result showed, random DL mean effect sizes, 0.100; 95% CI, 0.001 to 0.172, and pooled OR, 1.17; 95% CI,1.00 to 1.37 for under-two. Separate analysis for under-five also showed, mean effect size, 0.14; 95% CI, 0.04 to 0.24 and pooled OR, 1.52; 95% CI, 1.19 to1.96.

4.5. Maternal Intimate Partner Violence Victimization and Under-Five Mortality (Paper IV)

For this study, a total of 858 study subjects (286 cases and 572 controls) completed the interview making a response rate of 88%. In this regard, ninety nine eligible women were not willing to take part and twenty gave incomplete information.

Among the biological mothers of the deceased under-five (cases), 72.7% ever experienced controlling behaviors when compared to 62.4% for biological mothers of the surviving children (controls). Moreover, the experience of lifetime emotional/psychological violence was 76.2% among cases compared to 63% for controls. In the same way, a significant difference of lifetime physical violence was observed among cases and controls and showed the prevalence of 76.2% and 62.7%, respectively. Similar patterns were also seen for other forms of IPVAW (Fig 15).

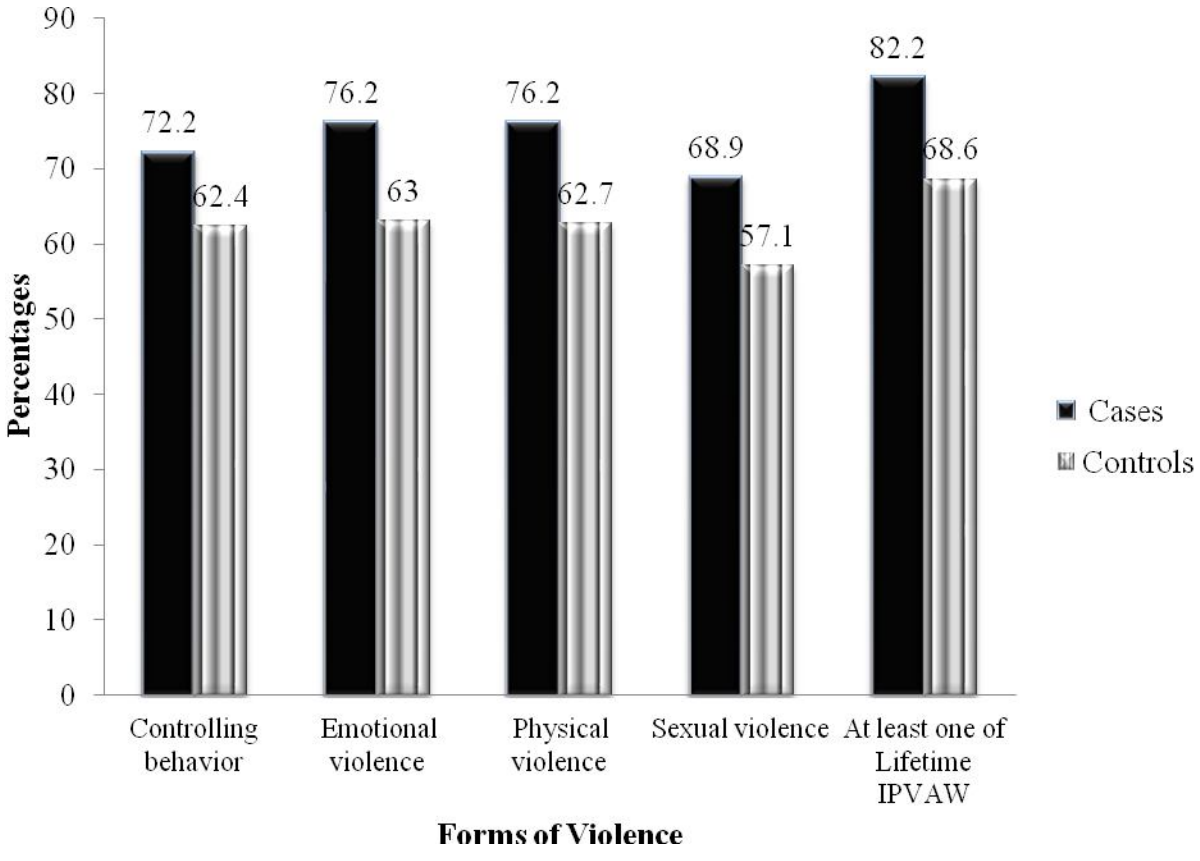


Figure 15**:** Percentages of cases and controls who ever experienced intimate partner violence in East Wollega Zone, Western Ethiopia, May to June 2011.

Regarding the joint occurrences of physical and sexual violence, significant differences were observed between cases and controls (64.3% vs. 52.4%, $p<0.001$). The differences were also found to be statistically significant ($p<0.05$) for other socio-demographic factors, such as age of the mother, number of births, birth-weights and alcohol consumption by mothers during the index pregnancy (Table 10) .

In matched conditional logistic regression, mothers who had controlling behavior in marriage and experienced at least two forms of intimate partner violence during their lifetime were more than four and two times (AOR, 4.27; 95% CI, 0.97 to 18.89) and (AOR, 2.24; 95% CI, 1.31 to 3.85) as likely as mothers who did not to have under-five deaths, respectively. In the same manner, mothers who ever experienced both physical and sexual violence were nearly two times (AOR, 1.91; 95% CI, 1.22 to 2.61) more likely to have under-five mortality. Similarly, the experiences of the three forms (psychological, physical and sexual violence) were two and half times (AOR, 2.55; 95% CI, 1.66 to 3.92) more likely to be associated with under-five mortality (Table 10).

The association of other potential factors with under-five mortality showed that mothers who had more than five births were more likely to have under-five mortality (AOR, 3.17; 95% CI, 1.76 to 5.71) compared with mothers who gave one birth. In addition, alcohol consumption by mother during the index pregnancy (AOR, 1.56; 95% CI, 1.09 to 2.23) and birthweight of <2.5 kg (AOR, 1.84; 95% CI, 1.12 to 2.09) were factors significantly associated with under-five mortality. However, no significant association was observed between the mother's age, educational level of the mother and under-five mortality.

There was no significant interaction between violence and mothers' age, violence and mothers' educational level, violence and number of births, violence and maternal alcohol intake during index pregnancy and between violence and birthweight in relation to under-five deaths.

Table 10**:** Maternal intimate partner violence victimization as a risk factor for under-five mortality based on the results of matched conditional logistic regression analysis in East Wollega Zone, Western Ethiopia, May to June 2011

Risk factor	Participants			Under-five mortality	
	Cases	Controls	*P*-value	COR (95% CI)	AOR (95% CI)
Controlling Behaviour:			0.003		
No	78 (27.3)	215 (37.6)		1.00 (Reference)	1.00 (Reference)
Yes	208 (72.7)	235 (62.4)		1.80 (1.27- 2.55)**	4.27 (0.97-18.89) *
Lifetime psychological violence:			<0.0001		
No	68 (23.8)	212 (37.0)		1.00 (Reference)	1.00 (Reference)
Yes	218 (76.2)	361 (63.0)		2.36 (1.62-3.44)**	1.97 (0.44-8.87)
Lifetime physical violence:			<0.0001		
No	68 (23.8)	214 (37.3)		1.00 (Reference)	1.00 (Reference)
Yes	218 (76.2)	359 (62.7)		2.37 (1.63-3.43) **	1.62 (0.15-2.46)
Lifetime Sexual violence:			0.001		
No	89 (31.1)	246 (42.9)		1.00 (Reference)	1.00 (Reference)
Yes	197 (68.9)	327 (57.1)		1.94 (1.37-2.74) **	1.63 (0.17-2.33)
Lifetime physical and sexual violence:			<0.0001		
No	102 (35.7)	272 (47.6)		1.00 (Reference)	1.00 (Reference)
Yes	184 (64.3)	300 (52.4)		1.94 (1.37–2.75)**	1.91 (1.22–2.61)*
At least one of Lifetime IPVAW:			<0.0001		
No	51 (17.8)	180 (31.4)		1.00 (Reference)	1.00 (Reference)
Yes	235 (82.2)	393 (68.6)		2.41 (1.65-3.52) **	2.19 (0.45-10.60)
Occurrences of IPVAW:			<0.0001		
No violence at all	51 (17.8)	180 (31.5)		1.00 (Reference)	1.00 (Reference)
One form only	14 (4.9)	29 (5.1)		1.48 (0.67-3.28)	1.38 (0.60-3.18)
Two forms	44 (15.4)	74 (15.9)		3.39 (1.42-4.04)**	2.24 (1.31-3.85)**
All together	177 (61.9)	289 (50.5)		2.66 (1.76-4.03)**	2.55 (1.66-3.92)**
Parity:			<0.0001		
1 birth	24 (8.4)	104 (18.2)		1.00 (Reference)	1.00 (Reference)
2- 5 births	157 (54.9)	334 (58.3)		2.14 (1.30-3.54)**	1.91 (1.13-3.24)*
> 5 births	105 (36.7)	135 (23.6)		3.78 (2.19-6.48)**	3.17 (1.76-5.71)**
Birthweight:			0.01		
< 2.5 kg	41 (71.9)	59 (55.1)		1.74 (1.09-2.24)*	1.84 (1.12-2.09)*
≥2.5 kg	16 (28.13)	48 (44.9)		1.00 (Reference)	1.00 (Reference)
Alcohol intake during index pregnancy:			0.04		
No	140 (49.0)	321 (56.3)		1.00 (Reference)	1.00 (Reference)
Yes	146 (51.0)	249 (43.7)		1.51 (1.08-2.11)*	1.56 (1.04-2.65)*

NB- Adjusted for maternal age, education, parity, birthweight and alcohol intake during index pregnancy
**p<0.05, **p<0.001*

4.6. Community Perceptions of Intimate Partner Violence against Women (Paper V)

The median age of the discussants was 40.4 years (ranged from 23 to 78 years). Three main themes emerged from data analysis of focus group discussions related to perceptions of the community: attitudes towards the act of IPVAW, women's reactions after/during the incident of IPVAW, and suggested measures to prevent or stop the acts of IPVAW. Examples of the emergent themes, sub-categories and codes are summarized in Table 11.

Table 11: Descriptions given for intimate partner violence against women by themes, sub-categories and selected codes, East Wollega Zone, Western Ethiopia, December 2011 to January 2012.

Themes	Category	Codes
Attitudes towards IPVAW	Accepting IPVAW	Approve, tradition, tolerance of women, community norms, controlling
	Not accepting IPVAW	Hair split argument, give advice, sanction, exclude from *edir*, no support
Woman's reaction	Tolerate	keeping silent, silently live, weep and live, feeling shame
	Leave home	Separate temporarily or permanently, divorce, disappear
	Self defence	Fight back, beat him, use force, disregard
	Seek help	Tell, Women's Affairs, elders, police, *kebele* leaders, courts, relatives, neighbours
Suggested measures at various levels	Individual level	Create awareness on education, economic issue, females right
	Family level	Hold discussions on family issue, understand each other
	Community level	Change attitudes and beliefs through mass education, school and religious activities
	Society level	Raise awareness on legal codes and related services, gender roles, advocacy

4.6.1. Attitudes of the Community towards Intimate Partner Violence against Women

Two divergent views reflecting the attitude of the community emerged from the extensive discussions held in relation to conditions under which the act of IPVAW could or could not be acceptable.

Conditions under which the Act of IPVAW Could Be Acceptable

A. Failure to give birth and suspicion for infidelity

The acts of IPVAW could be acceptable by the community if the woman commits extra-marital sex, is suspected for sexual infidelity (adultery), is always in dispute with her husband, her neighbors or community members, does not obey the husband/partner, or fails to give birth under all conditions.

> *The society pushes families to have more children even if the woman resists. Commonly people say "garaan haadhaa qalqalloodha" which literally means, "mothers' womb is like a container" (A* 34 year-old woman from prosecutor's office*).*

B. Behaving as controlling and non-domestic women

The community believes in women accusation when they attempt to speak for their own rights. Most people also stigmatize such women labelling them as deviant, big-headed, and uncultured. The community also attaches connotative expressions like non-domestic to such women when they actively participate in public affairs. For example, both men and women groups noted that people in their community accept wife beating as it is the appropriate way to correct the women.

> *There is a saying, "uleen suphee duwwaa cabsa" to mean, "A stick breaks only a clay pot." Mostly elders in this community believe in the importance of stick for controlling women. Such a traditional belief targets the way a woman dialogues with her husband. If a woman swears at her husband, it is considered as looking down on him, so he has to punish her (A* 41 year-old man from a rural community*).*

Conditions under which the Act of IPVAW Could not Be Acceptable

A. Hair splitting arguments

According to some of the participants, currently there is some degree of change in the perception of the community on IPVAW. The community is taking different measures against men who frequently attack their wives or who exhibit a violent behavior. The majority of the participants from both groups expressed that IPVAW is an intolerable act, especially if the man commits adultery, is always intoxicated, and always raises hair split arguments like for instance the dinner is not delicious and the like.

> *Most members of our society know that attacking women is a crime. Usually, if the man raises hair splitting arguments like for instance the dinner is not delicious and the like, is always in dispute with his partner, the act is considered as intolerable. Even if there could be a disagreement between a husband and a wife, it should not lead to abuse and has to be solved through discussions (A* 34 year-old woman from the Education Bureau*).*

B. Exclusion from social support system

The majority of participants from the female groups extensively discussed the protection of the right of women as they are part of the society. Others also mentioned that if a husband keeps attacking his wife on trivial issues and always quarrels with other people in the community, he is excluded from the local social support system (*edir*) in the form of sanctions.

> *…. Despite the traditional roles of men as head of the family, the community considers women as daughter, sister, wife and mother. For this reason, we do not accept attack under any circumstances. Occasionally, if the husband keeps attacking his wife on trivial issues and always quarrels with other people in the neighborhood, the community rejects his act and excludes him from social affairs like edir. However, to do so, it should be ensured that the woman has fulfilled the expectations of the husband/partner and the community, like for example, obeying the husband, giving care for the children, giving birth, and not having extra-marital sexual relations" (A* 46 year-old man, rural education office*).*

4.6.2. Women's Reactions to Intimate Partner Violence (Coping Strategies)

According to the majority of the participants, most women do not report cases of violence by their intimate partner primarily due to the fact that they may be stigmatized and ashamed by the community. In some cases, it may result in life of discrimination with consequences like difficulty in re-marriage. Basically, four sub-themes emerged on strategies that women use when such an incident occurs in the study area.

A. Tolerance

Most discussants mentioned that their culture dictates women not to go back to their parents or elsewhere once they got married for they are expected to keep the family net intact, especially for the welfare of their children. Thus they tend to stay tolerant of every challenge from their abusive partner.

> *…. In the beginning, I used to cry and lock myself up in a room. But now, I gave up, and I would not leave my husband. I can't stay away from my kids or make them suffer without a father figure. They are my life, and I would do anything for them…." This is the reason why I stay on tolerating violence by my husband (A* 33 year-old woman from rural community*).*

Furthermore, most women in the study area have no awareness about their rights and prefer to remain tolerant of everything from the husbands/partners. Some also said that the traditional norms of the society discourage females not to discuss their problems with others. In addition,

most women live with the principle of "*obsuu"* and "*dhoksuu*" which means "*remaining patient"* and *"keeping secret*." This means, females should tolerate and hide the challenges they face from their partners.

> *The tradition itself expects females to be a tolerant wife. That is why "dandeessuu," meaning someone with high degree of endurance, is a very common bride's name given by the family of the husband at marriage (A* 35 year-old man from the Education Bureau*).*

B. Leaving home

The discussants from both groups mentioned that most women in the study area, mainly those in the rural areas, leave home either temporarily or permanently when they feel they cannot bear the violence any longer. In fact, because of culture and traditional norms of the society, men are not expected to leave the house. Moreover, the elderly man and court personnel remarked that most of the time women face severe attacks from their husbands and leave home with no claim of any property in their home.

> *In my vicinity, a husband and a wife were always in dispute during the night time. She shouted every time he came drunk and started annoying her. She always went to his relatives and came back after things cooled down. But one day, he severely attacked her on the back and she was admitted to a hospital. After she recovered, she permanently left home and went back to her family with no appeal to the legal system (A* 61 year-old man from the urban*).*

C. Self-defence

Few women in the area resort to physical confrontations to have their rights respected and protect themselves from harsh physical or verbal attack. This was reflected in the discussions among urban respondents.

> *…. Let me share you my personal experience. After long time tolerance and weeping, I tried to beat him to defend myself when he severely attacked me on the stomach (A* 29 year-old house wife, urban*).*

A religious leader from the rural community also said:

> *…. I have seen a woman in my locality that goes to the extent of injuring his genital organ with knife after several disputes. The woman took this measure for self-defense because the man has become addicted to violent behavior (A* religious leader of 57 years of age from the rural community*).*

D. Seeking help/telling others

Most victims, as a first measure, usually go to the local/village elders, relatives, or close friends for arbitration. In fact, these people often advise the couple to tolerate each other. But if the case is not settled, they resort to more formal structures such as the *kebele* social court, women's affairs, police or court system. Even then, there are a number of cases where these women are not taken serious because of influence from long standing traditions of the community. The cases below attest to such practices.

A judge from the rural area expressed his experience on a case where a woman sued her husband for beating her. There, the judge asked the man, "Why did you beat your wife violating her right?" Then the husband replied, *"Respected judge, I did not beat her on the right, but on her left side"* simply to undermine his acts.

In this regard, the women groups draw attention to the fact that females are excluded from the local elders for arbitration of disputes between couples in their community. For instance one of the female group discussants said,

> *…. One day, I went to take part in the local elders group to mediate disputed couples. In the group there were seven males and I was the only female. I was unfortunately late to arrive and they were waiting for me. In fact, they did not know me and were expecting the eighth male. But when I arrived, they were surprised and angrily remarked, "We wasted our time waiting a woman"* (A 46 year-old woman from the urban*)*

Most participants extensively claimed that women are not allowed to be members of an arbitration group. This implies that decisions made usually favour males. The mediators mostly pressurize females to accept their decision no matter how much she was victimized. Moreover, how women are treated by the police officers was an issue of lively discussion among female participants.

> *A woman went to the police office to sue her husband. The investigator was a policeman who had three co-habitants. He sent the woman to local elders advising her not to waste her time. He said, "Abbaa manaaf haadha manaa sireetu araarsa" literally meaning, the bed mediates between a husband and a wife. This is a problem. The problem is not the issue of policy but its implementations (A* 34 year-old woman from Women's Affairs Office*)*

4.6.3. Community Suggested Measures

The other theme emerged was community's perception towards measures taken to prevent or stop IPVAW. Other sub-categories were observed after selective coding of measures to be taken at the levels of individual, family, community, and society was made.

A. At an individual level

In most discussions, the first measure should focus on intensive provision of formal and informal education for females on their legal rights and problems of cohabitation. Moreover, the majority of the participants suggested that the concerned bodies (religious institutions and municipality) should provide premarital, sexual and family life education.

> …. *Women have to be advised on not simply co-habiting with a man without thorough scrutiny of him as this problem is pervasive in the area. Pre-marital education should be provided by the concerned bodies like the municipality and religious leaders" (A* 39 year-old woman from the local court*).*

B. At family level

Advising the couple to discuss all family issues in a gentle and courteous way was briefly raised in all groups. They emphasized that a husband and a wife should have respect for each other from the very beginning, because once a dispute occurred between the couple, it becomes difficult to manage. They also stressed the importance of teaching the couple about their income, family problems and the need for one of the couple to try to calm the other down when s/he becomes temperamental. They said a family issue should be discussed and solved within the family.

> *Since family is a base for the community and eventually for the country, solving a family problem has to be the responsibility of all citizens. Tolerance is the major mechanism of reducing violence between couples. As an Oromo proverb goes, "obsaan aannan goromsaa dhuga" meaning, "Someone tolerant drinks the milk of the heifer" (implying this is the best milk) to indicate the importance of tolerance in the family. Behaving this way solves problems related with alcoholism and temperament* (A 49 year-old male community leader)

C. At community level

Most discussants stressed the importance of formal social support like government assistance programs and criminal justice, and informal assistance by the local elders, friends, relatives and others.

> *According to the custom of the area, before any further step, elders look into the dispute between couples for more than three times. If they fail to resolve the problem, then the case is taken to the court. However, because the custom is highly valued, the court could even send it back to the local elders before making a legal decision. This is the procedure we follow. In the community, elders are responsible for thoroughly investigating cases and giving advice to the wrongdoer and mediate the couple (A* 45 year–old male from Prosecutor's Office*).*

All groups emphasized the importance of collaboration among different organizations for stopping or reducing IPVAW. The behavioral change strategy should be focusing on everyone in the community.

> *…. Last week a man injured an eye of a woman who owns a grocery. She came to our office for help and we directed her to the police. But a group followed and warned her saying, "If you withdraw your appeal, he will pay you compensation, but if you proceed, you will lose all your customers." She accepted the second option. I personally met one of the members of the group mediating the case and asked him why they interfered. He replied, "Harree fi dubartiin duruu ni reebamti, maal ho'ista?" which means, "It is a tradition for the women and donkeys to be beaten, so why do you exaggerate**?**"* (A 47 year old woman from an NGO*)*

D. At society/country level

Some participants in this study pointed out that much is expected of all organizations in general and the implementing agencies in particular. It is important to hire experts on family and marriage issues equipped with knowledge of family mediation. Others also suggested that the government should amend or codify acceptable evidences in investigating violent acts because many people complain that the criminal code of Ethiopia demands eyewitness from three people and medical certificate from health institutions to decide that the offender is guilty. For instance, in cases of rape, it is impossible to have eyewitness as the act takes place in a hidden environment.

> *The law of the land and the police demand that the victim produce evidences like witnesses from at least three people and medical certificate from health institutions. This is not right. What is expected of the victim should be reporting the case. Investigating the issue should be the job of the police, because such attacks take place in secret so that the victim cannot produce evidence* **(**A 29 year-old women from the Education Bureau).

In addition, they recommended that concerned bodies like the police officers, experts in women's affairs, the prosecutor and judges be equipped with appropriate knowledge and skills necessary to handle such cases. Additionally, there should be legal protection for the victim so

that the offender does not attack again or revenge. Majority of the participants suggested that the court establish a special center that works on GBV and emphasize on empowering women.

> *When we think about the solution, we have to think about who is responsible. Who should be involved? As the problem is complex, it needs the involvement of different stakeholders. Concerned bodies should work to practically implement the gender policy of the country and draft new laws or amend the existing ones to make them appropriate to deal with violence against women (A* 36 year-old female from Social Affairs Office*).*

4.7. Summary of the Main Findings

The main findings of the studies stated in this dissertation are summarized and presented in Table 12 below.

Table 12: Summary of the main results of the papers included in the dissertation, East Wollega Zone, Western Ethiopia, January 2011 to January 2012.

Paper	Objectives/Problem Approached		Main findings	
			Lifetime	**Recent**
I	Magnitude of IPVAW	Psychological violence	70.2%	63.9%
		Physical violence	68.6%	62.6%
		Sexual violence	61.6%	55.0%
		One or more of IPVAW	**76.5%**	**72.5%**
	Joint occurrences of IPVAW	Psycho + Phys + sexual	**56.9%**	
	Risk factors of IPVAW	Risk factors	• Urban residents • Lower education • Jobless • Decreased SES • Older age • Marriage by abduction • Partners polygamous • Heavy alcohol consumption • Partners hostility behavior • Witnessing family violence	• Lower education • Decreased SES • Older age • Equal Educational status • Partners polygamous • Heavy alcohol consumption • Partners hostility behavior • Witnessing family violence • Delayed age at first marriage
II	Adverse health effects of IPVAW and RH behavior	**Types of effects**	**Abused women**	**Non-abused women**
		Physical Injury	64.1%	35.9%
		Symptoms of STI	64%	41.7%
		Perceived risk of HIV	31.1%	24.9%
		Unintended pregnancy	16.3%	11.3%
		Terminated pregnancy	7.2%	4.8%
		Mental distress	94%	91.2%
		Use of Family planning	59.2%	54.7%
		• Lifetime experiences of IPVAW is independently associated with: o symptoms of STIs o unintended and termination of pregnancy		

		o mental health problem (distress)		
III	Magnitude and directions of associations of IPVAW and under-five deaths	Pooled OR (95% CI)	1. 34 (1.12-1.46)	
		Random DL mean effect size (95% CI)	0.234 (0.160, 0.318)	
		• IPVAW is associates with under-five mortality		
IV	Maternal IPV victimization and risk of under-five death	**Forms of violence**	**Cases**	**Controls**
		Controlling behaviour	72.7%	62.4%
		Psychological violence	76.2%	63.0%
		Physical violence	76.2%	62.7%
		Sexual violence	68.9%	57.1%
		IPVAW	82.2%	68.6%
		• Cases were more likely to experience all forms of IPV than controls		
		• IPVAW is associated with under-five mortality		
V	Community perceptions of IPVAW	Attitudes	Divergent idea (could or couldn't accept the act)	
		Women's reaction	Tolerance, seek help, self defense, leave home	
		Suggested measures	Focused on provision of education at individual, family, community, and society level	

5. DISCUSSION

The overall aim of this dissertation is to describe the extent, patterns, associated factors and adverse health effects of IPVAW, and to explore community's perceptions of attitudes on IPVAW, women's responses during or after the incident and suggested measures for stopping or reducing IPVAW. Prevalence of IPVAW during lifetime and in the last 12 months is 76.5% and 72.5%, respectively. Different socio-demographic, cultural, and behavioral factors are positively or negatively associated with IPVAW. As a risk factor, IPVAW by itself is associated with the behavioral and health conditions of the women and under-five deaths. The negative effects are much more worrying. The perceptions and expressions of the community towards IPVAW also support these notions.

Magnitude of Intimate Partner Violence against Women

The overall prevalence of IPVAW during lifetime (76.5%) and in the last 12 months prior to the survey (72.5%) found in this study is by far greater than that reported in any study elsewhere (1, 3, 4), including those in other parts of Ethiopia (5, 41, 58, 64, 68, 94, 136). For instance, findings from Butajira (Ethiopia) showed that about 71% and 54% of ever married/cohabited women experienced lifetime and current IPVAW, respectively (5). These variations are likely due to the inclusion of psychological violence for measuring IPVAW in the present study. Cultural differences may also explain the discrepancy (135). The prevalence of IPVAW in this study is also higher than the findings of the study conducted by Deribew from Agaro (Ethiopia) that reported the prevalence of 51.8% (136).

Likewise, the high prevalence rate found during the last year and lifetime exposure to the three forms of violence indicates the fact that women's opportunity to end violence was very little due to the belief that violence is considered as normal "male" behavior. In other words, the subordinate role of women in the society and family allows violence to continue and keeps the divorce rate low especially among the low and middle income groups (162). Moreover, the high prevalence in the present study might be due to the fact that women were entirely interviewed by female data collectors who were known and familiar with the people in the community. This created an opportunity for disclosure of violence by the women (1).

Another feature investigated in this study was the extent of forced sexual acts in intimate relationships (marital rape). It basically accounts for 58.7% during women's lifetime and 51.0% in the last 12 months before the survey which is far greater than 46% and 33% during lifetime and last 12 months in the study of Butajira (5). This showed that a lot of non-consensual sex is taking place in consensual marriage/cohabitation. On the other hand, the 2005 amended Criminal Code of Ethiopia (90) does not recognize forced sexual act in marital relationship as crime and it ignores the act of compelling a woman to submit to sexual intercourse in a wedlock.

Despite the various efforts made by different governmental and non-governmental organizations to achieve MDG3, very little variations were observed across the current, previous and lifetime experiences of IPVAW. However, a significant reduction in the incidence of IPVAW should be expected as time goes on.

The overlap of physical and psychological violence is a more commonly occurring form of IPVAW than the joint events of physical and sexual violence and psychological and sexual violence. This is consistent with studies from Nicaragua and South Africa (80, 120) and such a phenomenon is best explained by the fact that physical violence is often accompanied by psychological attacks, threatening and controlling behaviors (163). Moreover, WHO multi-country study on domestic violence states that the most acts of physical violence reflect a pattern of abuse rather than an isolated incident (3). The most severe violence seemed to be associated with greater overlapping of the different forms of psychological, physical and sexual violence. This accounted for 56.9% of the total violence and it constitutes extremely serious situations and is much higher than the 42% overlap of physical and sexual violence reported by the study from Butajira, Ethiopia (32).

There is no substantial overlap between psychological and sexual violence for women who experienced lifetime IPVAW. From all abused women, 2.8% reported the experience of isolated sexual violence in their lifetime. This suggests that forced sexual acts alone by an intimate partner were not as prevalent in this population as in other developing countries. The WHO multi-county study showed 31% of such occurrences in Butajira and 33% in Bangladesh (3). The possible explanation for this is that women are reluctant to disclose sexual violence because it is a shameful and sensitive topic to be pronounced in countries of poor socio-economy including

the present study area. Generally, evidences show that most data on the prevalence of intimate partner violence against women come from cross-sectional population-based surveys (164). Indeed the prevalence figures are liable to under or over reporting as the issue is surrounded by taboo and stigma (80, 165).

Factors associated with Intimate Partner Violence against Women

Rural residents were less likely to report both lifetime and current experiences of IPVAW than urban residents were. This is consistent with a study from Philippines that found a lower frequency of intimate partner violence among rural women (92). This possibly indicates how women cope with urban life and what factors in the process of urbanization could be modified to decrease stress-induced violence between women and men in intimate relationships. However, the finding of the present study is not consistent with the conclusion of WHO multi-country study and others that indicated rural localities presented higher rates than urban localities (3, 166) perhaps because gender relations in urban regions are more distant from traditional patterns and there is also a greater presence of women's movements and support services in the urban areas (33).

Corroborating other studies (167), older age of the respondents was significantly associated with increased risk of experiencing lifetime IPVAW. This is possibly explained by the fact that the experiences of IPVAW are persistent from time to time and women report their cumulative experiences in their lifetime. However, this is not consistent with Fernandez who contends, as the age of a woman increases, she often grows in social status as she becomes not only a wife, but also a mother and a socially influential member of her community (78).

The level of education of women and men was identified as a statistically significant factor of IPVAW. This is consistent with studies conducted elsewhere (3, 33, 67, 84). A possible explanation is that educated women have greater range of choices in selecting partners and are able to negotiate greater autonomy and control of resources within the family. This, in turn, helps in changing norms and improving the socio-economic conditions that empower them to protect themselves from IPVAW (33).

Moreover, compared to housewives, autonomous respondents and those from female-headed households appear to experience significantly lower levels of IPVAW. This is possibly because women are autonomous and empowered when they lead their life as a head of the household. Indeed, this is not always true in the Ethiopian context as most of the households are headed by men.

This study also showed that change in the socio-economic status, from very poor to very rich, is significantly associated with decreased risk of lifetime and current experiences of IPVAW. This association goes with Jewkes's explanation that poverty and associated stress are key contributors to intimate partner violence (33). Here, poor socio-economic conditions contribute to violence in the family (65, 74, 99). Although violence occurs in all socio-economic groups, it is more frequent and severe in lower groups across such diverse settings of developed and developing nations (33, 96).

From behavioral factors, marriage by abduction increases the likelihood of experiencing lifetime IPVAW. This is so because abduction by itself is physically, psychologically, and sexually forcing a woman to have sexual intercourse often followed by marriage or cohabitation. This clearly indicates that male behaviors are commonly associated with traditional masculinity, which is strongly associated with IPVAW (168). On one hand, for women married to polygamous husbands or to those cohabiting with multiple partners, there are about four and two-fold risks of experiencing lifetime and current IPVAW, respectively. This conforms to findings of studies from China and Uganda (82, 169) and could explain how IPVAW put women's reproductive health at risk. Hence, having multiple sexual partners could put women at increased risk of contracting STIs. Further, violence contributes to psychological burden, low self esteem, feelings of embarrassment and humiliation (170). On the other hand, husbands'/partners' extra-marital affairs were strongly associated with both lifetime and current experiences of IPVAW at bivariate level. Again, the associations of heavy alcohol use by husbands/partners and increased risk of perpetrating their wives/partners is consistent with other studies elsewhere (32, 65, 171, 172). This could be attributed to the fact that heavy alcohol consumption is thought to reduce inhibitions, induce cloud judgment, and impair ability to interpret social cues (70).

The association of age at first marriage and experiences of IPVAW is incongruent with other study (32). Marriage is a reflection of the status for women and a correlate of violence with very early age at marriage being more common in societies where women status is low. Moreover, women's age at marriage is expected to be related to her risk of experiencing violence. This is because when the woman marries at a very young age she has not been given a chance to acquire the life skills and the maturity needed to ensure her interest within spousal relationship.

The study showed that witnessing parental violence during childhood increases the risk of later experience of IPVAW. This coincides with earlier findings from studies in Ethiopia and other countries (5, 32, 69, 74, 173). It has been suggested that witnessing parental violence could lead to a normative understanding of violence and is regarded as a fitting means of conflict resolution (33). In effect, violence was confirmed as a learnt behavior that passes from generation to generation (75). In addition, men who witness parental violence are more likely to have attitudes that condone a husband's right to control his wife and be violent to her (174). That is why a similar belief in male control of the family and the use of violence to achieve it exists in the world. It also explains why there are certain scenarios where IPVAW is seen as being justifiable by some men (175). In contrast, women who (as children) witnessed violence against their mothers are more likely to tolerate violence by their partners and respond in a passive manner. It is possible, therefore, that in the future these silent observers themselves will be victims or perpetrators of abuse and play a role in propagating IPVAW.

Adverse Health Effects of Intimate Partner Violence against Women

The experiences of physical injuries in this study are consistent with those of the studies elsewhere that established physical intimate partner violence as common causes of injury to women (10, 32, 40). In addition, in this study more than a quarter (28.4%) of women experienced loss of consciousness due to physical violence at least once in their lifetime. This corroborates findings from Butajira that showed 26.7% of women experienced loss of consciousness for the same reason (40). This indicates that the severity of physical violence is alarming for women's health and warrants other studies to assess death of women associated with physical IPVAW.

Moreover, the odds of ever having one or more symptoms of self reported mental health problem were significantly higher among women who reported sexual violence and at least one form of IPVAW than women who did not. This coincides with studies from other countries (10, 27). This might imply that IPVAW in general and sexual violence in particular possibly results in poor mental health, suicidal ideation and attempts.

The use of family planning is not statistically associated with all forms of IPVAW. This is in contrast with the findings of studies from other countries (32, 161) and particularly Colombia, where IPVAW was associated with restricted use of family planning methods (176). The difference is possibly due to cultural variations in men's attitudes towards women's use of contraceptives in different societies (161). This is best explained by the fact that the use of contraceptives is more likely to be accepted in more liberal societies than in conservative societies where using family planning out of the knowledge of husbands/partners may not be regarded as a social norm.

Although this study did not collect data on current HIV and AIDS status of the women, it showed that about one out of every three women perceived HIV as a possible consequence of experiences of IPVAW. This is consistent with the study result that showed increasing links between IPVAW and HIV (118). Further, it has been found out that all forms of IPVAW are significantly and consistently associated with women lifetime report of STIs and this corroborates findings from others studies (14, 32). The explanation seems to be lack of sexual autonomy among women who experienced IPVAW as this might predispose them to different reproductive health problems such as STIs, HIV and AIDS, and unintended pregnancy with its consequences.

Women who experienced all forms of IPVAW are at increased odds of having unintended pregnancy than their counterparts. This is consistent with the results from Uganda that indicated women experienced IPVAW had more unintended pregnancies after adjusting for age, pregnancy intention and marital status (177). In addition, the DHS finding in Cambodia showed that 60% of women who have ever experienced IPVAW had intended pregnancy at the time of birth compared to 71% of women who have never experienced IPVAW (32). The plausible explanation could be that lack of sexual autonomy among abused women suggests a greater risk

of having mistimed as well as unwanted pregnancy and birth. Furthermore, in this study, women who had experienced IPVAW in their lifetime had greater odds of having terminated pregnancy. This is also consistent with findings from other studies (3, 115, 116, 161). This possibly explains that in most developing countries, unintended pregnancy ends up in induced abortion. It could also be a manifestation of emotional withdrawal and loss of hope because experiences of IPVAW could result in inability to care for the eventually newborn child.

At least two plausible mechanisms have been put forward to explain the potential association between IPVAW (especially physical or sexual violence) and adverse reproductive health outcomes. One mechanism is the direct biological effects of coerced intercourse such as unintended pregnancy, termination of pregnancy, STIs and its consequences. The second mechanism suggests that physical or sexual violence may disempowering women in negotiating safer sex and negatively affect protective behaviors related to fertility regulation and STIs (178).

The Impact of Intimate Partner Violence against Women on Under-five mortality

In a systematic review and meta-analysis of observational studies, a significant association was observed between IPVAW and under-five mortality as witnessed by the results of pooled estimates. The result is compatible with the systematic review of physical health outcomes of childhood exposure to intimate partner violence made by Megan *et al*. in India that showed children of women who had experienced IPV, particularly physical violence, were less likely to be immunized and more likely to have illness that may cause child death (55, 179).

Furthermore, stratified analysis of the study showed an increase in combined mean effect size and pooled OR for the association between IPVAW and under-five deaths as the age of children is increasing. This is not consistent with the hypothesis that physical and emotional needs of a child are most intense during the first and second years of life and infants are especially vulnerable because of immature immune system (3, 180). Eventually, the pooled effect size has programmatic implications since it was found to be greater than 0.2 according to the standard cut off points by Cohen (154). In this analysis, the negative effect-size corresponds with lack of association between the study variables and vice versa.

Maternal Intimate Partner Violence Victimization and Under-five Mortality

The study showed that mothers of the deceased under-five (cases) were more likely to experience all forms of IPV than their counterparts (controls). The differences were shown by more than 10% for each form of violence among cases and controls. Correspondingly, the increased risk of under-five mortality was associated with history of maternal IPV victimization. This finding justifies the hypothesis of relationship between IPV against mother and under-five mortality. This conforms to findings from India that indicated mothers with past history of abuse from their husbands/partners were more likely to report childhood mortality (53, 56). This is possibly explained by the fact that abused mother and their children are always in a disadvantageous position in terms of accessibility of nutrition and health care necessary for the survival of the children. Also, studies in developing countries indicated that women who were physically abused by their partners are less likely to utilize available services such as antenatal care, institutional delivery and immunization of children that are believed to have serious consequences for both mother and child (181).

