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Causes and Consequences of Violence against Child Labour and Women in Developing Countries

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**Karolinska
Institutet**

Stockholm 2008

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Published by Karolinska Institutet. Printed by Universitetservice US-AB

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ISBN 978-91-7409-018-5

Abstract

Violence against children and women is a serious public health and human rights problem. In low income countries it is closely related to poverty and culture with major social consequences and economic burden for the families. The overall objective was to study the specific circumstances of domestic violence, including the child labour's situation and to develop a cost of violence model adjusted for the burden of families. The studies were performed in four countries.

In the first study violent behaviour was analysed among 1,400 child labourers divided into fourteen categories of work in five states of India (Paper I). In the short term perspective child labourers become violent, aggressive, and criminal, following a pyramid of violent behaviour, including cultural deviance, and socio-economic and psychological pressure. When considering family history, it seems that the problem is part of a vicious cycle of violence, which persists through generations and evolves through financial crisis, early marriage, and violence in the family.

Of interest was also the problem of maternal abuse of children and mothers' exposure to and attitudes towards intimate partner violence (Paper II). Nationally representative data of 14,016 married women from the Egyptian Demographic and Health Survey of 2005 were used. Less exposure to physical IPV was associated with lower risk of using violent methods, such as shouting, striking, or slapping, to correct child behaviour. Non-tolerant attitudes towards IPV were also associated with using the explanation method to the children.

The current situation of domestic violence against women in rural Bangladesh was studied using a cross sectional household survey of 4,411 married women (Paper III). Illiteracy, alcoholic misuse, dowry, husband's monetary greed from parent-in laws and wife's doubt on husband's extra marital affairs were the risk factors for verbal, physical and sustenance abuse.

The social inequalities in intimate partner violence (IPV) was scrutinised in Kenya among 3,696 women of reproductive age (Paper IV). The data were collected from the Kenyan demographic and health survey of 2003. Women's employment and having a higher education/occupational status than her partner, age differences between the partners, illiteracy, lack of autonomy and access to information increased their exposure to IPV.

A cost of injury study based on an adjusted model for low-income countries was tested using case studies in India (Paper V). The model comprised 32 cost elements divided into four main categories: injury, death, deprivation and other costs including encompassing and socioeconomic data and family characteristics. The main cost elements were income adjusted by family and years, income impact on the family, costs of physical, psychosocial and family deprivations, and a cardinal approach to productivity loss. As a result of the case studies, the supplementary variables contributed to a better understanding of the total burden of families.

Poverty, illiteracy, male dominance in resource control and social acceptance of violence make children and women more vulnerable to violence. The problem persists over generations and results in an economic burden on the families for healthcare and disability. The studies confirm the need for long term local safety promotion programs supported by national policy and legislation addressing the most vulnerable groups in developing countries.

Keywords: Child labour, domestic violence, cost of violence, developing countries.

List of Publications

- I. Dalal K, Rahman F, Jansson B. The origin of violent behaviour among child labourers in India. *Global Public Health* 2008; 3 (1): 77 - 92.
- II. Dalal K, Lawoko S, Jansson B. Relationship between maternal child abuse, mother's exposure to intimate partner violence and their attitudes towards wife abuse. 2007 (submitted).
- III. Dalal K, Rahman F, Jansson B. Verbal, physical and sustenance abuse against married women in rural Bangladesh. 2007 (submitted).
- IV. Lawoko S, Dalal K, Jiayou L, Jansson B. Social inequality in intimate partner violence: a study of women in Kenya. *Violence and Victims* 2007; 22 (6): 124 - 136.
- V. Dalal K, Jansson B. Cost calculation and economic analysis of violence in low-income country: a model for India. *African Safety Promotion: A Journal of Injury and Violence Prevention* 2007; 5 (1): 45 - 56.

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Definitions

Child Abuse: According to World Health Organization (1999) “Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power.”.

Developing country: Country in a process directed towards economic growth (increase in production, per capita consumption and income), involves better utilization of natural and human resources resulting changes in social, political and economic structures and targets to secure people’s ability to meet basic needs, self-esteem and freedom of choice.

Domestic violence against women occurs when a male family member, partner or ex-partner, not for self defense, attempts to act to dominate the woman. The acts include physical violence, sexual abuse, emotional abuse, intimidation, economic deprivation or threats of violence. Due to the violent acts the woman feels terrorized, frightened, intimidated, threatened, harassed, or molested.

Emotional abuse: Husband/intimate partner said or did something to humiliate the respondent in front of others or threaten her or someone close to her (such as children) with harm.

Intimate Partner Violence (IPV) is another terminology for domestic violence against women.

Physical abuse: Husband/intimate partner had physically abused the respondent by pushing, shaking, throwing something at her; slapped or twist her arm; punched her with his fist or with something that could hurt her; kicked or dragged her; tried to strangle or burn her; or attacked her with a knife, gun, or other type of weapon.

Sexual abuse: Husband/intimate partner had physically forced the respondent you to have sexual intercourse with him even when she did not want to and/or forced her to perform other sexual acts she did not want to.

Sustenance abuse: Husband/intimate partner stopped the daily food intake to the respondent or whether he barred the amount of food to his wife.

Verbal abuse: Husband/intimate partner had shouted, used any discrimination language, or make threatens for any severe and/or non-severe consequences to the respondent.

Violence: The World Health Organization (1996) defines violence as: “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation”.

* Quotations were published with due permission from the WHO.

*Dedicated to the child labour
and the have-nots of the world*

"Children learn to smile from their parents."

1 Introduction

Child labour is a risk factor for occupational diseases, injuries and violence and is associated with poverty and a lack of educational opportunities (Bagley and Mallick, 2000; Driscoll and Moore, 1999; Lieten, 2000; McCall, 1997). The problem is regulated in the UN convention on 'Rights of the Child' (UNO, 2006a). A further understanding of the origin of violence behaviour among child labour is therefore of importance from a public health perspective.

Domestic violence against children and women is a serious public health and human rights problem, associated with different health, family and social consequences in both industrialised and developing countries (Koeing et al, 2006; WHO, 2002; 2005). It is an everyday health problem in all parts of the world, cutting across ages, religions, societies, ethnicities and geographical borders (Garcia-Moreno, 2006; Gruskin, 2003; Stenson, 2004; WHO, 1998; 2002; Xu et al, 2005). Most of the violence takes place inside families within close relationships and neighborhood societies (Krantz, 2002; Watts & Zimmerman, 2002; WHO, 2002). Domestic violence, i.e. violence against women by the husband or other intimate partner, is widespread and one of the most common form of violence against women (Koeing et al, 2006; Watts & Zimmerman, 2002). Similarly, abuse of children by their parents, especially by their fathers or by their mothers' intimate partner is also one of the most common form of child abuse that occurs at home (Dubowitz et al, 2001; Rumm et al, 2000; UNO, 2006a; WHO, 2002). However, there is also a growing concern about domestic violence and related abuse of children by their mothers (WHO, 2002). The problem is increasingly gaining the primary focus of global health and human rights researches (UNO, 2006a; WHO, 1998; 2002; 2004; 2005).

For a better understanding of the extent and nature of the problem several studies have been conducted, mostly in the industrialised countries (Gage, 2005; Garcia-Moreno, 2006, WHO, 2002). However, considering diverse cultures and stress due to poverty in the developing countries, there is a need for context dependent studies on domestic violence and child abuse. The determinants and consequences are reported to be relatively unknown in these countries (Bates et al., 2004; Gage, 2005; Koeing, Ahmed et al., 2003; WHO, 2005). In most of the countries violence against women and abuse of children have been accepted mostly as normal life phenomena, which has been described as a 'normalization of violence' (Heise, Pitanguy & Germin, 1994; Krantz, 2002; Stenson, 2004). From a research point of view, developing countries are lacking data on both mortality and morbidity, especially on domestic violence. Injuries and their consequences are often hidden behind accidents or attributed to natural or unknown causes (WHO, 2002). Therefore, there is a need for more country and community specific population-based studies of violence against children and women, focusing on both its determinants and consequences (Gage, 2005; Koeing, Ahmed et al., 2003).

2 Background

2.1 Prevalence of violence

Every year two million people are killed as a result of violence, war and political conflicts excluded (Tellens, 2005). One fifth of the fatalities are children (Bethea, 1999). The homicide rate among children is more than double (2.58 against 1.21 per 100 000 children) in developing countries compared to western industrialized countries (WHO, 2002). The majority (90%) of violence related deaths occur in developing countries (WHO, 2002). One third of the victims are women (including young girls) and approximately 60 million girls are missing due to violence, sex-selective abortions and infanticides (UNO, 2000).

2.1.1 Violence against Children

A review of studies from several developing countries shows that globally a majority (80-98%) of the children suffer from physical punishment in their families and at home (UNO, 2006a). UNICEF (2006) reported that annually 133 to 275 million children have witnessed domestic violence in their families.

At least 30 percent of the children are victims of severe violence from instruments (UNO, 2006b). As reported by the WHO (2002), in Egypt, 37 percent of all children face severe physical punishment from their parents, comparable with observations from the Republic of Korea (45%), Romania (50%) Ethiopia (64%), India (36%) and the Philippines (21%). Besides physical abuse, children are also often victims of emotional and psychological abuse at their home. Data from Egypt indicates also that such abuse occurs among 72 percent of Egyptian children, which is comparable with observations from Chile (84%), India (70%), Philippines (82%) and the US (85%) as reported by the WHO (2002).

2.1.2 Violence Against women

Despite the current laws and policies to manage domestic violence in several countries, the prevalence of such abuse remains high in both developing and industrialised economies. Globally, 48 population based surveys show that between 10 – 69 percent women are victims of domestic violence (WHO, 2002). Recent estimates based on nationally representative samples in the developing countries suggest a life-time prevalence of intimate partner violence (IPV) among women of between 11 – 52 percent and a yearly prevalence of 4 – 29 percent (Gage, 2005; Kishor & Johnson, 2004; Koenig, Lutalo et al, 2003; Mwenesi et al, 2003). These figures are comparable with similar data from the industrialised countries where life time prevalence ranging between 20 - 59 percent have been reported (Krantz & Ostergren, 2000; UNICEF, 2000; WHO, 2002).

The actual figure of violence against children and women probably is probably higher. Underreporting and differences of definition of violence in reporting sources, together with cultural norms are the main factors behind an underestimation of the problem (Springer et al, 2003; Tazima, 2000; Bethea, 1999; Who, 2002). According to the literature the prevalence of IPV depends on two major issues. One is the researcher and implementer related and the other is response related (Strauss, 1979; Swahnberg & Wijma, 2007). Researcher and implementer related issues are related to several factors like study design, definition of violence considered, formulation of questionnaire and opportunity of the respondents (Ellsberg et al. 2001; Swahnberg & Wijma, 2007; WHO, 2002). Apart from the respondents' age, socioeconomic status, educational level and ethnicity, issues are also associated with insecurity feelings, privacy,

shame and guilty feelings, memory problems like repression and post-traumatic stress disorder (Ellsberg et al. 2001; Swahnberg & Wijma, 2007; WHO, 2002; Zetawos & Bunton, 2007).

2.2 Risk and eliciting factors of violence

Poverty is reported as the most profound background risk factor for violence against children and women (Betha, 1999; WHO, 2002). However with the normalization of violence different societies need more context dependent risk factor analysis of domestic violence and child abuse.