The maternal experiences of all forms of IPV are strongly associated with under-five mortality. This corroborates the results from India and Nicaragua that showed the survival chances of children whose mothers were physically abused by husbands or other intimate partners were significantly lower compared with those of children whose mothers were not abused, even after controlling for the well known determinants of child survival (15, 56). However, this is inconsistent with findings of studies from Bangladesh (114) and Butajira (57) that revealed the absence of association between different forms of IPVAW and under-five mortality. In Bangladesh, more educated women had an increased risk of under-five female deaths if ever exposed to severe physical violence or to a high level of controlling behaviour in marriage. Also, in Butajira only the joint occurrences of IPVAW and maternal depression increased the risk of child mortality.

In terms of birth-weights, even though enough data are not available on both deceased and surviving children, the study indicated that children of cases were more likely to be of low birthweight (less than 2.5 kilogram) than those of controls. This is in agreement with other studies elsewhere (56, 97). Hence, low birthweight may be a direct or an indirect consequence of IPVAW associated with death of children (56).

The pathways through which IPVAW may lead to elevated risks of prenatal and childhood mortality are not fully understood. One possible pathway is the direct effect of blunt physical trauma and the resultant foetal death or subsequent adverse pregnancy outcome (182). The second potential pathway is elevated maternal stress levels and poor nutrition, both of which are associated with low birthweight or pre-term delivery and well known risk factors for prenatal and infant mortality (14, 183). The third possible pathway is the deterrent effect of violence on women's use of preventive or curative health services during pregnancy, delivery, and after birth (76, 184). Therefore, addressing these possible pathways contributes to the prevention of infant and child mortality, thereby contributing to achieving MDG 4.

Community Perceptions of Intimate Partner Violence against Women

From the results of FGDs, the majority of discussants have mixed and divergent views in expressing community attitudes on IPVAW. Some justified IPVAW given the fact that the woman committed extra-marital sexual affairs. This goes with findings from other similar studies that justified wife beating triggered by an action that is socially unacceptable like sexual infidelity (185). Similarly the 2011 EDHS also indicated that the majority (67%) of women justified wife beating if the woman failed to complete housework on time, refused to have sex with the husband, disobeyed him, and was unfaithful or questioned him about his extra-marital relationships (58). Such views imply the traditional norms that placed women in a subordinate position to men and led to a culture of justification of IPVAW. However, there were others who claimed that wife abuse is a criminal act, and now IPVAW has been given a serious attention by the government.

Majority of the discussants said that victims in their community were living with their abusive partners tolerating the act. This could be justified by lack of awareness on the part of the women about their rights and the influence of traditional beliefs and norms in the area. This is similar with findings from Spain that showed high level of tolerance for women violence associated with low awareness about women's rights (186). The reason why abused women hide violent attacks from their children, family, friends, or neighbors is to avoid outside interference and later reprisal from the abuser the effect of which could even be worse and therefore force the victim to choose the lesser evil and live silently with the abusive partner. Besides, women often considered it shameful to share such personal problems with others (187). For example, a previous study

from rural Ethiopia showed nearly half of the women kept silent after a violent attack from their intimate partners (5). This explains why many women do not discuss violence with anyone else, and implies that they consider it as a normal feature of life or are ashamed of revealing the violence.

In most cases, the victims primarily report the incident to their relatives, close friends, or local elders for advice and support. But this depends on the severity of the violent act which usually ranges from verbal threats to severe physical aggression. This finding agrees with research results from Nicaragua which indicated that the woman's decision to seek help may be triggered by specific incidents like the severity of the attack, its effect on children's welfare, and the damage inflicted on properties (128).

In the study area, only few women especially from urban centers used to fight back their abusive husbands/partners either physically or verbally in order to protect themselves. This is in contrary with findings from Nepal and Nicaragua where majority of the women reported defending themselves from abusive partners (128, 188). However, it corroborates the finding from rural Ethiopia that showed only six percent of the victims fought back to defend themselves from their violent husbands/partners (5). In the Ethiopian context, it is evident that fighting back the husband is not culturally acceptable, thus it is shameful for a woman to hit her husband though this could be one strategy of minimizing damage from abusive partners.

Some women, mainly from the rural areas, leave for their relative's house and to a lesser extent go to friends or neighbors in reaction to a violence inflicted on them. This goes with the study result from Butajira which indicated that about one in three women left home either temporarily or permanently because of the incident (5). This depends on the availability of places of safety for women and their children. However, ending a relationship does not necessarily reduce a woman's risk, as some partners become even more violent when women leave or attempt to leave the relationships (84).

Measures suggested by the community for stopping or reducing IPVAW target the factors described in the ecological model at the levels of individual, relationships/family, community, and society/country (30). This is because of the fact that IPVAW is a multifaceted issue with

psychological, social and environmental roots (189). According to them, the measures require a variety of approaches that target different stakeholders including government and non-government agencies, law enforcement bodies, health and education sectors, line ministries such as Women Affairs, and other faith-based organizations (FBO). The suggested measures go with recommendations from other similar studies around the world (5, 128, 185, 190).

6. VALIDITY AND GENERALIZABILITY

Standard and internationally validated data collection tools from different settings and cultures were used. Moreover, the content and construct validity of the study instruments were assessed against the conceptual framework by the study team. The tools were translated into and administered in the regional language (*Afan Oromo*), and were pre-tested to modify according to local contexts. The questions for each item were clearly worded and those believed to be sensitive were put at the end of the interviews. Experienced and well trained female interviewers (for easy communication with the women) and a multi-disciplinary research team consisting of an anthropologist, a sociologist, and public health specialists took part in quantitative and qualitative data collection. Besides, intensive supervision and debriefing was made on daily basis. Generally, the Ethical Guideline of WHO Multi-country Study for Violence Research was strictly used. During FGDs, the discussions were lively and free so that participants could express their perceptions of intimate partner violence against women in their communities.

The study strictly followed scientific research methods such as random selection of respondents, use of advanced statistical analysis, such as binary and conditional logistic regression models to control potential confounding effects of some selected variables on the main outcome variables of the study and prediction of population parameters. In the qualitative study, the use of multidisciplinary research team, verbatim transcriptions, and pre-defined analytical procedures were used to promote the study rigor. The trustworthiness of the qualitative findings were assured by the use of Lincoln and Guba's criteria of credibility, transferability, dependability, and confirmability (191, 192). In effect, it is possible that the findings can be generalized and/or transferred to the population of western part of Ethiopia. This is because the population of the study area is a patriarchal society, like people in other developing countries, that believes in male dominance and considers women violence as normative. On the other hand, the custom and culture of the people in the region is similar in marriage and other social relationships. The Family Law of Oromiya Region is applied considering the local culture and contexts. However, it might not be generaliszable or transferred to the population of other regions in the country with different attributes.

7. STRENGTHS AND LIMITATIONS

Among the strengths, the study was, to some extent, community-based and the respondents were randomly selected and of relatively large sample size. The study adopted the standard and validated instrument of WHO used for multi-country study on domestic violence. It included special training of interviewers meant to maximize disclosure of violence across different social and cultural groups. In addition, well-trained and experienced interviewers and supervisors from their respective communities took part in the study. Because of all these, the study found extremely high responses and prevalence of IPVAW. In meta-analysis, there was a uniform abstraction of data and information by the research team following a predetermined standard format. The use of qualitative software (Open Code) for coding the qualitative information enabled to find themes from a couple of transcripts.

As to the limitation of this study, because of the cross-sectional nature of the study, it might be difficult to determine the direction of the association between the study variables. The associations could only be discussed in terms of plausibility. Women were interviewed as proxy respondents for their husbands/partners, and hence the study relied on their reports only. This can be biased when it comes to reporting on husbands'/partners' characteristics and childhood experiences. However, the proxy respondents have been shown to produce reliable estimates in other contexts especially in asking their behavior including frequency of alcoholic intake (193).

Also, some husbands/partners might be conservative in telling their own childhood and current history to their partners. Social desirability bias might have some impact on the response of some sensitive questions. Historical recall bias is inevitable when a lifetime experience is asked through cross sectional design. To minimize such limitation, the 12 months prevalence was considered. Another potential limitations for the meta-analysis includes: i) the results are not robust because of the limited number of studies inputted into meta-analysis, ii) it failed to include unpublished studies or grey literatures and reports, and iii) about 94% (82,444) of the total sample analyzed comes from two DHS reports in India, thus they overwhelm the meta-analysis and might not be representative of other regions. Similarly, the assessment of maternal IPV victimization and under-five mortality did not include other household, environmental, and

health service-related factors that may contribute to under-five mortality. Because of the community-based nature, birthweight of the deceased and alive children was not measured.

The study did not include in-depth interview (IDI) as a qualitative data collection method to capture the perception and attitudes of an individual, because the quantitative questionnaire was designed to include all the experiences and perceptions of the victims. Similarly, it was assumed that the ideas of males, program managers, and concerned individuals were well explored in the FGDs.

8. CONCLUSIONS

Intimate partner violence against women is widely observed in the study area. Compared to similar studies, the finding is among the highest. In their lifetime, more than three in four women experienced at least one incident of IPVAW. In addition, the patterns of IPVAW are similar across the time period. The joint occurrence of physical and psychological violence is the most commonly reported feature of IPVAW. The overlapping of psychological, physical, and sexual violence accounted for 56.9% of cases and this indicates an extremely serious situation. Alarmingly, more than three-quarters of women who experienced any physical violence had severe acts that could threaten them in their lifetime.

Place of residence, literacy status, socio-economic status, occupation, and age of the respondents, alcohol consumption and hostile behaviour, marriage by abduction, polygamous marriage, and witnessing parental violence as a child were factors positively or negatively associated with IPVAW in the study area.

Women who experienced IPVAW also suffered from negative physical health consequences including injury to the body and loss of consciousness. IPVAW also contributed to poor mental health and negative reproductive health and behaviours including STIs, unintended and termination of pregnancy, perceived risks of contracting HIV and AIDS.

Mothers of the deceased under-five (cases) ever experienced all forms of violence from their intimate partners more than did mothers of the living under-five (controls). In the same manner, maternal intimate partner violence victimization was significantly associated with under-five mortality.

The practice of IPVAW was acceptable to the community in cases of extra-marital sexual relations and suspected infidelity. In most cases, the victimized women kept silent or tolerated their violent husbands/partners. This was due to the deep-rooted traditional norms and attitudes of the community towards IPVAW. The study also showed that very few victims defended themselves from the violent partners. Biased arbitration was exercised by way of excluding women from elders in the local arbitration or mediation process. The penal code of the country

has a loophole and does not support the victims of IPVAW, for example, rape cases require tangible evidences like witnesses of at least three people and medical certificate from health institutions. However, the act of rape is always committed secretly or behind closed doors. In order to prevent IPVAW, the community suggested measures that targeted individuals, family, community and society.

9. RECOMMENDATIONS

There is a need for protective efforts to break the norms that have kept women vulnerable to IPVAW. Besides, the promotion of higher education and socio-economic development for the women becomes vital. Education should target to shape children at their early age as learnt behavior of violence was seen as a contributing factor in the study. This needs to be given urgent attention by policymakers, program planners, stakeholders, professionals and other implementing bodies at all levels of societal organization. Further, interventions targeting social, behavioral, and cultural factors should be instituted using multi-sectoral approach and information dissemination tools.

IPV victims need not only treatment of physical injuries but also counselling, and supports (psychological, material) to enable them cope with the violence and emotional disturbances. The counselling could focus on decision-making about healthcare or leaving the relationship. There is also a need to establish violence rehabilitation center at all levels of societal organization.

As IPVAW is significantly associated with various sexual and reproductive health problems and behaviors, health care professionals should be cautious in assessing, treating and supporting the victims. Moreover, since the association of maternal intimate partner violence victimization and under-five mortality is an important public health concern in the study area, policymakers, program planners and implementers should give it due attention. Involving men in child health programs and counselling on matters related to maternal well-being could be one strategy to address the issue of IPVAW and under-five deaths.

Nevertheless, more efforts are needed to dispel myths, misconceptions, traditional norms and cultural constructions that condone IPVAW. Providing professional assistance by marriage experts and support for families already experiencing the act is also crucial. There is a need for enforcing or amending existing laws and formulating new ones concerning rape and legal protection order against later reprisal for the victim. Finally, however, extensive national research is needed to validate the current findings and assess the extent of death of women associated with IPVAW.

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12. APPENDICES (ANNEXES 1-5)

PAPER I

BMC Public Health

RESEARCH ARTICLE Open Access

Intimate partner violence against women in western Ethiopia: prevalence, patterns, and associated factors

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Abstract

Background: Intimate partner violence against women is the psychological, physical, and sexual abuse directed to spouses. Globally it is the most pervasive yet underestimated human rights violation. This study was aimed at investigating the prevalence, patterns and associated factors of intimate partner violence against women in Western Ethiopia.

Methods: A cross-sectional, population based household survey was conducted from January to April, 2011 using standard WHO multi-country study questionnaire. A sample of 1540 ever married/cohabited women aged 15-49 years was randomly selected from urban and rural settings of East Wollega Zone, Western Ethiopia. Data were principally analyzed using logistic regression.

Results: Lifetime and past 12 months prevalence of intimate partner violence against women showed 76.5% (95% CI: 74.4-78.6%) and 72.5% (95% CI: 70.3-74.7%), respectively. The overlap of psychological, physical, and sexual violence was 56.9%. The patterns of the three forms of violence are similar across the time periods. Rural residents (AOR 0.58, 95% CI 0.34-0.98), literates (AOR 0.65, 95% CI 0.48-0.88), female headed households (AOR 0.46, 95% CI 0.27-0.76) were at decreased likelihood to have lifetime intimate partner violence. Yet, older women were nearly four times (AOR 3.36, 95% CI 1.27-8.89) more likely to report the incident. On the other hand, abduction (AOR 3.71, 95% CI 1.01-13.63), polygamy (AOR 3.79, 95% CI 1.64-0.73), spousal alcoholic consumption (AOR 1.98, 95% CI 1.21-3.22), spousal hostility (AOR 3.96, 95% CI 2.52-6.20), and previous witnesses of parental violence (AOR 2.00, 95% CI 1.54-2.56) were factors associated with an increased likelihood of lifetime intimate partner violence against women.

Conclusion: In their lifetime, three out of four women experienced at least one incident of intimate partner violence. This needs an urgent attention at all levels of societal hierarchy including policymakers, stakeholders and professionals to alleviate the situation.

Keywords: Intimate partner violence, Women, Prevalence, Patterns, Factors

Background

Violence against women (VAW) is "...any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life" [1]. Since women are disproportionately affected than men (95% Vs 5%), gender based violence is often used interchangeably with violence against women [2,3]. Furthermore, the most common and universally occurring (85%) form of VAW is that perpetrated by a husband or other intimate partners [3-5].

Intimate partner violence against women (IPVAW) is the most pervasive yet under estimated social and health problem that occur in pandemic proportions [2-8]. The proportion is comparable to those for cancer, cardiovascular disease, HIV/AIDS, malaria, and traffic accident in the world [2,5,9,10]. In fact, it becomes increasingly known as a health and human rights concern, and

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prevents women's enjoyment of their fundamental right and freedom that can hinder development [3,4,11].

In spite of the definitions and methodological differences, several population-based studies from around the world indicated that 10%-71% of married or cohabited women have experienced IPVAW [2,5,12,13]. On the other hand, World Health Organization (WHO) multi-country study on VAW in 10 different countries confirmed that the lifetime and current (past 12 months) prevalence of physical or sexual violence ranges between 15 and 71% and 4-54%, respectively. According to the findings of the study, the lowest rates have been found in Japan and the highest in Ethiopia, Peru, and Bangladesh [14].

The root causes of intimate partner violence against women are diverse and there is no single factor that explains further why some individuals are violent, or why violence is more prevalent in some communities than in others [2,4-6]. Rather, several complex and inter connected social and cultural factors are involved. Indeed, all of them are manifestations of unequal power relations between men and women [15]. Moreover, an ecological model for understanding the factors of IPVAW was described at the levels of individual, relationships, community, and society [5,15].

In Ethiopian context, although women represent 49.8% of the population and highly contribute to socio-economic development, they occupy lower status than men. They experience longer working days, low levels of education, and lack of adequate assignments in leadership and decision making positions [16]. However, studies from Ethiopia on IPVAW are few irrespective of different lifestyles, customs and culture of the people [16]. According to a handful of available population based studies from the northern and southern part of the country, the prevalence of IPVAW varies from 50 to 71% during lifetime and 30-54% for past 12 months [17-21].

Yet, in western part of the country where the culture of the community is fairly different, population based study on IPVAW is hardly found. Thus, this research was aimed at investigating the extent, patterns, and associated factors of IPVAW in a sample of women aged 15-49 years living in urban and rural settings of East Wollega Zone, Western Ethiopia.

Methods

The study was conducted in one urban local government (Nekemte) and rural areas of four districts in East Wollega Zone, which is one of the 18 zones of Oromiya regional state, Ethiopia. East Wollega Zone is located at the western part of the country 331 KMs from Addis Ababa, Ethiopia. In the year 2011, the total population of the zone is 1,340,581 [22]. Oromo is the predominant ethnic group in the zone and *Afan Oromo* is used as a working language [22].

Study design and population

A cross-sectional population based household survey was carried out between January and April, 2011. As the source population, ever married/cohabited women aged 15-49 years who were residents of the study community for at least 6 months were used. The aforementioned group was selected as it is at the highest risk of intimate partner violence [14].

Adequate sample size was computed using single proportion sample size calculation formula with the inputs of 95% confidence level, 4% margin of error, and 25% non-response rate [23]. Accordingly, a sample size of 1533 women was calculated. However, to represent the urban and rural distribution, 15% of the population from urban and 85% from rural, the sample size was increased to 1600 [21,22].

Respondents were selected principally using multistage sampling technique. Initially, two from six sub-cities found in Nekemte urban local government and eight *kebeles (the lowest administrative unit in the government structure)* from four districts at a distance of 20-30 KMs away from the urban to represent the rural community were randomly selected from 50 *kebeles*. Household census and numbering was done in the selected sub-cities and *kebeles* to fix a sampling frame. After identifying households with the target groups, proportion to sample size allocations were carried out based on the total number of the selected households they have. Ultimately, systematic random sampling was employed to identify respondents from the selected households as a study unit. In a situation when the household has two or more eligible subjects only one was selected by Kish grid (lottery) method to control the potential intra-household correlation [24].

Data collection

Data was collected by 25 high school completed female interviewers using WHO multi-country study of VAW questionnaire [25]. The questionnaire has been translated to local language (*Afan Oromo*) by experts in both languages and back translated to English by another person to ensure consistency and accuracy. The data collection process was closely supervised by five Health Officers and principal investigators.

The research team was recruited based on qualification, previous experience in data collection and fluency in local language. Moreover, training was given for seven consecutive days in sampling, interview technique, and ethical issues, emphasizing the importance of safety of the participants and interviewers, minimization of under-reporting and maintaining confidentiality. A pre-

test study was conducted in one *kebeles* on 10% of the total sample size to practically acquaint participants with the administration of interview process.

A standard field work manual developed by WHO for violence study was adopted and used by the research teams [2]. To ensure the quality of the data and minimize inter-interviewer variation, about 5% of the respondents were re-interviewed at random by principal researchers and supervisors. For that matter few minor differences were detected in the responses given during the second interview.

Measurements

Variables that have been theoretically, empirically and conceptually linked to IPVAW such as area of residence, age, level of education, occupation, socio-economic status of the household, marital status, alcohol consumption, and husbands fighting habit with another people in the community were taken as independent variables. These and other related variables were categorized into groups where some of them were further sub-divided for bivariate and multivariate analysis.

The dependent variables were considered following conventional definitions of the lifetime and current (past 12 months) experiences of IPVAW. Here, a series of questions were included based on a modified version of the revised Conflict Tactics Scale (CTS2) which guarantees high reliability and constructive validity [26].

The scale lists four questions of psychological abuse to measure items such as insulting the woman, belittlement in front of others, teasing on purpose, and threats to hurt her or someone she cared about. The scale also listed about six questions for physical violence ranking according to its likelihood of causing injuries as moderate like slapping/throwing things, pushing/shoving or severe such as hitting, kicking, beating, choking or burning on purpose, and threatening using a weapon [13]. Additionally, the CTS2 included three questions on sexual violence whether the husbands/partners physically forced to have sexual intercourse when the woman did not want to, or had sexual intercourse when she did not want to because she was afraid of what partner might do, and/or forced to do something sexual that she found humiliating or out of their norms.

Analysis

The pre-coded responses were double entered into Epi DATA version 3.1 and exported into SPSS version 19 for data checking, cleaning, bivariate and multivariate analysis. Socio-economic status was measured by constructing a wealth index using principal component analysis. Each household was assigned a standardized score that vary depending on whether or not the household owned different assets and the scores were ranked in quintiles [27].

The analysis was focused on the lifetime and current (past 12 months) prevalence of psychological, physical and sexual IPVAW and the association of selected potential socio-demographic, cultural and behavioral factors. Binary logistic regression model was used to identify the characteristics that differentiated ever married/cohabited women who experienced intimate partner violence from those who had not. The results were expressed as crude and adjusted odds ratio relative to the reference category at statistical significance of 95% confidence intervals and P-value of < 0.05. The assumptions of logistic regression were checked to be satisfied.

Ethical considerations

The research was approved for scientific and ethical integrity by institutional review board in the College of Health Sciences, Addis Ababa University. The study strictly followed WHO guideline on ethical issues related to violence research [2,28,29]. All interviews took place in a complete privacy. Verbal consent from all respondents and/or assent from respondents aged 15-17 years were secured. During data collection interviewees with serious psychological distress were referred to Nekemte Hospital for counseling. Information regarding available local services was shared to all respondents.

Results

Socio-demographic characteristics

A total of 1540 study subjects were attended the interview making a response rate of 96.3%. The socio-demographic characteristics of the women and their partners were described in table 1. Most of the respondents (84.2%) were residing in rural setting and 78.6% were in the age range of 20-34 years. The mean age of the respondents is 28.4 years (± 5.7SD). The vast majorities (98.7%) of the respondents were ever married at the time of the interview, predominantly Christian (97.5%) and Oromo (96.4%) in their religion and ethnicity.

Nearly about three fifth (59.7%) of the respondents had no formal education. More than four in every five (83.3%) had no job, and 59.5% moved to the study area due to marriage and work related conditions after born and brought up in other localities where immediate parents were residing.

According to the report from the interviewed respondents, the mean age of the current husbands/partners has been 37.1 years (± 14.5 SD). Unlike the respondents, the husbands'/partners' age ranged from 18-88 years. More than one third (34.1%) of husbands/partners had no formal education, and 67.5% engaged into agricultural occupations (Table 1).

Table 1 Socio demographic characteristics of ever married/cohabited women age 15-49 years and their husbands/partners in East Wollega Zone, Western Ethiopia, January to April, 2011

Characteristics (Variables) n = 1540	Number	Percent
Age of respondents		
15-19 years	28	1.8
20-34 years	1,208	78.4
35- 49 years	304	19.8
Marital status		
Currently married	1420	92.2
Currently cohabited	20	1.3
Separated/divorced/widowed	100	6.5
Education of respondents		
No formal education	919	59.7
Primary (1-6th grade)	399	25.9
Secondary and above (≥ 7th grade)	222	14.4
Current occupation of respondents		
No job	1283	83.3
Trade activities	63	4.0
Employed into different sectors	24	1.6
Female headed	74	4.8
Housemaid	25	1.6
Others[†]	71	4.6
Wealth quintile		
Poorest	305	19.8
Poor	320	20.8
Medium	318	20.6
Rich	269	17.5
Richest	328	21.3
Current husbands/partners age		
18-24 years	69	4.5
25-34 years	669	43.4
35-49 years	649	42.1
≥ 50 years	153	9.9
Partner's education level (n = 1529)		
No formal education	521	34.1
Primary (1-6 grade)	559	36.6
Secondary (≥ 7th grade)	449	29.4
Partner's occupation		
Employee[§]	146	9.5
Daily labourer, student	129	8.4
Petty trader	110	7.1
Farmer	1039	67.5
No job, retired	116	7.5

Others[†] include students and unspecified job

Employee[§] includes professional, semi skilled, soldiers and police

The larger proportion (63.1%) of the respondents have got marriage/cohabitation in the age range of 15-19 years, while for 2.3% of them, the marriage/cohabitation was below the age of 15 years. Accordingly, the mean age of first marriage/cohabitation for the women was 18.6 years (± 2.6 SD). On the other hand, 40 (2.6%) of them were divorced when the study was conducted out of which, 17 (42.2%) of the divorce was decided by husbands/partners, 12 (30%) by the respondents and 10 (25%) was initiated by both partners.

For about a quarter (26.3%) of the couple the initiation of marriage was not based on their own choices. In similar manner, nearly about one in three (30.1%) of them have never conducted marriage ceremony when they started to live together. Besides, not surprisingly 7.2% of the women were reported in having had marriage by abduction. On the other hand, more than one in ten (12.1%), two in three (64.8%), and more than two in three (68.4%) of the respondents had married to polygamous, alcohol drunker, and hostile husbands/partners, in that order (Table 2).

Prevalence and forms of violence

The occurrences and patterns, timing and frequencies of different forms of IPVAW (psychological, physical, and sexual) were assessed. This is done as the lifetime and current prevalence are useful in reporting the time periods, as recall bias ought to be less in studies of such serious life threatening experiences than inquiring about less sensitive matters [30,31].

Psychological violence

About two third (66.9%) of the participating women were verbally insulted and made feel bad about themselves for at least once in their lifetime. One for every three (34.8%) women was ever humiliated in front of other persons. Moreover, in their lifetime 38.9% were intimidated, and 18.3% frightened someone they cared about. In similar manner, for 59.4%, 31.5%, 6.5%, and 15.5% of the respondents, these were happened for at least once during the past 12 months, correspondingly. Generally, the prevalence of psychological violence was 70.2%, 95% CI 67.9-72.5% during lifetime and 63.9%, 95% CI 61.5-66.3% in current experiences (Table 3).

Physical violence

Sixty two percent of the respondents ever experienced being slapped and shoved by their husbands/partners across their lifetime. These are the most common acts of moderate physical violence. Most women were reported to have beaten up, punched, dragged and knocked- which are acts of severe physical violence. Other severe acts of physical violence including burning and chocking were also common. In this case, the proportion of women who had experiences of severe physical violence was 54.2% in lifetime and 49.2% in past 12 months. This shows that more than three quarter (79% not shown) who experienced any physical violence had severe physical aggression in lifetime. Besides, for all cases the violence was exerted as repeated acts as described in table 3. Generally, 1056 (68.6%, 95% CI 66.3-70.9%) of the women experienced at least one or more incidents of physical violence in their lifetime, and

Table 2 Cultural and behavioral characteristics of ever married/cohabited women aged 15-49 years and their partners in East Wollega Zone, Western Ethiopia, January to April, 2011

Variables	Number	Percent
Age at first marriage/cohabiting (n = 1540)		
10-14 years	36	2.3
15-19 years	972	63.1
20-24 years	452	29.4
≥ 25 years	58	3.8
Mean age at first marriage/cohabited in years (n = 1540)		18.6 ± 2.6SD
Initiation of marriage/cohabitation (n = 1540)		
Both (either woman or man) choose	1136	73.8
Family and others choose	292	19.0
Abduction	112	7.3
Marriage ceremony (n = 1540)		
None	463	30.1
Civil marriage	63	4.1
Religious marriage	390	25.3
Customary marriage	624	40.5
Initiation of divorce (n = 40)		
Respondent	12	30.0
Husband/partner	17	42.5
Both (respondent and partner)	10	25.0
Family	1	2.5
Number of children (n = 1540)		
0	70	4.5
1-2	626	40.6
≥ 3	844	54.8
Respondent drink alcohol (n = 1539)		
Never	681	44.2
Light (occasional)	554	36.0
Heavy (frequently)	304	19.8
Situation of marriage for current husbands/partners (n = 1540)		
Monogamous	1351	87.7
Polygamous	186	12.1
Refused to answer	3	0.2
Partner's drink alcohol (n = 1512)		
Never	532	35.2
Light (occasional)	493	32.6
Heavy (frequently)	487	32.2
Husbands/partners fighting habit (n = 1503)		
No	449	29.2
Yes	1054	68.4

for 964 (62.6%, 95 CI 60.2-65.0%) the incidents were happened during the past 12 months.

Sexual violence

About 59% of the respondents reported that at some point in their life time, their husbands/partners had forced them to have sexual intercourse without their interest or consent and in 51% of them it was happened in the preceding 12 months of the survey. In addition, 46.2% and 40.4% of respondents experienced sexual intercourse during their lifetime and current relationship due to fear of their husbands/partners. The proportion of women who had been forced into a humiliating sexual acts like pornographic show or practice of sexual acts out of their norms were 8.3% and 7.0% during lifetime and past 12 months, respectively. Overall, 948 (61.6%, 95% CI 59.2-64.0%) and 847 (55.0%, 95% CI 52.5-57.5%) of the women have reported to have at least one incident of sexual violence in their lifetime and past 12 months, respectively.

Prevalence and patterns of IPVAW-summary measures

In this study, 1178 (76.5%, 95% CI 74.4-78.6%) of the respondents experienced IPVAW in one form or another at some point in their lifetime. Besides, 1117 (72.5%, 95% CI 70.3-74.7%) of them experienced the same incidents in the past 12 months. Most acts of IPVAW were part and a pattern of continuing abuse

Table 3 Life time and past 12 months prevalence and frequency of different forms of IPVAW among ever married/ cohabited women age 15-49 years in East Wollega Zone, Western Ethiopia, January to April, 2011

Forms of IPVAW (N = 1540)	Lifetime	Past 12 months	Frequency in the current (past 12 months)			Frequency before 12 months		
	Number %	Number %	Once	Few times '(2-5)	Many times (> 5)	Once	Few times (2-5)	Many times (> 5)
Psychological/Emotional violence								
• Insulted/made feel bad	1,030 (66.9)	914 (59.4)	230 (24.9)	565 (36.7)	119 (7.7)	207 (13.4)	539 (35.0)	278 (18.1)
• Humiliated in front of others	536 (34.8)	485 (31.5)	190 (12.3)	219 (14.2)	76 (4.9)	113 (7.3)	303 (19.7)	120 (7.8)
• Intimidated on purpose	599 (38.9)	524 (6.5)	190 (12.3)	271 (17.6)	64 (4.2)	134 (8.7)	327 (21.2)	131 (8.5)
• Threaten/hurt/frighten someone they care about	281 (18.3)	242 (15.7)	114 (7.4)	96 (6.2)	32 (2.1)	79 (5.1)	143 (9.3)	56 (3.6)
❖ At least one episode of psychological abuse	**1081 (70.2)**	**984 (63.9)**	**394 (25.6)**	**680 (44.2)**	**207 (13.4)**	**300 (19.5)**	**746 (48.4)**	**366 (23.8)**
Physical violence								
Moderate physical violence	**961 (62.4)**	**961 (62.3)**	**288 (18.7)**	**595 (38.6)**	**118 (7.7)**	**237 (15.4)**	**631 (41.0)**	**262 (17.0)**
• Slapped/Thrown some thing	893 (58.0)	797 (51.6)	222 (14.4)	495 (32.1)	78 (5.1)	179 (11.6)	511(33.2)	200 (13.0)
• Pushed or shoved	621 (40.3)	540 (35.1)	159 (10.3)	324 21.0)	59 (3.8)	145 (9.4)	371(24.1)	108 (7.0)
Sever physical violence	**835 (54.2)**	**757 (49.2)**	**230 (14.9)**	**521 (33.8)**	**82 (5.3)**	**161 (10.5)**	**517 (33.6)**	**266 (17.3)**
• Hit with fist or something else	649 (42.1)	581 (37.7)	164 (10.6)	375 (24.4)	42 (2.7)	110 (7.1)	367(23.8)	170 (11.0)
• Kicked, dragged or beat	570 (37.0)	490 (31.8)	97(6.3)	338 (21.9)	57(3.7)	66 (4.3)	305(19.8)	193 (12.5)
• Choked or burnt	142 (9.2)	125 (8.1)	39 (2.5)	76 (4.9)	9 (0.6)	21(1.4)	103(6.7)	23 (1.5)
• Threatened or used weapon (gun, knife)	86 (5.6)	80 (5.2)	27 (1.8)	47 (3.1)	7 (0.5)	16 (1.0)	55(3.6)	23(1.5)
❖ At least one episode of physical violence	**1056 (68.6)**	**964 (62.6)**	**379 (24.6)**	**749 (48.6)**	**160 (10.4)**	**290 (18.8)**	**769 (49.9)**	**388 (25.2)**
Sexual violence								
• Physically forced to have sex	904 (58.7)	786 (51.0)	160 (10.4)	417(27.1)	208(13.5)	126 (8.2)	432 (28.1)	333 (21.6)
• Having sex because of fear of partner	712 (46.2)	622 (40.4)	116 (7.5)	317 (20.6)	199 (12.9)	105 (6.8)	319 (20.7)	282 (18.3)
• Sex that is degrading/humiliating	127(8.3)	108 (7.0)	29 (1.9)	70 (4.5)	10 (0.6)	26 (1.7)	79 (5.1)	24 (1.6)
❖ At least one episode of sexual violence	**948 (61.6)**	**847 (55.0)**	**204 (13.2)**	**500 (32.5)**	**250 (16.2)**	**165 (10.7)**	**499 (32.4)**	**394 (25.6)**
At least one of the three violence	**1178 (76.5)**	**1117 (72.5)**						

NB- Percentage in each column may not add 100 as respondents can report more than one

rather than being an isolated event (for detail, Table 3).

Although it is expected that the overall prevalence of IPVAW in the past 12 months would be substantially lower than the women's lifetime experiences, much smaller variation with similar patterns were observed (Table 3). Likewise, most respondents experienced each act of IPVAW from once to many times in lifetime and past 12 months.

The proportion of respondents experienced the three forms of IPVAW during current (past 12 months), previous (before one year), and lifetime marital or cohabiting relationship indicated that out of 76.5% who had gone through lifetime IPVAW, about 75.8% had the incident in the previous and 72.5% in the past 12 months. Similarly, the patterns were 70.2%, 70.0% and 63.9% for psychological violence, 68.6%, 68.6% and 62.2% for physical, and 61.6%, 61.0% and 55.0% for sexual violence. These patterns revealed, the percentage of current, previous, and lifetime experiences of IPVAW are almost similar.

The patterns for the joint occurrences of different forms of IPVAW are shown in figure 1. Hence, physical

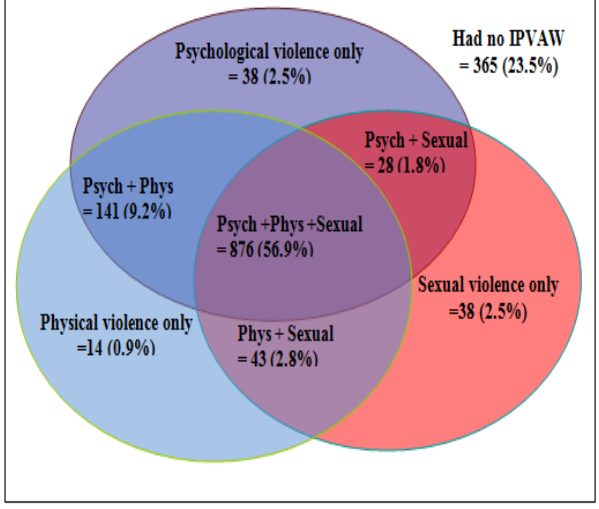

Figure 1 Venn diagram illustrating overlaps between lifetime experiences of psychological, physical and sexual violence reported by ever married/cohabited women aged 15-49 years in East Wollega Zone, Western Ethiopia, January to April, 2011

violence (0.9%) is less likely to occur in isolated form when compared to psychological and sexual violence which accounts 2.5% for each of the isolated occurrence. However, the joint occurrences of psychological and physical violence account 9.2%. It exceeds the other two overlapping patterns of 1.8% and 2.8% for psychological + sexual violence and of physical + sexual violence, respectively. On the other hand, the greater proportion (56.9%) of women experienced multiple forms of violence from their intimate partners at the same time.

Factors associated with IPVAW

In the final model, a number of socio-demographic factors were identified as significant predictors of lifetime and current experiences of IPVAW (Table 4). Compared to urban dwellers, rural dwellers were less likely to report lifetime IPVAW (AOR 0.58, 95% CI 0.34-0.98). However, this association was not significant after controlling for other factors in past 12 months. In the same way, compared to respondents aged 15-19 years, those from 35-49 years were about four times (AOR 3.36, 95% CI 1.27-8.89) and three times (AOR 2.75, 95% CI 1.10-6.86) more likely to report lifetime and current IPVAW.

On the other hand, the protective effects of education for both women as victim and men as perpetrator were found to be significant in the lifetime and current experiences of IPVAW after controlling for age, occupation and socio-economic statuses. However, those women who have equal educational statuses with their husbands/partners were (AOR 1.67, 95% CI 1.05-2.68) more likely to report current experiences of IPVAW than women with greater educational status of their husbands/partners. This association was also noteworthy in lifetime experiences of IPVAW before adjusting for the variables in the model. Similarly, female headed respondents engaged into different working condition were (AOR 0.46, 95% CI 0.27-0.76) less likely to report lifetime IPVAW compared to jobless women.

Compared to respondents from the poorest household, those respondents from poor (AOR 0.65, 95% CI 0.44-0.97), the richer (AOR 0.61, 95% CI 0.40-0.94), and the richest households were (AOR 0.66, 95% CI 0.44-0.99) less likely to report lifetime IPVAW. Similarly, these associations were found significant for current experiences of IPVAW (Table 4).

Table 5 presents the association of cultural and behavioral factors with IPVAW. It shows that women married/cohabited by abduction (AOR 3.71, 95% CI 1.01-13.63), to polygamous partners (AOR 3.79, 95% CI 1.64-8.73), to heavy alcohol drunkard (AOR 1.98, 95% CI 1.21-3.22), and to hostile partners (AOR 3.96, 95% CI 2.52-6.20) remained associated with increased experiences of lifetime IPVAW. These were also found significant in the past 12 months experiences of IPVAW.

In addition, compared to women who got married/cohabited at the age of 10-14 years, those who had at 15-19 years (AOR 3.41, 95% CI 1.31-8.89), 20-24 years (AOR 2.93, 95% CI 1.10-7.78), and ≥ 25 years were (AOR 4.26, 95% CI 1.27-14.2) more likely to report past 12 months experiences of IPVAW.

Furthermore, respondents were also asked whether their fore mothers were hit by fore fathers/husbands when they were children. Accordingly, witnessing interparental violence as a child were twice (AOR 2.00, 95% CI 1.54-2.56), and more than one and half times (AOR 1.66, 95% CI 1.17-2.37) more likely to report lifetime and current IPVAW, respectively. Also respondents whose husbands/partners themselves beaten by someone in their family during their childhood were nearly two times (AOR 1.89, 95% CI 1.17-3.03), and more than twice (AOR 2.11, 95% CI 1.41-3.15) as likely to report lifetime and current experiences of IPVAW (Table 5).

Discussion

The objective of this study was to investigate the extent, patterns and associated factors of intimate partner violence against women. Most data on the prevalence of intimate partner violence comes from cross-sectional population based surveys [32]. Prevalence figures are liable to under or over reporting as the issue is surrounded by taboo and stigma [33,34].

The overall prevalence of IPVAW in this study is greater than any studies elsewhere [2,13,14], including studies from other parts of Ethiopia [17-21,35]. For instance, the findings from Butajira, Ethiopia, showed

Table 4 Odds Ratios predicting IPVAW among ever married/cohabited women aged 15-49 by selected socio-demographic variables in East Wollega Zone, Western Ethiopia, January to April, 2011

Variables	Lifetime IPVAW			Recent (past 12 months) IPVAW		
	No (%)	COR (95%CI)	AOR (95% CI)	No (%)	COR (95%CI)	AOR (95% CI)
Residence						
Urban	214 (87.7)	1.00	1.00	17 (80.3)	1.00	1.00
Rural	965 (74.4)	**0.41 (0.27** to **0.61)** **	**0.58 (0.34** to **0.98)***	33 (71.1)	**0.60 (0.43** to **0.84)***	0.92 (0.58 to 1.47)
Age of respondent						
15-19 years	18 (64.3)	1.00	1.00	18 (64.3)	1.00	1.00
20-34 years	901 (74.5)	1.62 (0.74 to 3.56)	1.56 (0.63 to 3.85)	850 (70.4)	**1.35 (1.02** to **1.78)***	1.25 (0.54 to 2.91)
35- 49 years	260 (85.5)	**3.28 (1.42** to **7.58)** *	**3.36 (1.27** to **8.89)***	249 (81.9)	**1.38 (1.02** to **1.86)***	**2.75 (1.10** to **6.86)** *
Relationship with current partner						
Currently married	1079 (76.0)	1.00	1.00	1026 (72.3)	1.00	——
Currently cohabited	14 (70.0)	0.74 (0.28 to 1.93)	0.81 (0.27 to 2.44)	12 (60.0)	0.58 (0.23 to 1.42)	
Divorced, separated, widowed	85 (85.0)	**1.79 (1.02** to **3.14)** *	1.64 (0.87 to 3.10)	79 (79.0)	1.45 (0.88 to 2.37)	
Education level of respondents						
No formal education	710 (77.3)	1.00	1.00	22 (74.3)	1.00	1.00
Primary (1-6 grade)	289 (72.4)	0.82 (0.57 to 1.18)	**0.65 (0.48** to **0.88)***	16 (67.2)	**0.71 (0.55** to **0.91)***	**0.63 (0.48** to **0.84)** *
Secondary and above (≥ 7)	180 (80.6)	**0.63 (0.42** to **0.94)** *	0.72 (0.45 to 1.17)	22 (74.8)	1.02 (0.73 to 1.44)	0.71 (0.46 to 1.10)
Occupation of respondents						
No job	1020 (76.8)	1.00	1.00	963 (72.5)	1.00	1.00
Student/employee/trader	90 (79.6)	1.18 (0.74 to 1.90)	0.87 (0.50 to 1.52) 5.29 (0.66 to 42.69)	87 (77.0)	1.27 (0.81 to 2.00)	1.18 (0.71 to 1.97)
Housemaid	24 (96.0)	7.25 (0.98 to 53.79)	**0.46 (0.27** to **0.76)***	23 (92.0)	**4.36 (1.02** to **18.58)***	3.99 (0.87 to 18.37)
Farmers (female headed)	44 (59.5)	**0.44 (0.27** to **0.72)** *		44 (59.5)	**0.56 (0.34** to **0.90)***	0.58 (0.35 to 0.97)
Partner's education level						
No formal education	413 (79.3)	1.00	1.00	394 (75.6)	1.00	1.00
Primary (1-6 grade)	411 (73.5)	**0.73(0.55** to **0.96)***	**0.73(0.55** to **0.99)***	393 (70.3)	**0.76 (0.58** to **1.00)***	0.73 (0.59 to 1.04)
Secondary and above (≥ 7)	344 (76.6)	0.86 (0.63 to 1.16)	0.74 (0.43 to 1.29)	320 (71.3)	0.80 (0.60 to 1.04)	**0.71(0.51** to **0.98)** *
Difference of education between partners						
Women higher	110 (71.7)	1.00	1.00	100 65.8)	1.00	1.00
Equal educational status	496 (79.7)	**1.55 (1.04** to **2.33)** *	1.63 (0.97 to 2.73)	470 (75.6)	**1.61 (1.20** to **2.36)***	**1.67 (1.05** to **2.68)** *

Table 4 Odds Ratios predicting IPVAW among ever married/cohabited women aged 15-49 by selected socio-demographic variables in East Wollega Zone, Western Ethiopia, January to April, 2011 *(Continued)*

Woman's lower	563 (74.6)	1.16 (0.78 to 1.71)	1.36 (0.67 to 2.76)	537 (71.1)	1.28 (0.86 to 1.86)	1.44 (0.76 to 2.76)
Age of current husbands/partners						
18-29 years	250 (71.5)	1.00	1.00	250 (67.8)	1.00	1.00
30-39 years	532 (77.5)	**1.37 (1.03** to **1.82)***	1.06 (0.77 to 1.44)	532 (73.9)	**1.35 (1.02** to **1.77)***	1.12 (0. 84 to 1.51)
≥ 40 years	335 (78.9)	**1.49 (1.08** to **2.05)***	0.80 (0.53 to 1.17)	335 (74.3)	**1.38 (1.02** to **1.86)***	0.84 (0.59 to 1.20)
Partners occupation						——
Employee†	120 (82.2)	1.00	1.00	112 (76.7)	1.00	
Daily labourer, student	104 (80.6)	0.90 (0.49 to 1.66)	0.88 (0.46 to 1.68)	98 (76.0)	0.96 (0.55 to 1.68)	
Petty trader	91 (82.7)	1.04 (0.54 to 1.99)	1.41 (0.50 to 2.83)	82 (74.5)	0.89 (0.50 to 1.58)	
Farmer	767 (73.7)	**0.61 (0.39** to **0.95)***	0.75 (0.43 to 1.29)	734 (70.6)	0.73 (0.49 to 1.10)	
No job, retired	97 (83.6)	1.11 (0.58 to 2.12)	1.11 (0.56 to 2.18)	91 (78.4)	1.12 (0.62 to 1.99)	
Wealth quintile						
Poorest	250 (82.0)	1.00	1.00	239 (78.4)	1.00	1.00
Poor	239 (74.7)	**0.65 (0.44** to **0.96)***	**0.64 (0.43** to **0.96)***	228 (71.3)	**0.68 (0.48** to **0.99)***	0.70 (0.48 to 1.02)
Medium	241 (75.8)	0.69 (0.47 to 1.02)	0.71 (0.47 to 1.07)	228 (71.7)	0.70 (0.49 to 1.01)	0.76 (0.52 to 1.11)
Richer	197 (73.2)	**0.60 (0.40** to **0.90)***	**0.61 (0.40** to **0.94)***	186 (69.1)	**0.62 (0.43** to **0.90)***	**0.65 (0.44** to **0.97)***
Richest	251 (76.5)	0.72 (0.49 to 1.06)	**0.66(0.44** to **0.99)***	236 (72.0)	0.71 (0.49 to 1.02)	0.69 (0.47 to.02)
Variables	**Lifetime IPVAW**			**Recent (past 12 months) IPVAW**		
	No (%)	**COR (95%CI)**	**AOR (95% CI)**	**No (%)**	**COR (95%CI)**	**AOR (95% CI)**
Residence						
Urban	214 (87.7)	1.00	1.00	17 (80.3)	1.00	1.00
Rural	965 (74.4)	**0.41 (0.27** to **0.61)****	**0.58 (0.34** to **0.98)***	33 (71.1)	**0.60 (0.43** to **0.84)***	0.92 (0.58 to 1.47)
Age of respondent						
15-19 years	18 (64.3)	1.00	1.00	18 (64.3)	1.00	1.00
20-34 years	901 (74.5)	1.62 (0.74 to 3.56)	1.56 (0.63 to 3.85)	850 (70.4)	**1.35 (1.02** to **1.78)***	1.25 (0.54 to 2.91)
35- 49 years	260 (85.5)	**3.28 (1.42** to **7.58)***	**3.36 (1.27** to **8.89)***	249 (81.9)	**1.38 (1.02** to **1.86)***	**2.75 (1.10** to **6.86)***
Relationship with current partner						
Currently married	1079 (76.0)	1.00	1.00	1026 (72.3)	1.00	——
Currently cohabited	14 (70.0)	0.74 (0.28 to 1.93)	0.81 (0.27 to 2.44)	12 (60.0)	0.58 (0.23 to 1.42)	
Divorced, separated, widowed	85 (85.0)	**1.79 (1.02** to **3.14)***	1.64 (0.87 to 3.10)	79 (79.0)	1.45 (0.88 to 2.37)	

Table 4 Odds Ratios predicting IPVAW among ever married/cohabited women aged 15-49 by selected socio-demographic variables in East Wollega Zone, Western Ethiopia, January to April, 2011 *(Continued)*

Education level of respondents						
No formal education	710 (77.3)	1.00	1.00	22 (74.3)	1.00	1.00
Primary (1-6 grade)	289 (72.4)	0.82 (0.57 to 1.18)	**0.65 (0.48** to **0.88)***	16 (67.2)	**0.71 (0.55** to **0.91)***	**0.63 (0.48** to **0.84)***
Secondary and above (≥ 7)	180 (80.6)	**0.63 (0.42** to **0.94)***	0.72 (0.45 to 1.17)	22 (74.8)	1.02 (0.73 to 1.44)	0.71 (0.46 to 1.10)
Occupation of respondents						
No job	1020 (76.8)	1.00	1.00	963 (72.5)	1.00	1.00
Student/employee/trader	90 (79.6)	1.18 (0.74 to 1.90)	0.87 (0.50 to 1.52) 5.29 (0.66 to 42.69)	87 (77.0)	1.27 (0.81 to 2.00)	1.18 (0.71 to 1.97)
Housemaid	24 (96.0)	7.25 (0.98 to 53.79)	**0.46 (0.27** to **0.76)***	23 (92.0)	**4.36 (1.02** to **18.58)***	3.99 (0.87 to 18.37)
Farmers (female headed)	44 (59.5)	**0.44 (0.27** to **0.72)***		44 (59.5)	**0.56 (0.34** to **0.90)***	0.58 (0.35 to 0.97)
Partner's education level						
No formal education	413 (79.3)	1.00	1.00	394 (75.6)	1.00	1.00
Primary (1-6 grade)	411 (73.5)	**0.73(0.55** to **0.96)***	**0.73(0.55** to **0.99)***	393 (70.3)	**0.76 (0.58** to **1.00)***	0.73 (0.59 to 1.04)
Secondary and above (≥ 7)	344 (76.6)	0.86 (0.63 to 1.16)	0.74 (0.43 to 1.29)	320 (71.3)	0.80 (0.60 to 1.04)	**0.71(0.51** to **0.98)***
Difference of education between partners						
Women higher	110 (71.7)	1.00	1.00	100 65.8)	1.00	1.00
Equal educational status	496 (79.7)	**1.55 (1.04** to **2.33)***	1.63 (0.97 to 2.73)	470 (75.6)	**1.61 (1.20** to **2.36)***	**1.67 (1.05** to **2.68)***
Woman's lower	563 (74.6)	1.16 (0.78 to 1.71)	1.36 (0.67 to 2.76)	537 (71.1)	1.28 (0.86 to 1.86)	1.44 (0.76 to 2.76)
Age of current husbands/partners						
18-29 years	250 (71.5)	1.00	1.00	250 (67.8)	1.00	1.00
30-39 years	532 (77.5)	**1.37 (1.03** to **1.82)***	1.06 (0.77 to 1.44)	532 (73.9)	**1.35 (1.02** to **1.77)***	1.12 (0. 84 to 1.51)
≥ 40 years	335 (78.9)	**1.49 (1.08** to **2.05)***	0.80 (0.53 to 1.17)	335 (74.3)	**1.38 (1.02** to **1.86)***	0.84 (0.59 to 1.20)
Partners occupation						——
Employee†	120 (82.2)	1.00	1.00	112 (76.7)	1.00	
Daily labourer, student	104 (80.6)	0.90 (0.49 to 1.66)	0.88 (0.46 to 1.68)	98 (76.0)	0.96 (0.55 to 1.68)	
Petty trader	91 (82.7)	1.04 (0.54 to 1.99)	1.41 (0.50 to 2.83)	82 (74.5)	0.89 (0.50 to 1.58)	
Farmer	767 (73.7)	**0.61 (0.39** to **0.95)***	0.75 (0.43 to 1.29)	734 (70.6)	0.73 (0.49 to 1.10)	
No job, retired	97 (83.6)	1.11 (0.58 to 2.12)	1.11 (0.56 to 2.18)	91 (78.4)	1.12 (0.62 to 1.99)	
Wealth quintile						
Poorest	250 (82.0)	1.00	1.00	239 (78.4)	1.00	1.00

Table 4 Odds Ratios predicting IPVAW among ever married/cohabited women aged 15-49 by selected socio-demographic variables in East Wollega Zone, Western Ethiopia, January to April, 2011 *(Continued)*

Poor	239 (74.7)	**0.65 (0.44** to **0.96)***	**0.64 (0.43** to **0.96)***	228 (71.3)	**0.68 (0.48** to **0.99)***	0.70 (0.48 to 1.02)
Medium	241 (75.8)	0.69 (0.47 to 1.02)	0.71 (0.47 to 1.07)	228 (71.7)	0.70 (0.49 to 1.01)	0.76 (0.52 to 1.11)
Richer	197 (73.2)	**0.60 (0.40** to **0.90)***	**0.61 (0.40** to **0.94)***	186 (69.1)	**0.62 (0.43** to **0.90)***	**0.65 (0.44** to **0.97)***
Richest	251 (76.5)	0.72 (0.49 to 1.06)	**0.66(0.44** to **0.99)***	236 (72.0)	0.71 (0.49 to 1.02)	0.69 (0.47 to.02)

Adjusted for all variables in the model

COR - Crude odds Ratio, AOR - Adjusted Odds Ratio, CI: confidence interval.* P- Value < 0.05, ** *P*- Value < 0.001, †- Professional, semi skilled, soldiers, police

Note: - variables not entered in the model because they were not found significant in bivariate analysis

Table 5 Odds Ratios predicting IPVAW among ever married/cohabited women aged 15-49 by selected cultural and behavioral variables in East Wollega Zone, Western Ethiopia, and January to April, 2011

Variables	Lifetime IPVAW			Current (past 12 months) IPVAW		
	No (%)	COR (95%CI)	AOR (95% CI)	No (%)	COR (95%CI)	AOR (95% CI)
Initiation of marriage or choose (n = 1540)						
Both	1026 (75.5)	1.00	1.00	972 (71.6)	1.00	1.00
Family and others	88 (78.6)	1.19 (0.74 to 1.90)	1.11 (0.56 to 2.19)	82 (73.2)	1.08 (0.70 to 1.67)	0.87 (0.46 to 1.66)
Abduction	63 (91.3)	**3.40 (1.50 to 7.93)***	**3.71 (1.01 to 13.63)***	61 (88.4)	**3.02 (1.43 to 6.37)***	3.02 (0.93 to 9.76)
Marriage ceremony						
No	379 (82.1)	1.00	1.00	353 (71.8) 764 (70.2)	1.00	1.00
Yes	800 (74.2)	**0.63 (0.48 to 0.83)***	0.81 (0.83 to 1.85)		**0.66 (0.51 to 0.86)***	0.99 (0.61 to 1.61)
Dowry/bride Price						
No	233 (82.6)	1.00	1.00	218 (77.3)	1.00	1.00
Yes	942 (75.0)	**0.63 (0.45 to 0.88)***	0.80 (0.77 to 2.00)	896 (71.5)	**0.74 (0.54 to 0.99)***	0.96 (0.55 to 1.68)
Current partners						
Monogamous	1012 (74.9)	1.00	1.00	960 (71.1) 154 (82.8	1.00	1.00
Polygamous	163 (87.6)	**2.37 (1.51 to 3.74)****	**3.79 (1.64 to 8.73)***		**1.96 (1.32 to 2.92)***	**2.51 (1.26 to 4.97)****
Extra marital affairs of husband						
No	884 (73.1)	1.00	1.00	837 (89.2)	1.00	1.00
Yes	133 (89.3)	**3.06 (2.03 to 4.62)****	1.34(0.71 to 2.52)	222 (85.1)	**2.53 (1.76 to 3.63)****	1.28 (0.72 to 2.29)
Respondent drink alcohol						
Never	530 (77.8)	1.00	1.00	485 (71.2)	1.00	1.00
Light (occasional)	392 (70.6)	**0.68 (0.53 to 0.88)***	**0.59 (0.41 to 0.84)***	380 (68.6)	0.88 (0.69 to 1.13)	0.82 (0.54 to 1.25)
Heavy	256 (84.2)	**1.52 (1.06 to 2.17)***	1.07 (0.68 to 1.67)	251 (82.6)	**1.91(1.36 to 2.69)***	1.51 (0.87 to 2.60)
Partner's drink alcohol (n = 1512)						
Never	392 (73.7)	1.00	1.00	361 (67.9)	1.00	1.00
Light (occasional)	341 (69.2)	0.80 (0.61 to 1.05)	0.86 (0.56 to 1.32)	329 (66.7)	0.95 (0.73 to 1.23)	0.92 (0.60 to 1.41)
Heavy	424 (78.1)	**2.40 (1.73 to 3.34)****	**1.98 (1.21 to 3.22)***	408 (83.8)	**2.47 (1.81-3.31)***	**1.88 (1.17 to 3.01)***
Fighting habit of partner						
No	714 (70.3) 412 (91.5)	1.00	1.00	689 (65.4)	1.00	1.00
Yes		**4.57 (3.20 to 6.53)****	**3.96 (2.52 to 6.20)****	403 (89.8)	**4.64 (3.34-6.46)***	**4.17 (2.65 to 6.55)****
Age at first marriage						
10-14 years	23 (63.9)	1.00	1.00	21 (58.3)	1.00	1.00
15-19 years	738 (75.9)	1.78 (0.89 to 3.58)	1.80 (0.78 to 4.15)	707 (72.7)	1.91 (0.97 to 3.75)	**3.41 (1.31 to 8.89)***
20-24 years	359 (79.4)	**2.18 (1.07 to 4.47)***	1.96 (0.83 to 4.62)	334 (73.9)	**2.02 (1.01 to 4.05)***	**2.93 (1.10 to 7.78)***
≥ 25 years	47 (79.3)	2.17 (0.85 to 5.50)	2.63 (0.87 to 7.99)	44 (75.9)	2.25 (0.92 to 5.49)	**4.26 (1.27 to 14.2)***
First sexual intercourse						
Wanted	817 (73.9)	1.00	1.00	773 (69.9)	1.00	1.00
Coerced†	359 (83.3)	**1.76 (1.32 to 2.35)****	1.19 (0.77 to 1.86)	342 (79.4)	**1.66 (1.27 to 2.16)****	1.27 (0.84 to 1.93)

Table 5 Odds Ratios predicting IPVAW among ever married/cohabited women aged 15-49 by selected cultural and behavioral variables in East Wollega Zone, Western Ethiopia, and January to April, 2011 *(Continued)*

Witnessed family violence						
No	325 (68.7)	1.00	1.00	302 (63.8)	1.00	1.00
Yes	764 (81.4)	**2.00 (1.54** to **2.56)****	**1.65 (1.14** to **2.38)***	731 (77.8)	**1.99 (1.56** to **2.54)****	**1.66 (1.17** to **2.37)***
Women heard/seen violence as child						
No	290 (69.0)	1.00	1.00	268 (63.8)	1.00	1.00
Yes	824 (81.0)	**1.91 (1.48** to **2.48)****	1.49 (1.01 to 2.19)	788 (77.5)	**1.95 (1.52** to **2.50)****	1.35 (0.98 to 1.86)
History of violence of mother-in-law						
No	446 (73.1)	1.00	1.00	415 (68.0)	1.00	1.00
Yes	415 (81.5)	**1.62 (1.22** to **2.16)***	1.05 (0.60 to 1.68)	398 (78.2)	**1.69 (1.29** to **2.21)****	1.04 (0.66 to 1.63)

Adjusted for all variables in the model

COR- crude odds ratio, AOR- adjusted odds ratio, CI-confidence interval.* P- Value < 0.05, ** P- Value < 0.001, †Coerced-transactional, forced, deception

Note: - variables not entered in the model because they were not found significant in bivariate analysis

71% and 54% of ever married/cohabited women experienced lifetime and current IPVAW. The study also showed that 49% and 29% of women had the experience of lifetime and past 12 months physical violence, respectively. In the same study, the corresponding figure for sexual violence was 59% and 44% [17]. These variations are likely due to the inclusion of psychological violence for measuring IPVAW into the present study. Cultural differences may also explain the discrepancy [22]. The prevalence of IPVAW in this study is also higher compared to the findings of Deribew from Agaro, Ethiopia used similar method reported the prevalence of IPVAW of 51.8% with 32%, 33%, and 46% for lifetime physical, sexual and psychological violence, respectively [18].

The high prevalence figures found for past-year and lifetime exposure for the three forms of violence indicate the fact that women's opportunities to end violence are few due to perpetration of violence being considered as normal male behavior. In other words, the subordinate role of women in the society and family allows violence to continue and keeps the divorce rates low especially among the low and middle income groups [36]. Moreover, the high prevalence in the present study might be due to the fact that women were interviewed by female data collectors who were known and familiar with the people in the community. This creates an opportunity for disclosure of violence by the women.

Another feature which was investigated in this study is the abundance of forced sexual acts in intimate relationships. It basically accounts for 58.7% during women's lifetime and 51.0% in the past 12 months which is far greater than 46% and 33% during lifetime and past 12 months in the study of Butajira, Ethiopia [17]. This showed a lot of non-consensual sex is happening in consensual marriage/cohabitation. On the other hand, the 2005 amended Criminal Code of Ethiopia [37] doesn't recognize forced sexual acts in marital relationship as crime. Accordingly it ignores the act of compelling a woman to submit to sexual intercourse within wedlock.

Despite various efforts which have been made by different governmental and non-governmental organizations to achieve MDG 3, much smaller variations were observed across the current, previous and lifetime experiences of IPVAW. However, much decline in the current practice has been expected.

The overlap of physical and psychological violence is the most commonly occurring form than the other two joint occurrences. This is consistent with studies from Nicaragua and South Africa [33,38] which is best explained as physical violence is often accompanied by psychological attacks, threatening and controlling behaviors [39]. Moreover, WHO multi-country study on VAW states that the most acts of physical violence reflect a pattern of abuse rather than an isolated incident [13]. Additionally, the present study shows the most severe violence seemed to be associated with greater overlapping of the different forms of psychological, physical and sexual violence that accounted for 56.9% of the total violence. This constitutes extremely serious situations and is much higher than 42% reported overlaps of physical and sexual violence in study from Butajira, Ethiopia [17].

There is no substantial overlap between psychological and sexual violence for women experienced any lifetime IPVAW. Again, of all abused women, 2.8% reported the experience of isolated sexual violence in their lifetime. This suggests that forced sexual acts alone by an intimate partner were not as prevalent in this population compared with isolated sexual violence by an intimate partner reported for other developing countries of WHO multi-county study on VAW that showed 31% in Butajira and 33% in Bangladesh [13]. The possible explanation is that women are less inclined to disclose sexual violence because it is shameful and very sensitive topic to be more pronounced in poor socio-economic country including Ethiopia.

Rural residents were less likely to report both lifetime and current experiences of IPVAW than urban residents. This is consistent with study from Philippines found a lower frequency of intimate partner violence among rural women [40]. This possibly indicated how women cope-up with urban life and what factors in the process of urbanization could be modified to decrease stress induced violence between women and men at intimate relationships. However, the finding of the current study is not consistent with the conclusion of WHO multi-country study and others that indicated rural localities presented higher rates than urban localities [13,41]. This might explain as gender relations in urban regions are more distant from traditional patterns and greater presence of women's movements and support services [42]. Similarly, rural communities are usually more conservative and the bedrock of the sociocultural values of traditional societies that may promote the norms and tolerance of IPVAW. This is also true in the study area.

Older age of the respondents was significantly associated with increased risk of lifetime IPVAW corroborating other study [43]. This is possibly explained that the experiences of IPVAW are persistent from time to time in which the women report their cumulative experiences in lifetime. However, this is not consistent with Fernandez idea who described as the age of woman increases she often grows in social status as she becomes not only a wife, but also a mother and a socially influential member of her community. Thus, older women are less likely to report current experience of IPVAW than younger women [44].

The level of education for women and men were identified as statistically significant factor of IPVAW, which is consistent with studies elsewhere [13,42,45,46]. This is justified as educated women have greater range of choices in partners and able to negotiate greater autonomy and control of resources within the family. This in turn helps change norms and improves socio-economic conditions that capacitate them to protect themselves from IPVAW [42].

Compared to women who had no job, female headed respondents engaged into agricultural occupation and other activities appear to experience significantly lower levels of IPVAW. This could be explained that women are autonomous and empowered when they lead their livelihood while they are the head of the household. Indeed, this is not always true in Ethiopian context for which most of the households are headed by men.

This study also shows the increasing of the household socio economic status from poorest to richest is significantly associated with decreased risk of lifetime and current experiences of IPVAW while controlled for other variables. This association goes with Jewkes's explanation that poverty and associated stress are key contributors to intimate partner violence [42]. Here, poor socioeconomic conditions contribute to violence in the family [47-49]. Although violence occurs in all socioeconomic groups, it is more frequent and severe in lower groups across such diverse settings of developed and developing nations [30,42].

Marriage by abduction increases the likelihood of experiencing lifetime IPVAW. This is so because abduction by itself is physically, psychologically, and sexually forcing a woman to have sexual intercourse often followed by marriage or cohabitation. This clearly indicates that male behaviors commonly associated with 'traditional' masculinity, which is strongly associated with IPVAW [50].

With this regard, for women who married/cohabited to polygamous husbands/partners, there is about four and two fold risks of experiencing lifetime and current IPVAW, respectively. This is consistent with the study findings from China and Uganda [51,52]. This could explain how IPVAW put women's reproductive health at risk. Hence, it was described for having multiple sexual partner could put women at increased risk for sexually transmitted infections together with violence contributes to psychological burden, low self esteem, feelings of embarrassment and humiliation [53].

On the other hand, husbands'/partners' extra marital affairs were more strongly associated with both lifetime and current experiences of IPVAW at bivariate level. Again, the associations of frequent use of alcohol by husbands/partners and increased risk of perpetrating their wives/partners is consistent with other studies elsewhere [47,54-56]. This could be attributed for heavy consumption of alcohol is thought to reduce inhibitions, cloud judgment, and impair ability to interpret social cues [57].

Moreover, male or female witnessing inter-parental violence during their childhood increases the risk of his/her later experience of IPVAW coincides with earlier findings from Ethiopia and other countries [17,49,55,58,59]. It has been suggested that witnessing inter-parental violence could lead to a normative understanding of violence and regarded as a fitting means of conflict resolution [42]. With this view, violence was confirmed as a learnt behavior that passes from generation to generation [60].

Similarly, men who witness parental violence are more likely to have attitudes that condone a husband's right to control his wife and to be violent to her [61]. This is to explain why a similar belief in male control of the family and the use of violence to achieve it exist in the world. It also explains why there are certain scenarios where intimate partner violence against women is seen as being justifiable by some men [62]. On the other hand, women who witness violence against their mothers (as children) are more likely to tolerate violence by their partners and respond in a passive manner. It is possible, therefore, that in the future these silent observers themselves will be victims or perpetrators of abuse and play a role in propagating IPVAW.

As to the limitation of this study, the cross-sectional nature could cause difficulty of determining the direction of the association between study variables. The associations could only be discussed in terms of plausibility. A further limitation is that the research team interviewed only women as proxy respondents for their husbands/partners, and hence relies on women's reports only. This can be biased when it comes to reporting on husbands'/partners' characteristic and the childhood experiences. However, the proxy respondents have been shown to produce reliable estimates in other contexts especially in asking husbands'/partners' behavior including frequency of alcoholic drinking [63]. Also, some husbands/partners might be conservative for telling their own childhood and current history to their partners.

As to the strengths of this study, it has got community-based nature and the respondents have been selected by random sampling technique with relatively large sample size. Again, the team already adopted standard and validated instrument of WHO multi-country study on VAW including special training of interviewers designed to maximize disclosure of violence across different social and cultural groups [64]. In addition, the team used interviewers and supervisors who have past experiences of data collection from their respective

community. Because of all these measures, it was found an extremely high response and prevalence rate of the study.

To the best of the investigators' knowledge, this is the first to document and identify the patterns of IPVAW over the current, previous and lifetime experiences in Ethiopia. The information on pattern and severity of abuse might warrant the concerned body to guide the development of screening, treatment, and intervention programs for abused women and their perpetrators.

Conclusions

Intimate partner violence against women is widely observed in the study area. Compared to similar studies the finding is among the highest. The study noted that more than three in four women were experienced at least one incident of IPVAW in their lifetime. Moreover, the patterns of IPVAW are similar across the time periods.

The joint occurrence of physical and psychological violence is the most commonly reported features of IPVAW. Moreover, overlapping of psychological, physical, and sexual violence accounted 56.9% of cases that indicate an extremely serious situation. Alarmingly, more than three quarter of women who experienced any physical violence had severe acts that could threaten them in their lifetime.

Area of residence, literacy status, socio-economic status, occupation, age of the respondents, and other cultural and behavioral factors were negatively or positively associated with IPVAW in the study area.

There is a need for protective efforts to break the norms that sustain women vulnerability in the society. Beside, the promotion of higher education and socio-economic development becomes vital. Additionally, education should target to shape children during their early age. This needs an urgent attention at all levels of societal organization including policymakers, stakeholders, professionals and other concerned body. Still interventions targeting behavioral and social factors promoting IPVAW should be instituted through the involvement of different stakeholders using a multi-sectoral approach and information dissemination tools. Moreover, extensive and longitudinal research is needed to validate the current findings.

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Authors' contributions

All three authors were responsible for the design and conduct of the study. The statistical analysis, the interpretation of findings and drafting of the manuscript were done by the three authors. The authors read and approved the final content of the manuscript.

Competing interests

The authors declare that they have no competing interests.

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PAPER II

Health Effects of Intimate Partner Violence against Women: Evidence from Community Based Cross Sectional Study in Western Ethiopia

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Abstract

Intimate partner violence against women is known to undermine the physical, mental and reproductive well-being of women. Thus, this study was aimed to assess the association between intimate partner violence against women and a range of adverse health outcomes in East Wollega Zone, West Ethiopia.

A cross-sectional population based household survey was conducted between January and April, 2011. A sample of 1540 ever married/cohabited women was chosen using systematic random sampling technique. Standard WHO multi-country study questionnaire was used to interview the selected women. Lifetime experiences of intimate partner violence against women was the independent variable, whereas, the experiences of symptoms of mental distress, physical injury, sexually transmitted infections, unintended and termination of pregnancy were the dependent variables. Data was double entered into Epi DATA and analyzed using IBM SPSS statistics 19. Simple and multiple binary logistic regression models were used to predict the association of study variables and adjust for possible confounders.

Nearly two third (64.1%) of physically abused women had been injured. The vast majority (94.0%) experienced symptom of mental distress. Sixty four percent (64%) of abused compared to 41.7% of non-abused women ever had symptom of sexually transmitted infections (P< 0.001). Furthermore, 16% of abused women had unintended pregnancy versus 11.3% reported the same from un-abused women (P< 0.05). The results of multiple logistic regression analysis indicated that intimate partner violence against women is independently associated with symptoms of mental distress, sexually transmitted infections, unintended pregnancy and termination of pregnancy. However, it is not associated with ever use of family planning methods (P>0.05).

Intimate partner violence against women negatively affects physical, mental and reproductive health of women in the study areas. The victims of IPVAW need treatment, counselling and support to enable them to cope with the violence and the emotional turmoil. This needs an urgent attention by policymakers, stakeholders, and professionals at all levels.

Key words: Health outcomes, intimate partner violence against women, western Ethiopia.

Introduction

Intimate partner violence against women (IPVAW) can be defined as a pattern of abuse whereby one partner exerts physical, sexual, or emotional control over a romantic partner (1). IPVAW is one of the most global human rights abuse and public health problems. It is the manifestation of gender inequality for women and girls due to their social status in the society (2). IPVAW occurs to women of all ages; however, reproductive age represents an increased risk (3, 4). Studies elsewhere have indicated that

IPVAW undermines the sexual and reproductive, physical and mental well-being of women (5-8).

The health consequences of IPVAW include physical trauma, reproductive health problems, mental/psychological/behavioral problems, and fatal health conditions. Population-based studies have suggested that 20-75% of intimate partner physical violence against women resulted in injuries (4, 9) in which abrasion, bruises, fracture, and abdominal thoracic injuries are direct consequences of physical trauma (10-12). Among the reproductive health problems the most common and frequently cited are higher unmet need of family planning and lower contraceptive use (4), unintended (unwanted or mistimed) pregnancy (4, 11, 13, 14), terminated pregnancy (abortion and miscarriages) (11, 15, 16), and sexually transmitted infections (STIs) including HIV/AIDS (4, 10, 17-20). Furthermore, depression, sleeping problems, suicidal ideation and attempts are the common mental health problems associated with IPVAW (9-12, 21). Among the fatal health problems of IPVAW suicides, homicides, maternal mortality, and AIDS related deaths are common (5).

Despite the tremendous consequences, studies focusing on the association between IPVAW and health outcomes are few (4, 22), especially in developing countries including Ethiopia (12). In western part of Ethiopia where the culture of the community is fairly different (23), population-based study on IPVAW and its consequences is hardly found.

Such information may contribute to the growing literature in the field and may inform policy interventions to manage IPVAW and improve the health condition of women. The study does not necessarily ask new questions, since the reality of a culture of silence around issues of IPVAW has been long acknowledged especially in the context of Reproductive Health (RH) problems of women including HIV and AIDS. It however builds on this acknowledgement by articulating the specific contextual examples and addressing specific issues. Therefore, this study was aimed to fill the gap in assessing the association between IPVAW and range of non-fatal health outcomes and behaviors in East Wollega zone, West Ethiopia.

Materials and Methods

The study was conducted in one urban and four rural districts in East Wollega zone, which is one of the 18 zones of Oromiya regional state. It is located at the western part of the country 331 kms from Addis Ababa, Ethiopia. In the study area, two out of six subcities of Nekemte (the capital city of the zone) and eight out of fifty *kebeles* of rural settings were randomly selected. The total population of the zone is 1,340,581 during the study period. Besides, different ethnic groups such as Oromo, Amhara, Gurage and Tigre are residents of the zone, out of which 85% of the dwellers were Oromo and *Afan Oromo* is the working language (24). Regarding infrastructure and social services, Nekemte Town has one hospital and two health centers which are government owned, and various private and faith-based health institutions. Similarly, the study *woreda*s have more than one government owned health center each, health posts, infrastructures like telephone services, and dry weather roads. In the study area there are six high schools and 30 primary and junior secondary schools. However, about half of women age 15-49 years (51%) have no formal education and considered illiterate (25). The rural communities are largely dependent on traditional agricultural activity (subsistence farming), whereas the urban population (Nekemte Town) lives off businesses ranging from small to large scale (24).

A comparative cross-sectional population based household survey was carried out between January and April, 2011. As the source population, ever married/cohabited women aged 15-49 years who were residents of the study community for at least 6 months were used (26). The aforementioned group was selected as it is at the highest risk of intimate partner violence (27).

Unintended pregnancy was considered as main outcome of interest and experiencing IPVAW during lifetime as exposure variable. Since the difference on the outcome between exposed and non-exposed is small for unintended pregnancy among the different health outcomes, it gave the maximum sample size to address the objectives. The following assumptions were made to calculate the sample size: 40% and 29% of women have the outcome among exposed and non-exposed groups, respectively (4), a 5% type I error, 80% power to detect the assumed differences, a ratio of exposed to none-exposed group of 2:1, a design effect of 2 and adding 10% for non responses. Accordingly, 506 non-exposed and 1012 exposed women (a total of 1,518) were required for the study. However, as these study was part of a survey which was conducted to assess the prevalence and risk factors of IPVAW, a larger sample size of 1,600 women was included (28).

To interview the eligible women, multi stage sampling procedure was employed. Firstly, household census and numbering was done in the selected sub-cities and *kebeles* to obtain a sampling frame. Secondly, after identifying households having the target groups, proportion of sample size allocations were carried out. To this effect, systematic random sampling was used to identify the target from the selected households as a study unit. Only one eligible was selected for interview by Kish grid method to control the potential intra-household correlation (29).

Data were collected by 25 high school completed female interviewers using WHO multi-country study of violence against women (VAW) questionnaire (30) The questionnaire was translated into the local language (*Afan Oromo*) by experts in both languages and back translated to English by another person to ensure consistency and accuracy. The data collection process was closely supervised by five Health Officers and one of the principal investigators. Enumerators, data collectors and supervisors were trained for seven consecutive days in sampling, interview techniques and ethical issues, emphasizing the importance of safety of the participants as well as interviewers, minimization of under- reporting and confidentiality. A pre-test was conducted in one *kebele* out of the study area on 10% of the total sample size. A standard field work manual developed by the WHO for violence study was adopted and used by all research teams (2). To ensure the quality of the data and minimize inter-interviewer variation, ~5% of the respondents were re-interviewed at random by the principal researcher and supervisors and checked for consistency.