In its *World Report on Violence and Health*, WHO (2002) has recommended the ‘ecological model’ for explaining risk factors of violence. The model is elaborated in Figure 1.

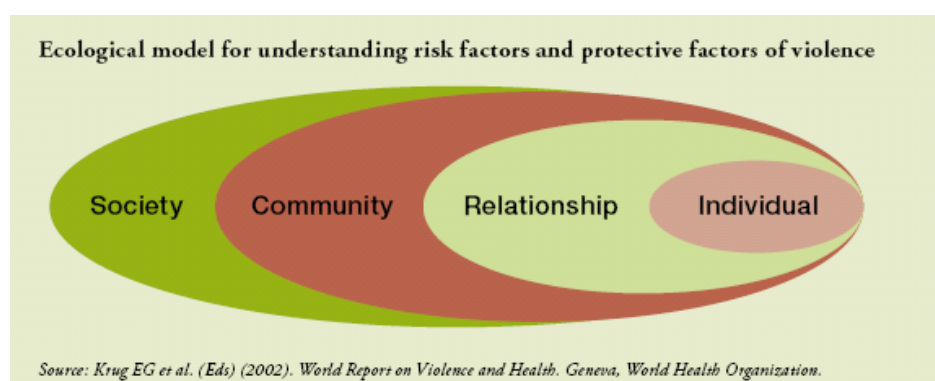


Figure 1: An ecological model for understanding risk factors and protective factors of child abuse and domestic violence (re-printed with courtesy from the authors).

2.2.1 Risk factors of child abuse

Different forms of child abuse are a result of a complex interactive process. The ‘ecological model’ describes violence against children as an interaction of risk and protective factors in four dimensions: individual level, family level, societal level and community level (Betha, 1999; Hay & Jones, 1994; Tolan et al, 2006).

Risk factors at the individual level

Unwanted pregnancy, low birth weight, medical complications and disabilities and overall children of younger age are differentiated as risk factors (WHO, 2002).

Risk factors at the family level

Domestic violence is a major risk factor for child abuse with the following risk factors: parents’ personal history of abuse as a child, teenage parents, single parents, parental lack of emotional disturbances, lack of coping skills, low self-esteem, psychosocial problems of parents, social isolation, parental stress as a complex factor of socioeconomic pressure and the parents alcohol and drug abuse (Betha, 1999; Ross, 1996; Tolan et al, 2006; WHO, 2002).

Risk factors at the community and society level

Physical violence and child neglect are closely associated with poverty related stress (Hay & Jones, 1994; Tajima, 2000). High unemployment rate, high level of neighborhood criminal activities, lack of social and community services, shortage of supports from extended family and

community levels, unavailability and inability to afford a minimum level of health care facilities are also identified as contributing risk factors (Betha, 1999; Hay & Jones, 1994; WHO, 2002).

2.2.2 Risk factors of violence against women

Risk factors at the individual level

Perpetrator's history of prior aggression, history of violence victimization, low self-esteem, and lower ability to control self impulse; with mental illness such as anxiety disorder, depression, antisocial personality, alcoholic and drug addiction are notable risk factors for domestic violence against women (Tolan et al, 2006; WHO, 2002; 2005).

Risk factors at the family level

Main reported factors are marital conflict, relationship discord, assortative partnering, male control of wealth and significant interpersonal (between the couples) disparities in educational status (Totlan et al, 2006; UNO, 2006a).

Risk factors at the community and society level

High level of socioeconomic disempowerment of the women, women's isolation and lack of social support, normalization of domestic violence, gender roles such as male dominance, women's acceptance of domestic violence as a way of conflict resolution, lack of awareness and shortfall of the judiciary systems.

2.3 Consequences of violence

2.3.1 Children

Child abuse has significant consequences on children's wellbeing, including several medical and psychological problems like depression, eating disorders, posttraumatic stress disorder (PTSD), chronic pain syndromes, chronic fatigue syndrome and irritable bowel syndrome. Moreover, the effects of such abuse are likely to be long-term. As adults, formerly abused children report poor health status use more health care facilities and opt for risk taking behaviours including smoking alcohol and drug abuse and unsafe sex (Tazima, 2000; WHO, 2002).

2.3.2 Women

Domestic violence has been associated with a range of health problems. A substantial proportion of physically assaulted women sustain injuries ranging in severity from bruises to fractured bones (Koeing, Ahmed et al 2003; Mwenesi et al. 2003). The IPV victims exhibit various symptoms of psychological morbidity such as depression, anxiety and post-traumatic stress disorder (Campbell et al. 2002; Plichta 2004; WHO, 2002). Compared to non-abusive intimate relationships, the IPV women victims exhibit higher health risk behaviours such as unhealthy feeding habits, substance abuse, alcoholism and suicidal behaviours (Emenike, Lawoko & Dalal, 2008; Plichta 2004). They also use less contraception and anti natal care (Diop-Sidibe et al, 2006). Evidence suggest that abused women encounter reproductive health problems including abortions, undesired pregnancies and child loss during infancy to a higher degree than peers in non-violent intimate relations (Garcia-Morena et al. 2006; Jejeebhoy 1998; Kishor and Johnson 2004; Rose et al., 2000).

Women victims of IPV, compared to their non-abused peers, tend to use more community and health care services and have a more restrained bond with health care providers and employers (WHO, 2002; Plichta 2004; Rivara, 2007a). However it remains unclear, whether this is a reflection of loss of self confidence or whether they in fact are victims of social and institutional

marginalisation. Studies show that compared to never-abused women, those referring psychological abuse solely, were more likely to have negative mental health indicators (Ruiz-Perez, Plazaola-Castano, et al., 2005).

2.4 Child labour

Child labour is a global issue associated with poverty-related life-course outcomes, including inadequate educational opportunities, gender inequality and health risks (Bagley & Mallick, 2000; Driscoll & Moore, 1999; Lieten, 2000). According to Article 32 of the 'UN Convention on Rights of the Child', child labour is "likely to be hazardous, or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development" (Makhoul et al. 2004). Children are most vulnerable in poor families as poverty is transferred from one generation to another; i.e. a 'cycle of poverty' associated also with a high level of fertility and illiteracy (Lieten, 2000). Work is an essential part of growing up and contributes to their family and its future prospects. It is a willful strategy on the part of parents (Lieten 2000; Miljeteig 1999). They provide future as well as current security to their parents/families, since the children can earn up to one-third of the total family income (Jejeebhoy, 1993). Children work for less payment without absenteeism, unionism, and without demanding any overtime payments (Aggarwal, 2004). Along with an increase and severe economic hardship, more and more children enter available work opportunities. International bodies and governments of the developing countries have spent millions of dollars to remove child labourer from hazardous industries in the organized sectors. In spite of this the numbers of child labourers will increase in the future (IPEC, 2005).

According to an estimate by UNICEF (2007) 218 million children aged between 5-17 years are engaged as child labourer, excluding the child domestic workers. The same report estimated that the Asian and Pacific regions have more than 127 million, Sub-Saharan Africa region, 48 million, Latin America and Caribbean, more than 17 million child labourers compared to 2.5 million in industrialized countries. India currently has 17 million child labourers in organised sectors, who contribute up to 20 percent of the Indian Gross Domestic Product (GDP), and another 46 million children are working in the unorganised sectors (Srivastava, 2003). Bangladesh has more than five million child labourer (ILO, 2005). Egypt has more than one million child labourer only in the cotton fields (HRW, 2006). Kenya has more than 3.5 million child labourer (Global March, 2007). There is under-reported child labour in both the unorganised and unaccounted sectors (Blagbrough & Glynn, 1999; Human Rights Watch 2004). UNICEF (2007) has accounted that more than 70 percent of the children work in the agriculture sector. In summary, the actual figure of child labour is underestimated when considering both the organized and unorganized sectors. However, in the existing socioeconomic situation it is difficult to eliminate child labourer in India – due to poverty, parental attitudes, migration, the caste system, the lack of a coherent education policy (with insufficient numbers of schools), and the absence of social-welfare facilities (Aggarwal, 2004; Srinath, 2006; Srivastava, 2003).

2.5 Developing countries

The World Bank has classified the countries by means of their per capita gross national incomes. According to the economic growth rate, the positive economists divide the countries into high income, middle income and low income countries. But following the normative school of economists, considering the welfare of the citizens, countries are addressed as industrialised and developing countries. However, instead of using different income scales, one group of economists have propounded for development as means of well being by enhancement and freedoms of lives (Sen, 1985; 1999). Supporting these concepts another group of economists have argued that economic development is related to three core values: sustenance of ability to

meet basic needs, self-esteem to be a person and the human freedom to choose freely (Goulet , 1971; Todaro & Smith, 2003)

As a consequence, for this thesis, developing countries are the countries which are suffering to properly secure those three core values for their citizens. Instead of using low and low-middle income countries the term developing countries is used. Several bodies of the United Nations such as UNICEF, UNO have often used the term developing countries. Even in the literature on violence mostly the term ‘developing countries’ is used instead of low and middle income countries (Koeing et al, 2006).

2.6 Different country studies

The thesis includes four countries with different political boundaries, more or less the same socioeconomic characteristics and risk factors for violence against women, i.e. man dominated societies, women dependency on man’s income and familial supports, child labourer, social acceptance of violence against children and women (Andersson et al, 2007; Bates et al, 2004; Diop-Sidibe et al, 2006; Garcia-Moreno et al, 2006; Hassan et al, 2004; Jeyaseelan et al, 2004; Koeing et al, 2003; 2006; Mwenesi et al, 2003; Naved et al, 2006; WHO, 2002). For a better understanding of the socio-economic situation of the countries population, Life Expectancy at Birth, Gross National Income (GNI) per capita, percentage of population below poverty line, literacy rate, sex ratio and Human Development Index are presented in table 1.

Table 1: Socioeconomic characteristics of the study areas, divided on population, life expectancy at birth, GNI per capita, population below poverty line, literacy rate, sex ratio and Human Development Index-ranking.

Countries	Population**	Life Expectancy at Birth	GNI per capita*	Population below poverty line (%)	Literacy rate %	Sex ratio: male(s) / female	Human Development Index ranking (2007-08)
Bangladesh	150,448,339	62.84 years male: 62.81 female: 62.86	2340	45	43.1 Male: 53.9 Female: 31.8	1.06	140
Egypt	80,335,036	71.57 years male: 69.04 female: 74.22	4690	20	71.4 Male: 83 Female: 59.4	1.05	112
India	1,129,866,154	68.59 years male: 66.28 female: 71.17	3800	25	61 Male: 73.4 Female: 47.8	1.12	128
Kenya	36,913,721	55.31 years male: 55.24 female: 55.37	1300	50	85.1 Male: 90.6 Female: 79.7	1.02	148

Sources: World Development Indicators database, World Bank, 14 September 2007, UNDP Report 2007-2008.
* PPP in International Dollars, ** Estimated on July 2007

2.7 Review of the current studies from developing countries

Pubmed was searched and the following search words were used: domestic violence against women + developing countries and 92 articles were found. However, when we put limitations for English language and last ten years it reduced to 25 articles. During reading the abstracts of those articles we found that only seven articles were matching our topics. A summary of those seven articles are appended below in Table 2.

Table 2: Review findings of seven articles on domestic violence against women from developing countries.