The experiences of IPVAW was considered as independent variable and assessed using a modified and revised version of the Conflict Tactic Scale (CTS2) (31). IPVAW is defined as exposure to one or more of physical, sexual or psychological abuse (27). The details were described in previous study (28). In addition, variables that have been theoretically, empirically and conceptually linked to health outcomes of IPVAW such as age, education, socioeconomic status (SES), and area of residence were included as independent variables.

Ever experiences of physical injury, unintended (unwanted or mistimed) pregnancy, terminated pregnancy (spontaneous or induced abortion), symptoms of STIs, symptoms of mental distress and ever use of family planning methods were considered as indicators for health outcomes of IPVAW (9, 32). In this regards, mental health was assessed by the use of self-reporting questionnaire of 20 questions (SRQ-20), developed by WHO to screen for emotional distress which was validated in many settings (3).

The pre-coded responses were double entered into Epi- DATA version 3.1 and later it was exported into IBM SPSS statistics 19 for data checking, cleaning, simple and multiple logistic regression analysis. The strengths and directions of the associated factors were explained (reported) using adjusted odds ratios relative to the reference category, at statistical significance of 95% confidence level and *p*-value of < 0.05. Separate analysis was done for all health outcomes of IPVAW. The model adequacy and Collinearity assumptions were checked to be satisfied based on appropriate methods designed for the study.

The research was approved for scientific and ethical integrity by institutional review board by College of Health Sciences, Addis Ababa University. Moreover, WHO guideline on ethical issues related to violence research was strictly followed (2). For this reason, all interviews took place in a complete privacy except for children under two years of age. For the respondents aged from 15 to 17 years assent was secured from parents or guardians. During data collection the interviewee with serious psychological distress, happen to be suicide or in need of counseling were referred to Nekemte Hospital. Otherwise, the information about available local services was provided to all respondents. Follow-up services were also provided for some respondents who were in need of help.

Results

A total of 1540 study subjects completed the interview making a response rate of 96.3%. The socio-demographic characteristics of the women are described on table 1. The majority (84.2%) were residing in rural setting and most (78.6%) of the women were in the age range of 20- 34 years. The mean age of the women was 28.4 years ($\pm$5.7SD). The vast majority (98.7%) were ever married at the time of the interview and predominantly Christian (97.5%) and Oromo (96.4%) by their religion and ethnicity, respectively.

Nearly about three fifth (59.7%) of the women had no formal education. Moreover, more than four in every five women (83.3%) had no job but manage their own household as their main occupation (housewives) and 59.5% of the women have moved to the study area after being born and brought up in

other places because of marriage or work related conditions (*table 1*).

Overall the prevalence of both lifetime experience of emotional, physical, and sexual violence was 70.2%, 68.6%, and 61.6% respectively. Of the total respondents, more than three quarter (76.5%) reported having had an experience of IPVAW in one form or another at some point in their lifetime, and 72.5% reported for the same in the preceding year.

Table 1: Socio demographic characteristics of 1540 ever married/cohabited women age 15-49 years in East Wollega Zone, January to April, 2011.

Characteristics (Variables) n=1540	**Number**	**Percent**
Residency		
Urban	*240*	15.8
Rural	*1296*	84.2
Age		
15-19 years	*28*	1.8
20-34 years	*1,208*	78.4
35- 49 years	*304*	19.8
Mean age		28.5± 5.7SD
Religion		
Christian	1496	97.5
Muslim	18	1.2
Others (Catholic, others)	20	1.3
Ethnicity		
Oromo	1484	96.4
Amara	40	2.6
Others (Gurage, Tigre)	16	1.0
Place of birth and grownup		
Same community	624	40.5
Different community	916	59.5
Marital status		
Currently married	1420	92.2
Currently cohabited	20	1.3
Separated/divorced/widowed	100	6.5
Education level		
No formal education	919	59.7
Primary (1-6th grade)	399	25.9
Secondary (>=7th grade)	222	14.4
Current occupation		
Student	12	0.8
No job	1283	83.3
Trade activities	63	4.0
Govern. Employee	24	1.6
Farmer/female headed	74	4.8
Others	84	5.5
Wealth quintile		
Very poor	305	19.8
Poor	320	20.8
Medium	318	20.6
Rich	269	17.5
Very rich	328	21.3
Experiences of lifetime emotional violence	1081	70.2
Experiences of lifetime physical violence	1056	68.6
Experiences of lifetime sexual violence	948	61.6
Experiences of lifetime IPVAW	1178	76.5

From 1056 (68.6%) of women who had experienced lifetime physical intimate partner violence, 987 (64.1%) had been injured for at least once in their lifetime. Minor injuries such as scratch, abrasion and bruises are most commonly reported by 60.1% of the women. About one third (31.5%) experienced severe forms of physical violence like cuts, punctures and bites. Besides this, women experienced the most sever forms like sprains and dislocations (22.5%), burns (6.8%), injuries to eyes and ears (5.3%), fractures (3.8%), broken teeth (1.2%) and others forms of injuries (0.3%) in their lifetime. Due to these events, nearly one third (28.5%) of women reported to have ever loss of consciousness from which 104 (10.6%) reported to have lost their consciousness for more than one hour. Although 86 (8%) of them were injured badly enough and needed health care, only 69 (6.5%) of them received health care at least once for their injuries (*see table 2*)

Table 2: Distribution of physically abused women according to types of injury in the East Wollega Zone, January to April, 2011

Variables	**During lifetime**	
	Number	**Percent**
Physical injury (N= 987)		
Cuts, punctures, bites	485	31.5
Scratch, abrasion, bruises	925	60.1
Sprains, dislocations	346	22.5
Burns	105	6.8
Penetrating injury, deep cuts, gashes	33	2.1
Broken eardrum, eye injuries	81	5.3
Fractures, broken bones	59	3.8
Broken teeth	18	1.2
❖ At least one of the above	987	64.1
Ever loss consciousness because of physical violence		
Yes	280	28.4
No	701	71.6
Time of loss of consciousness		
less than 1 hour	176	18.4
more than 1 hour	104	10.6
No	701	71.6
Need health care n=1074		
Yes	86	8.0
No	727	67.7
Ever receive health care because of physical violence n=1074		
Yes	69	6.4
No	17	1.6

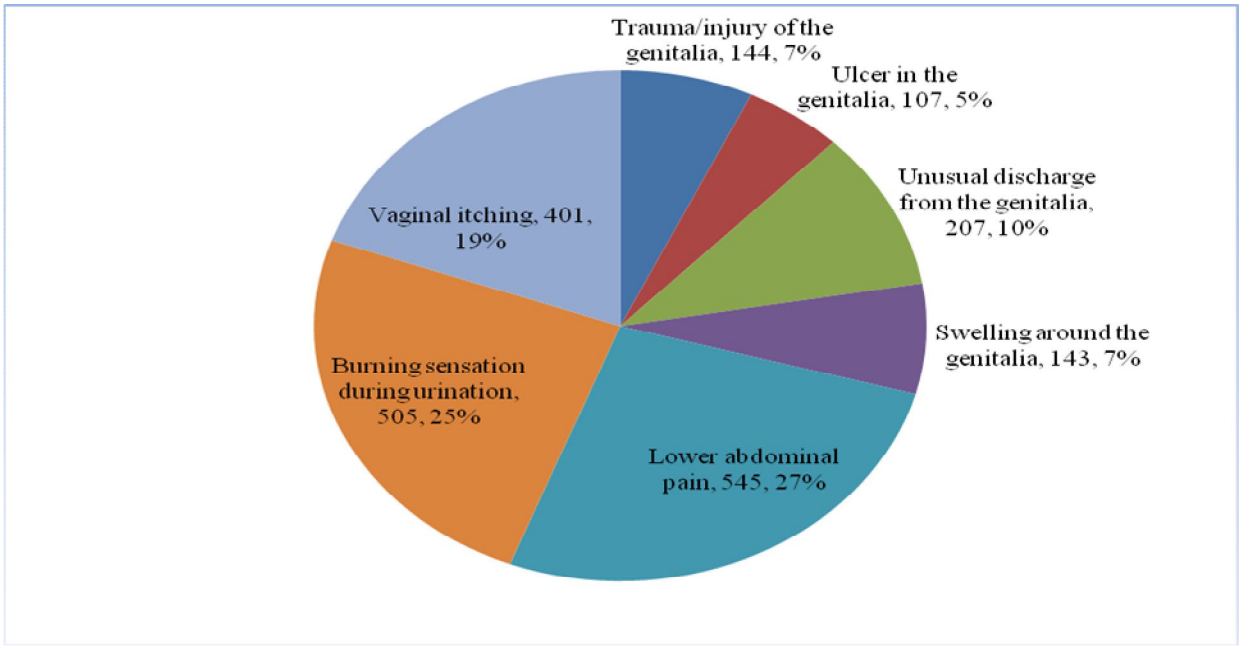
The vast majority (93.3%) of the women experienced one or more of the 20 symptoms of mental distress in their lifetime. The majority (82.8%) had headaches, followed by feeling of nervousness or get worried which accounted for 72.8%. Surprisingly, about one third (30.8%) of the women ever thought of ending their life (*see table 3 for detailed description*).

Regarding the sexually transmitted infections (STI), the result indicated that 64% of women who have experienced lifetime IPVAW had at least one symptom of STI compared to 42% for their counterparts. Accordingly, about one third (32.8%) reported burning sensation during urination and other symptoms like genital itching and unusual discharge from genitalia that accounted for 26.0% and 13.4%, respectively (*see figure 1*).

Table 3: Distribution of women reported symptoms of mental distress based on 20 SRQ in East Wollega Zone, January to April, 2011

Life time experiences symptoms of mental distress (n=1540)	Number	Percent
Head ache	1275	82.8
Poor appetite	541	35.1
Sleep badly	700	45.5
Easily frightened	622	40.4
Hands shake	354	23.0
Feel nervous, tense or worried	1121	72.8
Poor digestion	486	31.6
Trouble thinking	659	42.8
Feel unhappy	813	52.8
Cry more than usual	910	59.1
Difficult to enjoy	695	45.1
Difficult to make decisions	634	41.2
Suffering in daily work	904	58.7
Unable to play	809	52.5
Lost interest in things	736	47.8
Feel worthless person	809	52.5
Thought of ending life	475	30.8
Feel tired	936	60.8
Uncomfortable feelings in stomach	783	50.8
Easily tired	899	58.4
❖ One or more symptoms of mental distress	1512	93.3

Figure 1: Distribution of women reported lifetime symptoms of sexually transmitted infections in East Wollega Zone, January to April, 2011



In relation to STI symptoms, nearly one third (31.1%) of women who experienced IPVAW in their lifetime had perceived risks of contracting HIV and AIDS compared to one quarter (25%) of women without such experiences. On the other hand, more than one in every six (16.3%) women had experiences of both IPVAW and unintended pregnancy for at least once in their lifetime than 11.3% of non-abused women reported for the same. In the same way, the lifetime experiences of terminated pregnancy were reported by 82 (7.2%) of abused women verses 17 (4.8%) for their counterparts. Similar pattern were seen for mental health problem of the women in the study area (*see table 4*).

The association of IPVAW with mental health problem and selected reproductive health outcomes/behavior were assessed independently at bivariate level. In multiple variable analysis other potential factors such as age of the women, education level, area of residence, and SES were controlled (22) and the results of the final models are presented in *table 4.*

The results showed that women reported the lifetime experience of sexual violence nearly twice (AOR, 1.71; 95% CI, 1.15 to 2.55) more likely to have one or more symptoms of mental distress in their lifetime. The association for the symptoms of mental distress was not statistically significant with lifetime experiences of psychological and physical violence. Nevertheless, women experienced at least one form of IPVAW are (AOR, 1.40; 95% CI, 1.10 to 2.31) more likely to report symptoms of mental distress.

Compared to women who had not experienced any form of IPVAW, those who had the experience were significantly at increased likelihood to have symptoms of STI in their lifetime. Women experienced psychological, physical, sexual, and at least one form of IPVAW in their lifetime were more than two times (AOR, 2.79; 95% CI, 2.23 to 3.50), (AOR, 2.68; 95% CI, 2.14 to 3.35), (AOR, 2.18; 95% CI, 1.76 to 2.70), and (AOR, 2.46; 95% CI, 1.93 to 3.14) as likely to have at least one symptoms of STI in their lifetime, respectively. Moreover, women experienced IPVAW had increased odds of reporting perceived risks of contracting HIV and AIDS than their counterparts. This is to mean that, women who had experienced physical violence (AOR, 1.31; 95% CI, 1.01 to 1.69), sexual violence (AOR, 1.39; 95% CI, 1.09 to 1.77), and IPVAW (AOR, 1.35; 95% CI, 1.02 to 1.78) were more likely to perceive risk of catching HIV and AIDS than their counterparts.

In this study, none of the different forms of IPVAW were statistically associated with ever use of family planning. In spite of this, women experienced psychological violence (AOR, 1.44; 95% CI, 1.04 to 1.99), physical violence (AOR, 1.49; 95% CI, 1.07 to 2.05), sexual violence (AOR, 1.63; 95% CI, 1.20 to 2.22), and at least one form of IPVAW (AOR, 1.46; 95% CI, 1.01 to 2.09) in their lifetime were more likely to have unintended pregnancy. In addition, women experienced lifetime physical violence (AOR, 1.79; 95% CI, 1.08 to 2.97) and at least one IPVAW (AOR, 1.79; 95% CI, 1.02 to 3.15) were more likely to have terminated pregnancy in one form or another than their counterparts (*see table 4*).

Discussions

The main findings of this study are more than half (60%) of women have no formal educations and IPVAW is the most prevalent in the study area. Moreover, IPVAW is independently associated with negative effects of women's health.

The experiences of physical injuries in this study are consistent with those of the studies elsewhere that established physical intimate partner violence as common causes of injury to women (3-5). In addition, in this study more than a quarter (28.4%) of women experienced loss of consciousness due to physical violence at least once in their lifetime. This corroborates findings from Butajira that showed 26.7% of women experienced loss of consciousness for the same reason (3). This indicates that the severity of physical violence is alarming for women's health and warrants other studies to assess death of women associated with physical IPVAW.

Moreover, the odds of ever having one or more symptoms of self reported mental health problem were significantly higher among women who reported sexual violence and at least one form of IPVAW than women who did not. This coincides with studies from other countries (5, 17). This might imply that IPVAW in general and sexual violence in particular possibly results in poor mental health, suicidal ideation and attempts.

The use of family planning is not statistically associated with all forms of IPVAW. This is in contrast with the findings of studies from other countries (4, 22) and particularly Colombia, where IPVAW was associated with restricted use of family planning methods (33).

Table 4: Proportion of violence and Odds ratios (95% CI) from binary logistic regressions assessing the association of mental problem and selected reproductive health outcomes and behaviors of IPVAW among 1540 ever married/cohabited women age 15-49 years in East Wollega Zone, January to April, 2011

Forms of PVAW in lifetime (n=1540)	Mental Health Problems			Symptoms of STI			Perceived Risk of HIV/AIDS		
	No (%)	Yes (%)	AOR (95% CI)	No (%)	Yes (%)	AOR (95% CI)	No (%)	Yes (%)	AOR (95% CI)
Emotional Violence									
No	39 (8.5)	418 (91.5)	1.00 (Reference)	268 (58.6)	189 (41.4)	1.00 (Reference)	328 (74.1)	111 (25.3)	1.00 (Reference)
Yes	64 (5.9)	1019 (94.1)	0.99 (0.78, 1.25)	367 (33.9)	716 (66.1	2.79 (2.23, 3.50)**	712 (68.50	327 (31.5)	1.24 (0.95, 1.61)
Physical Violence									
No	36 (7.7)	430 (92.3)	1.00 (Reference)	269 (57.7)	197 (42.3)	1.00 (Reference)	332 (74.1)	116 (25.90	1.00 (Reference)
Yes	67 (6.2)	1007 (93.8)	1.13 (0.90, 143)	366 (34.1)	708 (65.9)	2.68 (2.14, 3.35)**	638 (67.9)	322 (31.3)	1.31 (1.01, 1.69)*
Sexual Violence									
No	49 (8.8)	506 (91.2)	1.00 (Reference)	290 (52.3)	265 (47.7)	1.00 (Reference)	402 (74.7)	136 (25.3)	1.00 (Reference)
Yes	54 (5.5)	931 (94.5)	0.93 (0.75, 1.16)	345 (35.0)	640 (65.0)	2.18 (1.76, 2.70)**	638 (67.9)	302 (32.1)	1.39 (1.09, 1.77)*
One or more of IPVAW									
No	32 (8.8)	330 (91.2)	1.00 (Reference)	211 (58.3)	151 (41.7)	1.00 (Reference)	262 (75.1)	87 (24.9)	1.00 (Reference)
Yes	71 (6.0)	1107 (94.0)	1.14 (0.89, 1.47)	424 (36.0)	754 (64.0)	2.46 (1.93, 3.14)**	778 (68.9)	351 (31.1)	1.35 (1.02, 1.78)*

*NB:- STI- Sexually transmitted infections, * P- Value <0.05, ** P- Value <0.001, Adjusted for age of the women, education level, area of residence, and SES*

Table 4 Cont'd

Forms of PVAW in lifetime (n=1540)	Use of Family Planning			Unintended Pregnancy †			Terminated Pregnancy §		
	No (%)	Yes (%)	AOR (95% CI)	No (%)	Yes (%)	AOR (95% CI)	No (%)	Yes (%)	AOR (95% CI)
Emotional Violence									
No	195 (42.7)	262 (57.3)	1.00 (Reference)	402 (88.0)	55 (12.0)	1.00 (Reference)	427 (94.7)	24 (5.3)	1.00 (Reference)
Yes	450 (41.6)	633 (58.4)	0.99 (0.78, 1.25)	905 (83.6)	178 (16.4)	1.44 (1.04, 1.99)*	976 (92.4)	75 (7.1)	1.45 (0.90, 2.34)
Physical Violence									
No	198 (42.5)	268 (57.5)	1.00 (Reference)	411 (88.2)	55 (11.8)	1.00 (Reference)	463 (95.2)	22 (5.3)	1.00 (Reference)
Yes	447 (41.6)	627 (58.4)	1.13 (0.90, 143)	896 (83.4)	178 (16.6)	1.49 (1.07, 2.05)*	967 (92.6)	75 (7.1)	1.79 (1.08, 2.97)*
Sexual Violence									
No	223 (40.2)	332 (59.8)	1.00 (Reference)	492 (88.6)	63 (11.4)	1.00 (Reference)	515 (94.3)	31 (5.7)	1.00 (Reference)
Yes	422 (42.8)	563 (57.2)	0.93 (0.75, 1.16)	815 (82.7)	170 (17.3)	1.63 (1.20, 2.22)*	888 (92.9)	68 (7.1)	1.41 (0.90, 2.20)
One or more of IPVAW									
No	164 (45.3)	198 (54.7)	1.00 (Reference)	321 (88.7)	41 (11.3)	1.00 (Reference)	339 (95.2)	17 (4.8)	1.00 (Reference)
Yes	481 (40.8)	697 (59.2)	1.14 (0.89, 1.47)	986 (83.7)	192 (16.3)	1.46 (1.01, 2.09)*	1064 (92.8)	82 (7.2)	1.79 (1.02, 3.15)*

*NB:-†Unwanted/mistimed pregnancy, [§]Induced/spontaneous abortion, * P- Value <0.05, ** P- Value <0.001, Adjusted for age of the women, education level, area of residence, and SES*

The difference is possibly due to cultural variations in men's attitudes towards women's use of contraceptives in different societies (22). This is best explained by the fact that the use of contraceptives is more likely to be accepted in more liberal societies than in conservative societies where using family planning out of the knowledge of husbands/partners may not be regarded as a social norm.

Although this study did not collect data on current HIV and AIDS status of the women, it showed that about one out of every three women perceived HIV as a possible consequence of experiences of IPVAW. This is consistent with the study result that showed increasing links between IPVAW and HIV (34). Further, it has been found out that all forms of IPVAW are significantly and consistently associated with women lifetime report of STIs and this corroborates findings from others studies (4, 10). The explanation seems to be lack of sexual autonomy among women who experienced IPVAW as this might predispose them to different reproductive health problems such as STIs, HIV and AIDS, and unintended pregnancy with its consequences.

In the same way, women who experienced all forms of IPVAW are at increased odds of having unintended pregnancy than their counterparts. This is consistent with the results from Uganda in which women experienced IPVAW had more unintended pregnancies after adjusting for age, pregnancy intention and marital status (35). In addition, the demographic health survey finding in Cambodia showed that 60% of women who have ever experienced IPVAW had intended pregnancy at the time of birth compared to71% of women who have never experienced IPVAW (4). The plausible explanation could be the lack of sexual autonomy among abused women suggests a greater risk of having a mistimed as well as an unwanted pregnancy and birth.

Women who had experienced IPVAW in their lifetime had greater odds of having terminated pregnancy. This is consistent with other studies (15, 16, 22, 32). It is possible to explain that in most developing countries, unintended pregnancy end up with induced abortion. This could be a manifestation of emotional withdrawal and loss of hope because of IPVAW in being able to care for the eventual newborn child.

In general, at least two plausible mechanisms have been put forward to explain the potential association between IPVAW (especially physical or sexual violence) and adverse reproductive health outcomes. One mechanism is the direct biological effects of coerced intercourse such as unintended pregnancy, termination of pregnancy, STIs and their consequences. The second mechanism suggests that physical or sexual violence may dis-empower women in negotiating safer sex and may negatively affect protective behaviors related to fertility regulation and STIs (36).

Though it has come up with useful information, this study has the following limitations. The cross-sectional nature of the study might cause difficulty of determining the direction of the association between study variables and the association can only be discussed in terms of plausibility. Social desirability bias might have some impact on the response of some sensitive questions like self reported STIs though syndromic assessment would have been better.

Conclusion

Intimate partner violence against women is a major public health problem in the study community. Moreover, women who experienced IPVAW suffered from negative physical health consequences including injury to the body and loss of consciousness. IPVAW is also seen to contribute to poor mental health and negative reproductive health and behaviors including perceived risks of HIV/AIDS, Sexually transmitted infections, unintended pregnancy, and termination of pregnancy.

This clearly indicated that the victims of IPVAW need not only treatment of physical injuries but also counselling, and support (psychological, material) to enable them to cope with the violence and the emotional turmoil. The counselling could be regarding decision-making about healthcare or leaving the relationship. This needs an urgent attention at all levels of societal organization including policymakers, stakeholders, and professionals. Moreover, extensive and longitudinal research is needed to explore more.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

All three authors were responsible for the design and conduct of the study. Coding and interpretation of findings and drafting of the manuscript were done by

the three authors. The authors read and approved the final content of the manuscript.

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PAPER III

Sileshi Garoma, Mesganaw Fantahun, Alemayehu Worku, 2011. *Ethiop Med J, Vol. 49, No. 4*

ORIGINAL ARTICLE

THE EFFECT OF INTIMATE PARTNER VIOLENCE AGAINST WOMEN ON UNDER- FIVE CHILDREN MORTALITY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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ABSTRACT

Introduction: *Intimate partner violence against women is one of the most common and widely occurring forms of violence against women that has consequences on the health of women and children. However, studies of the impact on children mortality reported controversial results.*

Objectives: *To determine the overall magnitude, association directions of intimate partner violence against women and mortality among under five children.*

Methods: *Online databases were systematically searched for subject heading intimate partner violence against women and under five children mortality. On the final search 11 studies from developing countries were inputted into Metaesy add-in for MS Excel version 1.0.4 software for meta-analysis. Random effect model using DerSimonian and Laird's (DL) estimator was used to calculate the pooled estimates of the studies.*

Results: *Mother who reported past experiences of intimate partner violence were more likely to have under-five children mortality. Mean effect size, 95% CI; 0.23 (0.16 to 0.32) was observed which is significantly different from Zero. The value of pooled Odds Ratio corresponds to 95% CI is: 1.34 (1.12 to 1.46).*

Conclusions: *Interventions aimed at improving child health and survival should focus to protect women from all forms of violence. Comprehensive and longitudinal studies are encouraged to address the issues of intimate partner violence against women and under five children mortality in more depth.*

Keywords: *Intimate partner violence against women, under five children mortality, meta-analysis*

INTRODUCTION

Intimate partner violence against women (IPVAW) is a pattern of physical, sexual, emotional violence and controlling behavior by an intimate partner in the context of coercive control [1]. IPVAW is one of the most common and widely occurring forms of violence against women that is internationally recognized because of violation of women's rights and consequences on the health of women and children [2-5]. Intimate partner violence against women occurs in all countries, irrespective of social, economic, religious or cultural group [6]. A WHO multi- country study on women's health and domestic violence found the prevalence of IPVAW at any point in life varying from 15% in Japan to 71% in Ethiopia [7]. Moreover, the relationship between IPVAW and a range of negative health outcomes has now been established and known to occur to women before, during, and after pregnancy and may increase the risk for poor health outcomes for mothers, fetuses, infants, and children [8, 9].

Despite high levels of both IPVAW and childhood mortality in developing countries, information about the association between the two are limited [10, 11]. Although the exact mechanisms are unclear intimate partner violence against women is linked with poor child health outcomes. It is hypothesized to cause low birth weight and increased miscarriage during pregnancy that may be related to a combination of trauma, over secretion of stress hormones, lower maternal

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weight gain, unintentional pregnancy, or a result of confounding by substance abuse [12-15]. A systematic review of physical health outcomes of childhood exposure to IPVAW looked at 22 studies mainly from developed countries found evidence of under-immunization and an increase in risk-taking behaviors among children of mothers exposed to IPV [16].

Child mortality is a sensitive indicator of the socio-economical situation in a country and a key issue considered in the Millennium Development Goals, with specific objectives set to reduce child mortality by two-thirds by 2015. However, data used to monitor progress suggest that this goal may not be reached, especially in sub-Saharan Africa and Southern Asia [17]. Because of these, more efforts are needed for this target to be met, including increasing our understanding of factors contributing to the complex conceptual framework of child health [18].

The available few studies on the relationship between IPVAW and child mortality in developing countries reported inconsistent results. For example, studies from India indicated a positive relationship between maternal physical abuse and infant mortality [19], whereas, in Bangladesh and other parts of India, the studies could not confirm such an association [20], which indicated the evidence linking IPVAW and under-five children mortality is still controversial [16, 21]. The purpose of this systematic review and meta-analysis is to determine the magnitude of the association between physical, sexual or emotional violence against women and under five children mortality.

METHODS AND MATERIALS

Search Strategy:

Online bibliographic databases were searched systematically from Google Scholar, PubMed, Medline, and Cumulative Index to Nursing and Allied Health Literature (CINAHL), from their earliest entries to December, 2010 for the subject heading intimate partner violence against women and under five children mortality. The search strategy was augmented with a review of the bibliographies of published and unpublished studies. Keywords included "domestic violence" or "intimate partner violence" and "infant death," "child death," or "under five mortality".

Eligibility Criteria:

Studies that provided a clear description of IPVAW on reproductive age group (15-49 years) were included if they contain definitions of physical, sexual or emotional violence, or some combination of these, and examined the outcome of under five children mortality. Furthermore, the studies were mostly cohort or case-control studies. All articles written in English languge were included for review. Articles were excluded if the study outcomes were non live births (abortion, still births or miscarriages) and articles without any child health outcomes.

Study Selection:

One thousand and two hundred articles were retrieved in the initial search. Online abstract and bibliographic information were used to identify 66 articles potentially meeting the inclusion criteria for the studies. To further refine the search and identify published research that specifically met inclusion criteria, a more precise search was conducted using the keywords and keyword phrases of “IPV associated with: children death, infant death, child health outcomes”.

This more exact search yielded 33 potentially relevant citations. Similar database searches were conducted in CINAHL, and Google Scholar that resulted in considerable overlap of citations with the refined PubMed search. All citations were, again, thoroughly reviewed. Reference lists of targeted and relevant research were examined for additional related published research. Of the 33 studies identified, 11 met inclusion criteria to be inputted into meta-analysis (Figure 1).

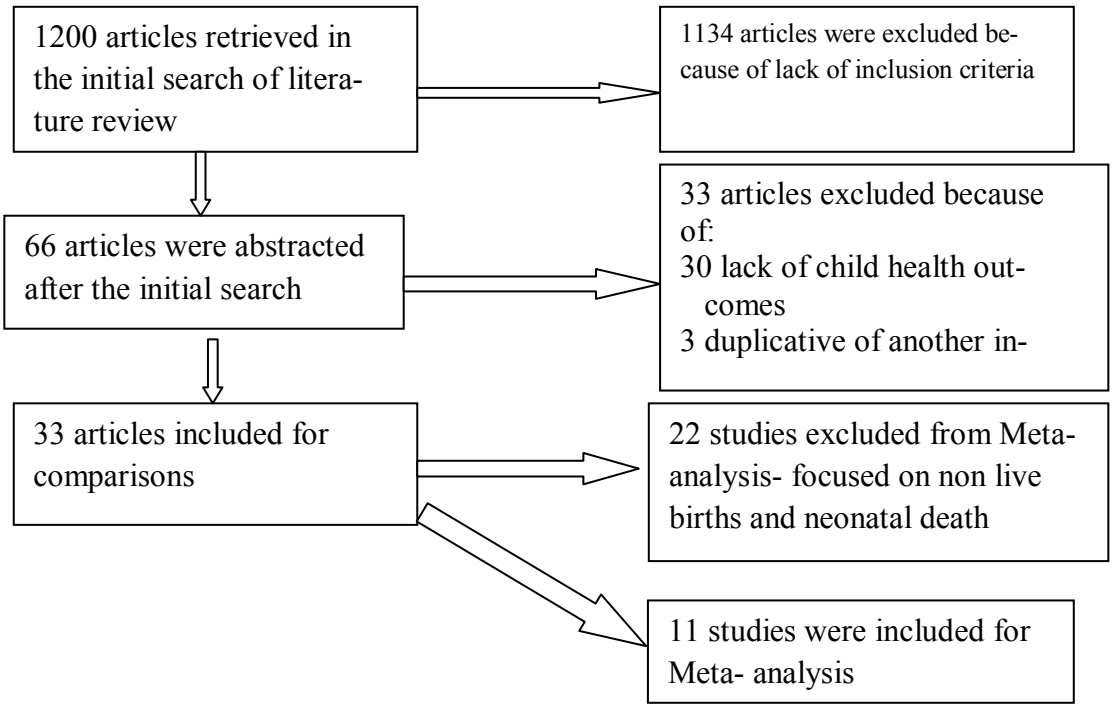
Data Extraction:

The full texts of all eligible articles were abstracted according to a pre specified abstraction form.
Abstracted data included information regarding the authors, specific journals, years of publication, country, study population, design, outcome measures, statistical analyses, and study limitations. The abstracted data and information were compared again and again, and consensus discussion was used to resolve the differences. The final reviews of the abstracted data were compared with the initial set of articles that met inclusion criteria.

Quantitative data synthesis:

Data were inputted into Metaesy add-in for MS Excel version 1.0.4 software and the visual description and presentation of original studies was made using

Figure 1: Flowchart of study selection. Articles may have been excluded for more than one reason.



forest plot. Odds ratios with 95% CI and tests of heterogeneity were performed with appropriate model. The studies heterogeneity was evaluated with the Cochrane Q test statistic, of which a p- value <0.1 was used to declare statistical heterogeneity [22]. In the current analysis the Cochrane Q test statistic indicated significant heterogeneity among studies (P=0.01). In addition, to quantify the effect of heterogeneity I^2 statistic were performed. The I^2 statistic is a measure of the proportion of variability (inconsistency) between studies that is due to chance as opposed to actual differences between study populations. I^2 value greater than 40% was considered to represent important heterogeneity [22, 23]. In this analysis the I^2 is found to be 68.61% indicating medium heterogeneity between studies. Hence random effect model was used in the analysis and between studies variation was assessed using DerSimonian and Laird's (DL) estimator which is the most common and widely used model in heterogeneous studies [22].

An effect size is a measure of the strength of the relationship between IPVAW and under five children death. It differs from test statistics used in hypothesis testing, in that it estimates the strength of an apparent relationship, rather than assigning a significance difference which is not due to chance. An effect size is often useful to know not only whether a relationship is statistically significant but also the difference substantive enough for practical situations. Effect sizes are helpful for making decisions, since a highly significant relationship may be uninteresting if its effect size is small [22]. Effect size measurement was done by transforming point estimates of an individual study using the appropriate statistical techniques. Pooled OR was manually calculated from the mean effect size using derived formula from

$$g_i = \frac{\sqrt{3}}{\Pi} \ln (OR_i)$$

where *gi* is the mean effect size of DL model in this analysis [22, 23]. Some priori hypotheses were developed to explain possible study heterogeneity, including varying definitions of IPVAW and comparison groups, different outcomes reporting. Moreover, before reporting the pooled estimates of the studies included in the meta-analysis, visual observation of funnel plot was used to assess publication bias.

RESULTS

Most studies were conducted in developing countries. Five studies were conducted in Africa; Kenya, Egypt, Malawi, Rwanda, and Ethiopia. Others were conducted in India, Nicaragua, Bangladesh and Honduras. Two case- control [11, 24], three [12, 13, 25] cohort, two National Family and Health Surveys (NFHS) equivalent to an Indian version of DHS [21, 26], and one review of DHS data from five countries [18] were inputted into meta-analysis.

The sample size of the study participants ranged from 422 cases and controls mother in Nicaragua [11] to 43,348 women of 15- 49 years who gave births during specified period of time in India [21]. And a total of 87, 394 women were included into the analysis. The studies assessed the impact of different dimensions of IPVAW on under-five children mortality that includes: three [12, 13, 18] the effect of physical, sexual, and emotional violence against women; six [11, 18] involved both physical and sexual violence against women; and three [21, 24, 26] studies assessed only the impact of physical violence on under-five children mortality.

Using stratified analysis, one study [25] assessed the effect of IPVAW in under one (0- 11 months) children death, five from DHS result [13] in under-two children , and five assessed the impact in under five children mortality [11, 12, 13, 21, 26]. General characteristics and description of the studies selected for meta-analysis are outlined in Table 1.

Pooled estimates of effect Size and Odds Ratio:

For the studies inputted into the meta-analysis mothers who reported physical, or physical and sexual or physical, sexual and emotional violence were more likely than non-abused mothers to have under-five children mortality.

The distribution of the studies using funnel plots showed symmetrical distribution (not shown) suggesting the absence of publication bias that indicated the possibility of reporting the summary estimates of the analysis. According to random effect DL model, the combined mean effect size, 95% CI; 0.23 (0.16 to 0. 32) was observed which is significantly different from Zero (Table 2).