Article	Objectives	Materials and Methods	Main findings	Conclusions
Koening, Lutalo et al. 2003. 'Domestic violence in rural Uganda: evidence from a community-based study'.	To assess the prevalence of domestic violence under the Rakai project survey during 2000-01. Experience of IPV during life time and last 12 months and risk factor analysis were main concern of the study.	- Representative community based studies. - 5109 women of reproductive age group (15-49) were interviewed from rural south western Uganda. - Verbal abuse, physical threats and Physical abuse were main outcome variables. - Questions were adopted from original conflict tactics scale.	- Life time prevalence rate (n=4996): Verbal abuse = 40%, Physical threats = 20% Physical violence = 25%, Threats / violence =35% - Prevalence in last 12 months (n = 5107): Verbal abuse = 31%, Physical threats = 13% Physical violence = 15 %, Threats / violence = 20 % - Risk factor of domestic violence: Respondent's and partner's HIV status, respondent's age of first intercourse showed significant relationship. However, 90% women and 70% men justified wife beating.	In a poor setting with wide acceptability of domestic violence by the women, it is really difficult for taking any preventive measure.
Bates et al. 2004. 'Socioeconomic factors and processes associated with domestic violence in rural Bangladesh'	Specific risk factor analysis of domestic violence targeting policy making. Focusing: Women's social, economic and physical well being, their capacities and access to resources, empowerment and experience of domestic violence.	- Geographically varied six villages from three districts of rural Bangladesh. - Semi-structured, in-depth interview of 76 women during 2001-02. - Women of reproductive age group (n=1212) took part in the quantitative survey during 2002.	Women's median age of marriage is 14 years. Experience of domestic violence: Life time minor: 67%, Life time major: 33%, Injury: 25%, Warranted medical attention: 19%, Received medical care: 15% Risk factors: Dowry agreement, Registered marriage, Contribution in husband's expenses, No or Lower education.	Women's socioeconomic situations are risk for domestic violence. Further studies needed for specific intervention program.
Hassan et al. 2004. 'Physical intimate partner violence in Chile, Egypt, India and the Philippines'.	To study physical IPV against women in multi sites from six communities of Chile, Egypt, India and Philippines.	- Population based cross-sectional studies. - Women aged between 15-49 with at least one child and who lived past 12 months or more with their husbands were interviewed. - Sample size: Chile: 442, Egypt: 631 India: 1922, Philippines: 1000	- Prevalence of physical IPV for last 12 months and life time were more or less same in all countries. - Slapping was mostly reported as IPV. - All the six cities from different geographical and cultural settings showed similar IPV prevalence rate. - Overall lifetime prevalence rate of physical IPV: 27%. - Physical IPV's are associated with social isolation and control of environment where women belong to.	Studies from four countries indicate an overall pattern of prevalence and risk factors. However further studies warranted in relation to IPV related injuries and health care.

<p>Jeyaseelan et al. 2004. ‘World studies of abuse in the family environment--risk factors for physical intimate partner violence’.</p>	<p>Risk factor analysis of physical IPV against women in multi sites from six communities of Chile, Egypt, India and Philippines.</p>	<p>- Married women of reproductive age group from six cities (n = 3975). - Socio-demographic characteristics of the women and their current partners. - Risk factors: Victim’s mental health (using SRQ), Partner’s alcohol use, Social support, History of family violence</p>	<p>- Overall mean age of experiencing life time physical IPV: 33 years. - Life time IPV from drunk husband: Highest: India (Vellore) (62%) and Lowest: Philippines (Paco) has lowest. - Risk factors of life time IPV: Partner’s alcohol consumption, Experience of father’s beating mother, Women’s poor mental health & poor family work status, - Protective factors for life time IPV: Victim and husband’s education level, Women’s more number of assets (Only in India, Trivandram). - Social support is not significantly associated.</p>	<p>Relative risk factors of physical IPV are common in all the six communities in four geographically and culturally different countries.</p>
<p>Kocing et al. 2006. ‘Individual and contextual determinants of domestic violence in North India’.</p>	<p>To assess contributions of individual and contextual factors for male to female physical and sexual violence in north India. Socioeconomic, demographic, relationship, intergenerational exposure to domestic violence; economic development, gender & wife-beating norms, level of violent crime were main concern of this study.</p>	<p>- The paper used data from another source of Male Reproductive Health Survey (MRHS), 1995. - Married men aged between 15-59 years, living with wives were interviewed. - Out of 8296 eligible men from four districts of rural Uttar Pradesh (a north Indian state) 6727 men were interviewed. - Multilevel modelling structure & multilevel logistic regression were used.</p>	<p>Husband’s report on violence against wives: - During last 1 year: Physical violence: 25%, Sexual violence: 30%. - Lifetime: Physical violence: 34%, Sexual violence: 32% Risk factors of physical violence (husband’s perspectives): Lower socioeconomic levels, Borrowing of money by husband, Longer marriage duration, childlessness, Intergenerational exposure to violence. Risk factors of sexual violence: Household economic pressure, Childlessness, Husband’s extra marital affairs, Husband’s higher level of education, Childhood witness of domestic violence. Districts with higher murder rate have higher rate of physical and sexual violence against women.</p>	<p>Risk factors from husband’s report of Physical and sexual violence against women show some common and different grounds. Husband’s higher socioeconomic status is protective factor for physical IPV but not for sexual IPV. Country specific constraints for data collection should be considered.</p>
<p>Diop-Sidibe et al. 2006. ‘Domestic violence against women in Egypt- wife beating and health outcomes’.</p>	<p>To study the association between wife beating and health outcomes. Use of contraceptive, pregnancy management, health problems and doctor visit due illness were main concern of this study.</p>	<p>- Data collected from Egypt Demographic and Health Survey 95 (EDHS95). - A total 6566 ever married women of reproductive age (15 -49years) were face-to-face interviewed. - Both univariate and multivariate logistic regression were used.</p>	<p>- Ever beaten by husbands: 34% - Did not discuss IPV with any one: 54% - Beating is part of life: 60% said yea - Ever beaten wives needs permission to go other places, Visit doctor, Visit relative or friend.</p>	<p>Egypt shows similarity with other developing countries as domestic violence against women is associated with negative health outcomes such as use of contraception.</p>

<p>García-Moreno et al. 2006.</p> <p>'Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence'.</p>	<p>To study the extent of physical and sexual IPV against women in 15 communities from 10 countries: Bangladesh, Brazil, Ethiopia, Japan, Namibia, Peru, Samoa, Serbia and Montenegro, Thailand and UR Tanzania.</p> <p>Moderate and severe physical violence, sexual violence and controlling behaviours by an intimate partner were main concern of this study.</p>	<p>- Standardized population based household surveys.</p> <ul style="list-style-type: none"> - Capital cities and one representative province with rural and urban characteristics. - Ever married/ partnered women (n= 24097) between 15-49 years were interviewed using standardized structured questionnaire. - Main outcome variables: Emotional abuse. Physical violence: Moderate, Severe, Sexual violence. 	<p>- Life time prevalence: Physical partner violence: 13-61% Sexual partner violence: 6-59% - Prevalence within last 12 months: Physical &/ or sexual violence: 4-54% Japan has lowest partner violence Provinces of Bangladesh, Ethiopia, Peru and UR Tanzania have highest partner violence. - Prevalence of severe physical violence: 4- 49% (> prevalence of moderate physical violence) - Physical and sexual violence by intimate partner overlapped substantially. - Controlling behaviour by intimate partner: 21 -90% - Victims of physical and sexual abuses are more controlled for their physical and social mobility. - Perpetrator of physical &/or sexual violence (since victim's 15 years): Intimate partner: \geq 60%</p>	<p>Prevalence of partner violence is much lower in developed countries than developing countries. Women receive more physical and sexual violence from their partner than other perpetrators. Domestic violence should be addressed with more emphasis.</p>
<p>Naved et al. 2006.</p> <p>'Physical violence by husbands: magnitudes, disclosure and help-seeking behaviour of women in Bangladesh'.</p>	<p>To explore the magnitude of husband's physical violence against wives, disclosure of such violence and help-seeking behaviour of the victims in urban and rural Bangladesh.</p> <p>Women's experience of physical violence (lifetime and last 1 year), socio-demographic characteristics including participation in credit group were main concern of this study.</p>	<p>- A cross-sectional survey of Bangladeshi women of reproductive age (15 -49 years) during 2001.</p> <ul style="list-style-type: none"> - Qualitative in-depth interviews of 28 women were performed. - From 4051 households 2702 ever married women were finally interviewed. - Multistage sampling in both study areas. - Questionnaire of physical violence was constructed from conflict tactics scale (CTS). - Multilevel logistic regression models were used. 	<p>Prevalence: Lifetime physical abuse: 40%, severe: 19% Lifetime severe physical abuse: 22% Physical abuse during last 1 year: 17% Never told about spousal physical abuse: 66% 1/3rd victims disclose to: Parents: 19%, Siblings: 15% In-laws: 16%, Neighbours: 10%. Reasons for never seeking any helps (% of victims): Consider violence as not serious enough: 55%, Reporting violence is shame: 35%, Detraction of family honour: 30%. Reasons for seeking help (% of victims): Cross endurance limits: 82%, To save children: 34%, Severe injury/afraid of murder: 26%. Victims never get any help: 60% in urban & 51% in rural areas. Institutional help seeking: 2% of the victims</p>	<p>Physical spousal abuses are accepted phenomena for wives in Bangladesh. Women seek help at their last level of tolerance. Help providing services are inadequate and need more accessibility to the victims.</p>

<p>Andersson et al. 2006.</p> <p>'Risk factors for domestic violence: national cross-sectional surveys in eight southern African countries'.</p>	<p>To identify the risk factors of domestic physical violence through baseline assessment of attitude and practices to measure impact of mass-media campaign.</p> <p>Domestic violence, attitudes, subjective norms, collective efficacy, experience of physical domestic violence in last year were main focus of the study.</p>	<p>- A cross sectional household survey was conducted in eight southern African countries during 2000.</p> <p>- Countries: Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia and Zimbabwe.</p> <p>- 17377 households were selected from 213 randomly selected enumeration areas.</p> <p>- Without sub-sampling 20639 adults, aged 16-60 years were interviewed (face-to-face).</p> <p>- Uni-variate & Step-down logistic regression were used.</p>	<p>Prevalence of last year partner physical violence: Women: 18%, Men: 16%</p> <p>Personal and household level risk factors: Gender gap, income gap, Four or less members enhance risk of physical abuse in the household. Food insufficiency is slightly associated with physical abuse. Beliefs of gender violence are associated with physical abuse.</p> <p>Women sometimes deserve physical violence. Two or more partners are risk factor for physical violence against women. 2/3rd respondents report that domestic violence is a serious issue in their communities. Victims of physical violence believe that they are in more risk of HIV.</p>	<p>Multiple partner is a severe risk factor for domestic physical violence across the eight African countries. Women as well as men are also victims of domestic physical violence. For prevention of domestic violence and implantation of strategies more studies are warranted.</p>
<p>Jeyaseelan et al. 2007.</p> <p>'Physical spousal violence against women in India: some risk factors'.</p>	<p>To evaluate various risk and protective factors for lifetime spousal physical violence against women in India.</p> <p>Spousal violence against women, social support, socioeconomic factors, victim's childhood experience of family violence, husband's alcoholism were main concern of this paper.</p>	<p>- A population based cross-sectional household survey was conducted.</p> <p>- Purposively selected rural, urban-slum and urban non-slum strata located in New Delhi, Lucknow, Bhopal, Nagpur, Chennai, Trivandrum and Vellore were studied during 1998-99.</p> <p>- Women (n=9938) aged between 15-49 years with at least one child below 18 years were interviewed.</p> <p>- Bivariate analysis, ANOVA and chi-squared tests were performed.</p>	<p>- 26% women are victims of physical violence during their lifetime of marriage.</p> <p>- Respondents of rural and urban slums are less educated and non-literate and living in greater poverty.</p> <p>- Lifetime prevalence of physical violence against women (highest): Beating: rural India: 26%, Hitting: urban-slum: 26%, Kicking: urban-slum: 23%, Risk factors: Lower socioeconomic status, Lower years of education, Lower social supports, Lower level of husband's education, Regular alcohol consumption of husbands, Dowry related harassment, Childhood experience of violence, Witnessing the beating of mother by father, Higher employment status than husband, Absence of toilet facilities.</p>	<p>Higher socioeconomic status and good level of social support are protecting factors for spousal violence against women in India. Findings could be helpful for planning interventions.</p>

Commentary: Studies scrutinized from different socioeconomic situations of the women demonstrates a gross trend of abuse, commonality in risk factors and similarity of women's attitude towards IPV. However, each country has specific background risk factor for the same issue. Furthermore, the review suggests more studies on domestic violence as vivid searches resulted only a few studies, especially from developing countries. Country specific constraints for collection of data should be considered. Un-reporting and under-reporting are major problems for violence related studies in the developing countries. Therefore, review of the papers from developing countries reveals that we need more country specific studies on the same subject. Such studies will provide more information for planning multi-level interventions.

2.8 Theoretical framework

A common understanding of the causes of domestic violence can help researchers and policy makers to develop more effective responses to the violence. The understanding can help to avoid conflicting responses which reduce efforts to protect victims and account the abusers.

During the 1970s the initial theory of men's violence against women was based on "psychopathology". It propounded that men who abused their wives were mentally ill and could be cured through medication or psychiatric treatment. However, most domestic abusers abuse only the intimate women while the mentally ill persons attack any person (without any limitation). However, this theory of psychopathology was questioned because of mentally ill persons (Fredrick's, 1997).

The "learned behaviour" theory of violence stated that men abused their intimate partners because during their childhood they had learnt domestic violence from their families. However men and women had different impact of prior learning of domestic violence in their lives (Mihalic & Elliott, 1997). Many men who witnessed domestic violence in their childhood were not necessarily becoming abusive in their adulthood. It was also propounded that boys who eventually became abuser in their adulthood not only learnt from domestic violence also learnt from the society about respective roles of men and women which might contribute for their abusive behaviour as adults (Frederick's, 1997).

The "loss of control" theory of domestic violence was an extension of the "learned behaviour" theory, as a result of men's loss of control over their anger and frustration. However, men often became violent and abusive against their wives (intimate partners) in private and secured places where there would be no evidence of abuse. Additionally they did not abuse their strong social counterparts like police or law making personnel, employer and persons at their hierarchy (Ganley & Susan, 1995)

The "learned helplessness" theory of domestic violence hypothesized that in spite of constant abuse women stayed with their abusive partners. At the beginning women generally attempted not to end the relationship, rather on the basis of non-violent approaches they negotiated to re-establish the relationship (Walker, 2001). Some advocates of this theory also argued that women suffered from personality disorder which caused them to seek out abusive relationships as means of self-punishment, or addiction to abusive relationships. It helped women to stay in the abusive relationships. Societies believed that the responsibility of happiness for the husbands and families were lying on the women. Women eventually realized that the man's violence did not depend upon change of their behaviour. Some women realized it fairly quickly while others took longer time to realize the culturally constructed notions. However, the "learned helplessness" theory denied the fact that women's reaction to domestic violence often changed over time. Furthermore the theory was accompanied by concepts of psychopathology and did not consider the social, economic and cultural norms of the societies (Walker, 2001).

Another theory was the theory of 'cycle of violence'. The theory focused on expression of feelings of frustration and anger which build up tension that exploded in violence. After the tension being released the men became apologetic and remorseful (Walker, 1980). Walker (1980) also argued that if men denied the situation the violence continued. However this theory did not consider the women's situation properly. Many women might not experience the happy moment. Others stated that there was no evidence of gradual build-up of tension of the men, rather unpredictable and almost random episodes of abuses. This theory did not deal with intentionality and the notion of the happy phase. However, opposition researchers advocated that this theory did not explain why men always directed their violence only against their intimate partners.

All these theories had failed to interpret the inherent superiority of the males. Men's abuses were not isolated instances for loss of control, cyclical expressions of anger and frustration. Rather, each incidence was part of a larger pattern of behaviour targeted to exert and maintain power and control over the victim. So, previous theories might explain the contributing factors but failed to explain the background factors of violence. The "power and control" theory recognized the abuser's intent to gain control over their wife's (intimate partner's) actions, thoughts and feelings. It assumed that the purpose of the violence is to exert power and control over the victims. For more power and better control over intimate partners men also abuse the children (DAIP, 1981). It also explained that men's violence was tolerated by the society through economic arrangements, socio-political and cultural institutions. By this tolerance women's subordinate role and unequal power were enforced and maintained. Some advocates of this theory explained that men had some expectations for enforcing the dominance over intimate relationships. Men built an acceptable mechanism to be the in charge of the relationships. Instead of victim's behaviour these attitudes and beliefs induced the men to become violent.

The 'feminist theory' explained that domestic violence originated from the unequal distribution of gender power in a patriarchal society (Keel, 2005; Zosky, 1999). Men have more access to resources and decision making. Women are underprivileged. It was interpreted as men abused women as a mechanism to enjoy power and control in a patriarchal society. However, feminist theory lacked the generalization for majority of men and interpersonal relationship. The critic of this theory questioned why majority of the men did not use power, control and violence to abuse their female partners.

Current theories of violence have different pros and cons. Considering both the complexity of the issue and the absence of easy solutions each theory has contributed to valuable perspectives. However, no single theory has sufficient empirical support to cover the entire phenomena (Cunningham et al, 1998; Zosky, 1999). The attempts to provide explanations of this complex issue needs to be integrated in different social, familial and individual contexts depending upon economic socio-political and cultural variables.

WHO (2002) concluded that no single factor can explain the reason behind men's violent behaviour against women. To analyse the multifaceted nature of domestic violence WHO introduced the ecological model based on 'Bronfenbrenner's model (1979). The 'ecological model' of violence describes the relationship between individual and contextual factors. It considered violence as a result of multiple influences on behaviour. The model divides also the cause of violence under four major headings: individual characteristics, relationship factors, community characteristics and societal factors of the perpetrators and the victims. As most of the current research on domestic violence and child abuse are based on this "ecological model" this thesis it as a tool for the basic understanding of the problem.

2.9 Economic analysis of violence in developing countries

2.9.1 Poverty and violence

Poverty has been identified as both a contributing factor and as a consequence for interpersonal violence (WHO, 2004). As indicated by the WHO (2004), most of the studies related to employment, income level and inequality with interpersonal violence are focused on homicide and industrialized countries. However in the developing countries, where the rate of domestic violence are high an adjusted economic analysis of domestic violence is warranted.

2.9.2 Poverty and child labour

Child labour is a complex socioeconomic problem. Child labourers are part of a parental strategy for household survival and due to complex labour market outcomes (Basu & Van, 1998). Poverty and child labourers mutually co-exist in the developing countries as those economies are suffering from the 'vicious cycle of poverty'. With poor parents, children must work and get least scope to attend school. Finally they also grow up in poverty. Therefore, child labourers are also a part of future poverty. The separation in time between the benefits and long delayed costs of sending children to work results with more child labourers, especially in an imperfect financial market. On the other hand cost-benefit socioeconomic effects of child labourer are exploited by different people of different sectors (Udry, 2004). Therefore with the existing socioeconomic situation and economic cycle it is a difficult task to decrease the numbers of child labourers in developing countries. Furthermore, law enforcement and demand for ban child labourer have lost their effectiveness with these complex structures (Basu & Van, 1998; Udry, 2004).

2.9.3 Health care utilization

Health care financing

Health care facilities are broadly financed by public and private expenditures and external /internal aids. Public expenditure is generally financed by central and local governments, government and social insurance contributor, taxes and compulsory insurance contribution (by employee or employer or by both). However, the developing countries mostly follow the British National Health Service (NHS) systems generally financed health care by revenue (taxation). They charge nominal user-fee irrespective of patient's income, i.e. income is not a barrier to medical care. As an alternative to NHS (but only for the employees) they also are financed by social health insurance, voluntary/private health insurance, out of pocket payment or by internal/external donations. However the poor people of the developing countries suffer to avail the health care facilities.

There is a nexus between the poor and their poorer health by means of inadequate health care facilities, especially in the rural areas (Culyer, 1993; World Bank, 1993). Therefore, the rural inhabitants of the low income countries suffer a lot due to lack of modern medical treatments. The violence victims with injuries also suffer in the same pattern of their peers with diseases. With poor public health care systems, in absence of health insurance and inadequate social safety nets the injury victims and their families are primarily disposed of the health expenditures from out of pockets (Van Damme et al, 2004; Roy & Howard, 2007). However, when the victims suffer from violence related injuries generally two effects work simultaneously up on the victims. First, due to shame and social stigma the victims dare to disclose the violence incidence. Secondly, the victims suffer from proper treatment due to lack of money.

Health care utilization and cost

Studies from Denmark, USA, and other industrialized countries show that women as victims of domestic violence used an increased amount of health care utilization and costs (Walker et al, 1999; Rivara et al., 2007a). However we could not find any such study from a developing country whether the victims of domestic violence use more health care facilities or not.

Earlier studies from North America show that children exposed to IPV have poorer health status, less immunization, increased use of prescribed drugs and health care services and greater utilization of emergency clinics, compared to children without exposure of IPV (Casanueva, et al, 2005; Onyskiw, 2002). A recent study from USA estimated that the children with IPV exposure result with an addition of \$2.5 million annual health care costs for every 100 000 American women (Rivara et al, 2007b). However, from developing countries we do not know the health

care cost of the children, abused at home. The child labourers, especially in the unorganized sector face violence. We do not know the health care utilization and related costs for their victimization. However practical experiences from India show that child labourer put their energy to earn money. They have no money and time for treatment. Therefore we need further research on the health care utilization among the child labourers in developing countries.

Utilization of sick-leave and insurance benefit

Welfare based countries with social insurance system are guided by the principle of compensating the lost-income (Khan & Jansson, 2008). At the same time the same system also provides sickness allowance to the socially insured persons. The victims of IPV in Sweden could have used the sickness-leave and insurance benefits. However, amount and limit of such expenditure are still unknown. Similarly, women and children as refugee also used high level of health care as victims of war and violence (Ekblad et al., 1997). However the amount and specific expenditure of such health care utilization are not clear. In a resource poor economy where the women struggle to manage employment and to earn economic sovereignty for the family, there it is difficult for them to avail any such insurance benefit for victimization of violence. There is also lack of studies from developing countries indicating women workers' use of sick-leave and insurance benefit as victims of domestic violence. Therefore developing countries need further studies in this context.