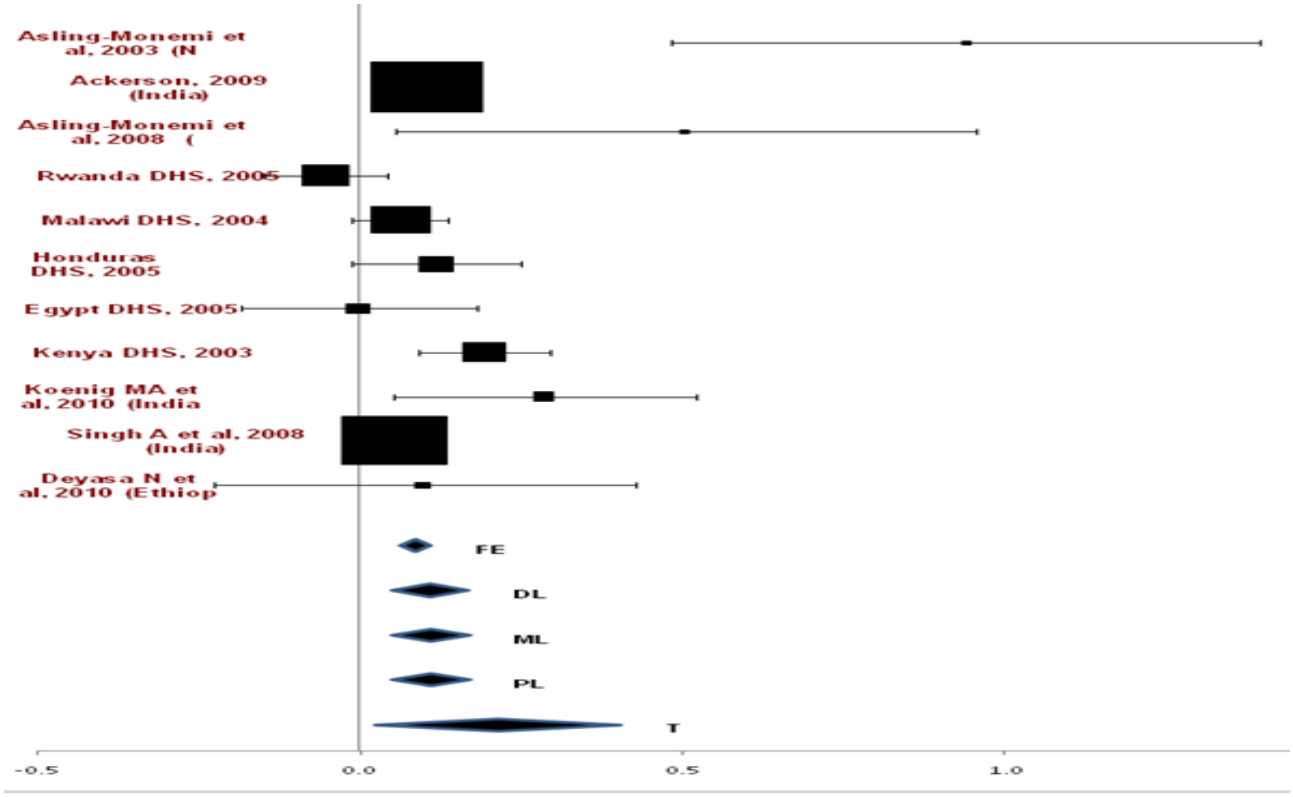
Table 1: Characteristics of studies included in the systematic review and meta-analysis

Study Author, Journal, year of publication, and country	Population, Sample size, and effect on children (age)	Study design/ Recruitment	Study period	Major findings
Deyasa, N. et al, Archives of disease in childhood (Arch Dis Child), 2010, Ethiopia	561 women of 15- 49 years of age who gave birth to a live child *Under five children	A prospective Cohort study- as part of WHO multi country study on women's health and domestic violence	2002	No association between any form of IPVAW and under five children mortality. However, the joint effect of mothers exposure to depression and IPVAW increases the risk of child death
Singh, A. et al, Asia-Pacific Population Journal, 2008, India	43,348 women of 15- 49 years who gave births during 1988-1993 to prevent the problem of censoring *Under five children	National Family Health Survey (NFHS-2). 4,561 mothers of deceased child	1998-1999	The risk of child hood death was 10 percents higher if the mother is exposed to physical violence.
Koenig, M.A. et al., International Journal of Epidemiology, 2010, India	3,909 birth outcomes for women of 15-49 yeas *Under 1 children	Cohort of NFHS-2 and prospective follow-up study for a subgroup of women	1998-1999 and 2002- 2003	Mothers who experienced IPVAW had higher risk of infant mortality
Rico, E. et al, J Epidemiol Community Health (2010)	Ever married/ cohabited women Under 2 children	DHS		Maternal exposure to IPV was associated with higher < 2 children mortality
Rico, E. et al, Kenya	5653	DHS	2003	,,
Rico, E. et al, Egypt	5099	DHS	2005	,,
Rico, E. et al, Honduras	13398	DHS	2005	,,
Rico, E. et al, Malawi	7691	DHS	2004	,,
Rico, E. et al, Rwanda	2423	DHS	2005	,,
Asling-Monemi, K. et al. *Acta Pædiatrica,* 2008, rural Bangladesh	2, 691 live-born children cohort from mother of reproductive age in relation to their experience of IPV * Under five children	Prospective cohort- Part of the WHO Multi-Country study	2001	There was no association between IPVAW and under-five mortality. However, mothers exposed to severe physical violence and high level of controlling behavior had increased risk of under-five mortality.
Ackerson and Subramanian, *Pediatrics,* 2009, India	39, 096 children < 60 months of age *Under five children	National Family Health Survey (NFHS) equivalent to Indian DHS	2005–2006	Maternal experience of physical IPV was associated with increased mortality risks among all children.
Asling-Monemi, K. et al, Bulletin of the WHO, 2003, Nicaragua	110 mothers of children deaths (cases) and matched 312 mothers of alive children (referents), a total of 422 mothers aged 15- 49 years *Under five children	Demographic database (case -referent)	1993- 1996	The risk of death in infancy or before 5 years of age was more than six times greater if the mother had been exposed to IPV

Table 2: Results of studies included in Meta analysis

Study Authors, year, country	Number of abused mothers (cases)	Number of non-abused mothers (Controls)	Point esti-mates	95% CI	Effect size	lower 95%CI	upper 95%CI
Deyasa, N. et al, 2010 (Ethiopia)	45	426	1.40	0.73 to 2.34	0.1005	-0.2266	0.4276
Singh, A. et al, 2008 (India)	5288	38060	1.10	1.02 to 1.18	0.0525	0.0124	0.0927
Koenig, M.A. et al, 2010 (India)	770	3139	1.68	1.14 to 2.57	0.2860	0.0521	0.5200
Rico, E. et al, Kenya, 2003	517	2655	1.42	1.18 to 1.71	0.1933	0.0911	0.2956
Rico, E. et al, Egypt, 2005	1264	2230	1.00	0.72 to 1.43	0.0000	-0.1833	0.1833
Rico, E. et al, Honduras, 2005	377	9541	1.24	0.98 to1.57	0.1186	-0.0113	0.2485
Rico, E. et al, Malawi, 2004	1786	4481	1.12	0.98 to1.28	0.0625	-0.0111	0.1361
Rico, E. et al, Rwanda, 2005	826	1229	0.91	0.77 to1.09	-0.0520	-0.1478	0.0438
Asling-Monemi, K. et al, 2008 (Bangladesh)	325	723	2.52	1.09 to5.57	0.5052	0.0555	0.9548
Ackerson, 2009 (India)	11577	18889	1.21	1.13 to 1.30	0.1051	0.0665	0.1437
Asling-Monemi, K. et al, 2003 (Nicaragua)	26	396	6.34	2.32 to 7.3	0.9399	0.4841	1.3957
Pooled OR and Random DL mean effect size			1. 34	1.12 to 1.46	0.2340	0.1601	0.3181

Figure 2: The overall effect size of IPVAW and under five children mortality.



NB: *FE-fixed effect model, DL- DerSimonian and Laird's, ML- maximum likelihood, PL- profile likelihood*

With reference to the cutoff points for the mean effect size recommended by Cohen's [22,23], the level of effect is moderate. The value of pooled OR corresponds to OR, 95% CI; 1.34 (1.12 to 1.46). The forest plot shows the effect size estimate for all original studies and the pooled one under different model assumptions (Figure 2).

Stratified analysis was made for under-two and under five children based on the available data from the studies included in the meta-analysis. This is to observe the magnitude of the average effect sizes and the pooled OR across the category. The result showed random DL mean effect sizes, 95% CI; 0.100 (0.001 to 0.172), and pooled OR, 95% CI; 1.17 (1.00 to 1.37) for under two children. Separate analysis for under five children also showed mean effect size, 95% CI, 0.14 (0.04 to 0.24) and pooled OR, 95% CI; 1.52 (1.19 to 1.96).

DISCUSSION

In the current review of observational studies, a significant association was observed between intimate partner violence against women and under five children mortality as witnessed by the results of pooled estimates. The pooled effect size has programmatic implications since it was found to be greater than 0.2 according to the standard cut of points by Cohen [22]. For some studies included into meta-analysis the negative effect size corresponds to lack of association between the study variables (IPVAW and under five children mortality). Whereas, the positive effect sizes showed the presence of associations between the study variables.

To our knowledge, there was no meta-analysis of available studies on the associations of IPVAW and under five children mortality comparing the magnitude of average effect sizes of the present analysis. However, the result is comparable with the systematic review of physical health outcomes of childhood exposure to intimate partner violence by Megan H. et al., that showed children of women who had experienced IPV particularly physical violence were less likely to be immunized and more likely to have illness that may cause child death [16, 28].

The stratified analysis of the current study showed an increased combined mean effect size and pooled OR of the association between IPVAW and child death when the age of children is increasing. This is not consistent with the hypothesis that physical and emotional needs of a child are most intense during the first and second years of life and infants are especially vulnerable because of immature immune system [29, 30].

In the Ethiopian setting, any form of IPVAW was not associated with under-five children mortality. However, the joint effect of mothers past experiences of physical violence and depression was shown to increase the risk of under-five children mortality [12]. Even though the association for physical violence and under five children death is not statistically significant, studies indicated women with depression might have difficulties in expressing positive attitudes towards their infants and present emotional detachment and distress [31].

In Nicaraguan study, children of women who experienced any history of both physical and sexual violence had about six fold increase in risk of death before the age of 5 years [11]. In these studies, the sample size of nested case-referent mothers of under-five children from demographic database was small when compared to other studies included in this meta-analysis. This might have contributed to the larger heterogeneity of the studies for the analysis. Because of this potential heterogeneity in populations, designs, and analyses, we assumed that the estimated true effects would vary between the studies in addition to the usual sampling variation within studies.

In Bangladesh, no association was reported between any form of IPVAW and under-five children mortality. However, the association was found among daughters of educated mothers who were exposed to severe physical violence or to a high level of controlling behavior in marriage [13]. This is in contrast that, education is considered to have a protective effect against violence, as educated women have better status in household and greater autonomy and better possibilities to comprehend health education messages [29, 32].

But, the finding is in agreement with the possible pathways of the association between IPVAW and child death: physical health impairment reduces women's possibility for child care and women's diminished autonomy, social isolation, lack of control over financial resources all of which may lead to impaired quality of everyday childcare behaviors and to insufficient health care seeking [29, 33, 34]. On the other hand, gender bias was reflected because male children of mothers exposed to any form of violence were not at increased risk of death. It is likely that in the sociocultural context male children are able to elicit more care from the mother and/or from other family members compared with female children, protecting them from excessive mortality due to mothers' exposure to partner violence.

Two studies included into this review and meta-analysis were conducted in different parts of Indian settings and analyzed the impact of physical violence on child survival considered only one dimension of IPVAW among the others assuming wife beating is more prevalent in cultural settings of the country [21, 25]. But this may affect the overall average effect size of the analysis, even though physical violence in intimate relationships is often accompanied by psychological and sexual abuse [35].

As to the strength of this review and analysis, the data and information were uniformly abstracted by the authors following a predetermined standard format. However, the limitations of the individual studies include: i) in appropriate definitions of IPVAW might reduce the prevalence of IPVAW and in turn might affect the association between the study variables, ii) studies used DHS data and others were cross-sectional in nature [18, 21, 24, 26] for that it may be difficult to establish the cause and effect relationships, iii) some studies didn't assess other factors leading to children mortality during data synthesis and analysis as the relation between IPVAW and child mortality might be attributed to both direct and indirect pathways [12, 21], iv) because of self-reported data from all studies recall bias and measurement error might be inevitable.

The limitations for the current analysis and results also includes: i) the results are not robust because of the limited number of studies inputted into meta-analysis, ii) failed to include unpublished studies or grey literatures and reports, and only those studies published in peer-reviewed journals and dissertations were included, and iii) About 94% (82,444) of the total sample analyzed come from two DHS reports in India, thus they overwhelm the meta-analysis and might not be representative of other regions. The findings of the data analysis should be interpreted in the context of both inherent limitations of the original studies and the current reviews and meta-analysis.

Conclusions:

This review and meta-analysis has provided evidence that women experiencing IPV were more likely to report under-five children death. This is clearly shown by the overall effect sizes between study variables on meta-analysis and witnessed the priori hypothesis for the association of IPVAW and under-five children mortality. The results have policy and programmatic implications and have public health importance. Interventions aiming at reducing child mortality are needed partly by protecting women from all forms of violence.

In addition, comprehensive and longitudinal studies are encouraged to address the issues of intimate partner violence against women and under five children mortality in more depth.

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PAPER IV

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Maternal Intimate Partner Violence Victimization and under-Five Children Mortality in Western Ethiopia: A Case–Control Study

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Summary

Objective: This study aimed to compare the association between maternal intimate partner violence and under-five mortality.
Methods: Matched case–control study was conducted from May to June 2011. A sample of 286 cases and 572 controls were randomly selected from East Wollega Zone, West Ethiopia.
Results: Among cases, 72.7% ever experienced controlling behaviors when compared to 62.4% for controls. All forms of maternal intimate partner violence were experienced by 61.9% of cases and 50.9% of controls. Controlling behavior in marriage and experiences of all forms of intimate partner violence during lifetime were more than four [adjusted odds ratio (AOR) 4.27, 95% confidence interval (CI) 0.97–18.89), and two (AOR = 2.55, 95% CI 1.66–3.92) times as likely to be associated with under-five mortality.
Conclusion: Maternal intimate partner violence victimization is strongly associated with under-five mortality. Involving men in maternal and child health programs could be one strategy to address the issue of intimate partner violence against women.

Introduction

Intimate partner violence against women (IPVAW) is the most common form of violence that assumed international recognition initially because of its violation of women's rights. It was later followed by concerns of its effect on the health of women and children [1–3]. Moreover, maternal intimate partner violence victimization has been identified as a risk factor for mortality and morbidity among under-five children [4]. However, it has not been studied in different contexts in developing countries and results appear controversial [5–7].

A WHO multi-country study on women's health and domestic violence found that the prevalence of IPVAW at any point in life varying from 15% in Japan to 71% in Ethiopia [8]. According to this study, the prevalence of life time physical and sexual violence in Butajira, Ethiopia was 49.5 and 59.4%, respectively [9]. A study in Leon, Nicaragua found that children of mother who experienced physical or sexual violence were significantly more likely to die before the age of 5 years [10]. Nevertheless, a study on a cohort of 651 women who had given birth to a live child after 3 years follow-up indicated that any form of IPVAW was not associated with under-five children mortality in an Ethiopian setting. However, in this study, the joint effect of mothers past experiences of physical violence and depression increase the risk of under-five children mortality [11].

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Child mortality is a sensitive indicator of the socioeconomic situation of the country and a key issue considered in the Millennium Development Goals (MDGs) with specific objectives set to reduce child mortality by two-thirds at 2015 from the baseline at 1990 [12, 13]. However, data used to monitor progress suggest that this goal may not be reached, especially in sub-Saharan Africa and Southern Asia [14]. Due to these, more efforts are needed for this target to be met, including increasing our understanding of factors contributing to child health [15].

Although the relationships between IPVAW and children death appear well established in developed countries [13], evidence from developing countries is inadequate [10, 15] and the available research indicated mixed results [15–17]. Thus, this study was intended to compare the association between maternal intimate partner violence victimization and under-five children mortality in western Ethiopia.

Methods

Study settings

The study was conducted in one urban and four rural districts in East Wollega Zone, which is one of the 18 administrative zones of Oromiya National Regional State. East Wollega Zone is located at the western part of the country 331 km far from Addis Ababa, Ethiopia. During the study time, the total population of the zone is 1 340 581 [18]. Different ethnic groups, such as Oromo, Amhara, Gurage and Tigre are residents of the zone, out of which 85% of the dwellers were Oromo and 'Afan Oromo' is the official and working language [19].

Study design and population

A population-based matched case–control study was conducted from May to June 2011. The source population for the study was all ever married/cohabited women aged 15–49 years who gave live births within the past 5 years preceding the survey in the study area. Cases were defined as biological mothers of live born but later died children before the age of 5 years within 2 years before the survey. Each deceased child matched with two referents by known confounding variables (sex, age at death and area of residence). Controls were defined as biological mothers of survived under-five children in the same period.

Sample size calculation

The sample size was calculated using Epi-info 3.5.1 statistical software considering the proportion of IPVAW among controls 37 and 47% among cases, 95% confidence interval (CI), 80% power of the study and case to controles ratio of 1:2 to detect an odds ratio of 1.51 [20]. Accordingly, with the addition of 10% loss or none response rate, 977 biological mothers (319 cases and 658 controls) were needed. Based on the 2007 national census, urban to rural population ratio consitututed 15 and 85%, respectively [19]. Hence, 15% of the study population was drawn from Nekemte town and 85% from rural *kebeles* '(the lowest administrative unit in the government structure)'.

Initially, two from six subcities of Nekemte town and eight *kebeles* from four districts at a distance of 20–30 km away from the town were randomly selected from 50 *kebeles* to represent the rural community.

Household census and numbering were done in the selected subcities and *kebeles* to identify the deceased and the corresponding alive children. Deceased and alive under-five children were matched by age categories: 0–28 days, 29 days to 11 months and 12–59 months. After identifying households having the target groups, proportion to sample size allocations were carried out based on the total number of the selected households. Ultimately, systematic random sampling was used to identify the target from the selected households as a study unit. Biological mothers of both the deceased and alive children were asked for the experiences of intimate partner violence in their lifetime and pregnancy of the index child. In case the household had two or more eligible subjects, only one was selected by Kish grid (lottery) method with the intention to control the potential intra-household correlation [21].

Data collection

Data were collected by 25 high school completed female interviewers using WHO multi-country study of violence against women (VAW) questionnaire [22]. The questionnaire was translated into the local language (*Afan Oromo*) by experts in both languages and back translated to English by another person to ensure consistency and accuracy. The data collection process was closely supervised by five Health Officers and one of the principal investigators.

Enumerators and supervisors were trained for seven consecutive days in sampling, interview techniques and ethical issues, emphasizing the importance of safety of the participants as well as interviewers, minimization of under-reporting and confidentiality. A pre-test was conducted in one *kebele* out of the study area on 10% of the total sample size.

A standard field work manual developed by the WHO for violence study was adopted and used by all research teams [23]. To ensure the quality of the data and minimize inter-interviewer variation, ~5% of the respondents were re-interviewed at random by the principal researcher and supervisors and checked for consistency.

Measurements

The experiences of IPVAW was considered as independent variable and assessed using a modified and revised version of the Conflict Tactic Scale (CTS2) [24]. IPVAW is defined as exposure to one or more of physical, sexual or psychological abuse [8]. The details were described elsewhere [25]. The seven questions used for measuring controlling behavior within marriage were whether the husband: commonly attempted to restrict women's contact with her family or friends, insisted knowing where she was all the time, ignored her or treated her indifferently, expected her to seek permission for seeking health care for herself, constantly was suspicious that she was unfaithful, and got angry if she spoke with another man [22].

Variables that have been theoretically, empirically and conceptually linked to intimate partner violence and under-five children death, such as age, education level, socioeconomic status, number of births, birthweight of the newborn and alcohol consumption during the index pregnancy were included as independent variables. Socioeconomic status was measured by constructing a wealth index using principal component analysis [26]. The birthweights of the deceased and survived children were extracted from the immunization card. Under-five children mortality was considered as an outcome variable.

Analysis

The pre-coded responses were double entered into Epi-DATA version 3.1 and later it was exported into STATA 11 for analysis. Crude and matched adjusted odds ratios with 95% CIs were used to assess whether maternal intimate partner violence victimization is independently associated with increased risk of death of an offspring during the first 5 years of age using conditional logistic regression models. The model adequacy and multicollinearity assumptions were checked and fulfilled based on appropriate methods designed for this study. For assessing the associations of the study variables, a $p \leq 0.3$ at bivariate level were included into matched conditional multiple logistic regression models.

Ethical considerations

The research was approved for scientific and ethical integrity by institutional review board of the College of Health Sciences, Addis Ababa University. Moreover, WHO guideline on ethical issues related to violence research was strictly followed [23, 24, 27]. All interviews took place in a complete privacy except for children younger than 2 years. Verbal consent and assent (for mother aged 15–17 years) were secured before the interviews. During data collection, the interviewee with serious psychological distress were referred to Nekemte Hospital for counseling. Otherwise, the information about available local services was provided to all respondents.

Results

Sociodemographic characteristics of the respondents

A total of 858 study subjects (286 cases and 572 controls) completed the interview making a response rate of 88%. The sociodemographic characteristics of mothers are described in Table 1. The majority, 732 (85.3%) were residents of rural settings and most, 684 (79.7%) of the mothers were in the age range of 20–34 years. The mean (SD) age of the mothers was 28.4 (5.7) years. The vast majority, 805 (93.8%), were married at the time of the interview. They are predominantly Oromo, 816 (95.1%) by their ethnicity. Nearly about three-fifth (61.4%) of the mothers had no formal education and more than four in every five (82.8%) had no job.

Maternal intimate partner violence victimization

Among mothers of the deceased under-five children (cases), 72.7% ever experienced controlling behaviors when compared to 62.4% of the mothers of the survived children (controls). Moreover, maternal intimate partner violence becomes sever among cases than in controls. Accordingly, the experience of lifetime psychological violence was 76.2% among cases compared to 63% for controls. In the same way, a significant difference of lifetime physical violence was observed among cases and controls, which showed the prevalence of 68.9% and 57.1%, respectively (Fig. 1).

Regarding joint occurrences of physical and sexual violence, a significant differences were observed between cases and controls (64.3% vs. 52.4%, $p < 0.0001$). The differences were also found to be statistically significant ($p < 0.05$) for other sociodemographic factors, such as age of the mother, number of births, birthweight of the deceased and survived children and alcohol consumption by mother during the index pregnancy (Table 2).

Matched conditional logistic model

Mothers who had controlling behavior in marriage and experienced at least two forms of intimate partner violence during their lifetime were more than four and two times [adjusted odds ratio (AOR) 4.27, 95% CI 0.97–18.89] and (AOR 2.24, 95% CI 1.31–3.85) as likely as mothers who did not to have under-five deaths, respectively. In the same manner, mothers who ever experienced both physical and sexual violence were nearly two times (AOR 1.91, 95% CI 1.22–2.61) more likely to have under-five mortality. Similarly, the experiences of the three forms (psychological, physical and sexual violence) were two and half times (AOR 2.55, 95% CI 1.66–3.92)

TABLE 1
Sociodemographic characteristics of study participants (cases and controls) aged 15–49 years in the East Wollega Zone, Western Ethiopia, May to June 2011

Characteristics (variables) $n = 858$	Participants		
	Cases (%)	Controls (%)	Total (%)
Place of residence			
Urban	42 (14.7)	84 (14.7)	126 (14.7)
Rural	244 (85.3)	488 (85.3)	732 (85.3)
Age of respondents (years)			
15–19	3 (1.0)	9 (1.6)	12 (1.4)
20–34	212 (74.1)	472 (82.5)	684 (79.7)
35–49	71 (24.8)	91 (15.9)	162 (18.9)
Current marital status			
Married/cohabited	268 (93.7)	540 (93.9)	805 (93.8)
Separated/divorced/widowed	18 (6.3)	35 (6.1)	53 (6.2)
Ethnicity			
Oromo	269 (94.1)	547 (95.6)	816 (95.1)
Others (Amara, Gurage, Tigre)	17 (5.9)	25 (4.4)	42 (4.9)
Education			
No formal education	176 (61.5)	351 (61.4)	527 (61.4)
Primary (1–6th grade)	75 (26.2)	131 (22.9)	206 (24.0)
Secondary and above (>7th grade)	35 (12.2)	90 (15.7)	125 (14.6)
Current occupation			
No job	236 (82.5)	474 (82.9)	710 (82.8)
Employed[a], Trade, Others[b]	29 (10.0)	68 (10.6)	93 (10.5)
Farmers (Female headed)	21 (7.3)	37 (6.5)	58 (6.8)
Wealth quintile			
Poorest	55 (19.2)	116 (20.3)	171 (19.9)
Poor	74 (25.9)	132 (23.1)	206 (24.0)
Medium	50 (17.5)	112 (19.6)	162 (18.9)
Rich	49 (17.1)	90 (15.7)	139 (16.2)
Richest	58 (20.3)	122 (21.3)	180 (21.0)

[a]Employed into governmental, non-governmental, private sectors.
[b]Others include—religious affiliation, housemaid.

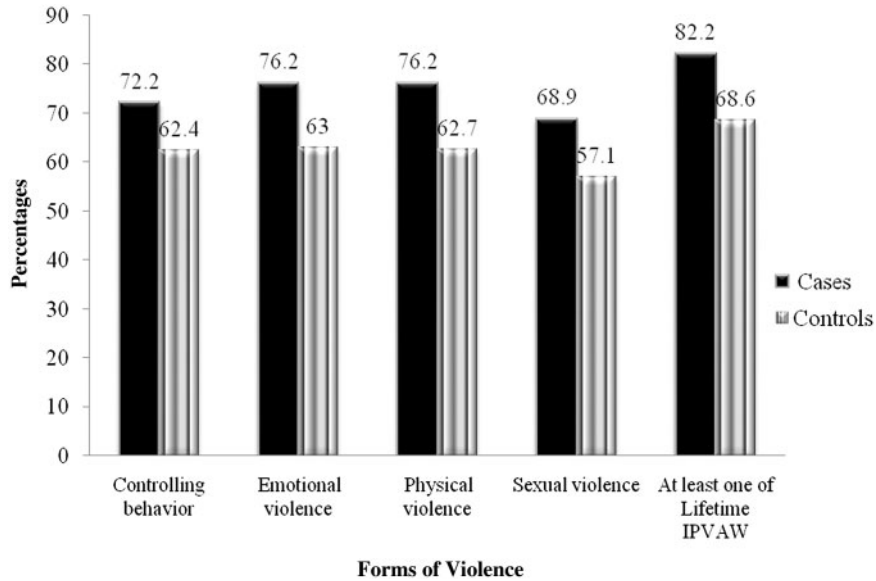

FIG. 1. Percentages of cases and control mothers aged 15–49 years who ever experienced IPVAW in East Wollega Zone, western Ethiopia, May–June 2011.

TABLE 2

Intimate partner violence against mothers of cases and controls as risk factors for under-five children mortality based on matched conditional logistic regression analysis in East Wollega zone, western Ethiopia, May to June 2011

Risk factor	Participants		*p*-value	Under-five children mortality	
	Cases	Controls		COR (95% CI)	AOR (95% CI)
Controlling behavior					
No	78 (27.3)	215 (37.6)	0.003	1.00	1.00
Yes	208 (72.7)	235 (62.4)		1.80 (1.27–2.55)**	4.27 (0.97–18.89)
Lifetime psychological violence					
No	68 (23.8)	212 (37.0)	<0.0001	1.00	1.00
Yes	218 (76.2)	361 (63.0)		2.36 (1.62–3.44)**	1.97 (0.44–8.87)
Lifetime physical violence					
No	68 (23.8)	214 (37.3)	<0.0001	1.00	1.00
Yes	218 (76.2)	359 (62.7)		2.37 (1.63–3.43)**	1.62 (0.15–2.46)
Lifetime sexual violence					
No	89 (31.1)	246 (42.9)	0.001	1.00	1.00
Yes	197 (68.9)	327 (57.1)		1.94 (1.37–2.74)**	1.63 (0.17–2.33)
Lifetime physical and sexual violence					
No	102 (35.7)	272 (47.6)	<0.0001	1.00	1.00
Yes	184 (64.3)	300 (52.4)		1.94 (1.37–2.75)**	1.91 (1.22–2.61)*
At least one of lifetime IPVAW					
No	51 (17.8)	180 (31.4)	<0.0001	1.00	1.00
Yes	235 (82.2)	393 (68.6)		2.41 (1.65–3.52)**	2.19 (0.45–10.60)
Occurrences of IPVAW					
No violence at all	51 (17.8)	180 (31.5)	<0.0001	1.00	1.00
One form only	14 (4.9)	29 (5.1)		1.48 (0.67–3.28)	1.38 (0.60–3.18)
Two forms	44 (15.4)	74 (15.9)		3.39 (1.42–4.04)**	2.24 (1.31–3.85)**
All together	177 (61.9)	289 (50.5)		2.66 (1.76–4.03)**	2.55 (1.66–3.92)**
Age of the mother					
15–19	3 (1.0)	9 (1.6)	0.02	1.00	1.00
20–34	212 (74.1)	473 (82.5)		1.36 (0.36-5.20)	0.69 (0.17–2.86)
35–49	71 (24.8)	91 (15.9)		2.54 (0.64 to 10.0)	0.95 (0.22–4.16)
Education					
No formal education	176 (61.5)	352 (61.4)	0.29	1.00	1.00
Primary (1–6 grade)	75 (26.2)	131 (22.9)		1.11 (0.78–1.59)	1.11 (0.76–1.63)
Secondary (≥7th grade)	35 (12.2)	90 (15.7)		0.75 (0.46–1.22)	0.95 (0.57–1.58)
Parity					
1 birth	24 (8.4)	104 (18.2)	<0.0001	1.00	1.00
2–5 births	157 (54.9)	334 (58.3)		2.14 (1.30–3.54)**	1.91 (1.13-–3.24)*
>5 births	105 (36.7)	135 (23.6)		3.78 (2.19–6.48)**	3.17 (1.76–5.71)**
Birthweight (kg)					
<2.5	41 (71.9)	59 (55.1)	0.01	1.74 (1.09–2.24)*	1.84 (1.12–2.09)*
≥2.5	16 (28.13)	48 (44.9)		1.00	1.00
Alcoholic drinks during index pregnancy					
No	140 (49.0)	321 (56.3)	0.04	1.00	1.00
Yes	146 (51.0)	249 (43.7)		1.51 (1.08–2.11)*	1.56 (1.04–2.65)*

Adjusted for age, education, parity, birthweight and alcohol drinks during index pregnancy.
COR: crude odds ratio.
*$p < 0.05$, **$p < 0.001$, 1.00-reference category.

more likely to be associated with under-five mortality (Table 2).

The association of other potential factors with under-five mortality showed that mothers who had more than five births are more likely to have under-five mortality (AOR 3.17, 95% CI 1.76–5.71) compared with mothers who gave one birth. Alcohol consumption by mother during the index pregnancy (AOR 1.56, 95% CI 1.09–2.23) and birthweight of <2.5 kg (AOR 1.84, 95% CI 1.12–2.09) were factors significantly associated with under-five mortality. However, no significant association was observed between the socioeconomic status of the households including the mother's age, educational level and under-five mortality.

There were no significant interaction between violence and mothers' age, violence and mothers' educational level, violence and number of births,

violence and maternal alcoholic drink during index pregnancy and between violence and birthweight in relation to under-five children deaths.

Discussion

The main findings of this study are mothers of the deceased under-five children (cases) were more likely to experience all forms of intimate partner violence than their counterparts (controls). The differences are shown by >10% differences for each form of violence among cases and controls.

The results of this study are consistent with findings from India that denoted mothers with past history of abuse from their husbands/partners were more likely to report childhood mortality [6, 16]. This is possibly explained for abused women and their children are always in a disadvantageous position in terms of accessibility to nutrition and other characteristics vital to children survival. In the same way, studies in developing countries indicated women who were physically abused by their partner are less likely to utilize available services, such as antenatal care, institutional delivery and immunization of children that are found to have serious consequences for both mother and child [28].

Controlling behavior in marriage is the highest risk to be associated with under-five mortality, although the association between the two is weak after controlling for other factors included in the model. This goes with the idea that high level of controlling behavior in marriage or partner relationship is common practice in Ethiopia [9]. Moreover, for all forms of maternal intimate partner violence, the matched bivariate analysis result indicated a strong association with that of under-five mortality. These associations were significant after adjusting for other factors known to be associated with both under-five mortality and intimate partner violence against women. This is corroborating the results from Nicaragua and India, which showed that the survival chances of children whose mothers being physically abused by husbands or other intimate partners were significantly lower compared with those of children of non-abused women, even after controlling for the well-known determinants of child survival [6, 10].

However, it is not consistent with the studies from Bangladesh [29] and Butajira, Ethiopia [11], which indicated the absence of association between different forms of violence against women and under-five mortality. Rather, in Bangladesh more educated women had an increased risk of under-five female deaths if ever exposed to severe physical violence or to a high level of controlling behavior in marriage.

Even though there were a relatively small number of birthweights available for both the deceased and surviving children, the study clearly showed children of cases were more likely to be of a low birthweight (<2.5 kg) than that of controls, which is in agreement with other studies elsewhere [6, 30]. Thus, low birthweight may be a direct or an indirect consequence of IPVAW considered being associated with children mortality [6]. Similarly, alcohol consumption by biological mother during the index pregnancy increases the risk of under-five mortality corroborating studies elsewhere [20, 34].

The possible pathways through which maternal intimate partner violence victimization may lead to elevated risks for under-five mortality may need to be explored further. However, one possible potential pathway is that violence may elevate maternal stress levels and reduce the autonomy of the mother in terms of access to material resources, affecting women's ability to obtain adequate nutrition, rest, exercise and medical care which contributes to low birthweight or preterm delivery and these are well-known risk factors for prenatal, infant and under-five mortality [6, 31, 32]. The second possible pathway is the deterrent effect of violence on women's use of preventive or curative health services during pregnancy, delivery and during childrearing contributed to child survival differentials [33, 34]. Therefore, addressing these possible pathways can help to the prevention of under-five mortality, thereby contributing to achieving the fourth MDG.

As to the limitation of this study, the analysis did not include other household and environmental factors that may contributed to under-five mortality. The other concern is the possible underreporting of maternal intimate partner violence.

In general, the underreporting of violence is much commoner than over reporting. On the other hand, mothers who have experienced the trauma of death of the child may be more likely to report violence if they believe it was precisely related to the child's death [6]. However, the information on children death was collected in the birth history section, at the beginning of the interview, while the questions on intimate partner violence were raised toward the end of the interviews. Therefore, it is less likely that the mothers who had experienced trauma for death of a child associate the two events and systematically over report the incidence of such an event. This leads that if there is any under reporting at all, it will be distributed uniformly in the same manner for both cases and controls. As a result, bias may not have major effect on the findings of the study.

As to the strengths of this study, it has got a community-based nature and the respondents have been selected by random sampling technique with relatively large sample size. Again, we already adopted standard and validated instrument of WHO multi-country study on violence against women [35]. In addition, we have used interviewers and supervisors who have past experiences of data collection from their respective communities.

In conclusion, mothers of the deceased under-five children experienced all forms of violence from their

intimate partners than their counterparts. These are important public health concerns and should be taken seriously by policymakers and program planners. Involving men in child health programs and counseling on matters related to maternal well-being could be one strategy to address the issue of intimate partner violence against women.

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PAPER V

REPRODUCTIVE HEALTH

RESEARCH Open Access

Intimate partner violence against women in west Ethiopia: a qualitative study on attitudes, woman's response, and suggested measures as perceived by community members

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Abstract

Introduction: Intimate partner violence against women is more prevalent in Ethiopia and among the highest in the world. This study was aimed to explore the attitudes of the community on intimate partner violence against women, the strategies women are using after the violence act, and suggested measures to stop or reduce the act in East Wollega Zone.

Methods: A total of 12 focus group discussions involving 55 men and 60 women were conducted from December, 2011 to January, 2012. Discussants were purposefully selected from urban and rural settings of the study area. The analyses followed the procedure for qualitative thematic analysis.

Results: Three themes (attitudes, coping strategies, and suggested measures) were emerged. Most discussants perceived, intimate partner violence is accepted in the community in circumstances of practicing extra marital sex and suspected infidelity. The majority of women are keeping silent and very few defend themselves from the violent husbands/partners. The suggested measures by the community to stop or reduce women's violence were targeting actions at the level of individual, family, community, and society.

Conclusion: In the study community, the attitude of people and traditional norms influence the acceptability for the act of intimate partner violence against women. Most victims are tolerating the incident while very few are defending themselves from the violent partners. The suggested measures for stopping or reducing women's violence focused on provision of education for raising awareness at all levels using a variety of approaches targeting different stakeholders. It is recommended that more efforts are needed to dispel myths, misconceptions and traditional norms and beliefs of the community. There is a need for amending and enforcing the existing laws as well as formulating the new laws concerning women violence including rape. Moreover, providing professional help at all levels is essential.

Keywords: Focus group discussion, Women violence, Attitude, Coping, Measures

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Background

In patriarchal societies which believe in male dominance the force used by a man to control his wife is seen as legitimate [1]. Moreover, studies have found that males within patriarchic societies are more violent towards their wives and children than are males in societies believing in equality [2]. Ethiopia is one of the patriarchal societies where many rural communities embrace various types of violence against women (VAW) [3]. Similarly, many rural communities in Ethiopia embrace various types of violence against women and even claim to have women who go to the point of saying: "If my husband does not beat me, it means that he does not love me," and similar other sayings that justify violence are common [3]. Due to these facts intimate partner violence against women (IPVAW), the most common forms of VAW is highly prevalent in Ethiopia [4].

Basically, two theories, however, have heavily influenced IPVAW etiology research; social learning theory, or the idea that violence may be transmitted from one generation to the next, and the feminist theory, or the idea that male dominance in society affects interpersonal relationships [5-9]. Whatever the case, several complex and interconnected social and cultural factors are involved; all of them being manifestations of unequal power relations between men and women [8,10-13]. Indeed, the majority of researchers on IPVAW have examined and described the associated factors using socio-ecological model- the dominant one that integrates many other explanations and widely used in public health operates at the level of individual, relationship, community and society/country. Among individual level factors the use of alcohol and none or low educational/economic status are frequently cited. These factors are associated with both the perpetrators and victims of violence. At the level of the family male control of wealth, decision-making authority, habits of frequent marital conflict and significant interpersonal disparities in economic, educational and employment status are included. Community level factors include women isolation and lack of social support, community attitudes that tolerate and legitimize male violence, and poverty. At the level of society: gender roles that entrench male dominance and female subordination, inadequate laws and policies for the prevention and punishment of violence, and limited awareness and sensitivity on the part of law enforcement officials, courts and social service providers are frequently cited.

Community attitudes and actions with respect to IPVAW play an important role in shaping the social environment in which the victims are embedded. Similarly, the social environment that contribute either to condone and perpetuate or to reduce levels of IPVAW in the society plays an important role [14]. Several studies have indicated that a high risk of IPVAW in male-dominant or patriarchal societies where gender attitudes and perceptions of the community support marked inequality between men and women in addition to rigid gender roles can lead to justification and acceptance of IPVAW [15-17]. Other studies have shown that attitude towards IPVAW is one of the most prominent predictors when compared with other potential factors such as social and empowerment [18,19]. Attitudes toward infidelity by the female partner were at the other extreme: 60% of men and 87% of women believed that beating is justified if the woman was sexually unfaithful [20].

Evidence showed that women use different strategies such as tolerance, temporary or permanent separations, seeking outside help, or physical self defense from the violent husbands/partners [21]. In World Health Organizations (WHO) multi-country study on domestic violence and women's health conducted in ten countries, for example, the victims kept silent (tolerate) and the interviewer was the first person to which many victims had ever talked about their partner's violence [11]. Similarly, in rural Ethiopia, nearly half of the women had tolerated and didn't talk the incident to anybody. Very few (6%) had fought back to defend themselves, and other 30% had left home on one or more occasions to escape from violent husbands/partners [3]. In addition, the WHO study confirmed that between 19% and 51% of victims had ever left home for at least one night and between 8% and 21% reported leaving 2–5 times [11].

A study on the prevalence, risk factors, and health outcomes of IPVAW on ever married/cohabited women aged 15–49 years was conducted in the study area. The magnitude and health effects of IPVAW are all-embracing. The study also identified substantial risk factors for the occurrences of IPVAW [4]. However, the communities view on IPVAW was not well explored in Ethiopian setting in general and the study area in particular. Thus, this study is aimed to explore the community attitude, strategies women are using after the violence act, and the suggested measures to stop or reduce IPVAW at the study area.

Methods

The study was conducted in one urban and four rural districts in East Wollega Zone, which is one of the 18 administrative zones of Oromiya National Regional State. East Wollega Zone is located at the western part of the country 331 km far from Addis Ababa, Ethiopia. The 2011/12 projected total population of East Wollega zone is 1,610,816 out of which 789, 299 (49%) are males and the rest 821, 516 (51%) are females [22]. Different ethnic groups, such as Oromo, Amhara, Gurage and Tigre are residents of the zone, out of which 85% of the dwellers were Oromo and *'Afan Oromo'* is the official and working language [22].