Inequity in health

Women's health problem is different compared to men in developing countries. The poor women suffer from health problems as a result of gender inequalities of health in the developing countries (Okojie, 1994). Health inequalities persist at great extents in the societies where domestic violence is accepted as 'normalization of violence'. In case of domestic violence women face a higher level of victimization. Women are twice more likely to be injured and thrice more likely to live in fear of violence than their male counter part (Humphreys, 2007). WHO (2002) reported that violence is one of the major contributors of women's poor health. Women who are exposed to domestic violence are at a higher risk of both physical and mental health problems. Therefore, to reduce inequities of health among poor women of developing countries we need violence prevention and safety promotion programmes addressing the equity problems.

2.9.4 Why we need to calculate costs of injuries in developing countries?

WHO (2004) described that domestic violence is an economic burden to the society. However, the report and other studies mainly did focus on industrialised countries and not the situation in developing countries (Nilsen, Hudson & Lindqvist; 2006; WHO, 2004). However, some researchers have calculated the cost of war related violence also (McKee & Janson, 2005). Most of the families in developing countries depend on one person's income. Therefore the cost calculation methods for developing countries need to consider this family income situation. The industrialised countries have health care facilities with various social support systems, sick-leave and insurance benefit and health care financing covering majority of the population (Khan & Jansson, 2008). Developing countries are suffering from low level of health care financing and poor health care supports. Policy makers more believe in economic and monetary information than other epidemiological information (Khan, 2004). Some countries from developing world have initiated a few intervention programs for violence prevention. In near future we need economic evaluations of those violence prevention programs. Without proper calculation of costs, we could not perform the economic evaluations of the programs. Therefore, to better inform the policy makers and to judge the economic significance of the domestic violence we need to calculate costs and to perform their economic analysis.

2.10 Rationale of studies

Most of the studies on this health problem describe the situation in the industrialized countries where modern facilities are being used for case reporting and data registry. The incidence and prevalence rates of domestic violence are higher in developing countries than developed countries (Garcia-Moreno, 2006). However, compared to industrialized countries less amount of studies are scatterly found from the developing countries. It may be identified as an improper representation of the scenario in absence of nationwide data-bases of violence related figures. Furthermore there are a few studies to understand the problem of violence in the poorer and vulnerable section of children and women in developing countries. There is a knowledge gap of domestic violence related studies on these groups of children and women.

Historically, there has been a strong relationship between poverty and childhood anti-social and violent behaviour (Mukherjee 1993, Pettit 2003). Child labourers are violent. They are also abused in their families, in their neighbourhood society and at their work places. However, studies fail to indicate the reason of their violence, and whether it has any relation to the perpetrators. However, nearly 98 percent children suffer from physical punishment in their homes (WHO, 2002). Most of their mothers are also abused. However, a few studies from the industrialized countries indicate a relationship between maternal child abuse and the mother's exposure to domestic violence. Especially in the context of developing countries such studies are lacking in the field. There are a few studies from the developing countries about socioeconomic and behavioural characteristics of the abusive husbands. However, the scientific community lacks information where the women themselves report about their husbands characteristics, especially in a rural society. Similarly, we also lack information about women's autonomy and access to information in relation to domestic violence. Economic consequences of violence are also unclear in developing countries. Existing studies on economic consequences are specifically targeted the industrialised countries. In the developing countries societal and familial contexts are different than those of the developed countries. In developing countries most of the families depend on one person's income. The health care facilities of those countries are also different than their developed counterparts. Considering these ideas there is no such methods to measure the economic consequences of violence in developing countries. Finally, researchers from the World Health Organization and other organizations have advocated for more context dependent studies from the developing countries (Bates et al., 2004; Gage, 2005; Koeing, Lutalo, et al., 2003; WHO, 2002; 2005). However, to reduce the knowledge gap the situation demands for more studies on domestic violence including its economic consequences, especially in the poorer and vulnerable societies of the children and women in developing countries.

3 Objectives

3.1 Overall objective

The overall objective of the study was to investigate risk factors and the social and economic consequences of violence and child abuse in a familial and societal context.

3.2 Specific objectives

To explore the causes and circumstances of violent behaviour among child labourers in the Indian unorganized sectors (Paper I).

To scrutinize the association between maternal abuse of children and mothers' exposure to and attitudes towards intimate partner violence among women in Egypt (Paper II).

To study physical, verbal and sustenance abuse towards women, considering the influence of gender imbalance and poverty in Bangladesh (Paper III).

To examine social inequalities in intimate partner violence among women of reproductive age in Kenya (Paper IV).

To test a model that includes supplementary cost elements targeting the specific socio-economic characteristics of developing countries applicable to household surveys (Paper V).

4 Material and Methods

We have used both interview techniques and registry data as described in figure 2. In paper-I and paper-III we have used face to face interview techniques. In paper-II and paper-IV, we have used data from national surveys conducted by Demographic and Health surveys (DHS) in Egypt and Kenya respectively. Paper-V is mainly a methodological paper and tested with information gathered from interviews. Sources of data are presented in figure 2.

Figure 2. Summary of study design and collection of data.

Paper I	Face-to face interviews of 1400 child labourers from 14 categories of occupational branches in five states of India.
Paper II	Household survey of 14016 women, using the Egypt Demographic and Health Survey, 2005.
Paper III	Cross sectional household survey of 4411 women from rural Bangladesh.
Paper IV	Household survey of 5878 women, using Kenya Demographic and Health Survey, 2003.
Paper V	Cost calculation model tested on five cases of violence on different degrees of severity in India.

4.1 Data collection

Paper I

Study population

Children aged 5-15 years, working in the unorganized work sectors in India were the study population.

Sampling

Multi-stage sampling was used. Primarily five Indian member states (West Bengal, Orissa, Andhra Pradesh, Madhya Pradesh and Maharashtra) were purposively selected. These member states lie on a horizontal continuum, stretching from eastern to western India. Then from these states two metropolitan cities, eight urban townships, five villages and two stretches of national highways were selected purposively. Due to lack of man power and monetary support these areas were selected purposively for better control of the interviews and better observation of the child labourers. With prior experiences of the interviewers 'black spot' for child labourers of each areas were identified. Then from each spot the child labourers were randomly selected, e.g. the interviewer randomly selected any four out of 20 child labourers.

Data Collection

The first author was born and brought up around the child labourer in India. From his childhood he observed the violence among child labourer.

Initially a pilot study was conducted during May, June and August of 1997 (July month was full of monsoon rain). During the pilot study we have tested and adjusted the questionnaire for final study. With experience from the pilot study we planned the final study. The interviewers were trained. They met twice a week to discuss problems faced during the interviews. During those meetings interviewers decided that a semi-structured questionnaire would be the suitable one to study the child labourers. Accordingly the final questionnaires were set. They also discussed how to reduce interviewer-variation bias during observation. Finally, the interviewers were re-trained

in the light of experiences gathered from the pilot study. From the pilot study fourteen categories of work of the children were finalised.

For the *final study*, data were collected over a three-year period from September 1997 to December 2000. The semi-structured interview technique was used. Initially, a face-to-face interview was performed with each child labourer. Then, to get more details about the families of the child labourers, their parents/guardians were also interviewed. During interviews it was found that in some cases the information from the child labourer and from their guardians were different. In case of such doubts those child labourers were observed twice or thrice in a week. For better understanding of their situation, information was also collected on the family history of the child labourers. Examples were when the child labourers were reluctant to provide information, when they were intentionally or un-intentionally provided misleading information or when they were ambulant, i.e. they travelled several kilometres to do their work then the interviewers made observations. Even in some cases, the socioeconomic and cultural environment did not allow the interviewer to conduct face-to-face interviews then the interviewers relied upon natural observations in order to cross-verify the collected data.

Questionnaire

Initially, all questionnaires were written in English. However the questionnaires were translated and back-translated into Bengali, Hindi and Oriya languages for the field interview management.

Data interpretation

From the filled questionnaires, the quantitative data were analyzed using the Excel program. Content analysis was used for qualitative data (Graneheim & Lundman, 2004). Two researchers started to read the information and kept notes. Then gradually a stage was reached to generate theoretical concepts towards the inter-generational problem of the child labourers. Initially, the steps of the cycle, such as financial crises, psychological pressure, violence, early marriage and socio-economic pressure were identified. In the next stage, causal relationships were developed. Finally, from these causal relationships, a basic frame of generic associations was developed to a model, entitled the 'vicious cycle of violence'. Before establishing the final model, the whole methods were re-evaluated.

Paper III

To plan an intervention program for violence against women we have conducted a base-line survey to assess and analysis the current situation.

Study area and population

Two upazilas (sub-districts), Savar and Dhamrai of Dhaka district were selected as study areas. Married women between 14– 49 years residing in the catchments areas of each community clinics were selected as the study population. According to the Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh, Community Clinics should provide services for approximately 6000 people, and their location would make them accessible for 80 percent of the population, within less than 30 minutes walking distance (Normand, Iftekar & Rahman, 2002).

Study design

A cross-sectional household survey was conducted among a group of randomly selected married women of reproductive age in study areas from rural Bangladesh.

Sample size

A total of 4411 women of reproductive age groups were interviewed from 4049 households to collect baseline information. Following formula was used to calculate the sample size for this study

$$n = z^2 pq / d^2$$

$z = 1.96$ (95% confidence interval)

$p = .2$ (prevalence of physical abuse during preceding 6 months)

$q = .8$

$d = .02$

Calculated sample size is 1534

Considering design effect 2.5, and 10% non-respondent, 3400 women were needed to be selected for interview. However, considering the drop out problems in studies of violence, 4411 women were interviewed for the baseline study.

Sampling

Both purposive and random sampling methods were followed in this study. The study was conducted by the Institute of Child and Mother Health (ICMH), situated in Dhaka. For continuous monitoring and supervision from the investigators and for feasible and practical purpose in the operation of the study from the ICMH, Dhaka district was selected purposively. Two upazilas (sub-districts) of Dhaka district, Savar and Dhamrai were selected randomly. The functioning community clinics of these two selected upazilas were listed at first. Then five community clinics from each upazila were again randomly selected. Eligible women resided in the catchments areas of the community clinics were then selected with the following sampling techniques. First, a rapid survey was conducted to list the eligible women (married women of reproductive age group) of each study areas. Secondly, from the list of the eligible women, 440 women were randomly selected from the catchments areas of each community clinic for the study. In total a random sample of 4,411 women of reproductive age group was interviewed.

Questionnaire and data collection

A pre-tested structured questionnaire was used. The pre-test gave valuable information on how to approach sensitive information on IPV such as verbal, physical and sustenance abuse and socio-economic variables. Necessary adjustments of final structured questionnaire and interview technique were made from the experiences of the pilot study. As a result of the pilot study a special training was given to the interviewers with emphasize on communication methods during the collection of data. Questionnaires were written in the Bangla language. Through translation and back translation into English the questionnaires were finalised for data collection and data input.

Recruitment

Data were collected by trained interviewers. Eight females with a minimum qualification of Bachelor's degree level were recruited. Previous experiences of data collection in health and social research was given preference. In each team of interviewers for each community clinic there was a female psychologist for field study consultations and counselling. Two supervisors were also recruited to supervise the data collection work. The supervisors recruited had master of social science degree. Supervisors were also responsible for quality control of the data collection.

Training

Both interviewers and supervisors were trained on conceptual as well as practical aspects of data collection. Trainings were conducted at the Institute of Child and Mother Health, Dhaka. All investigators were involved in a 5-days comprehensive training programme. A training manual was developed for this purpose. Special emphasis was given on the counselling and communication methods in data collection.

Dependent variables

The following elements of intimate partner violence were used as dependent variables. The questions were formulated as dichotomized variables and defined as follows:

- i) *Verbal abuse*: Husband had shouted, used any discrimination language, or make threatens for any severe and/or non-severe consequences to the respondent (during the last one month).
- ii) *Physical abuse*: Husband had physically abused her wife using fists or instruments to the respondent (during the last one month).
- iii) *Sustenance abuse*: Husband stopped the daily food intake to the respondent or whether he barred the amount of food to his wife (during the last one month).

Independent variables

The following independent variables were used to describe the husband's socio-economic status:

- i) *Husbands' ages* were divided into six groups with a ten years range: 19 years and below, 20 - 29 years, 30 - 39 years, 40- 49 years, 50 - 59 years and 60 years and above.
- ii) *Husband's education* was divided into four groups: no education, primary education (from class one to five), secondary (class six to ten) and higher education (class eleven and higher).
- iii) *Husband's occupations* were divided into eight groups: unemployed, students, agriculture, daily labourers, business, service sector, drivers and others. Unemployed and student husbands were considered as a single variable during the statistical analysis. Income was initially planned to be based on the husband's income. Because most of the wives did not know the income of their husbands, the husband's occupation was used instead of income.
- iv) *Husband's number of marriage* was defined as either 'single marriage' or 'two or more marriage', (i.e. the husband had one or more wives).
- v) The study also considered whether the husband was a *smoker* or *alcohol mis-user*.
- vi) The husband took *dowry* (dowry is cash or estates which a woman brings to her husbands house at the time of marriage) during marriage or not.
- vii) Also follow-up questions were added on the husband's pressure for more money and assets (*current demands for more money*) from the respondents' parents or not.
- viii) Questions were also included on the respondents doubt on husband's extra marital affair/s (*doubted for extra marital affairs*).

We used the husband's education and occupation as categorised responses and all other variables with dichotomised response alternatives; ('yes' or 'no'). The *demographic* variables included were the respondent's age, religion and educational status. The respondents were divided into seven age groups in five years interval (15-19, 20-24 etc). Religion was categorised as Muslim and non-Muslim. Educational level was divided into four groups, viz. with no education, primary education (from class one to five), secondary (class six to ten) and with higher education (class eleven and higher).

Communication and informed consents

All the respondents were informed about the aim, content and procedure of the study. As a significant numbers of the respondents were illiterate, instead of a written consent, verbal consents were taken from the participants of the study and recorded in the protocol. The study was ethically approved by the internal review board of the Institute of Child and Mother Health, Bangladesh.

Paper V

This is mainly a paper focusing the methodology of measuring economic consequences of violence in developing countries. A model including 32 cost elements was developed and tested. However, for testing the variables of the model face to face interviews were used.

4.2 Registry data collected through household surveys

For domestic violence and child abuse related data from Egypt and Kenya we have used the Demographic and Health Survey data base of each country. The Demographic and Health Surveys (DHS) are carried out in several developing countries with the main funding from the United States Agency for International Development (USAID). These surveys aim at monitoring demographic and health situation in the respective countries. The participating countries however have the main responsibility for the implementation of these surveys.

DHS questionnaire

The DHS questionnaires provide detailed data on household, individual, relationship and neighbourhood level. It includes both the women and husband's background, reproductive history, utility of family planning methods, fertility preferences, antenatal and delivery care, child care and nutrition, child mortality, adult mortality, awareness of and precaution against sexually transmitted diseases, marriage and sexual behaviour, empowerment and social indicators and domestic violence.

The domestic violence module adheres to the standards for ethical and safety recommendations for research on domestic violence set by the World Health Organization (WHO). The recommendations aim at ensuring women's safety and at the same time maximizing disclosure of actual violence, promoted among other things by offering adequate training and support to field workers together with informed consent and guarantee of privacy to respondents (WHO 2001).

The DHS domestic violence module was based on the modified Conflict tactics Scale (CTS) developed by Strauss (1990). It was developed in consultation with several experts on domestic violence measurement, gender and survey research (Kishor & Johnson, 2004). Then country specific adaptations of the scale was verified and implemented in different nationally representative surveys in several developing countries (Gage, 2005). The module covers exposure to physical, emotional and sexual violence currently and since 15 years of age in the domestic arena.

Paper II

The Egyptian Demographic and Health Survey (EDHS) of 2005 is the fifth full-scale survey in the DHS series which are performed on a five-yearly basis. It is the latest in a series of a nationally representative population and health surveys conducted in Egypt. It was conducted by the Ministry of Health and Population and National Population Council of Egypt and sponsored by the U.S. Agency for International Development (USAID). The survey employed 56 interviewers with 14 supervisors who were duly trained for five weeks on interview techniques, questionnaire filling, field practice and ethical guidelines (EDHS, 2005).

Sample design

A systematic sample of 22 807 household were selected for interview from 682 primary sampling units (PSUs) in the EDHS 2005. PSUs were selected from 289 shiakhass/towns and 393 villages in six major subdivisions (Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt and the Frontier Governorates) in Egypt. A total of 19 565

women, between 15 and 49 years were interviewed from the selected households corresponding with a response rate of 99 percent. For this study however, only women with children (n = 14016) were included

Questionnaire

A comprehensive questionnaire covering demographic and health issues was administered. For the current study, the questions concerning practices used by mothers to correct child behaviour, spousal violence and the mothers' attitude towards wife beating were of primary interest. Possible confounders, i.e. demographic variables were included.

Dependent variable

Methods used by mothers to correct child behaviour constituted the dependent variables in this study. Initially the mothers were told about the fact that every adults use certain methods to correct child behaviour. Then the mothers were asked to indicate which of the following methods they used to correct child behaviour; explaining to children, shouting at, striking or slapping their children. In each case the response alternatives were 'yes' or 'no' and mothers could choose one or several of these methods. In addition, during analysis a variable reflecting the use of any physical violence (i.e. either striking or slapping or both) was created based on the responses.

Independent variables

Data on *intimate partner violence (IPV)* was assessed using the conflict tactics scale. Respondents were asked whether, over the previous year, they had experienced any sexual, physical and emotional violence. Sexual violence was assessed by asking respondents whether they had experienced forced sexual intercourse by husbands. Physical violence was assessed by asking respondents whether they had been pushed, slapped, punched, kicked, attacked with weapon or were attempted to be strangled or burnt by husbands. Finally emotional violence was assessed by asking respondents whether they had been humiliated or threatened verbally or with instruments by husbands.

Data on respondents' *attitude towards wife beating* were collected by asking whether respondents justified physical violence from husbands if the wife: went out without permission, neglected children, argued with husbands, refused sex with husbands and burnt the food. In each case respondents had three alternatives: 'yes', 'no' and 'do not know'. For the current analyses, responses in the latter two categories were constituted a single category.

The *demographic* variables included were age, residential area, education, literacy level, and current occupational status.

Paper IV

The Kenyan Demographic and Health Survey 2003 (KDHS, 2003) represent the fourth in a series of five-yearly follow-up surveys, and is the first nationally representative survey in the DHS series. Therefore, it offers a unique opportunity to understand domestic violence placed in a national context.

Sampling design

This study is based on the Kenyan Demographic and Health Survey of 2003 (KDHS, 2003). Financed by the United States Agency for International Development (USAID) and implemented by the Kenyan Central Bureau of Statistics (KCBS) in collaboration with the ministry of health and the Kenyan medical research institute, the Kenyan Demographic and Health Survey of 2003 (KDHS 2003) covered the entire nation. The survey utilized a two-staged sampling design. Based

on the list of the enumeration areas covered in the 1999 census, 400 clusters of areas (129 urban areas and 271 rural areas) were selected in the first phase. The second phase involved systematic sampling of households from a national database at the KCBS. Women resident/visitors at the sampled households during the survey were eligible for recruitment for the KDHS.

Participants

All women 15-49 years of age resident/visitors at the sampled household at the time of the survey were eligible for participation (i.e., a total of 8195 women). The domestic violence module however was only administered to one woman in the household, randomly chosen, in compliance with the World Health Organization's ethical and safety recommendations for research on domestic violence (WHO 2001). Thus, data on domestic violence was obtained from 5878 women, constituting 98% of those eligible. For the purpose of this study only women currently married/having a partner (n=3969) were included to study the association between Intimate Partner Violence (IPV) during the latest year and demographic, social and empowerment variables.

Questionnaire

The domestic violence module, social and empowerment variables were used in this study.

Dependent variable

Intimate partner violence (IPV) was defined as exposure to one or several of the following experiences perpetrated by current husband/partner ever/during latest year; a) pushing, shaking or throwing something at her b) slapping her or twisting her arm c) punching or hitting her with something harmful d) kicking or dragging her e) strangling or burning her f) threatening her with a weapon g) attacking her with a weapon h) humiliating her in public i) threatening her or someone close to her j) forced sexual intercourse k) other forced sexual act. Thus, the questions covered physical, emotional and sexual abuse. In the logistic regressions analyses, exposure to IPV during the latest year was used as the dependent variable.

Independent variables

Demographics characteristics assessed included age, urban/rural resident, highest educational achievement, and occupational status. The occupational status variable was transformed to include only 3 categories: "not working", "Agriculture employee" and "others" (comprising of professionals, technicians, managers, clerical, sales, service and manual workers) to enable meaningful statistical analysis.

Partner characteristics: The questionnaire also requested demographic information on participant's partners. These included age, education and profession. Based on these variables comparative data between the couples (i.e. partner characteristics) were constructed. These included age, education and occupational contrast. In addition, information was obtained on whether the women were in polygamous relationships (i.e. the women were asked whether or not their husbands had another/other wives).

Access to information was measured via questions on access to television, radio and newspapers/magazines. *Literacy level* was measured as ability to read. *Autonomy in domestic decisions* was measured via questions regarding women's decision autonomy on how to spend money, healthcare and visiting relatives/friends.

Demographic, partner and empowerment variables were used as independent variables in the logistic regressions model.

4.3 Ethical considerations

The whole study adheres to the standards for ethical and safety recommendations of the WHO (2001) which aim at ensuring women's safety while maximizing disclosure of actual violence, promoted among other things by offering adequate training and support to field workers together with informed consent and guarantee of privacy to respondents. Ethical permissions were obtained from the internal review boards of conducting institutes from India and Bangladesh. The Demographic and Health Surveys including procedures and instruments have received ethical approval from the Institutional Review Board of Opinion Research Corporation (ORC) Macro International Incorporated.

4.4 Statistical Analyses

In paper I arithmetic mean and standard deviation were used. In paper II, III and IV the following methods were used. For assessing the differences in values of the dependent variable between participants in different categories of the explanatory variables, chi-square analysis were used. To control for confounding, the independent associations between the dependent and independent variables were assessed using logistic regression. The magnitude and direction of associations were expressed in odds ratios (ORs). For all the statistical analyses, a significance level of $p < .05$ was employed.