Qualitative (FGD) data was collected between December, 2011 and January, 2012. The number of focus group discussion was determined by saturation of ideas - until a point where no more new ideas emerged. A total of 12 focus group discussions comprising of 115 discussants (55 male and 60 female) was conducted. Four groups were from urban (two groups of males and two of females) and eight groups were from rural residents (four groups of males and four of females). The discussants were employees from different sectors, religious and community leaders, elders and residents of the study area. Each group consisted of 8–12 participants. The discussants were selected with criteria of being ever married/cohabited, having not been involved in the previous survey [4] and being not related with each other. They were selected using purposive sampling method with the support of the local leaders and health care professionals as they were well familiar with the conditions of the area. The FGDs were categorized by sex, area of residence and employment statuses to capture heterogeneity among different subgroups and to allow for homogeneity within a group [23].

Open-ended unstructured and flexible discussion guide was prepared based on the objective of the study. The discussion guide for the factors involved in the occurrences of intimate partner violence against women was prepared based on the ecological model [8] of understanding IPVAW. During data collection and initial analyses, this pre-understanding was put within brackets [24].

Two trained female research assistants (a social worker and an anthropologist) moderated the female group activities while the principal investigator and male anthropologist guided the male groups. One female and one male assistant from the team organized the FGDs and handled tape recordings. The discussions were tape-recorded and all observations made were recorded as field notes. The discussions were conducted in a quiet place to encourage free discussion without any threats and each lasted for 60–90 minutes.

The recorded FGDs were transcribed verbatim in the regional language (*Afan Oromo*). Later, it was translated into English by the principal investigator together with the moderators. To assure the validity of the translation, another person, proficient in both languages checked and commented on it so as to incorporate changes into the report. Many of the post-FGD questions and interactions were not recorded to include into the analysis. Following the steps of qualitative thematic content analysis [25-27], the texts were imported into the Open Code 2007 program to facilitate the coding process [28]. After reading the transcripts, the researchers performed open coding of the texts, constantly comparing similarities and differences by going back to the original text. In the next step, selective coding was performed and relevant codes were further conceptualized leading to the development of categories. Several categories were taken together to form themes. During the coding process, relevant quotations from transcripts were put into memos and incorporated to illustrate main ideas during the write-up. Finally, understanding of multiple forms of information collected and triangulation of different data sources was made to verify the findings.

The research proposal was examined and screened for scientific and ethical integrity by the institution's review board (IRB), the highest body for approving research in the College of Health Sciences, Addis Ababa University. To this effect, a letter with green light to carry out the study was issued and an official letter was written to the regional and local authorities by the school of public health. Formal permission and verbal consent was secured from administrative officials at different levels of governmental Authorities and the local community leaders. Furthermore, the ethical guidelines of VAW research was strictly followed [4]. Informed verbal consent was obtained in advance from the respective FG discussants to record their responses. They were also told to switch-off the audiotape, if they feel that there are issues which should not be recorded. The researcher ensured that all collected information is kept and used in such a manner that confidentiality, anonymity and privacy of all participants are maintained, bearing in mind the sensitivity of the topic.

Multidisciplinary research team, verbatim transcriptions, and predefined analytical procedures were used to promote the study rigor. During the analysis the fitness and relevance of emerging categories to the research question were tested by constant comparison and checking between the text, codes and categories. Moreover the Lincoln and Guba's model [29] of trustworthiness has been applied. Credibility was assured by continuous interaction with discussants in the study area. Follow-up interviews with participants were conducted and member-checking was done to verify the findings. Triangulation of data collection methods was done as field notes were also used to collect data. Transferability was enhanced by purposive sampling of the discussants. Detailed and thick/dense description of results as well as literature control was done to support the findings. Confirmability was ensured through the use of an independent coder who analyzed the data independently and a consensus discussion was held to agree on adopted themes and categories [30].

Results and discussion

Results

The number of focus group discussion was determined by saturation of ideas- until a point where no more new ideas emerged. The saturation point of information has

been reached after the twelfth discussions. A total of 115 discussants (55 men and 60 women) participated into the discussions. The median age of the discussants is 40.4 years (range: 23 to 78 years). Details of the socio-demographic characteristics of the discussants are shown in Table 1.

The main themes described during the analysis were: description of violence that occurs to women from their husbands/partners, explanation on the possible factors leading to women's violence and its consequences, community attitudes on IPVAW, women's response after the attack, suggested intervention area, the currently available and functional social and/or legal services at the area, and the current statuses of IPVAW at the study area. However the main concern of this paper is the analysis of the views of the community on attitudes on IPVAW, women's response after the attack, and the suggested measures to stop or reduce IPVAW. These themes are described by categories, sub-categories, and codes (Table 2).

Attitudes of the Community towards Intimate Partner Violence against Women

The traditional tendency that places women in a subordinate position to men has led to a culture of justification of accepting IPVAW. This act is often justified by men as a form of control of the family. However, from these FGDs two divergent ideas emerged on the attitudes towards women violence inflicted from their intimate partners.

Table 1 Socio-demographic characteristics of the discussants, East Wollega zone, December, 2011 to January, 2012 (n = 115)

Characteristics	Categories	Frequency (Percent)
Place of residence	Urban	34 (30)
	Rural	81 (70)
Sex	Male	55 (48)
	Female	60 (52)
Educational status	Illiterate	8 (6)
	Read and write	4 (4)
	Primary education	19 (17)
	Secondary education	36 (31)
	Tertiary education	48 (42)
Occupation	Employee	48 (42)
	Religious leader	18 (16)
	Local elderly	25 (21)
	Adults (community residents)	24 (21)

NB- Employees were from the offices of administration, health, education, police, prosecutor, court, women's affairs, social affairs, and non-governmental organization.

Conditions under which the Act of IPVAW Could Be Acceptable

A. Failure to give birth and suspicion for infidelity
The acts of IPVAW could be acceptable by the community if the woman commits extra-marital sex, is suspected for sexual infidelity (adultery), is always in dispute with her husband, her neighbors or community members, does not obey the husband/partner, or fails to give birth under all conditions.

"...most men cite a paragraph in the bible states the wife has to respect her husband. They are repeatedly using this saying when they want to attack their wife/partners in all circumstances like suspecting her for infidelity" (A 37 years religious leader from female group).

The society pushes families to have more children even if the woman resists. Commonly people say "garaan haadhaa qalqalloodha," which literally means, "mothers' womb is like a container" (A 34 year-old woman from prosecutor's office).

B. Behaving as controlling and non-domestic women
The community believes in women accusation when they attempt to speak for their own rights. Most people also stigmatize such women labeling them as deviant, big-headed, and uncultured. The community also attaches connotative expressions like non-domestic to such women when they actively participate in public affairs. For example, both men and women groups noted that people in their community accept wife beating as it is the appropriate way to correct the women.

There is a saying, "uleen suphee duwwaa cabsa" to mean, "A stick breaks only a clay pot." Mostly elders in this community believe in the importance of stick for controlling women. Such a traditional belief targets the way a woman dialogues with her husband. If a woman swears at her husband, it is considered as looking down on him, so he has to punish her (A 41 year-old man from a rural community).

Conditions under which the Act of IPVAW Could not Be Acceptable

A. Hair splitting arguments
According to some of the participants, currently there is some degree of change in the perception of

Table 2 Descriptions given for intimate partner violence against women by themes, sub-categories and selected codes, East Wollega Zone, Western Ethiopia, December 2011 to January 2012

Themes	Sub-category	Codes
Attitudes towards IPVAW	Accepting IPVAW	Approve, tradition, tolerance of women, community norms, controlling
	Not accepting IPVAW	Hair split argument, give advice, sanction, exclude from *Edir*, no support
Woman's reaction	Tolerate	keeping silent, silently live, weep and live, feeling shame
	Seek help	Tell, Women's Affairs, elders, police, *kebele* leaders, courts, relatives, neighbours
	Leave home	Separate temporarily or permanently, divorce, disappear
	Self defense	Fight back, beat him, use force, disregard
Suggested measures at various levels	Individual level	Create awareness on education, economic issue, females right
	Family level	Hold discussions on family issue, understand each other
	Community level	Change attitudes and beliefs through mass education, school and religious activities
	Society level	Raise awareness on legal codes and related services, gender roles, advocacy

the community on IPVAW. The community is taking different measures against men who frequently attack their wives or who exhibit a violent behavior. The majority of the participants from both groups expressed that IPVAW is an intolerable act, especially if the man commits adultery, is always intoxicated, and always raises hair split arguments like for instance the dinner is not delicious and the like.

Most members of our society know that attacking women is a crime. Usually, if the man raises hair splitting arguments and is always in dispute with his partner, the act is considered as intolerable. Even if there could be a disagreement between a husband and a wife, it should not lead to abuse and has to be solved through discussions (A 34 year-old woman from the Education Bureau).

B. Exclusion from social support system
The majority of participants from the female groups extensively discussed the protection of the right of women as they are part of the society. Others also mentioned that if a husband keeps attacking his wife on trivial issues and always quarrels with other people in the community, he is excluded from the local social support system (edir) in the form of sanctions.

. . .. Despite the traditional roles of men as head of the family, the community considers women as daughter, sister, wife and mother. For this reason, we do not accept attack under any circumstances. Occasionally, if the husband keeps attacking his wife on trivial issues and always quarrels with other people in the neighborhood, the community rejects his act and excludes him from social affairs like edir. However, to do so, it should be ensured that the woman has fulfilled the expectations of the husband/ partner and the community, like for example, obeying the husband, giving care for the children, giving birth, and not having extra-marital sexual relations" (A 46 year-old man, rural education office).

Women's Reactions to Intimate Partner Violence (Coping Strategies)

According to the majority of the participants, most women do not report cases of violence by their intimate partner primarily due to the fact that they may be stigmatized and ashamed by the community. In some cases, it may result in life of discrimination with consequences like difficulty in re-marriage. Basically, four sub-themes emerged on strategies that women use when such an incident occurs in the study area.

A. Tolerance
Most discussants mentioned that their culture dictates women not to go back to their parents or elsewhere once they got married for they are expected to keep the family net intact, especially for the welfare of their children. Thus they tend to stay tolerant of every challenge from their abusive partner.

. . .. In the beginning, I used to cry and lock myself up in a room. But now, I gave up, and I would not leave my husband. I can't stay away from my kids or make

them suffer without a father figure. They are my life, and I would do anything for them. . ..." This is the reason why I stay on tolerating violence by my husband (A 33 year-old woman from rural community).

I myself passed so many nights in my compound under banana and went back to home in the morning for the sake of my children (a 27 years female from Nekemte town).

Furthermore, most women in the study area have no awareness about their rights and prefer to remain tolerant of everything from the husbands/ partners. Some also said that the traditional norms of the society discourage females not to discuss their problems with others. In addition, most women live with the principle of "*obsuu"* and "*dhoksuu*" which means "*remaining patient"* and *"keeping secret."* This means, females should tolerate and hide the challenges they face from their partners.

The tradition itself expects females to be a tolerant wife. That is why "dandeessuu," meaning someone with high degree of endurance, is a very common bride's name given by the family of the husband at marriage (A 35 year-old man from the Education Bureau).

"yartuun fira hamattii baddubatuun dhirsa hamatti" literally to mean "bad wife backbite her relatives while hopeless wife backbite her husband."
(A 36 years old woman from urban).

The woman as a victim accepts that there is nothing she can do about the abuse. She accepts that she was just unfortunate to marry an abusive partner but she is prepared to endure the relationship. A 52 years religious man from rural community noted, *". . .the woman has made a commitment to their marriage until death. Therefore, she will not go away".*

B. Leaving home
The discussants from both groups mentioned that most women in the study area, mainly those in the rural areas, leave home either temporarily or permanently when they feel they cannot bear the violence any longer. In fact, because of culture and traditional norms of the society, men are not expected to leave the house. Moreover, court personnel remarked that most of the time women face severe attacks from their husbands and leave home with no claim of any property in their home.

"I was married at age of 15 and lasted for 22 years in marriage. In this stay I left my home and went back to my parents for about 20 times. My mother said me "what do the community says about us when you come back to us from your husband. So you have to go to him." She sends me back when elders come without talking about the problems I encountered there (A 37 years from urban).

In my vicinity, a husband and a wife were always in dispute during the night time. She shouted every time he came drunk and started annoying her. She always went to his relatives and came back after things cooled down. But one day, he severely attacked her on the back and she was admitted to a hospital. After she recovered, she permanently left home and went back to her family with no appeal to the legal system (A 61 year-old man from the urban).

The court personnel extended their idea that most of the time women face severs attack from their husbands and leave home without giving care for their property in their home. In this regard, when both partners come to the court system and the woman win, the husband sends local elders for mediation and she lifts her appeal with the pressure.

C. Self-defence
Few women in the area resort to physical confrontations to have their rights respected and protect themselves from harsh physical or verbal attack. This was reflected in the discussions among urban respondents.

. . .. Let me share you my personal experience. After long time tolerance and weeping, I tried to beat him to defend myself when he severely attacked me on the stomach (A 29 year-old house wife, urban).

A religious leader from the rural community also said:

. . .. I have seen a woman in my locality that goes to the extent of injuring his genital organ with knife after several disputes. The woman took this measure for self-defense because the man has become addicted to violent behaviour (A 57 years religious leader from rural community).

D. Seeking help/telling others
Most victims, as a first measure, usually go to the local/village elders, relatives, or close friends for arbitration. In fact, these people often advise the couple to tolerate each other. But if the case is not settled, they resort to more formal structures such

as the *kebele* social court, women's affairs, police or court system. Even then, there are a number of cases where these women are not taken serious because of influence from long standing traditions of the community. The cases below attest to such practices.

A judge from the rural area expressed his experience on a case where a woman sued her husband for beating her. There, the judge asked the man, "Why did you beat your wife violating her right?" Then the husband replied, "*Respected judge, I did not beat her on the right, but on her left side."*

In this regard, the women groups draw attention to the fact that females are excluded from the local elders for arbitration of disputes between couples in their community. For instance one of the female group discussants said,

.... One day, I went to take part in the local elders group to mediate disputed couples. In the group there were seven males and I was the only female. I was unfortunately late to arrive and they were waiting for me. In fact, they did not know me and were expecting the eighth male. But when I arrived, they were surprised and angrily remarked, "We wasted our time waiting a woman" (A 46 year-old woman from the urban).

Most participants extensively claimed that women are not allowed to be members of an arbitration group. This implies that decisions made usually favour males. The mediators mostly pressurize females to accept their decision no matter how much she was victimized. Moreover, how women are treated by the police officers was an issue of lively discussion among female participants.

"A woman went to the police office to sue her husband. The investigator was a policeman who had three co-habitants. He sent the woman to local elders advising her not to waste her time. He said, "Abbaa manaaf haadha manaa sireetu araarsa" literally meaning, the bed mediates between a husband and a wife. This is a problem. The problem is not the issue of policy but its implementations" (A 34 year-old woman from Women's Affairs Office).

Since women are not allowed to be parts of arbitrators, the decisions are usually biased towards males. They usually pressurize females to accept their decision no matter how she is victim of the conflict. Members of the community use proverb which encourage females' inferiority. For instance, "*dubartiin dheertuu malee beektu hinqabdu" which means; "we do not find wise women but tall"*(a 32 years female from urban residents).

Community Suggested Measures

The other theme emerged was community's perception towards measures taken to stop IPVAW. Other sub-categories were observed after selective coding of measures to be taken at the levels of individual, family, community, and society was made.

A. At an individual level
In most discussions, the first measure should focus on intensive provision of formal and informal education for females on their legal rights and problems of cohabitation. Moreover, the majority of the participants suggested that the concerned bodies (religious institutions and municipality) should provide premarital, sexual and family life education.

...women have to be advised on not simply co-habiting with a man without thorough scrutiny of him as this problem is pervasive in the area. Pre-marital education should be provided by the concerned bodies like the municipality and religious leaders" (A 39 year-old woman from the local court).

B. At family level
Advising the couple to discuss all family issues in a gentle and courteous way was briefly raised in all groups. They emphasized that a husband and a wife should have respect for each other from the very beginning, because once a dispute occurred between the couple, it becomes difficult to manage. They also stressed the importance of teaching the couple about their income, family problems and the need for one of the couple to try to calm the other down when she becomes temperamental. They said a family issue should be discussed and solved within the family.

Since family is a base for the community and eventually for the country, solving a family problem has to be the responsibility of all citizens. Tolerance is the major mechanism of reducing violence between couples. As an Oromo proverb goes, "obsaan aannan goromsaa dhuga" meaning, "Someone tolerant drinks the milk of the heifer" (implying this is the best milk) to indicate the importance of tolerance in the family. Behaving this way solves problems related with alcoholism and temperament (A 49 year-old male community leader).

C. At community level
Most discussants stressed the importance of formal social support like government assistance

programs and criminal justice, and informal assistance by the local elders, friends, relatives and others.

According to the custom of the area, before any further step, elders look into the dispute between couples for more than three times. If they fail to resolve the problem, then the case is taken to the court. However, because the custom is highly valued, the court could even send it back to the local elders before making a legal decision. This is the procedure we follow. In the community, elders are responsible for thoroughly investigating cases and giving advice to the wrongdoer and mediate the couple (A 45 year–old male from Prosecutor's Office).

To stop or reduce IPVAW, it is prudent to educate the whole community. Changing the attitudes of the society regarding the rights of the women is another working area for everybody in the community. If couple have thought sitting together, they can understand for each other and improve their behavior; they can openly discuss every issue and hence reduce the chance of getting dispute. Also it is better to use religious institutions, local social support system like edir, schools and other relevant places to teach the society.

The best solution is increasing the community's awareness using media and forums. In addition, schools should teach about gender issues from the very beginning so that the generation can be changed (A 78 years local community elder).

Some community members are against the act of violence and still there are some individuals who can give approval for such acts. To balance the community responses, awareness creation and awareness rising should be given on gender issues through media and religious institutions on continuous bases (A 42 years male from justice office).

All groups emphasized the importance of collaboration among different organizations for stopping or reducing IPVAW. The behavioral change strategy should be focusing on everyone in the community.

. . ..last week a man injured an eye of a woman who owns a grocery. She came to our office for help and we directed her to the police. But a group followed and warned her saying, "If you withdraw your appeal, he will pay you compensation, but if you proceed, you will lose all your customers." She accepted the second option. I personally met one of the members of the group mediating the case and asked him why they interfered. He replied, "Harree fi dubartiin duruu ni reebamti, maal ho'ista?" which means, "It is a tradition for the women and donkeys to be beaten, so why do you exaggerate?" (A 47 year old woman from an NGO).

Particularly the rural discussants gave emphasis for providing equal services for all people in the community irrespective of their economical status and ethnicity.

". . .when rich and well to do families are in dispute, the community interfere and tries to mediate them as early as possible. But when poor family like me is in dispute and females are in problem no one interferes and tries to mediate. In addition, poor families cannot be a member of local social support (edir) as they do not afford the monthly contribution. Basically such social supports is formed by members of the local villages and lead by elders for helping people in all aspects and interfere and/or mediate the family dispute (A 40 years daily laborer female).

D. At society/country level

Some participants in this study pointed out that much is expected of all organizations in general and the implementing agencies in particular. It is important to hire experts on family and marriage issues equipped with knowledge of family mediation. Others also suggested that the government should amend or codify acceptable evidences in investigating violent acts because many people complain that the criminal code of Ethiopia demands eyewitness from three people and medical certificate from health institutions to decide that the offender is guilty. For instance, in cases of rape, it is impossible to have eyewitness as the act takes place in a hidden environment.

There is a gap between policy on the paper and its implementations. For instance if we take the so called women's' associations, they are not properly working. Even at some places they do not have sufficient knowledge on the issue itself. As a result they are not successful in mobilizing women to attend different awareness rising forums. On the other hand, the legal bodies ask eye witness for serious criminal act like rape (A 47 years old male from education office).

The law of the land and the police demand that the victim produce evidences like witnesses from at least

three people and medical certificate from health institutions. This is not right. What is expected of the victim should be reporting the case. Investigating the issue should be the job of the police, because such attacks take place in secret so that the victim cannot produce evidence (A 29 year-old women from the Education Bureau).

In addition, they recommended that concerned bodies like the police officers, experts in women's affairs, the prosecutor and judges be equipped with appropriate knowledge and skills necessary to handle such cases. Additionally, there should be legal protection for the victim so that the offender does not attack again or revenge. Majority of the participants suggested that the court establish a special center that works on GBV and emphasize on empowering women.

When we think about the solution, we have to think about who is responsible. Who should be involved? As the problem is complex, it needs the involvement of different stakeholders. Concerned bodies should work to practically implement the gender policy of the country and draft new laws or amend the existing ones to make them appropriate to deal with violence against women (A 36 year-old female from Social Affairs Office).

Discussions

The first theme explains the divergent idea of the community towards IPVAW. The sub-categories for the second theme on women response includes tolerance, temporary or permanent separation, seeking outside help, and physical/verbal self defenses. Thirdly, the theme on the measures to be taken to stop or reduce IPVAW was focusing the activities at individual, family, community, and country levels.

The majority of the discussants have mixed and divergent feelings to express the community attitudes on IPVAW. Some justified the accusation of women by their husbands if she committed extra marital sexual affairs. This goes with the finding from other similar study justified wife beating triggered by an action that is socially unacceptable like sexual infidelity [31]. Similarly the EDHS of 2005 indicated that the majority of women believed for a husband to be justified in beating his wife at least for one reason if she is: not completing housework on time, refused sex, disobeying her husband, being unfaithful or questioning him about his extramarital relationships [32]. These all implies the traditional norms place women in a subordinate position to men and have led to a culture of justification of IPVAW. However, some of the discussants were claiming the act of wife abuse to be a criminal act because currently it is given attention by the government.

The majority of the discussants assured the victims in their community are living with their abusive partners tolerating the incident. This could be justified as lack of awareness of the women about their rights. Moreover, the influence of traditional believes and norms in their area are more pronounced. This is similar with the findings from Spain that showed high level of women violence tolerance was associated with low awareness about their rights [14]. The reason why abused women hide violent attacks to their children, family, friends, and neighborhood is to avoid outside interference and later reprisal from the abuser which forces the victim to prefers and live with the abusive partner silently. Women often considered it as a shameful to share such personal problems with others [33]. For example, previous study from rural Ethiopia showed nearly half of the women kept silent after the violent attack from their intimate partners [3]. This explains why many women do not discuss violence with anyone else that indicates either they consider it normal feature of life or ashamed of revealing the violence.

In most cases the victim primarily tries to report the incident to their relatives, close friends, or local elders for advice and support. But these depend on the severity of the violent act that ranges from verbal threats to severe physical aggression. This finding goes with the result from Nicaragua which indicated that the woman's decision to seek help may be triggered by specific incidents like when attacked severely, affecting the children welfare, and destroying properties [21].

In the study area few women, especially from urban are fighting against their abusive husbands/partners either physically or verbally in order to protect themselves. This is in contrast with finding from Nepal and Nicaragua where the majority of the women reported in defending themselves from abusive partners [21,34]. However, it is corroborating the finding from rural Ethiopian showed only six percent of the victims had fought back to defend themselves from the violent husbands/partners [3]. In Ethiopian context, it is evident that fighting back to the husbands is not culturally accepted and thus it is shameful for the woman to hit her husband though, this by itself could be one strategy in minimizing damage from abusive partners.

Some women mainly from the rural go to their relative house and to a lesser extent to friends or neighbors. This goes with the study result from Butajira, Ethiopia indicated about one in three women left their home either temporarily or permanently because of the incident [3]. Actually some culture specific factors that are related with the practice of women leaving home or staying somewhere without their partner can determine this

strategy. This depends on the availability of places of safety for women and their children. However, ending a relationship does not necessarily reduce a woman's risk, as some partners become even more violent when women leave or attempt to leave the relationships [35].

The suggested measures for stopping or reducing IPVAW are targeting the factors described in the ecological model for the occurrences of IPVAW at the levels of individual, relationships/family, community, and society/country [8]. This is because of the fact that IPVAW is a multifaceted issue with psychological, social and environmental roots [36]. According to their suggestions the measures require a variety of approaches targeted different stakeholders, including government and nongovernmental agencies, law enforcement agencies, the health and education sectors, the line ministries such as the women affairs, and other faith based organizations (FBOs). Their suggestions are in line with the recommendations from other similar studies from around the world [3,21,31,37].

Currently there are several institutions which deal specifically with Gender Based Violence (GBV), including Women's Affairs Offices (federal, regional, district (the lower administrative unit) and in some cases *kebele (*the lowest administrative unit in Government structure) level), the judiciary system (police, prosecutors office and court), health institutions, Ethiopian Women's Lawyers Association (EWLA), women's associations and schools. However, the effectiveness of these institutions to prevent intimate partner violence against women, mitigate its impact and enforce the laws has been reduced due to a number of factors, including limited capacity of the institutions, attitudes of the personnel, accessibility and affordability of the services including the quality of services provided to the community and lack of knowledge by women about the existence of such institutions. The community suggested measures also support these notions.

As to the strengths of this study, we have used a multi-dispensary research team. Moreover, the methodological efforts to achieve diverse and representative sample of discussants from the community and the rigor of the coding and analysis phases are meticulously applied. We also think that the discussions were open and free. However, concerning the limitation, as any other qualitative researches the study results may not be generalized to all other areas of the country. Despite this, we believe that this study has contributed a deeper understanding and knowledge for people in this field and similar area.

Conclusion

The study found that the majority of the discussants stated as the victim uses silence or tolerating the violent husbands/partners. This is clearly due to the traditional norms and attitudes of the community towards IPVAW. The study also showed, very few victims can defend themselves from the violent husbands/partners. Biased arbitration is marked excluding women from elders in the arbitration or mediation system. The penal code of the country has a loophole for supporting the rape cases that requests permissible or tangible evidences, since the act of rape is always committed secretly or behind closed door. It is recommended that more efforts are needed to dispel myths, misconceptions and beliefs that condone IPVAW. For mitigating IPVAW influencing personal relationships and creating healthy family environment is needed by all stake holders. Providing professional help and support at all levels as well as for the families who are already experiencing the act is also crucial. There is a need for amending and enforcing the existing laws as well as formulating the new laws concerning rape.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

All three authors were responsible for the design and conduct of the study. Coding and interpretation of findings and drafting of the manuscript were done by the three authors. The authors read and approved the final content of the manuscript.

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ANNEX. 2. QUANTITATIVE DATA COLLECTION TOOL

ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES*, SCHOOL OF PUBIC HEALTH, QUESTIONNAIRE FOR ASSESSING THE PREVALENCE OF VIOLENCE AGAINEST WOMENT AND ITS OUTCOMES AMONG WOMENS AGED 15- 49 YEARS LIVING IN NEKEMTE TOWN, AND RURAL KEBELES, EASTERN WOLLEGA ZONE OF OROMIYA NATIONAL REGIONAL STATE*

1. IDENTIFICATION

Location (town = 1, rural kebele(p/a) = 2)	[ ][ ]
Kebele code= Derge (01), Cheleleki (02), G/badiya (03), M/Kura (04), Feyinera (05), Kitesa (06), Tokuma (07), A/Fayera (08), Gudisa (09), Mulata(10)	[ ][ ]
Household number	[ ][ ][ ] [ ][ ]
Individual number	[ ][ ]

2. INTERVIEWER VISITS

	1	2	3	Final visit
Date Interviewers code Result***	_____ _____ _____	_____ _____ _____	_____ _____ _____	Date----------
NEXT VISIT DATE TIME LOCATION	_____ _____ _____	_____ _____ _____		Total number of visits [ ]
QUESTIONNAIRES COMPLETED? [ ] 1. None completed ⇒	*** RESULT CODES Refused (specify):……..…….……1 Entire HH absent for extended period…….2 Selected woman refused (specify): ……3 Selected woman not at home…….……..4 Selected woman postponed interview…….5 Selected woman incapacitated……..….6			 ⇒Need to return ⇒Need to return
[ ] 3. Female questionnaire partly ⇒	Does not want to continue (specify) : ……....7 Rest of interview postponed to next visit…....8			⇒Need to return
[ ] 4. Female questionnaire completed ⇒	……..….9			
Language of questionnaire (*1= English, 2= Amharic, 3= Oromiffa)* Language interview conducted in *(1= English, 2= Amharic, 3= Oromiffa)* Quality control interview conducted (1 = yes, 2 = no)				[ ] [ ] [ ]
Field Supervisor Name ---------- Date----------	Questionnaire checked by Name ---------- Date----------	Office Editor Name ----------		Entered By Entry 1: _____ Entry 2: _____

INFORMATION SHEET AND INDIVIDUAL CONSENT FORM

1. **INFORMATION SHEET**

Good morning/ good afternoon! My name is ---------- I am working in a research team (project), which is conducted by Addis Ababa University. We are conducting a survey in --------- sub-city/kebele to learn about women's health and life experiences for ever married or cohabited women of age 15- 49 years. We have permission from authorities of different levels including your area to conduct the study. You have been chosen by chance to participate in the study.

I want to assure you that all of your answers will be kept strictly secret. The information you are going to give us will not be used for other purpose except for this particular research. Therefore we don't write your name or address on this questionnaire so that no one will access it. You have the right to stop the interview at any time, or to skip any questions that you don't want to answer. There is no right or wrong answers. Some of the topics may be difficult to discuss, but many women have found it useful to have the opportunity to talk.

Your participation is completely voluntary but your experiences are very helpful to improve the health status of women in Ethiopia. If you have any question you can ask me now or you can contact the principal investigator through the following telephone address. Sileshi Garoma, Mobile: 0911076012. Or if you want to ask the IRB of the College of Health Sciences: use this land phone: _____. Do you have any questions?

2. **CONSENT FORM**

(The interview takes approximately 1hr and 20minutes to complete). Do you agree to be interviewed?

NOTE WHETHER RESPONDENT AGREES TO INTERVIEW OR NOT

[ ] Does not agree to be interviewed ⟶ thank participant for her time and end

[ ] agrees to be interviewed. Respondent/guardian/parent Sign: _____

↓

Is now a good time to talk?

It's very important that we talk in private. Is this a good place to hold the interview, or is there somewhere else that you would like to go? _____

TO BE COMPLETED BY INTERVIEWER

I certify that I have read the above consent procedure to the participant. Sign: _____

DATE INTERVIEW: day [ ] [ ] month [ ][ ] year [ ][ ][ ][ ]

SECTION 1: QUESTIONS ABOUT THE HOUSEHOLD

No	QUESTIONS & FILTERS	CODING CATEGORIES	Skip
101	If you don't mind, I would like to ask you a few questions about your household. What is the main source of drinking water for your household?	1. Tap/piped water in residence 2. Outside tap (piped water) 3. Public tap 4. Outside / public well 5. Spring water 6. River / stream / pond / lake / dam 7. Other/specify_____ 8. Refused/no answer	
102	What kind of toilet facility does your household have?	1. Own flush toilet 2. Shared flush toilet 3. Ventilated improved pit latrine 4. Traditional pit toilet / latrine 5. River/canal 6. No facility / bush / field 7. Other/specify_____ 8. Refused/no answer	
103	What are the main materials used in the roof? RECORD OBSERVATION	1. Roof from natural materials 2. Rudimentary roof 3. Tiled or concrete roof 4. Corrugated iron 5. Other/specify_____ 6. Refused/no answer	
104	What is the main material of the floor of your house?	1. Natural/earth floor 2. Wood or bamboo floor 3. Finished floor 4. If other specify _____	
105	Does your household have:	Funcional / Non-functional / Do not have	
	1. Electricity	1 / 2 / 8	
	2. Radio	1 / 2 / 8	
	3. Television	1 / 2 / 8	
	4. Telephone	1 / 2 / 8	
	5. Refrigerator	1 / 2 / 8	
	6. Sofa	1 / 2 / 8	
	7. Bicycle	1 / 2 / 8	
	8. Car	1 / 2 / 8	
	9. Cow/Oxen	1 / 2 / 8	
	10. Goat/sheep	1 / 2 / 8	
	11. Mule/donkey/Horse	1 / 2 / 8	
	12. Hen	1 / 2 / 8	
	13. Farm Land	1 / 2 / 8	
106.	How many rooms in your household are used for sleeping?	Number of rooms [ ][ ] 9. Don't know/don't remember/Refused/no	

		answer	
107	How do you perceive your/family wealth or income when compared to your neighbouring?	1. Improved 2. Equal 3. Less than 8. Don't know/don't remember	

SECTION 2: RESPONDENTS AND HER COMMUNITY

No	QUESTIONS & FILTERS	CODING CATEGORIES	Skip to
201	What is your current age?	Age (years) [ ][ ]	
202	Your ethnic group	1. Oromo 2. Amhara 3. Gurage 4. Tigre 5. Other/specify_____	
203	Your religion	1. None 2. Protestant christens 3. Orthodox 4. Muslim 5. Catholic 6. Others/specify_____	
204	Educational status of the respondents What is the highest level of education that you achieved? (***MARK HIGHEST LEVE).***	1. None 2. Read and write 3. Primary (1- 6 grade) 4. Secondary (7- 10/12th grade) 5. Preparatory (11- 12th) 6. Higher (college and above) 8. Refused to answer	
205	Your current occupation	1. Student 2. Housewife 3. Trade activity/private business 4. Government employee 5. House maid 6. Work in private sector 7. Farmer, 8. Household owner 9. Others/specify_____	
206	How long have you been living continuously in COMMUNITY NAME?	Number of years…….. [ ][ ] Month..... [ ] [ ] 99. DK/don't remember	
207	Where did you grown up? PROBE: Before age 15 where did you live longest?	1. This community / town 2. Another rural area / village 3. Another town / city 4. Another country 8. Others/specify_____	
208	Your marital status Have you ever been married or lived	1. Currently married → 2. Living with man, not married (cohabited)	210

	with a male partner?	Currently having a regular partner (sexual relationship), living apart (separated) → 210 3. Divorced → 209 4. Widowed → 210 8. Others/specify_____	
209	Was the divorce / separation initiated by you, by your husband / partner, or did you both decide that you should separate?	1. Respondent 2. Husband / partner 3. Both (respondent and partner) 4. Other/specify_____ 8. DK/RA	
210	How many times have you been married, or lived with a man? (***include current partner if live together)***	Number of times married…..[ ][ ] 88. DK/DR	
211	The next few questions are about your <u>current or most recent</u> partnership. IF CURRENTLY WITH PARTNER: Do you presently live with your husband / partner's parents or any of his relatives?	1. Yes 2. No 8. Refused	
212	IF NOT CURRENTLY WITH PARTNER: Do you <u>presently</u> live with your parents or any of your relatives?	1. Live alone 2. Live with family/relative 8. DK/Refused/no answer	
213	Does /did your husband /partner have any other wives while being married (having a relationship) with you?	1. Yes 2. No 8. Refused/no answer	
214	How many wives do /did he have (including you)?	Number of wives..... [ ][ ] 98. DK/RA	
215	Are / were you the first, second..... Wife for your current husband/partner?	Number /position.....[ ][ ] 88. DK/DR	
216	Have you ever been prevented from attending a meeting or participating in an organization? IF YES, ASK Who prevented you? MARK ALL THAT APPLY LOCALLY SPECIFIC CODES CAN BE ADDED	1. Not prevented 2. Partner / husband 3. Parents 4. Parents in law/parents of partner 5. Other/specify_____	
217	When your husband/partner is not away for work, does he spend most of his time, some of his time, or very little (almost no time) in your house?	1. Most of the time 2. Some of the time 3. Very little time 8. DK/DR	
218	Did you have any kind of marriage ceremony to formalize the union? What type of ceremony did you have? MARK ALL THAT APPLY	1. None 2. Civil marriage 3. Religious marriage 4. Customary marriage 5. Other/specify_____	
219	Did you yourself choose your <u>current</u> / <u>most recent</u> husband, did someone else choose him for you, or did he choose you? IF SHE DID NOT CHOOSE HERSELF, PROBE:	1. Both choose 2. Respondent choose 3. Respondent's family choose 4. Partner choose 5. Partner's family choose	

	Who chose your current / most recent husband for you? IF HER PARTNER CHOSE HER, ASK: Were you abducted by him?	6. Other/specify_____ 7. Abduction/kidnapping 8. DK/Refused/no answer	
220	Did your marriage involve dowry / bride price payment? If yes, who paid?	1. YES / Her family 2. YES / His family 3. YES/Both families 4. NO 8. DK/Refused/no answer	
221	Overall, do you think that the amount of dowry / bride price payment has had a positive impact on how you are treated by your husband and his family, a negative impact, or no particular impact?	1. Positive impact 2. Negative impact 3. No impact 4. Don't know 8. Refused/no answer	

SECTION 3: GENERAL HEALTH CONDITIONS OF RESPONDENTS

No	QUESTIONS & FILTERS	CODING CATEGORIES	Skip to
302	The next questions are related to other common problems that may have bothered you in the past 4 weeks, past one year or during life time. If you had the problem in the specified time, answer yes. If you have not had the problem answer no.		

	past 4 weeks		past 1 year		Life time	
	YES	NO	YES	NO	YES	NO
1. Do you often have headaches?	1	2	1	2	1	2
2. Is your appetite poor?	1	2	1	2	1	2
3. Do you sleep badly?	1	2	1	2	1	2
4. Are you easily frightened?	1	2	1	2	1	2
5. Do your hands shake?	1	2	1	2	1	2
6. Do you feel nervous, tense or worried?	1	2	1	2	1	2
7. Is your digestion poor?	1	2	1	2	1	2
8. Do you have trouble thinking clearly?	1	2	1	2	1	2
9. Do you feel unhappy?	1	2	1	2	1	2
10. Do you cry more than usual?	1	2	1	2	1	2
11. Do you find it difficult to enjoy your daily activities?	1	2	1	2	1	2
12. Do you find it difficult to make decisions?	1	2	1	2	1	2
13. Is your daily work suffering?	1	2	1	2	1	2
14. Are you unable to play a useful part in life?	1	2	1	2	1	2
15. Have you lost interest in things?	1	2	1	2	1	2
16. Do you feel that you are a worthless person?	1	2	1	2	1	2
17. Has the thought of ending your life been on your mind?	1	2	1	2	1	2
18. Do you feel tired all the time?	1	2	1	2	1	2
19. Do you have uncomfortable feelings in your stomach?	1	2	1	2	1	2
20. Are you easily tired?	1	2	1	2	1	2

303	Have you ever chewed Chat?	1. Yes	

		2. No 8. Refused/no answer	
304	Have you ever smoked or chewed tobacco/shiishaa in your life? Daily? (smoking at least once a day) Occasionally? (at least 100 cigarettes, but never daily) Not at all? (not at all, or less than 100 cigarettes in your life time)	1. Daily 2. Occasionally 3. No 8. Refused/no answer	
305	How often do you drink alcohol (beer, Areke, Tella,Tej)?	1. Every day or nearly every day 2. Once or twice a week 3. Never 4. Others/specify_____ 8. Refused/no answer	

SECTION 4: SEXUAL AND REPRODUCTIVE HEALTHS OF RESPONDENTS

401	Have you ever been pregnant?	1. Yes 2. No 3. Maybe/not sure 8. Refused/no answer	 ⇒S.5 ⇒S.5 ⇒S.5
402	Have you ever given birth? How many times? (THIS REFERS TO LIVE BIRTHS)	NUMBER OF BIRTHS [ ][ ] IF 1 OR MORE ⇒ 403 NONE ……00	
403	How many children do you have, who are alive now? RECORD NUMBER	Children …….... [ ][ ] None ……..……00	
404	Have you ever given birth to a boy or a girl who was born alive, but later died? This could be any age. IF NO, PROBE: Any baby who cried or showed signs of life but survived for only a few hours or days?	1. Yes 2. No 8. Refused/no answer	
405	a) How many sons have died? b) How many daughters have died? (THIS IS ABOUT ALL AGES)	A) Sons dead …… [ ][ ] B) Daughters dead…… [ ][ ] If none enter '00'	
406	Do (did) all your children have the same biological father, or more than one father?	1. One father 2. More than one father *3. N/A (never had a live birth)* 8. DK/Refused/no answer	
407	How many of your children receive financial support from their father (s)? Would you say none, some or all?	1. None 2. Some 3. All	
408	How many times have you been pregnant – include pregnancies that did not end up in a live birth? PROBE: How many pregnancies were with twins, triplets?	A) Total number of pregnancy... [ ][ ] B) Pregnancies with twins……..… [ ] C) Pregnancies with triplets……. [ ]	
409	Have you ever had a pregnancy that miscarried, or ended in a stillbirth? PROBE: How many times? PROBE MAY NEED TO BE LOCALLY ADAPTED	A) Miscarriages …… [ ][ ] B) Stillbirths ……..… [ ][ ] C) Abortions…….. [ ][ ] If none enter ……'00'	
410	Are you pregnant now?	1. Yes	

		2. No 3. Maybe	
411	Have you ever used anything, or tried in any way to delay or avoid getting pregnant?	1. Yes 2. No **3.** Never had intercourse 8. Refused/no answer	
412	Are you currently doing something, or using any method, to avoid getting pregnant?	1. Yes 2. No 8. Refused/no answer	
413	What (main) method are you currently using? IF MORE THAN ONE, ONLY MARK MAIN METHOD	1. Pill/tablets 2. Injectable 3. Implants 4. IUCD 5. Diaphragm / foam / jelly 6. Calendar/mucus method 7. Female sterilization 8. Condoms (male/female) 9. Male sterilization 10. Withdrawal 11. Breast feeding 88. Refused/no answer	
414	Does your current husband/partner know that you are using a method of family planning?	1. Yes 2. No 3. N/a: no current partner 8. Refused/no answer	
415	Has / did your current / most recent husband/partner ever refused to use a method or try to stop you from using a method to avoid getting pregnant?	1. Yes 2. No 8. Refused/no answer	 417 417
416	In what ways did he let you know that he disapproved of using methods to avoid getting pregnant? MARK ALL THAT APPLY	1. Told me that did not approve 2. Shouted / got angry 3. Threatened to beat me 4. Threatened to leave / throw me out of home 5. Beat me/ physically assaulted 6. Took or destroyed method 7. Other	
417	Have you ever used a condom with your current / most recent partner to prevent disease?	1. Yes 2. No 8. DK/RA	419
418	Have you ever asked your current / most recent partner to use a condom?	1. Yes 2. No 8. DK/RA	
419	Has/did your current / most recent husband/partner ever refuse to use a condom to prevent disease?	1. Yes 2. No 8. DK/RA	 421 421
420	In what ways did he let you	1. Told me that did not approve	

	know that he disapproved of using a condom? MARK ALL THAT APPLY	2. Shouted / got angry 3. Threatened to beat me 4. Threatened to leave / throw me out of home 5. Beat me / physically assaulted 6. Took or destroyed method 7. Accused me of being unfaithful 8. Laughed at me/not take serious 9. Said it is not necessary 10. Other/specify_____		
421	Did you experience any of the following during Lifetime? MARK ALL THAT APPLY	1. Unintended Pregnancy 2. Trauma (injury) in the genitalia 3. Ulcer in the genitalia 4. Unusual discharge from the genitalia 5. Swelling around the genitalia 6. Lower abdominal pain 7. Burning sensation of urination 8. Vaginal itching 9. Others specify_____	Yes 1 1 1 1 1 1 1 1 1	No 2 2 2 2 2 2 2 2 2
422	What was the outcome of that pregnancy?	1. Current pregnant 2. Abortion 3. Miscarriage 4. Live birth 5. Still birth		
427	Do you think you can get AIDS?	1. Yes 2. No		
428	Why do you say no? Or why do you say yes?			