5 Summary of Results

Paper I

The mean family size of the child labourers is around seven. Their average monthly family income is 3200 INR (1 USD = 46.61 INR). Among 719 boys 49 percent are illiterate, 20 percent can write their name or can identify basic arithmetic notations and numbers and only 31 percent have education up to class four. On the other hand, among 681 girls: 43 percent are illiterate, 28 percent are literate and 29 percent have education up to class four level. Our study demonstrates that the most vulnerable groups of child labourer belong to the following workplaces: dhabas (indigenous motel), food stalls, rail/bus stations, rail-floor cleaning, and rag picking. In the short term child labourer become violent, aggressive, and criminal, following a pyramid of violent behaviour, including socioeconomic pressure, cultural deviance and psychological pressure. We found that 658 (92%) boys and 602 (88%) girls exhibited violence and aggressive behaviour due to socioeconomic pressure; 433 (60%) boys and 524 (77%) due to cultural deviance and 342 (48%) boys and 489 (72%) girls due to psychological pressure. In the long term perspective, when considering family history it seems that the problem is part of a vicious cycle of violence, which persists through generations. The boy labours pass through financial crisis and violence, psychological pressure, criminal activities and violence, early sex/marriage, socioeconomic pressure, again psychological pressure and financial crisis. While the girl labours pass through financial crisis and violence, psychological and physical violence, gender based violence, early sex/marriage, psychological and physical violence and again financial crisis and violence.

Paper II

The majority of the mothers reported use of violent methods, like shouting (91%) striking (69%) and slapping (39%) to correct child behaviour during last one year. Seven percent of the mothers used the explanation option only. Proportions of mothers using explanatory method rise with increase in mother's age and educational level. Mother's age, residency, education, unemployment were associated with using violent or explanatory methods to discipline their children. Mother's exposure to physical IPV and tolerant attitudes towards IPV were associated with augmented risk of using violent methods (shouting, striking or slapping) to correct child behaviour. On the other hand non-tolerant attitudes towards IPV were associated with increased likelihood of using the explanation method only.

Paper III

In rural Bangladesh a majority of the wives are abused by their husbands/ partners. Seventy nine percent of the respondents are exposed to verbal abuse. Half of them (41%) are physically abused. At the same time five percent of the wives have faced sustenance abuse. First time we have identified the problem of sustenance abuse which has been reported first time using a representative sample. The study also identified the large gap of age difference among husbands and wives. Wife's age, religion, illiteracy and low education status, husband's occupation, alcoholic habit, dowry, husband's monetary greed from parent-in laws and wife's doubt on husband's extra marital affairs are identified as the potential risk factors for IPV.

Paper IV

The study indicated that 26 percent of ever married women had experienced emotional violence, 40 percent experienced physical violence and 16 percent experienced sexual violence by husbands. Of the 3969 respondents, significant proportion of women had exposure to emotional

(18%), physical (25%) and sexual (11%) violence, perpetrated by their intimate partner during last one year. We found that while high education among women generally reduced the risk of exposure to domestic violence, both being employed and having a higher education/ occupational status than her partner increased women's vulnerability to domestic violence. Age differences between the partners, illiteracy, lack of autonomy and access to information increased the likelihood of domestic violence. Finally, being in polygamous relationships was associated with exposure to domestic violence. The findings indicate demographic, social and structural difference in exposure to domestic violence with important implications for interventions.

Paper V

The methodological paper comprises 32 cost elements in four main categories: **injury**, **death**, **deprivation** and **other costs** (IDDO model). This model was tested for five case studies (Table 3). Here, the supplementary variables contributed to a better understanding of the total burden of families. Initially the calculations were based on Indian Rupees (INR), which were then converted into US Dollars (1 USD = 43.50 INR).

Case I: In a small town, a 32-year-old man, engaged in private tuition, was severely beaten by hooligans and sustained a skull fracture. His monthly income was 750 INR (17 USD). Family income was 4,000 INR (92 USD) per month. He was confined to his home, and could not work for one month.

Case II: In Kolkata, a 9-year-old maid/servant from a nearby slum was brutally beaten by her employer and suffered a radial-bone fracture to her right arm. Her monthly income was 300 INR (7 USD) and family income was 1,200 INR (28 USD) per month. Her recovery period was two months, after which she joined another household at 400 INR (9 USD) per month.

Case III: In an urban area, a 50-year-old man was shot in the chest with a small gun by some miscreants. Two days later, he died in hospital. He was a labourer on a weekly wage, with a monthly income of 1,800 INR (41 USD) and with a family income of 2,000 INR (46 USD).

Case IV: Due to dowry problem, a 27-year-old housewife was set on fire by members of her husband's family. She survived, but with severe burn injuries. The period of recovery was seven months. Her family (husband's family) income was 30,000 INR (690 USD) per month, while the opportunity cost to her was 2,100 INR (48 USD).

Case V: A 35-year-old tribe member was brutally chopped in the backside with an ancient weapon. He was a seasonally unemployed person with an annual income of 5,000 INR (115 USD), while his family income per year was 11,000 INR (253 USD). After three months he resumed his work, after availing the services of a local treatment provider.

Table 3. Costs of five violence incidences in India

Costs (USD)	Case-1	Case-2	Case-3	Case-4	Case-5
Medical Cost	39	45	112	1644	60
Income Adjusted with Family and Years	19	86	1044	182	63
Income Impact on Family	18	84		177	60
Death Cost			1176		
Costs of Physical Deprivation		- 5		294	21
Costs of Psychosocial Deprivation				21	
Cardinal Approach of Loss					41
Costs of Family Deprivation					43
Other Costs	17	6	56	504	27
Preventive Costs	12		383	290	16
Total Costs (USD)	105	216	2771	3112	331

6 Discussion

In our first paper on child labour in India), we tried to describe the causes of violence as a consequence of poverty. Considering the 'ecological model', we observed that both in the short and long term child labourers are violent due to a complex combination of social, community, relational and economic issues. At socio-community level, child labourers are poor and, most of the time, are facing the problems over generations. At the relational level, they are suffering from cultural deviation and psychological pressure. However, at the individual level, they are clearly characterized as child labourer. On the other hand being child labourers they are also following some leading economic concepts, such as poor economic development, egalitarian distribution of resources, poverty, improper control of the labour market, economic exploitation and a huge budget deficit. Families of child labourers are mostly illiterate, which also contributes them to being illiterate.

We used quantitative and qualitative approaches in a widespread geographic area. This was a very time and resource consuming study. It might be a reason that we lack such studies to compare with. However, some studies have highlighted the problems which were mainly based on unpublished data (Petit, 2003). Therefore, in future, the problem warrants more studies of child labour for injury and violence related problems.

WHO (2005) argues that education eliminates the risk factors for violence against children and women. Economists advocate that one of the most effective ways to withdraw child labourers from damaging work is school attendance (Udry, 2004). Therefore, through school attendance child labourers not only get out of the poverty trap, but will also be less at socio-familial level. WHO (2005) argues that men's witness of violence in childhood increases the probability of domestic violence against their intimate partners. We add here that child labourers not only support the notion also as a generational problem. Therefore, this study has added support for the importance of eliminating the child labour problem.

Our second paper from Egypt indicates that mothers who were exposed to physical violence were more likely to abuse their children to make them disciplined. Earlier studies from the USA show that domestic violence is a risk factor for child physical abuse (Tazima, 2000; Dubowitz, 2001). However, there are no clear distinctions between perpetrators, victims of domestic violence and child abusers. Our findings from Egypt made the distinction that victims of domestic violence (i.e. mothers) are the abusers of their children. Therefore, our findings indicate that relationship factors significantly affect the risks for child abuse. On the other hand, this paper is based on the revelations of the mothers who abused their children, which provides support for more studies involving perpetrators of domestic violence.

In our third paper we observed that wives in rural Bangladesh are continuously abused by their husbands, either verbal, physical or even sustenance. In a broad overview, their situation can be explained by the 'learned helplessness' theory. Though it may lead to questions from the context of industrialised countries, but the context from developing countries from the same situation supports it. Bangladeshi wives accept violence up to their last level of tolerance (Naved et al, 2006). Therefore, the women in rural Bangladesh are suffering from the 'normalization of violence' which may be understood by 'feminist theory'. In a society where wives do not know even the income of their husbands, it is hard for policymakers to develop any intervention program in the short term. At the end, we can argue that violence against wives in rural Bangladesh can be seen as result of some complex effects of individual, relationship and socio-economic factors, which may be explained by the 'ecological model'.

Our study (Paper III) supports previous findings of Bates (2004) and his colleagues and of WHO (2005) multi countries studies. Dowry is identified as a main concern for wife's vulnerability. Education improves women's status as a protecting factor against IPV. However, our study indicates that husband use IPV as a method to earn money and assets from wives' parents/guardians.

Our fourth paper (from Kenya) supports the findings of WHO (2005) multi country studies as it indicates that higher education reduces the risk of domestic violence against women. However, our findings also indicate that higher status of women increases the risk of IPV. It supports the findings of another study from eight African countries (Andersson, 2007) as it indicates that there is no significant difference between rural urban residencies. However, it indicates that women older and 10 years younger than their partners are at higher risk of IPV. Except for decisions on health issues, the indicators of women's autonomy in this study were not independently associated with IPV exposure. Women's autonomy is a complex phenomenon that cannot be entirely measured by determining if women have final say on household issues or not. To the contrary, what may at the outset seem to be a question of autonomy might in essence be reflecting an instance where household decision-making is linked to traditional gender roles rather than autonomy per se. Future research regarding autonomy and IPV exposure may need to incorporate other autonomy indicators such as the woman's choices regarding, e.g. family planning issues and her participation in the labour market.

Our studies from Bangladesh and Kenya support WHO (2005) and Andersson (2007) that two or more wives increase the risk of IPV. Therefore, we can also highlight the relationship as a triggering factor for domestic violence against women. 'Normalization of violence' with cultural norms makes the situation of women in developing countries more vulnerable towards domestic violence. Marriage is an important strategy for economic survival of the women in developing countries. The ecological model of IPV purports that an inter-play between factors at the individual, relationship, community and societal levels may account for differences in exposure to IPV (WHO 2002). Several factors may act independently or in interaction with one another to increase vulnerability to domestic violence among women (Koeing et al, 2006). However, there remains contention about the direction of association. Some studies have indicated that women at the lower bracket of the social, economic and empowerment hierarchy may be particularly at risk of domestic violence exposure (Lawoko, 2006). Our study from Bangladesh supports these results. On the contrary, other studies have indicated that vulnerability to domestic violence may be more pronounced among socially and economically empowered women (Bates et al, 2004). Our study from Kenya supports this result. This discrepancy could be reflecting cultural differences in men's attitudes towards women's social and economic empowerment.

Our fifth paper has added some significant concepts of cost elements concerned with the family features of the developing countries where most of the family members depend on one person's earnings. The concepts of Income Adjusted with Family and Years, Income Impact on Family, Death Cost, Costs of Physical Deprivation, Costs of Psychosocial Deprivation, Cardinal Approach of Loss, Costs of Family Deprivation are new in the field of the cost calculation of violence. Earlier attempts to cost of violence were mainly from industrialised countries (WHO, 2005). Furthermore, those studies mainly targeted the medical costs, health costs, and economic output losses for employer and employee. Though, tested for only five cases, the introduced variables in our model exhibit that the economic impact of violence on the families are much higher than when only the victim's income is considered and than the traditional medical and employment costs. There are demands from the violence experts for developing additional strategies adapted to the cultural, social, and economic realities of the developing countries. (Krug et al, 2000; WHO, 2005). Our model might be identified as a step forward in this effort.

Methodological considerations

Paper I

First, the paper has considered child labourers from only fourteen categories of work from unorganised sectors. However in India there are several fields of work in both organised and unorganised sectors. Second, there is a geographical limitation, i.e. the study was conducted in areas which lie at a horizontal stretch from east to west India which may lead to another sampling bias. Therefore, our findings may not be fully representative of child labourers.

The models of 'vicious cycle of violence' are developed only on the basis of these 14 categories of work fields only. However for re-confirmation the cycle as a universal phenomenon we need further studies considering all probable fields of work for child labourers. Furthermore, considering all these limitations, we can define this study as an explorative study of the situation. We recommend large scale studies with more time and resources such as trained interviewers, in different member states in India and in other developing countries. However, our paper focused only on the violence problem among child labourers, while they are exposed to several other occupational diseases and injuries. Therefore, future studies on occupational hazards among child labourers are warranted.

Paper II

The Demographic and Health Surveys in Egypt are limited by non-sampling errors due to mistakes during the data collection entry and processing (EDHS, 2005). Another problem, mentioned in the same report, was that the interviewers might have failed to locate and interview the correct household, problems of misunderstanding of the meaning of the questions on the part of either the interviewer or the respondent. Secondly, the study has some sampling errors as far as domestic violence module is concerned. Though EDHS had tried to estimate the sampling errors for other variables and modules, variables of domestic violence module are not estimated. Therefore, we need such estimation for variables of a domestic violence module. Finally, this study (Paper II) has focused on child abuse by their abused mother. When considering such a cross-sectional study, we should not forget about the plausible confounding factors, such as other family related issues other than IPV, economic solvency of the family, social pressure on the family. Cross-sectional studies from other developing countries are also warranted for further confirmation. Longitudinal and case-crossover studies are recommended to increase the understanding of such causal links. However, we should also consider factors such as cultural norms, lack of legal enforcement and lack of knowledge about child abuse.

Paper III

This study (Paper III) was conducted in only two upazilas (sub-districts) of Bangladesh. The upazilas are from Dhaka district which is also the capital city of Bangladesh. Therefore, sampling of upazilas might have some biases. At the same time, studies from other distant districts are warranted. We have found sustenance abuse (for a minor group of wives) in these two districts. Therefore, we can expect that in remote rural areas sustenance abuse might have a higher prevalence rate, which demands further large scale studies in those areas of Bangladesh. Women are generally stigmatised for abuses, they received (WHO, 2005). Therefore, scope of over-reporting of abuses here is very low. Rather, our findings may be under reported.

This study could not consider the income level of the husbands. Therefore for better understanding the situation we need studies to connect income level with target variables of wife abuse.

In this study we could not focus on sexual abuse of the wives. It is a major drawback of this study. In future study we should include sexual abuse of the wives along with verbal, physical and sustenance abuses. However, in this context, sexual abuse and sustenance abuse will be an interesting study in rural Bangladesh.

Confounding effects, such as number of family members and income of the family, were not considered in this study. We did not consider the socio-economic pressure on the husbands. Therefore, both qualitative studies and case cross-over studies can be recommended for better understanding of the contributing and triggering risk factors concerning verbal, physical and sustenance abuse.

Paper IV

This paper is based on the Kenyan Demographic and Health Survey (KDHS, 2003). Therefore, it has the same sampling problems as described in Paper II (EDHS, 2005). In this paper, the concept of autonomy has provided significant relationship with IPV. We measured autonomy of the women through respondent's final or partial "say" on own healthcare, household purchase and visit to families or relatives. The Cambridge Advanced Learner's Dictionary defines autonomy as "the right of a group of people to govern itself, or to organize its own activities". Therefore, there could be an operationalisation problem when using these three questions to measure autonomy. However, in the future more questions on autonomy should be included. Questions were asked on reading news paper, listening to radio and watching television. We have defined these variables as access to information. However, we do not know what kind of information (related to domestic violence or not) they accessed. The respondents should be asked about access to media related to domestic violence.

Paper V

It is mainly a methodological paper and tested for only five cases in India. Therefore, this model needs rigorous testing in developing countries including India. The model in its present form has some serious drawbacks. First of all, the interviewer/ data collector is asking the victims of violence after some days (varying upon the plan and activities of the interviewer/s) of the incidence. Therefore, the study itself is suffering from recall bias. However, in the developing countries, where no surveillance systems exist, this model requires household surveys, which is both time and resource consuming. In India, in its present form of economic activities, generally the concepts of sick-leave and insurance benefit do not arrive. However, we do not have knowledge about other developing countries. For further generalization of this model we need to consider the concepts of sick-leave and insurance benefit.

This model, in its present form, can not predict the economic burden to the county. However, for such prediction we need large scale nationwide studies. As the model is dealing with so many variables, we should develop a software system for better data input and analysis. Then, through the value-average method, we can predict the national burden of violence.

In summary, we need more health economic studies on violence. At the same time, economic evaluation of the existing violence prevention program may also help the policy makers to invest more on such programs. In the context of developing countries, also studies on measuring health care utilisation for victims of domestic violence should be prioritised.

Policy implications

Domestic violence is associated with socio-economic isolation and control (Hassan, 2004; WHO, 2002; 2005). Women's subordinate social status with gender inequality in developing countries induces several health problems, including violence against children and women (Okojie, 1994; WHO, 2002). Social supports rather than institutional supports act as protective factors for domestic violence and child abuse (Naved, 2006; Jeyaseelan et al, 2007). Women's economic empowerment is a protective factor for domestic violence against themselves (Kim et al, 2007). Therefore, through higher education, economic empowerment and awareness we can expect to reduce women's social isolation and improve social protecting behaviour against domestic violence. At the same time, strategies to eradicate gender inequalities must involve efforts to improve the status of the women. Women who justify wife beating also abuse their children. Therefore, women have to understand that 'domestic violence against women' is a health, socio-economic and relational problems of themselves. They have to come out of the subordinate, low-status situation and create awareness against it. Therefore, we would like to recommend the policy makers that programs related to women's issues such as reproductive health, empowerment, human rights and women movements should deliberately consider the domestic violence issues. The community safety programs demonstrated their effectiveness (cost-benefit ratio 1:10) for injury prevention mainly in the industrialised countries (Zhao & Svanström, 2003). The programs need to be utilised rapidly and vividly in the developing countries. Therefore, the 'Safe Community' movement can be used more and more to foster violence prevention programs around the world, especially in the developing countries.

7 Conclusions

Actual risk groups of child labourers by themselves indicate that poverty, large family size and illiteracy along with socioeconomic, cultural and psychological pressures are causes and circumstances of their violent behaviour over generations. The perpetrators, in our study, the mothers indicate that there is a confirmed positive association between the mother's exposure to and attitudes towards intimate partner violence and maternal child abuse. Husband's socioeconomic characteristics and behaviours are risk factors for verbal, physical and sustenance abuse of the wives. In the context of gender imbalance and poverty, well established risks of family abuse have a relatively high prevalence in rural Bangladesh. In addition to demographic and social factors associated with IPV, factors such as women's access to information and autonomy in the domestic arena were scrutinized as possible predictors of IPV. Men do abuse their children and intimate partners. The abused mothers also use violence measures against children. Therefore men play the main role for violence against women and children. The cost calculation model with supplementary variables contributed to a better understanding of total economic burden on the families.

8 Recommendations

Poverty reduction begins with children (UNICEF, 2000). Domestic violence prevention strategies should be looked for within family and community settings. Restraining children (especially boys) from witnessing and facing violence reduce the risk of future domestic violence. Therefore, policy makers should target to improve the socioeconomic situation of children in developing countries. Poverty, unemployment and illiteracy promote disadvantaged family and neighbourhoods (Gage, 2005; Tolan 2006). It reduces economic and psycho-social supports like egalitarian distribution of resources, male control of the available resources, self-esteem, mutual respects and understanding. Economic development reduce poverty, unemployment and as a result illiteracy and improve health, education and wellbeing. Therefore economic development along with sustainable economic growth may not only reduce the economic disparities but also may act as protecting factor for domestic violence against children and women. In this opportunity we should mention that like industrialized countries, their developing counterparts may also demand higher education of the women and their empowerment, instead of literacy. Violence not only affects the victims also the family members, especially in the economic ground. Therefore, violence prevention for women and children will also save scarce economic resources of the poor societies. However, more such studies are warranted from developing countries to confirm the positive effect of higher education and women empowerment on prevention of domestic violence and to estimate economic losses.

9 Acknowledgement

I am really obliged to *Bjarne Jansson*, my main supervisor for his supports during my journey to this thesis. He deserves respect for his methods of teaching, all time cool temperament and attitude.

I am also obliged to *Fazlur Rahman*, my co-supervisor for his helps in different parts of my research life.

I am also thankful to my co-authors *Stephen Lawoko* and *Luo Jiayou* for your scientific helps in my research life.

I am specially obliged to *Leif Svanström*. He invited me in Delhi to explore my research life at the Karolinska Institutet. So, *Leif* and *Moa* should deserve special thanks as I am here, at the Karolinska Institutet only for them. I am happy that my scientific productions keep honours for *Leif's* invitation.

Jabangir, Joaquim and *Stephen*, I am ever obliged to you.

A special thanks to all staff and researchers of ORC Macro Inc and Measure DHS for their help with data collection. Also all staff working with collection of data in the four countries.

The studies in India were funded by research grants from the Swedish Research Council and SIDA.

I also like to give 'tusen-tacks' to *Aminur, Anders* (the omnipresent smiling bird of our computer tables), *Andres, Bo (B), Bo (H), Bo (P), Diana, Eija, Elisabetb, Gloria, Gunmaria, Jabangir, Joaquim, Kristina, Lilly, Moa, Reza, Shrikant, Stephen, Ulla* and friends and colleagues at Karolinska and Stockholm for their helps and cooperation.

I should be grateful to all the teachers in my Swedish life, who contributed to pile up my knowledge of science and arts. Especially I should mention the following teachers who taught me with their relentless patients: *Anton*, who shares his history knowledge with me. *Antu*, who taught me and corrected my Swedish pronunciations with sheer patients. *Gullu*, who likes to inform me about stock of his mothers Rasogolla (my favourite Bengali Sweet). *Mithila*, whose coolness and technique to stay alone gave me new thinking. My *Reean*, who taught me the Swedish number systems and the only person in the world who wanted to see me as the King. *Reeona*, who delighted me with her all time innovative talks and gestures. *Spondon*, who delighted me with his innovative household engineering. *Shafin*, who loves to play with Dinosaurs and their eggs and likes to exchange those eggs with me. *Tamali* and *Annvesa*, who show how to be the Bengalee in Sweden. *Tasnur*, who sang excellent songs and played guitar for me and loves to get ador (love) from me like a kid. I love children by my heart. All these children and their loves and doings really helped me to overcome stress and difficult situations in different parts of my Swedish life.

I should pay my humble gratitude to my parents, who are still now and always nurturing and loved me like their dearest..... My parents-in-laws also deserve special gratitude and thanks for their whole-hearted supports to me and my wife.

Madhumita, my better-half deserve special thanks as she has tolerated all my absence from her, smilingly shared bad moments in our life, managed all odds during my journey of research and taken care of mine as the loving sweetest beautiful woman.

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