SECTION 5: CHILDREN'S CONDITION

501	Have you ever given birth?	1. Yes 2. No 8. Refused/no answer	 S. 6 S. 6
502	I would like to ask about the last time that you gave birth (regardless of whether the child is still alive or not)? What is the date of birth of this child? ETHIOPIAN CALENDER	Day …….. [ ][ ] Month……..…. [ ][ ] Year……. [ ][ ][ ][ ]	
503	What name was given to your last born child? Is this the child's permanent name? Is (NAME) a boy or a girl?	NAME: _____/_____ /_____ 1. BOY 2. GIRL	
504	Is your last born child (NAME) still alive?	1. YES 2. NO	 ⇒506
505	How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS CHECK AGE WITH BIRTH DATE	Age in years……..…… [ ][ ] If not yet completed one year .00	

506	How old was (NAME) when he/she died?	Years …….. [ ][ ] Months (if less than one year)….. [ ][ ] Days (if less than one month) …..[ ][ ]	
507	Check if date of birth of last child (in Q 502) is more or less than five years ago	1. Five or more years ago 2. Less than five years ago	
508	I would like to ask you about your <u>last pregnancy</u>. At the time you became pregnant with this child (NAME) had you have interest to become pregnant?	1. Become pregnant then 2. Wait until later 3. Not want children 4. Not mind either way 8. DK/RA	
509	At the time you became pregnant with this child (NAME), did your husband /partner want you to become pregnant then, did he want to wait until later, did he want no (more) children at all, or did he not mind either way?	1. Become pregnant then 2. Wait until later 3. Not want children 4. Not mind either way 8. DK/RA	
510	When you were pregnant with this child (NAME), did you see anyone for an antenatal check? If yes, Whom did you see? Anyone else? MARK ALL THAT APPLY	1. No one 2. Doctor 3. Obstetrician / gynaecologist 4. Nurse / midwife 5. Assistant nurse 6. Traditional birth attendant 7. Trained TBA, 8. HEW 9. Other/specify_____	
511	Did your husband/partner stop you, encourage you, or have no interest in whether you received antenatal care for your pregnancy?	1. Stop 2. Encourage 3. No interest 8. DK/RA	
512	When you were pregnant with this child, did your husband / partner have preference for a son, a daughter or did it not matter to him whether it was a boy or a girl?	1. Son 2. Daughter 3. not matter 8. DK/RA	
513	During this pregnancy, did you consume any alcoholic drinks (ARAKE, TEJ OR TELLA)?	1. Yes 2. No 8. DK / DR/RA	
514	During this pregnancy, did you consume any KHAT?	1. Yes 2. No 8. DK / DR/RA	
515	During this pregnancy, did you smoke any cigarettes/shishaa or use tobacco?	1. Yes 2. No 8. DK / DR/RA	
516	Were you given a (postnatal) check-up at any time during the six weeks after delivery?	1. Yes 2. No 3. No, child not yet six weeks old 8. DK/DR/RA	
517	Was this child (NAME) weighed at birth?	1. Yes	

		2. No 8. DK / DR/RA	⇒519 ⇒519
518	How much did he/she weigh? RECORD FROM HEALTH CARD WHERE POSSIBLE	1. Kg from card [ ][ ] 2. Kg from recall [ ][ ] 8. DK / DR/RA	
INFORMATION ON THE DECEASED AND DATE/PLACE OF DEATH			
519	Was the deceased female or male?	1. Female 2. Male	
520	When was the deceased born?	Date/Month/Year_____ 88. DK the day or month 99. DK the year	
521	How old was the deceased when s/he died?	Age in years/days_____	
522	When did s/he die?	Date /Month/Year _____ 88. DK the day or month 99. DK the year	
523	Where did s/he die?	1. Hospital 2. Other health facility 3. Home 4. Other (specify)_____ 5. Don't know	
RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO DEATH			
524	Could you tell me about the illness/events that led to her/his death? Signs and symptoms _____ _____ _____		
525	CAUSE OF DEATH 1 ACCORDING TO RESPONDENT_____		
526	CAUSE OF DEATH 2 ACCORDING TO RESPONDENT_____		

SECTION 6: CURRENT OR MOST RECENT PARTNER

601	I would now like you to tell me a little about your <u>current</u> / <u>most recent</u> husband / partner. How old was your husband / partner on his last birthday?	Age (years) [ ][ ] DK/DR…….....88	
602	Partners level of education	1. None 2. Read and write 3. Primary (1- 6 grade) 4. Secondary (7- 10/12th grade) 5. Preparatory (11- 12th) 6. Higher (college and above) 8. Refused to answer	
603	Partners Occupation	1. No work 2. Professional: 3. Semi-skilled: 4. Unskilled / manual: 5. Military/police: 6. Petty trader	

		7. Student 8. Farmer 9. Retired 10. Others/specify_____	
604	During the last 12 months (or in last 12 months of relationship if separated) about how many months did your husband/partner live away from home because of work? (IF LESS THAN 1 MONTH, MARK 00)	Number of months [ ] [ ] 88. DK/DR/RA	
605	How often does/did your husband/partner drink alcohol (Areke,Tella,Tej)?	1. Every day or nearly every day 2. Once or twice a week 3. 1 – 3 times in a month 4. Less than once a month 5. Never 8. DK/DR/RA	
606	In the <u>past 12 months</u> (during the <u>last 12 months</u> of your relationship), have you experienced any of the following problems, related to your husband/partner's drinking?	a) money problems b) family problems c) other: specify	Yes 1 1 1 / No 2 2 2
607	How often does/did your husband/ partner use drugs / chat/shisha?	1. Every day or nearly every day 2. Once or twice a week 3. 1 – 3 times in a month 4. Less than once a month 5. Never 8. DK/DR	
608	<u>Since you have known him</u>, has he ever been involved in a physical fight with another man?	1. Yes 2. No 8. DK/RA/DR	 ⇒610 ⇒610
609	In the <u>past 12 months</u> (in the <u>last 12 months</u> of the relationship), has this happened never, once or twice, a few times or many times?	1. Never 2. Once or twice 3. A few (3-5) times 4. Many (more than 5) times 8. DK/RA/DR	
610	Has your <u>current</u> / <u>most recent</u> husband / partner had a relationship with any other women (other than another wife) while being with you?	1. Yes 2. No 3. May have 8. DK/RA/DR	 **⇒S.7** **⇒S.7**
611	Has your <u>current</u> / <u>most recent</u> husband / partner had children with any other woman (other than another wife) while being with you?	1. Yes 2. No 3. May have 8. DK/RA/DR	

SECTION 7: ATTITUDES TOWARDS GENDER ROLES AND IPVAW

In this community and elsewhere, people have different ideas about families and what is acceptable behaviour for men and women in the home. I am going to read you a list of statements, and I would like you to tell me whether you generally agree or disagree with the statement. There is no right or wrong answers.

	Questions	Agree	Disagree	DK	Refused/NA
701	A good wife obeys her husband even if she disagrees	1	2	8	9
702	Family problems should only be discussed with people in the family.	1	2	8	9
703	It is important for a man to show his wife/partner who is the boss	1	2	8	9
704	A woman should be able to choose her own friends even if her husband disapproves	1	2	8	9
705	It's a wife's obligation to have sex with her husband even if she doesn't feel like it	1	2	8	9
706	If a man mistreats his wife, others outside of the family should intervene.	1	2	8	9

		Yes	No	DK
707	In your opinion, does a man have a good reason to hit his wife if:			
	1. She does not complete her household work to his satisfaction	1	2	8
	2. She disobeys him	1	2	8
	3. She refuses to have sexual relations with him	1	2	8
	4. She asks him whether he has other girlfriends	1	2	8
	5. He suspects that she is unfaithful	1	2	8
	6. He finds out that she has been unfaithful	1	2	8
	7. Use contraceptives without his knowledge	1	2	8
708	In your opinion, can a married woman refuse to have sex with her husband if:	Yes	No	DK
	1. She doesn't want to	1	2	8
	2. He is drunk	1	2	8
	3. She is sick	1	2	8
	4. He mistreats her.	1	2	8
	5. He don't love her	1	2	8

SECTION 8: RESPONDENTS AND HER PARTNER (HISTORY OF IPVAW)

I would now like to ask you some questions about your current and past relationships and how your husband /partner treat (treated) you.

801	In your relationship with your (current or most recent) husband / partner, how often would you say that you quarrelled? Would you say rarely, sometimes or often?	1. Rarely 2. Sometimes 3. Often 8. DK/RA

		Yes	No	DK
802	I am now going to ask you about some situations that are true for many women. Thinking about your (current or most recent) husband / partner, would you say it is generally true that he:			
	1. tries to keep you from seeing your friends (Seeing friends)	1	2	8
	2. tries to restrict contact with your family of birth (Contact family)	1	2	8
	3. insists on knowing where you are at all times (Wants to know)	1	2	8
	4. ignores you and treats you indifferently (Ignores you)	1	2	8
	5. gets angry if you speak with another man (Gets angry)	1	2	8
	6. is often suspicious that you are unfaithful (Suspicious)	1	2	8
	7. expects you to ask his permission before seeking health care for yourself (Health centre)	1	2	8

803 – 805	The next questions are about things that happen to many women, and that your current partner, or any other partner may have done to you. I want you to tell me if your <u>current</u> husband / partner, or <u>any</u> other <u>partner</u>, has ever done the following things to you.	A) (If **YES** continue with **B.** If **NO** skip to next item) YES NO	B) Has this happened <u>in the past 12 months</u>? (**If YES ask C only. If NO ask D only**) YES NO	C) <u>In the past 12 months</u> would you say that this has happened once, a few times or many times? (**after answering C, skip D)** 1 2-5 >5 One Few Many	D) <u>Before the past 12 months</u> would you say that this has happened once, a few times or many times? 1 2-5 >5 One Few Many
803- Psychological abuse					
1. Insulted you or made you feel bad about yourself?		1 2	1 2	1 2 3	1 2 3
2. Belittled or humiliated you in front of other people?		1 2	1 2	1 2 3	1 2 3
3. Did things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)?		1 2	1 2	1 2 3	1 2 3
4. Threatened to hurt you or someone you care about?		1 2	1 2	1 2 3	1 2 3
804- Physical Violence					
1. Slapped you or threw something at you that could hurt you?		1 2	1 2	1 2 3	1 2 3
2. Pushed you or shoved you?		1 2	1 2	1 2 3	1 2 3
3. Hit you with his fist or with something else that could hurt you?		1 2	1 2	1 2 3	1 2 3
4. Kicked you, dragged you or beat you up?		1 2	1 2	1 2 3	1 2 3
5. Choked or burnt you on purpose?		1 2	1 2	1 2 3	1 2 3
6. Threatened to use or actually used a gun, knife or other weapon against you?		1 2	1 2	1 2 3	1 2 3
805- Sexual Violence					
1. Physically forced you to have sexual intercourse		1 2	1 2	1 2 3	1 2 3

when you did not want to? 2. Did you ever have sexual intercourse you did not want because you were afraid of what he might do? 3. Did he ever force you to do something sexual that you found degrading or humiliating?	1 2 1 2	1 2 1 2	1 2 3 1 2 3	1 2 3 1 2 3	
806	Verify whether answered yes to any question on emotional abuse, **see question 803**	1. Yes emotional abuse 2. No emotional abuse			
807	Verify whether answered yes to any question on physical violence, **see question 804**	1. Yes, physical violence 2. No physical violence			
808	Verify whether answered yes to any question on sexual violence, **see question 805**	1. Yes, sexual violence 2. No sexual violence			
809	You said that you have been pregnant TOTAL times. Was there ever a time when you were beaten or physically assaulted by (<u>any</u> of) your partner(s) whilst you were pregnant?	1. Yes 2. No 8. Don't know		⇒ *816* ⇒ *816*	
810	If respondent was pregnant once, enter 1 and go to 811. If respondent was pregnant more than once: Did this happen in one pregnancy, or more than one pregnancy? In how many pregnancies were you beaten?	Number of pregnancies beaten [ ][ ]			
811	Were you ever punched or kicked in the abdomen whilst you were pregnant?	1. Yes 2. No 8. Don't know			
IF VIOLENCE REPORTED IN MORE THAN ONE PREGNANCY, THE FOLLOWING QUESTIONS REFER TO THE LAST / MOST RECENT PREGNANCY IN WHICH VIOLENCE REPORTED					
812	During the <u>most recent pregnancy in which you were beaten</u>, was the person who beat you the father of the child?	1. Yes 2. No 8. Don't know			
813	Were you living with this person when it happened?	1. Yes 2. No 8. Don't know			
814	Had the same person beaten you before you were pregnant?	1. Yes 2. No 8. Don't know		⇒ *816* ⇒ *816*	
815	Compared to before you were pregnant, did the violence get less, stay about the same, or get worse whilst you were pregnant?	1. Got less 2. Stayed about the same 3. Got worse 8. DK/DR/NA			

816	Number of marriage	1. One 2. Two 3. Three and more 8. DK/DR/NA	⇒S.9
817	Which one is ever physically, psychologically, and sexually violent you	1. The fist 2. The second 3. Three and more 4. All 8. DK/Refused/no answer	

SECTION 9: INJURIES

I would now like to learn more about the injuries that you experienced from (any of) Your partner's violence. By injury, I mean any form of physical harm, including cuts, sprains, burns, broken bones or broken teeth, or other things like this.

901	Have you ever been injured as a result of violence/abuse by (one of) your (current or former) husband / partner(s)	1. Yes 2. No 8. Don't know	 ⇒S.10 ⇒S.10
902	In your life, how many times were you injured by (any of) your husband/ partner? Would you say once or twice, several times or many times?	1. Once/twice 2. Several (3-5) times 3. Many (more than 5) times 8. Don't know	
903	Has this happened in the past 12 months?	1. Yes 2. No 8. Don't know	

904a	What type of injury did you have? MARK ALL PROBE: Any other injury? During life time		904 b) only ask for responses marked in 903a: Has this happened in the past 12 months?	
		1. Cuts, punctures, bites	YES 1	NO 2
		2. Scratch, abrasion, bruises	1	2
		3. Sprains, dislocations	1	2
		4. Burns	1	2
		5. Penetrating injury, deep cuts, gashes	1	2
		6. Broken eardrum, eye injuries	1	2
		7. Fractures, broken bones	1	2
		8. Broken teeth	1	2
		9. Other/specify____	1	2

905	Did you ever lose consciousness because of what your partner did to you? IF YES For how long? More or less than one hour?	1. Yes, less than 1 hour 2. Yes, more than 1 hour 3. No 8. Don't know	 **⇒907** **⇒907**
906	Has this happened in the past 12 months?	1. Yes 2. No 8. Don't know	
907	Were you ever hurt badly enough that you needed health care? IF YES: How	Times needed health care [ ][ ] 98. Yes, but don't know	

	many times?	00. Not needed	⇒**S.10**
908	Did you ever receive health care for your injury? IF YES All of the time, or sometimes?	1. Yes sometimes 2. Yes always 3. No 8. DK/DR/NR	 ⇒**S.10** ⇒**S.10**
909	For your injury, did you have to spend any nights in a hospital? IF YES: How many nights?	Number of nights in hospital. [ ][ ] If none enter '00'	
910	Did you tell a health worker the real cause of your injury?	1. Yes 2. No 8. Don't know	

SECTION 11: OTHER EXPERIENCES

	If you don't mind, I would like to ask you about some situations. Everything that you say will be kept private. May I continue?		
1101	How old were you when you first had sex?	Age in years (more or less) …….. [ ][ ] DK/DR.....……..…….....98	⇒**1106**
1102	With whom you experienced sexual intercourse for the first time (lost virginity)? PROB- very carefully	1. Current partner 2. Former partner 3. Casual partner 4. Other/specify_____ 8. DK/DR	
1103	How would you describe the first time that you had sex? Would you say that you wanted to have sex, you did not want to have sex but it happened anyway, or was you forced to have sex?	1. Wanted to have sex 2. Transactional/incentive 3. Forced to have sex 4. Deception 1. DK/DR	
1104	When you were a child, was your mother hit by your father (or her husband or boyfriend)?	1. YES 2. NO 3. Parents did not live together 8. DK/DR	
1105	As a child, did you see or hear this violence?	1. YES 2. NO 8. DK/DR	
1106	As far as you know, was your (most recent) partner's mother beaten by her husband?	1. Yes 2. No 3. Parents did not live together 8. DK/RA	
1107	Did your (most recent) husband / partner see or hear this violence?	1. YES 2. NO 8. DK/DR	
1108	As far as you know, was your (most recent) husband/partner himself beaten regularly by someone in his family?	1. YES 2. NO 8. DK/DR	

ANEX 3: Oromifa version of quantitative questionnaire

Universitii Finfinnee, koollajjii Saayinsii Fayyaatti, Mana Barumsaa Fayyaa Hawwaasaa Gaaffiilee waa'ee fayyaa dubartoota umuriin isaanii 15 hanq 49 ta'e magaala naqamtee fi gandoota baadiyyaa naannoo jiraatani keessatti qorachuuf kan qophaa'e, Amajii hanga bitootessa, 2011.

1. **Addaan Baafanno**

Bakka = Magaala (01), ganda baadiyaa (02)	[ ][ ]
Kooddii Gandaa= Dargee (01), Calalaqii (02), G/badiyya (03), M/Kura (04), Fayinera (05), Kitesa (06), Tokkumma (07), A/Fayera (08), Gudisa (09), Mul'ata(10)	[ ][ ]
Lakk. Mana	[ ][ ][ ] [ ]
Lakk. Nama gaafatamuu	[ ][ ] [ ][ ]

2. **Unka/Waraqaa Odefannoo**

Akkam bultani/ooltani. Ani maqaan koo……Universiitii Finfinneetti koollajjii Saayinsii Fayyaatti, Mana Barumsaa Fayyaa Hawwaasaa keessatti qorannoo warra adeemsisaa jiru wajjin hojechaa nan jira. Yeroo ammaa magaala naqamteefi gandoota baadiyyaa naannoo isheetti argamani keessatti waa'ee fayyaa dubartootaa irratti kan xiyyeeffate qorannoo adeemsisaa jirra. Isin immo irratti akka hirmaattaniif carraan isin baseera/ga'eera.

Kaniin isinii mirkaneessuu barbaadu, deebbiin isin naaf deebstani hundi iccitidhaan eegama. Darbees immoo ragaan kuni maqaafi teessotiin hintaa'u. Akkasumas isinis immoo gaaffii hinbarbaadne dhiisuu, bira darbuu, callisuufi addaan kuttanii dhiisu nidandeessu. Deebbiin kuni dhugaadha, sobadha kanjedhus hinjiru. Gaafileen tokko tokko deebisuuf dhibsiissa ta'uu danda'a, garuu dubartoonni hedduun barbaachisaa ta'uu isaa waan mirkaneessaniif carraa kanatti fayyadamnee isin gaafachuun gaariidha. Hirmannaan keessan fedhii irratti kan hundaa'e yeroo ta'u deebbiiniifi muuxannoon keessan dubartoota Itoopiyaa hundaaf kanfayyadudha. Gaaffi yoo qabdu ta'e nagaafachuu ni dandeessu. Yookaan immoo qo'ataa qorannoo kanaa lakkoofsa bilbilaa 0911076012 bilbiltanii gaafachuu ni dandeessu. Dhimma kana irratti gaaffii qabduu?

3. **Unka Waliigaltee/Eeyyamaa**

Gaafileen kuni guunnee xumurudhaaf tilmamaan daqiqaa soddomaa hanga afurtamii shaniitti fudhachuu danda'a. Namni ille gidduutti yoo nutti dhufe haasaa keenya waan biraatti geedarruu dandeenya. Akkasumas annis tanaan waan si gaafadhee atti naaf deebistu iciitiidhaan eeguuf waadaa siif nan gala. Attis waan tokko illee ossoo hin sodatiin ifaa ta'aati natti himaa. Kanaafuu, gaafatamuuf fedhii qabduu? Fedhii qabaachuufi dhiisuu isaani mirkaneessi

[ ] gaafatamuuf fedhii hinagarsiifne ⟶ galatoomsadhaati gara biraa deemaa

[ ] gaafatamuuf fedhii agarsiisaniiru ↓

Itt fufuuf yeroo gariidha? ↓

Egaa qofaatti mariyachuun gaariidha. Kanaafuu iddoon kuni gariidhamoo iddoo biraa siif ta'u deemna?

4. Gaafficha Gaafatuun Kan Guutamu

Odeeffannoofi waligaltee armaan olitti barreeffamani siriitti isaanii dubbisuuko mallattokotiin nan-mirkaneessa.

Maqaafi mallattoo_____Guyyaa_____

To'ataa dirree hojjii irratti, Maqaa fi mallattoo_____Guyyaa_____

Kutaa 1ffaa: Gaaffii Waa'ee Haala Jireenya Maatii Ilaalchisee

Lakk	Gaaffii fi calaluu	Gosa Kooddii	Darbuu
101	Maddi bishaan dhugaatii maatii keessani maalidha?	1. Boombaa (Hujummoo) mana keessaa 2. Boombaa (hujummoo) diidaa 3. Boombaa (hujummoo) Ummataa 4. Bishaan boollaa, diidatti ummata wajjin 5. Burqaa bishaanii (kan lagaa) 6. Bishaan lagaa yaa'u, kuufama, hidhaa bishaanii 7. Kan biroo/ibsi_____ 8. Ni didde/ hin-beeku	
102	Maatiin keessan mana fincaani maalitti fayyadamu?	1. Mana fincaan dhunfa bishaniin hojjetu 2. Kan bishaniin hojjetu ummata wajjin 3. Kan ammayyaa (qilleensa gashuufi baasu),VIP 4. Mana fincaanii boollaa kan aadaa 5. Bo'ootiin kan lagatti ba'u 6. Hiqabnu/ bosonattii/ borqiittii 7. Kan biroo/ibsi_____ 8. Ni didde/ hin beeku	
103	Baaxxii (roof) mana keessani maal irraa hojjetameera? (***Kan ijaan argite guuti***)	1. Baaxii muka uumamaa (citaa) irraa hojjetame 2. Baaxii bilchataa hintaane (Godoo) 3. Plaastikii ykn suphee irraa kan hojjetame 4. Qorqorroo irraa kan hojjetame 5. Kan biroo/ibsi_____ 8. Ni didde/deebbi hin qabu	
104	Lafti mana keessani maal irraa kan hojjetamedha?(floor)	1. Lafa uumamaa(biyyoo) 2. Muka iraa(xaawulaa) 3. Simintoo irraa(Liishoo) 4. Kan biraa/ibsi _____	

105	Manni jireenyaa keessan kan armaa gadii qaba?		**Kan hojjetu**	**Kan hin hojjenne**	**Hinqabnu**
		1. Ibsaa elektrikaa	1	2	8
		2. Raadiyoonii	1	2	8
		3. Televisiinii	1	2	8
		4. Bilbila mana	1	2	8
		5. Firiijii/qorisiisaa	1	2	8
		6. Soofaa	1	2	8

		7. Biskileettii	1	2	8
		8. Konkolaataa	1	2	8
		9. Saawwa/Sangaa	1	2	8
		10. Re'ittii/Hoolaa	1	2	8
		11. Gaangee/harree/Farda	1	2	8
		12. Hindaaqqoo	1	2	8
		13. Lafa qotisaa	1	2	8
106	Manni maatii keessani kutaa ciisichaa meeqa qaba?	Bay'ina kutaa ciisichaa……[ ][ ] 9. Hin beeku/ deebbi hinqabu			
107	Qabeenya ykn maallaqa kan kee/maatiikee akka naannoo ykn ollaa keessaniitti yeroo ilaaltu akkam sitti fakkaata?	1. Ollaa ykn naannoo irraa kanfoyyaa'e 2. Ollaa ykn naannoo wajjin kan walgite 3. Ollaa ykn naannoo irraa gadi 8. Hin beeku/ deebbi hinqabu			

Kutaa 2^{ffaa}: <u>Deebii Kennituufi Hawwaasa Ishee</u>

Lakk	Gaaffii fi calaluu	Gosa Kooddii	Darbuu
201	Umuriin kee yeroo amma meeqa?	Umurii (waggaatiin) [ ][ ]	
202	Sabummaa/Qomoon kee maalii?	1. Oromoo 2. Amaraa 3. Guraagee 4. Tigiree 5. Kan biroo/ibsi_____	
203	Amantiin kee maalii?	1. Hiqabu 2. Protestaantii 3. Orthodoksii 4. Islaama 5. Kaatolikii 6. Kan biroo/ibsi_____	
204	Haalli barumsaa kee hoo? Hanga kutaa meeqaatti baratteetta? Isa olaanaa barreessi.	1. Hin baranne 2. Barressuufi dubbisuu 3. Sadarkaa 1^{ffa} (kutaa 1 hanga 6) 4. Sadarkaa 2^{ffa} (kutaa 7 hanga 10/12) 5. Qophaa'ina (11- 12) 6. Sadarkaa ol-aanaa (kollejjiifi isaa ol) 8. Ni didda/deebbi hinqabu	
205	Hojiin kee yeroo ammaa hoo?	1. Barattuu 2. Haadha manaa 3. Hojii daldaluu 4. Hojjettuu mootummaa 5. Hojjettu mana namaa 6. Dhaabbata dhunfa keessa hojjedha 7. Qotee bulaa 8. Hadha warraa (household owner) 9. Kan biroo/ibsi_____	
206	Hawwaasa naanno kana keessa	Baay'ina wagaa…….... [ ][ ]	

	wagga meeqa jiratteeta?	Ji'a.....[ ] [ ] 99. Hinbeeku/Hinyaadadhu	
207	Eessatti guddatte? (***Itti fufiiti wagga 15 dura yeroo dheeraaf eessa jiraatte jedhii gaafadhu***)	1. Hawwaasa kana/magaala kana 2. Ganda baadiyyaa biroo 3. Magaala biroo 4. Biyya biraa 8. Kan biraa/ibsi_____	
208	Haalli heeruma kee hoo?	1. Yeroo ammaa heerumeen jira → 210 2. Hin heerumne garuu jaallallee koo wajjin jirachaan jira → 210 3. Heerumeera ykn jalallee qaba, garuu wal irraa fagannee jiraachaa jirra (separated) → 210 4. Wal-hiikneerra (divorced) → 209 5. Najalaa du'ee jira (widowed) → 210 8. Kan biraa/ibsi_____	
209	Wal-hiiktaniittu /garaagara baataniittu yoo ta'e, akka walhiiktaniif ykn akka gargarbaataniif kan murteesse eenyu?	1. Ana 2. Aba manaa koo 3. Lamaan keeyna 4. Kan biroo/ibsi_____ 8. Hin beeku/Hin yaadadhu	
210	Si'a meeqa heerumteetta ykn hiriyyaa dhiiraa meeqa wajjin jiratteetta? (***Kan ammaa wajjin jiraattu yoo jira ta'e***)	Lakkoofsaan……. [ ][ ] 98. Hin beeku/Hinyaadadhu	
211	Yeroo ammaa abba manaa kee ykn fira abba manaa wajjin jiraattaa?	1. Eeyyee → 213 2. Lakki 8. Ni didde/deebbi hin qabu	
212	Yeroo ammaa abba manaa/hiriyyaa wajjin yoo hin jirttu ta'e: eeynu wajjin jiraata?	1. Qofaa koo 2. Fira/warra koo waajin 8. Ni didde/deebbi hin qabu	
213	Abbaan mana/hiriyyaan kee yeroo si fudhe/si wajjin jiraachuu jalqabe haadha manaa ykn hiriyyaa gara biraa qaba turee?	1. Eeyyee 2. Lakki 8. Hin beeku/Hin yaadadhu	
214	Haadha mana meeqa qaba/durii jalqabee (siwajjiniin)?	Bay'ina haadha manaa [ ][ ] 98. Hinbeeku/Hinyaadadhu	
215	Ati abbaa manaa/jaalallee kee ammaaf haadha manaa/ jaalallee meeqaffaadha?	Baay'ina/Sadarkaa... [ ][ ] 98. Hin beeku/Hin yaadadhu	
216	Akka walga'ii ykn waldaa adda addaa keessatti hin hirmaanne dhorkamtee beektaa? Yoo eeye ta'e, eenyu sidhorke? Kandeebi'e hundumaa barreessi ykn akka kooddi naannootti itti dabaluun ni danda'ama	1. Dhorkamee hin beeku 2. Aba mana 3. Maatii 4. Maatii aba manaa 5. Kan biroo/ibsi_____	
217	Abbaan manaa ykn jalalleen kee gaafa hojii hin deemne hangam yeroo isaa manatti dabarsa?	1. Yeroo baay'ee 2. Yeroo muraasa 3. Yeroo xiqqoo 8. Hin beeku/Hin yaadadhu	
218	Haala gaa'ela keessan	1. Hin raawwanne	

	beeksisudhaaf sirna gaa'ela keessanii raawwattaniittuu? Haala kamiin? Kan deebi'ee hundumaa gaafadhu	2. Seera fuudhaafi heeruma mana qopheessaa(Civil arriage) 3. Seera amantaatiin (Religious marriage) 4. Akka aadaatiin (Customary marriage) 5. Kan biro/haa'ibsamu_____	
219	Abbaa mana ykn jaalallee yeroo ammaa wajjin jiraattu eenyutu siif filee ture? Offi ishee yoo hin filanne ta'e, sirriitti gaafadhu: Eeynutu siif file?	1. Lamaan keenya 2. Ofii koo 3. Maatii koo 4. Abba manaa/jaalallee koo 5. Maatii abbaa manaa koo 6. Kan biro/ibsi_____ 7. Butiidhaan 8. Hin beeku/Hin yaadadhu	
220	Haalli fuudhaafi heeruma keessanii mana ka'aa/xilooshaa qaba turee? Yoo eyyee ta'e eeynutu kaffale?	1. Eeyye /maatii koo 2. Eeyye /maatii abba manaa koo 3. Eeyye /maatii lamaan keeynaa 4. Lakki 8. Hin beeku/Hin yaadadhu	
221	Akka walii galaatti sababa mana ka'aa/xilooshaa gaa'ela keessanii ilaalchisee abba mana ykn maati isaatiin dhiibbaan jiru akkami?	1. Karaa gaarii (positive influence) 2. Dhiibbaa gadhee(Negative influence) 3. Dhiibbaa Homaa iyyuu hin qabu 8. Hin beeku/Hin yaadadhu	

Kutaa 3ffaa: Haala Fayyaa Gaafatamtuu Akka Waligalaatti

Lakk	Gaaffii fi calaluu	Gosa Kooddii	Darbuu
301	Kanatti ansudhaan immoo ji'a darbe, waggaa darbeefi umuri kee guutuu keessatti waan armaan gadii siqunnamee beeku nan sigaafadha. Yoo siqunnameera ta'e "**eeyyee**" yoo hinqunname ta'e moo "**Lakki**" jedhi.		

	Ji'a darbe		Waggaa darbe		Umurii keessatti	
	Eye	laki	Eye	laki	Eye	laki

1. Mataa dhukubbii qabda turtee?			1 2 1 2 1 2
2. Fedhii midhaan nyaachuu dhabuu si qunnamee beekaa?			1 2 1 2 1 2
3. Hirriba dhabdee beektaa?			1 2 1 2 1 2
4. Salpaatti sodaan sitti dhaga'ama turee?			1 2 1 2 1 2
5. Harkikee si hollatee beekaa?			1 2 1 2 1 2
6. Waanti si dhippisuufi si aarsu si qunnamee beeka?			1 2 1 2 1 2
7. Midhaan nyaattu garaatii socho'u didee si rakkisee beekaa?			1 2 1 2 1 2
8. Sammuun kee akka sirriitti akka hinyaadne kan sigodhu tureeraa?			1 2 1 2 1 2
9. Gamachuun sitti hin dhaga'amu turee?			1 2 1 2 1 2
10. Booy- booyi si jedhee beekaa?			1 2 1 2 1 2
11. Hojii kee yeroo hundaatti gammachuu dhabda turtee?			1 2 1 2 1 2
12. Murtoon koo hundi gadheedha jettee yaaddee beektaa?			1 2 1 2 1 2
13. Hojiin iddilee kee makarsaa/gidirsaadhaa?			1 2 1 2 1 2
14. Jireenya keetti barbaachisaa kanta'e xabachuu hin dandeeyne?			1 2 1 2 1 2
15. Dhimma adda addaa irratti fedhii dhabdee beektaa?			1 2 1 2 1 2
16. Akka nama gatii/faayidaa hinqabneetti sitti dhaga'amee beekaa?			1 2 1 2 1 2
17. Of- balleessun/of-ajjeessuun sammuu keetti dhufee beekaa?			1 2 1 2 1 2
18. Yeroo hunda dadhabbiin sitti dhaga'amee beekaa?			1 2 1 2 1 2
19. Garakee keessa halli hin-mijoofne akka hinjirretti sitti dhaga'amaa?			1 2 1 2 1 2
20. Salphaatti dadhabbiin sitti dhaga'amaa			1 2 1 2 1 2
302	Caatii qaamtee beektaa?	1. Eeyyee 2. Lakki 8. Ni didde/deebbi hin qabu	
303	Umurii kee keessatti sijaaraa xuuxxee ykn tinboo alalfattee beektaa?	1. Guyaa, guyyaatti 2. Darbee, darbee (guyyaa _____) 3. Lakki, 4. Kan biraa/ibsii_____ 8. Hin beeku/Hin yaadadhu	
304	Dhugaatii (biiraa, araqee, farsoo, daadhii) ni dhugdaa? ***(Nidhugda yoo ta'e ammam jedhiiti gaafadhu)***	1. Gon kuma hin-dhugu →	K.4
		2. Guyyaa, guyyaatti	
		3. Torbeetti guyyaa tokko ykn lama	
		4. Ji'atti guyyaa tokkoo hanga sadiitti	
		5. Darbee,darbee ji'atti guyyaa tokkoo	
		8. Ni didde/deebbi hin qabu	

Kutaa 4ffaa: <u>Haala Saalqunnamtiifi Hormaata Fayyaa Gaafatamtuu (Sexual and R. Health)</u>

401	Ulfa taatee beektaa?	1. Eeyyee 2. Lakkii → 3. Tarii → 8. Ni didde/deebbi hin qabu →	 K.5 K.5 K.5
402	Deessee beektaa? Si'a meeqa? kan lubbuun dhalate jechuudha)	Da'umsa si'a meeqa [ ][ ] Tokkoofi isaa ol yoo ta'e ⇒403 Hin deenye ……..….00	
403	Ijoollee lubuun jiran meeqa qabda (***Lakkofsan guuti***)	Ijoollee …….. [ ][ ] Hin qabu ……00	
404	Ijoollee lubuun dhalatanii booda darbani/du'ani qabdaa?	1. Eeyyee	

	Umurii hunda jechuudha. Yoo lakkii ta'e ijoolle dhalatani sa'a muraasa boddee darbani gaafadhu	2. Lakkii → 8. Ni didde	406
405	a) Dhiira meeqatu du'eera? b)Dubarti meeqatu du'eera? (Umurii yeroo hundatti jechuudha)	A) Dhiira du'e/du'an……..… [ ][ ] B) Dubarti duute/du'an…..…… [ ][ ] Yoo hin jiru ta'e '00' galchi	
406	Ijoolleen hundumtuu abbaan dhalchu tokkodha moo, adda adda?	1. Abbaa tokko 2. Abbaa adda addaa 3. Kun na hin ilaalatu (N/A-mucaa lubuun jiru hin qabu) 8. Ni didde/deebbi hin qabu	408
407	Ijoollee meeqatu gargaarsa adda addaa abbaa isaanii irraa argatu?	1. Hin jiran 2. Muraasa 3. Hundumaa	
408	Si'a meeqa ulfa taatee turte? Kan lubbuun hindhalanne dabalatee. (***Lakkuus yoota'e gaafadhu)***	A) Ulfa waliigalaa/baay'ina…….[ ][ ] B) Ulfa lakkuu (twines)…….…. [ ] C) Ulfa sadii walitti (triplets)……... [ ]	
409	Ulfi offiin sirraa ba'ee ykn du'ee dhalate si mudatee beekaa? Si'a meeqa? /Jecha naannotiin gaafadhu/	A) Kan ofiin ba'e beeku baay'ina….. [ ][ ] B) Kan duaan dhalate baay'ina……..…[ ][ ] C) Kan of-irraa baaste……. [ ][ ] Hin jiru yoo ta'e…..……..…'00'	
410	Yeroo ammaa ulfadhaa?	1. Eeyyee 2. Lakki 3. Tarii	
411	Kan ulfaa'uu dhorku ykn tursiisu fayyadamtee beektaa?	1. Eeyyee 2. Lakki → **3.** Qunnamtii nafsaala hin raawwadhu → 8. Ni didde/deebbi hin qabu	 415 K 5
412	Yeroo ammaa akka ulfa hintaneef waan fayyadamtu qabdaa?	1. Eeyyee 2. Lakki → 8. Ni didde/deebbi hin qabu →	 415 415
413	Yeroo ammaa maal fayyadamta? /***Tokkoo ol yoo ta'e isaa caalmaatii fayyadamtu guuti/***	1. Kan liqimsamu(kan hattattamaa) 2. Kan waraanamu (lilmootiin kan kannamu) 3. Kan gogaa jala owwaalamu 4. Kan gadameessa keessa kaa'amu 5. Kan afaan gadameessaatti cuqqilamu(Diaphragm) 6. Marssaa laguu eeguudhaan(Safe period) 7. Gadameessa gudunfuudhaan(sterlisation) 8. Kondomii (kan dhiiraa/dhalaa) 9. Dhiira maseensuu 10. Dhaqna keessaa baasee dhangalasudhaan (Withdrawal) 11. Harma hoosisuu 88. Ni didde/deebbi hin qabu	
414	Yeroo ammaa akka ati qusannoo maatii fayyadamtu abbaan manaa ykn jaalalleen kee beekaa?	1. Eeyyee 2. Lakki 3. Yeroo ammaa abbaa manaa/jaalallee hinqabu (N/A) 8. Ni didde/deebbi hinqabu	

415	Abbaan manaa/jalalleen kee ammaa akka ati hin fayyadamne taasiseeraa?	1. Eeyyee 2. Lakki → 417 8. Ni didde/deebbi hin qabu → 417	
416	Eeyyee yoo jette, Haala kamiin sidhorke? /Kan deebi'e hunda guuti/	1. Fedhii issa akka hin taane natti hime 2. Natti dheekkame 3. Narukkutuuf nasossodaachise 4. Nadhiisuufi nasossodaachise/manaa gadi nadarbate 5. Narukkute 6. Qoricha isaa najalaa fuudhee dhokse/gate 7. Kan biro/ibsi_____	
417	Abba manaa/jalallee kee ammaa wajjin dhukuba of-irraa ittisuuf Kondomii fayyadamtee beektaa?	1. Eeyyee → 419 2. Lakki 8. Hin beeku/Hin yaadadhu	
418	Jalalleeke/abbaa manaa kee ammaa Kondomii fayyadamuuf gaafattee beektaa?	1. Eeyyee 2. Lakki 8. Hin beeku/Hin yaadadhu	
419	Abba manaa/jalallee kee ammaa dhukuba of-irraa ittisuuf Kondomii itti fayyadamuu sididee beekaa?	1. Eeyyee 2. Lakki → 421 8. Hin beeku/Hin yaadadhu → 421	
420	Itti fayyadama Kondomii haala kamiin sididee? (***Kan ilaalu hundinuu guuti)***	1. Akka hinfudhanne nat hime 2. Natti dheekkame 3. Narukkutuuf nasossodaachise 4. Na dhiisuuf nasossodaachise/Manaa gdi nadarbate 5. Narukkute 6. Kondomii fuudhee najalaa gate 7. Akkaan amanamaa hintaanetti nafudhate 8. Natti kolfe 9. Akka gaarii hintaanetti natti hime 10. Kan biro/ibsi_____	

421	Umurii kee keessatti rakko maalfaatu simudatee beeka? ***(Kan ilaalu hundinuu guuti)***		Eeyyee	Lakki
		1. Ulfa hinbarbaadamne	1	2
		2. Madaa ykn miidhaa dhaqna saalaa irrattii	1	2
		3. Dhaqna saalaa irratti luqqa'uu (Ulcer)	1	2
		4. Dhangala'aan qaama saalaa keessaa ba'uu	1	2
		5. Gudeeda irrtti dhiitaiuu	1	2
		6. Dhukubbii garaa handhuuraa gadii	1	2
		7. Gubaatii Fincaan	1	2
		8. Qaama saalaa hooqsisuu	1	2
		9. Kan biro/ibis_____	1	2

422	Ulfa hin barbaadamne yoo ta'e, ulfichi akkam ta'e ree?	1. Yeroo ammaa ulfadha 2. Off irraa nan baase 3. Ofii isaa narraa ba'e 4. Fayyaan dhalateera 5. Du'aan dhalateera
423	AIDSiin naqabata jettee yaaddee beektaa?	1. Eeyyaa

		2. Lakkii
424	Maaliif lakki jette? ykn maaliif eeyyee jette?	

Kutaa 5ffaa: Haala Ijoollee

501	Umurii kee keessatti deessee beektaa?	1. Eeyyaa 2. Lakkii ⟶	K. 6
502	Waa'ee mucaa yeroo darbe deesse sin gaafadha (yoo lubbuun jirattes, ykn hin jirannes) Guyyaan dhalootaa mucaa? Akaa Itoopiyaatti	Guyyaa…….…… [ ][ ] Ji'a……. [ ][ ] Bara…… [ ][ ][ ][ ]	
503	Maqaan mucaa boodara dhalate/tte hanga akakayyuutti eenyu? Maqaa dhaabbataatii? Dhiiramoo dhalaadha?	Maqaa _____/_____ /_____ 1.Dhiira 2.Dubartii	
504	Mucaan booda dhalate/tte (MAQAA) lubbuun jiraa/jirtii?	1. Eeyyee 2. Lakkii ⟶	506
505	Kabaja waggaa dhaloota isaa/ishee isa dhumaa irratt meeqa? ***(Ragaa dhalootaa wajjin waliin ilaali)***	Umurii waggatiin……...[ ][ ] Waggaa yoo hin guunne ta'e. .00	
506	Yoo du'eera /duuteetti ta'e mucaan (MAQAA) umurii meeqatti du'e/duute?	Waggaa……..... [ ][ ] Ji'aa (wagga gadi yoota'e)…….. [ ][ ] Guyyaatti (ji'aa gadi yoota'e) …..[ ][ ]	
507	Mucaan booda irra dhalate kanaaf gaaffii 502 wajjin ilaalii wagga shanii gadi ta'uu isaa hubadhu	1. Wagga shaniifi isaa ol 2. Waggaa shanii gadi	
508	Mucaa boodaa (MAQAA) yeroo ulfoofte haali kee akkam ture?	1. Barbadeen ture 2. Turruu barbadeen ture 3. Mucaa hin barbaadu ture 4. Dhimma hin qaabun ture 8. Hin beeku/Hin yaadadhu	
509	Mucaa boodaa kan (MAQAA) yeroo ulfoofte abbaan manaa/jaalallee ulfaa'uu kee ni barbaada ture?	1. Barbaada ture 2. Takka turru barbaada ture 3. Mucaa hin barbaadu ture 4. Dhimma hin qaabu ture 8. Hin beeku/Hin yaadadhu	
510	Mucaa kana (MAQAA) yeroo ulfa turte qaama kam irraa iyyuu tajaajila ulfa duraa argattee turtee? Eeyyee yoo jette, eenyutu si ilaale? ***(Kan deebi'e hunda guuti)***	1. Eenyu irraa iyyuu hin arganne 2. Hakiima walii galaa 3. Hakiima gadameessaa 4. Narsii deessistuu 5. Gargaartuu Narsii 6. Deesistuu aadaa hin leenjine 7. Deesistuu aadaa Kan leenjite, 8. HEF 9. Kan biroo/ibsi_____	
511	Fedhiin abbaa manaa kee haala tajaajila da'umsa duraa kana irratti maal fakkaata ture?	1. Na dhorkaa ture 2. Ni na jajjabeessa ture 3. Fedhii hin qabu 8. Hin beeku/Hin yaadadhu	
512	Yeroo ulfa mucaa kanaa turte fedhiin abba manaa/jalallee kee mucaa maal argachuu barbaada	1. Mucayyoo dhiiraa 2. Mucayyoo durbaa	

	ture?	3. Fedhii addaa hinqabu ture 8. Hinbeeku/Hinyaadadhu
513	Yeroo ulfa kanaa turte dhugaatii (araqee, daadhii, ykn farsoo) ni dhugda turtee?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu
514	Yeroo ulfa kanaa turte caatii ni qaamta turtee?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu
515	Yeroo ulfa kanaa turte sijaara/shiishaa ni xuuxxa ykn Tinboo fayyadamta turtee?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu
516	Tajaajila da'umsa booda hanga torbaan ja'haatti yeroo kam iyyuu argattee beektaa?	1. Eeyyee 2. Lakkii 3. Lakki, mucaan ammayu torbaan ja'a hin geenye 8. Hinbeeku/Hinyaadadhu
517	Mucaan (MAQAA) yeroo dhalate/tte ulfinni (wt) isaa/shee safarameeraa?	1. Eeyyee 2. Lakki → 519 8. Hinbeeku/Hinyaadadhu → 519
518	Ulfinni isaa/ishee meeqa ture? /***Yoodand'ame raga dhalootaa irraa guuti/***	1. Kg raga dhalootaa irraa [ ][ ] 2. Kg himuu afaanii irraa [ ][ ] 8. Hinbeeku/Hinyaadadhu
IJOOLLEE UMUURIIN ISAANII WAGGAA 5 GADI TA'ANII WARRA DU'ANIIF KAN GUUTAMU		
519	Mucaan du'e kuni dhiiramoo dhalaadha?	1. Dhalaa 2. Dhiira
520	Mucaan du'e/duute kun yoomi dhalate/ttee?	Guyyaa/Ji'a/Bara_____ 88. Guyyaa ykn ji'asaa hibeeku 99. Wagaasaa hinbeeku
521	Waggaa meeqatti du'e/duute?	Waggaa/ guyyatiin_____
522	Yoomi du'e/duute?	Guyyaa/Ji'a/Bara_____ 88. Guyyaa ykn ji'asaa hibeeku 99. Wagaasaa hinbeeku
523	Eessatti du'e/duute?	1. Hospitaala 2. Mana yaalaa kan biraa 3. Manatti 4. Kan biraa (ibsi)_____
Sababa mucaan itti du'uu/danda'e dandeesse haati yeroo ibsitu		
524	Dhukubni ykn dhibeen itti mucaan lubbuun isaa/ishee darbuu danda'e maalfaa ture? Mallatole ibsi _____ _____ _____	
525	Sababa tokkoffaa akkataa haati ibsitetti_____	
526	Sababa lamaffaa akkataa haati ibsitetti _____	

Kutaa 6ffaa: <u>Abba Mana/Hiriyyaa Yeroo Ammaa /Dhiyoottii wajjin jiraattu</u>

601	Umuriin abbaa manaa /jaalallee kee ammaa	Umurii (Waggaa) [ ][ ]	

	meeqa?(***Sirreetti gaafadhu***)	88. Hinbeeku/Hinyaadadhu ….	
602	Haala barumsaa abba mana/jaalallee keehoo? Hanga kutaa meeqaatti baratteera? (**isa olaanaa barreessi**).	1. Hin baranne 2. Barressuufi dubbisuu 3. Sadarkaa 1ffa (kutaa 1 hanga 6) 4. Sadarkaa 2ffa (kutaa 7 hanga 10/12) 5. Qophaa'ina (11- 12) 6. Sadarkaa ol-aanaa (kollejjiifi isaa ol) 8. Ni didda/deebbi hinqabu	
603	Abbaan manaa/jaalalleen maal hojjeta ture? /***hojii addaan baasi/***	1. Hojii Hinqabu 2. Ogummaa 3. Ogumma hanga tokko(Semi-skilled) 4. Ogummaa kan hin taane/hojii humnaa 5. Humna waranaa/poolisii 6. Daldala 7. Barataa 8. Qotee bulaa 9. Sooruma ba'ee jira 10. Kan biraa ibsi_____	
604	Yeroo ammaa garaa gara jiraattu yoo ta'e wagga darbe kana abbaan manaa/jalalleen kee hangam addaan turtani?	Bay'ina ji'aa [ ] [ ] 98. Hinbeeku/Hinyaadadhu (Ji'a tokkoo gadi yoota'e "00" galch)	
605	Abbaan manaa/jalalleenke amaa hagam dhugaatii (Arakee, farsoo, daadhii) dhuga?	1. Guyya, guyyaatti 2. Torbeetti si'a tokko ykn si'a lama 3. Ji'atti si'a tokkoo hanga sadiitti 4. Ji'atti si'a tokkoo **5.** Hindhugu → 607 8. Hinbeeku/Hinyaadadhu → 607	
606	Dhugaatii isaa wajjin walqabatee jioota 12 n darbani keessatti maaltu simudatee ture?		Eeyye / Lakki
		1. Rakkoo horii	1 / 2
		2. Rakkoo maatii	1 / 2
		3. Kan biroo: Ibsi------	1 / 2
607	Abbaan manaa/jaalalleen kee qoricha sammuu hadoochu/shiishaa ykn caatii hangam fayyadama?	1. Guyya, guyyaatti 2. Torbeetti si'a tokko ykn si'a lama 3. Ji'atti si'a tokkoo hanga sadiitti 4. Ji'atti si'a tokkoo gadi **5.** Hinfayyadamu 8. Hinbeeku/Hinyaadadhu	
608	Hanga wal- bartanitti nama wajjin walloluu isaa argitee beektaa?	1. Eeyyee 2. Lakki → 610 8. Hinbeeku/Hinyaadadhu → 610	
609	Ji'oota 12 darbe keessatti si'a meeqa argite?	1. Hin argine 2. Si'a tokko ykn lama 3. Yeroo xiqqoo (3-5) tti 4. Yeroo baay'ee (si'a 5 ol) 8. Hinbeeku/Hinyaadadhu	

610	Abbaan mana/jalalleen kee haadha mana gara biraa osoo hintaane dubartii gara biraa wajjin walqunnamtii qabaa?	1. Eeyyee 2. Lakki → 3. Tarii 8. Hinbeeku/Hinyaadadhu →	 K7 K7
611	Abbaan manaa/jalalleen kee mucaa dubartii gara biraa irraa qabaa (***haadha manaa gara biraa ossoo hintaane)?***	1. Eeyyee 2. Lakkii 3. Tarii 8. Hinbeeku/Hinyaadadhu	

Kutaa 7ffaa: Ilaalcha Waa'ee Shoora Saalaafi Miidhaa Dubartaata

Uumata tokko keessa waa'een maatii ilaalchisee ilaachi adda addaa fi amalli fudhatama qabu nijira. Dhimma kana ilaalchisee wantokko, tokko yoon sigaafadhe akkuma yaada keetti naaf deebista. Garuu kana irratti kan dhugaafi soba jedhamu hinjiru.

		Waliigala	Walii-hingalu	Hinbeeku	Nididde
701	Haati manaa gaariin yaada abbaa manaa yoofudhachuu baattes jecha isaa fudhachuu qabdi	1	2	8	9
702	Rakkoon maatii, maatii keessatti qofaa mar'atamuu qaba	1	2	8	9
703	Abbaan manaa/jalalleen hadha manaatti olaantummaa isaa argisiifachuu qaba	1	2	8	9
604	Dubartiin jalallee dabalataa filachuu qabdi	1	2	8	9
705	Haati manaa fedhii ishee yoo hintane iyyuu abba manaa wajjin qunamtii saala rawwachuun dirqama isheeti	1	2	8	9
706	Abbaan mana haadha manaa yoo miidhe, warri ishee gidduu galuu qabu	1	2	8	9

707	Akka yaada keetti abbaan manaa haadha manaa yoo maal ta'e rukuchuu qaba:	Eeyyee	Lakki	Hibeeku
	1. Akka fedhii abba manaatti hojii mana keessaa yoo hin raawwanne	1	2	8
	2. Yoo yaada fi gocha isaa fudhachuu didde/mormite	1	2	8
	3. Yoo qunnamti saalaa wajjin raawwachuu dhiiste	1	2	8
	4. Jalallee gara biraa qabachuu isaa yoo gaafatte	1	2	8
	5. Yoo ishee shakke	1	2	8
	6. Yoo amantaa irraa dhabe	1	2	8
	7. Yoo beekumsa isaa ala qusannoo maatii fayyadamte	1	2	8
708	Akka yaada keetti haati manaa abbaa mana wajjin qunnamti saalaa raawachuu kani diduu dandeessu yoo maal ta'edha:	Eeyyee	Lakki	Hibeeku
	1. Yoo hinbarbaanne	1	2	8
	2. Yoo ni dhuga ta'e	1	2	8
	3. Yoo dhukubsatte	1	2	8
	4. Yoo sirriitti ishee hin qabanne/hin kabajne	1	2	8
	5. Yoo jaalala isa irraa hin qabdu ta'e	1	2	8

Kutaa 8ffa: Mudannoo Miidha Abba Manaan/Jalalleen Dubartii Irra Ga'u

Egaa maatiin tokko yeroo wal wajjin jiraatu waan gaariis ta'e hamaa wal wajjin himaachuun kan

hin hafnedha. Waan kan ilaalchisee gaaffilee tokko tokko sigaafachuu yaala.		
801	Abbaa manaa/Jalallee kee ammaa wajjin ammam wallooltanii beektu?	1. Yeroo xiqoo 2. Darbee darbee 3. Yeroo hunda 8. Hinbeeku/Hinyaadadhu

802	Abba manaa/ jallallee kee ammaa waan armaa gadii sirratti raawwatee beekaa?	Eeye	Laki	Hinbe
	1. Akka hiriyyoota kee hin argine si dhorkee beekaa?	1	2	8
	2. Maatii dhalootaa kee irraa addaan sikutee beeka?	1	2	8
	3. Yeroo hunda bakka ati jirtu baruu barbaadaa?	1	2	8
	4. Situffataa, akka gad-aantuutti si'ilaalaa?	1	2	8
	5. Nama gara biraa wajjin yoo haasofte ni dheekamaa?	1	2	8
	6. Yeroo hundaa akka atti hin amanamneefitti si shakaa?	1	2	8
	7. Ofiikeef mana yaalaa deemuu yoo feete akka eyyama isa gaafettu barbaadaa?	1	2	8

803 - 805	Abbaan manaa/ jalalleen kee ammaa waan armaa gadii kana siratti raawatee beekaa?	A) Eeyye ⇨B Lakki ⇨gafi itii aanutti		B) Kuni ji'oota 12 darban keessat siratti raawateera? Eeyye ⇨C Laki ⇨D		C) Ji'oota 12 darban keessatti si'a meeqa sirratti raawwatame? ⇨D			D) Ji'oota 12 darban dura immoo si'a meeqa sirratti raawwatameera?		
		Eye	Laki	Eye	Laki	1 Toko	2-5 Xiqo	>5 bay'e	1 Toko	2-5 Xiqo	>5 bay'e
803. Miidhaa xinsammuu											
1.	Siarabsee ykn wa'ee kee gadhee akka yaaddu si taasise beekaa?	1	2	1	2	1	2	3	1	2	3
2.	Namoota fuula duratti siqaanesse beekaa?	1	2	1	2	1	2	3	1	2	3
3.	Si sossodachisee/ sitti iyyudhaan sammuu kee si madeessee beekaa?	1	2	1	2	1	2	3	1	2	3
4.	Siin ykn nama ati jaallattu sossodaachisee beekaa?	1	2	1	2	1	2	3	1	2	3
804. Miidhaa qaamaa											
1.	Si kabalee ykn waan simiidhu sitti darbatee beekaa?	1	2	1	2	1	2	3	1	2	3
2.	Si darbatee ykn of irraa si dhiibee	1	2	1	2	1	2	3	1	2	3
3.	Si abootee/ waan si miidhu danda'u tokkoon si rukutee beeka?	1	2	1	2	1	2	3	1	2	3
4.	Si dhiitee, ofitti si butee, ykn si rukutee beekaa?	1	2	1	2	1	2	3	1	2	3
5.	Si hudhee ykn siguggubee beekaa?	1	2	1	2	1	2	3	1	2	3
6.	Meeshaa kan akka qawwe, kan qara qabu fi gara biratiin si sossodaachisee beekaa?	1	2	1	2	1	2	3	1	2	3

805. <u>Miidhaa naf-saalaa</u>				
1. Fedhii kee malee humnaan qunnamtii saalaa si wajjin raawwatee ykn yaale beekaa?	1 2	1 2	1 2 3	1 2 3
2. Fedhii kee malee waan isa sodaatteef qunnamtii saalaa isa wajjin raawwatee beektaa?	1 2	1 2	1 2 3	1 2 3
3. Gara qunnamtii saalaatti kan nama harkisuun si dirqisiisee, si qaanesse ykn sisalpisee beekaa?	1 2	1 2	1 2 3	1 2 3

806	Gaaffi 803 waliin miidhaa xinsammuu (emotional abuse) ta'uu mirkaneessi	1. Eeyyee - miidhaa xinsammuu **2.** Lakki- miidhaa xinsammuu miti	
807	Gaaffi 804 waliin miidhaa qaama (physical violence) ta'uu mirkaneessi	1. Eeyyee - miidhaa qaama **2.** Lakki- miidhaa qaama miti	
808	Gaaffi 805 waliin miidhaa naf-saalaa(sexual violence) ta'uu mirkaneessi	**1.** Eeyyee - miidhaa nafsaalaa **2.** Lakki- miidhaa nafsaalaa miti	
809	Kanaan dura akka ulfooftee turte natti himteetta. Yeroo sanatti rukkuttaa, aboottaa, dhiiticha, darbannaa, hudhicha, meshaatiin sossodaachisuu fi kkf sirra ga'ee beekaa?	1. Eeyyee 2. Lakki → *816* 8. Hinbeeku/Hinyaadadhu → *816*	
810	Yoo si'a tokko qofa ulfoofteetti ta'e "01" galchiiti gara gaaffii 812 tti darbi. Yoo ulfichi si'a tokkoo ol ta'e miidhaan kuni ulfa si'a meeqaa irrati sira ga'e?	Lakkoofsa rukkuttaa ulfa irratti [ ][ ]	
811	Yeroo ulfa kee garaa keerra dhiticha ykn rukuttaan sirra ga'ee beekaa?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu.	
Miidhaan qamaa yeroo ulfaa yoo gabasameera ta'e kanatti aansiiti miidhaa yeroo ulfa isa booda kanaa (**index pregnancy**) irratti gaaffadhu.			
812	Yeroo ulfa isa booda kanaa irratti abbaan mucaa kanaa (biological father) miidhaa sirra geessise turee?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu	
813	Yeroo sanatti waluma wajjin jiraattu turtanii?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu	
814	Abbaan manaa/jalalleen kee kuni ati ulfa hin ta'iin dura si rukkutee beekaa?	1. Eeyyee 2. Lakki → 816 8. Hinbeeku/Hinyaadadhu → 816	
815	Miidhaa yeroo ulfa warra duraa wajjin yeroo ilaaltu miidhaan yeroo ulfa isa ammaa maal fakkaata?	1. Xiqqateera 2. Akkuma duraati 3. Itti caale 8. Hinbeeku/Hinyaadadhu	
816	Hanga ammaatti yeroo meeqa heerumteetta? Ykn jalallee wajjin jirateetta)	1. Tokko → K. 9 2. Lama 3. Sadiifi isaa ol 8. Hinbeeku/Hinyaadadhu	

817	Miidhaa kan sira geesisaa ture isa kami? (***debbiin tokkoo olii nidanda'ama***)	1. Tokkoffaa 2. Lammaffaa 3. Sadaffaafi isaa ol 4. Hundumtu 8. Hinbeeku/Hinyaadadhu	

Kutaa 9ffaa: Miidhaa Qaamaa (Injuries)

Kanatti ansudhaan abbaa manaa/jalallee kee kam iyyuu miidha qaama ykn kan akka madeessu, dirmameessuu, meeluu, caba, fi kkf yoo sirra geessisee beeka ta'e nan sigaafadha.

901	Midhaa armaan olitti xuqamani kuni abbaa manaan/jalallee ketiin sirra ga'ee beekaa?	1. Eeyyee 2. Lakki → 8. Hinbeeku/Hinyaadadhu →	 k.10 k.10
902	Umurii kee keessatti si'a meeqa sirra ga'eera?	1. Tokko/lama 2. Bay'ee (3 hanga 5 tti) 3. Hedduu (5nii ol) 8. Hinbeeku/Hinyaadadhu	
903	Kuni ji'oota 12 n darban keessatti si irratti raawwatamee beekaa?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu	

904 a	Miidhaa attamii qabda turte? Kan biraan yoo jira ta'e gaafadhu? Umurii kee keessatti ***(Hundumaa gaafadhu)***		**904b)** Warra gaaffi 904a irratt gaafatamaniif gaafadhu: Kuni ji'oota 12 darbani keessatti sira ga'eera? Eeyyee Lakki	
		1. Madaa cite, gogaan urachuu, ciniinna	1 2	
		2. Moccorraa, horbobbu, dirmameessu	1 2	
		3. Meeluu (Sprains, dislocations)	1 2	
		4. Gubannaa	1 2	
		5. Madaa gadi fageenyaan waraaname, muraa gadi fageenya qabu	1 2	
		6. Gurri duuduu, Iji mada'uu/jaamuu	1 2	
		7. Caba, cabinsa lafee	1 2	
		8. Ilkaan cabuu	1 2	
		9. Kan biraa /ibsi/_____	1 2	

905	Miidhaa kanaan gaggabdee/ofwalaltee beektaa? Eeyyee yoo jette sa'atii ammamiif?	1. Eeyyee, sa'atii tokkoo gadi 2. Eeyyee, sa'atii tokkoo oliif 3. Lakki → 8. Hinbeeku/Hinyaadadhu →	 907 907
906	Of wallaluun kuni ji'oota 12 darbani keessatti si irra ga'eera?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu	
907	Miidhaa cimaan kan mana yaalaa si geesu sira ga'ee beekaa? Eeyyee yoo jette si'a meeqa?	Si'a meeqa mana yaalaa deemuu si barbaachisee ture [ ][ ] 98. Eeyyee, garuu hinbeeku Hinbarbaachisne……..……00 →	**K.10**
908	Midhaa kanaaf tajaajila fayyaa argattee beektaa?	1. Eeyyee- al toakko, tokko 2. Eeyyee- yeroo hunda	

		3. Lakki ⟶ 8. Hinbeeku/Hinyaadadhu ⟶	K.10 K.10
909	Miidhaa kanaaf hospitaala ciiftee beektaa? Eeyye yoo jette halkan meeqaaf?	Halkan meeqa hospitaala ciifte…….. [ ][ ] Hinciifne yoo ta'e '00' galchi	
910	Sababa miidhaa kanaa ogeeyyii fayyaatti himteettaa?	1. Eeyyee 2. Lakki 8. Hinbeeku/Hinyaadadhu	

Kutaa 11ffaa: Mudannoo Gara Biraa			
1001	Jalqabaaf qunnamtii saalaa yeroo raawwatte umuriin kee meeqa ture?	Umurii waggatiin (tilmaamaan)…..[ ][ ] Hinbeeku/Hinyaadadhu …….88 ⟶	⇒**1106**
1002	Yeroo jalqabaaf eenyu wajjiniin wal-qunnamtii saalaa raawwatte? (Durbummaa kee eenyutu fudhata?)	1. Abbaa mana/jalallee ammaa 2. Abbaa mana/jalallee durii 3. Akka tasaatti (Casual) 4. Kan biroo(ibsi)_____ 8. Hinbeeku/Hinyaadadhu	
1003	Yeroo jalqabaaf attamitti qunnamtii naf-saalaa jalqabe ykn attamiin ibsita?	1. Barbadeen jalqabe 2. Faayidatiin 3. Dirqameen jalqabe(gudeedameen) 4. Gowwomfameen 8. Hin beeku/Hinyaadadhu	
1004	Yeroo ati ijoollee turte haati kee abbaa manaa/jalallee isheetiin reebamtee beektii?	1. Eeyyee 2. Lakki 3. Maatiin keenya wali wajjin hin jiraanne 8. Hin beeku/Hinyaadadhu	
1005	Yeroo ijoollee turte miidhaa akka kanaa argitee ykn dhageessee beektaa?	1. Eeyyee 2. Lakki 8. Hin beeku/Hinyaadadhu	
1006	Hanga beektu/dhageessetutti harmeen abba manaa kee abba manaa/jaalallee ishetiin reebamtee beektii?	1. Eeyyee 2. Lakki 3. Maatiin isaa wali wajjin hinjiraanne 8. Hin beeku/Hin yaadadhu	
1007	Abbaan manaa/jalalleen kee ammaa yeroo ijjoollummaa isaa miidhaa akkasii kana argee ykn dhaga'ee beekaa?	1. Eeyyee 2. Lakki 8. Hin beeku/Hinyaadadhu	
1008	Hanga ati beektutti/dhageeseetutti abbaan manaa/jaalalleen kee ammaa yeroo hunda maatii isaa keessatti rukkutamee beekaa ?	1. Eeyyee 2. Lakki 8. Hin beeku/Hinyaadadhu	

Galatoomaa!!

ANNEX 4: QUALITATIVE DATA (FGD) COLLECTION TOOLS

Good morning/afternoon, my name is _____and I represent Addis Ababa University. We are conducting FGD and In-depth interviews in selected sub-cities in Nekemte town and rural kebeles. The purpose of this discussion is to assess the prevalence, risk factors and outcomes of intimate partner violence among ever married/partnered females aged 15- 49 years. You have been chosen to participate in this discussion purposely and you will help us by discussing the issues we will forward. We assure you that whatever you discussed will be confidential. We are going to record your voice for the sake of later transcription. These recordings will be kept confidentially at proper place and later on discarded appropriately. We also inform you that you have the right to withdraw from the discussion at any time, or skip any issue that you do not want to discuss.

Do we have your permission to continue? 1 = Yes 2 = No

Thank you very much for your participation.

Moderators:

1. Name _____Signature_____ Date_____

2. Name_____Siginature_____Date_____

FOCUS GROUP DISCUSSION (FGD)

I. Characteristics of discussants

- Name of group interviewed: Adult male, Adult female, Key informants: Elderly, religious leader) Date:_____Kebele_____
- Time discussion started:_____Time ended:_____
- Participant summary: _____ Women _____Men

II. Discussion Guide (check list)

1. What problems have women and girls experienced in health and security in your community? (PROBE on violence, not on health.)
2. Can you give examples of violence against women by intimate male partner in this area?
3. When and where does violence against women by intimate male partner occur?
4. Who are the perpetrators? (PROBE: outside/inside home, people you know/don't know.) What happens to the perpetrators?

5. What are the problems that women face after an attack? (PROBE: physical, psychological, social problems.)
6. How do survivors of violence against women by intimate male partner cope after the attack?
7. What are community responses when violence against women by intimate male partner occurs? What is done to prevent violence? What is done to help survivors? How could these efforts be improved? Do women's support networks exist to help survivors?
8. What social and legal services exist to help address these problems? (PROBE: health, police, legal counselling, social counselling.)
9. Who provides these services? How could these efforts be improved?
10. Has the problem of violence against women by intimate male partner gotten worse, better, or stayed the same since social or legal services exist to help address these problems?

ANNEX 5: Afan Oromo Version FGD Guide

Gaafannoo ragaa afaanii (Qualitative data collection tools)

Akkam bultani/ ooltani. Ani maqaan koo……universiitii Finfinneetti faakaaltii qorichaa mana barumsaa fayyaa uummataa keessatti qorannoo warra adeemsisaa jirani wajjin hojechaan jira. Yeroo ammaa magaala naqamteefi gandoota baadiyyaa naannoo isheetti argamani keessatti waa'ee fayyaa dubartootaa irratti kani xiyyeeffate qorannoo adeemsisaa jirra. Isin immoo dhimma kana irratti hanga beekumsa keessanii akka numariisistani afeeramtaniittu. Kaniin isinii mirkaneessuu barbaadu, mariin isin nuuf laattani hundi icitidhaan eegama. Darbees immoo ragaan kuni maqaafi teessotiin hintaa'u. Akkasumas isinis immoo gaaffii hinbarbaadne dhiisuu, bira darbuu, callisuufi, addaan kuttanii dhiisu nidandeessu. Yoo fedhii keessan ta'e booddee akka hin'iranfanneef sagalee keessan teeppiitiin waraabbanna.

Marii kana akka itti fufnuuf nuuf eeyyamtuu? 1, Eeyyee 2, Lakkisaa

Waan nugargaartaniif galatoomaa!

Marisistoota:

1. Maqaa _____mallattoo_____ guyyaa_____
2 .Maqaa _____mallattoo_____ guyyaa_____

Marii garee irratti xiyyeeffate (FGD)

I. Waa'ee mari'attootaa
   - Maqaa garee: dhiira beektota, dubartoota beektota, kkf , guyyaa_____ ganda_____
   - Sa'a mareen itti jalqabame_____sa'a xumurame:_____
   - Baay'ina mari'attootaa: _____ dubartoota_____dhiire

II. Qabxiilee marii

1. Naannoo keessan kanatti rakkowan dubartotaafi ijoollee durbaa irra ga'u maalfaati? (miidhaa saalaa dubartaata irra ga'u sirriitti gaafadhu
2. Naannoo keessan kanatti midhaan dhiiraan dubartoota irra ga'u fakkeenya naaf kennituu?
3. Midhaan saalaa dhiiraan dubartoota irra ga'u yoomiifi eessatti raawwata?
4. Warri miidha kana geessisani eenyufaati? (Mana keesas ta'e ala, namoota beekamanis ta'e hinbeekamne, sirriitti gaafadhu) eenyufa akka ta'ani?
5. Miidha kana booda rakkoon dubartoota irra ga'u malfaati? (miidha qaamaa, miidhaa xinsammuu (yaadaa), ykn immoo midhaa hawasummaa jedhiiti sirriitti gaafadhu)
6. Dubartoonni miidhaan kuni isaani irra ga'e akkamiin obsuu?
7. Ummani naannoo kanaa miidhaa dhiirri dubartoota irra geessisani kana akkamitti ilaaluu ykn immoo deebbii akkamii kennu? Miidhaa kana ittisuufi maaltu godhamuu qaba? Dubartoota miidhamani gargaruuf maaltu godhamuu qaba? Yaaliin kuni akkamiin jajjabaachuu danda'aa? Dubartoota miidhamaniif jecha waldaan dubartootaa dhaabbateeru nijiraa?
8. Naannoo keessan kanatti rakkowwan kanaaf furmaata akka ta'uuf tajaajilli hawwaasaa ykn tajaajilli seeraa dhaabbateeru jiraa? (kan akka fayyaa, poolisii, garsa seeraa, gorsa hawwaasaa jedhiiti sirriitti gaafadhu)
9. Tajaajila kana kan kennu eenyudha? Tattaffiin jiru kuni akkamiin foyyaa'uu danda'aa?
10. Miidhaan dhiiraan dubartoota irra ga'u kuni erga tajajiloonni armaan olitti tuqamani kuni kennamuu jalqabani hir'iseeramoo, dabaleera, moo akkuma duraati?