

**A SOCIO-ECONOMIC ANALYSIS ON EVER-MARRIED
WOMEN FROM INDIA**

**THESIS SUBMITTED FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
ECONOMICS**

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**UNDER THE SUPERVISION OF
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To my dear Mom and Dad



Certificate

Certified that the Thesis entitled "*A Socio-Economic Analysis on Ever-Married Women from India*" submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University is based upon my work carried out under the Supervision of *Prof. Tanmoyee Banerjee* and *Prof. Sushil Kr. Haldar*, Department of Economics, Jadavpur University and that neither this thesis nor any part of it has been submitted before for any degree or diploma anywhere/elsewhere.

Countersigned by the Supervisors with date

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Date:

Acknowledgement

Finally, the long journey comes to its end. As now I am going to submit my dissertation to its final destination, I would like to express my gratitude to the persons behind this tough endeavour, and probably words will fall short.

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Chapter 1

Introduction

Gender discrimination and abuse of females and girl children are observed worldwide. The stratification of men and women is initiated by the patriarchal system of distribution of property rights and inheritance¹. Women are subject to discrimination in every sphere of life, such as participation in decision-making at the household, in political systems, or in labour force participation. Marriage is an essential social institution in India has gone through many changes from generations and the universality of marriage remains at the core of any society despite the changes in its dimensions (Özgüven, 2001). It is important in the sense that it helps to procreate and increases family size along with its various economic, social, and psychological functions in human life (MacDorman, 1987). Marriage involves the bonding of two parties or agents by customs or law and ensures responsibilities to the offspring generated from it. Marriage enables the union of the two individuals to be recognized by family, society, religious institutions, and by the legal authority (Waite 2005). The marriage market affects premarital behavior also (Lafortune, 2013, Abramitzky et al., 2011, and Edlund, 2013). From pre-historic development marriage is common to every culture whether contemporary or historical. Marriage maintains the kinship among human relationships. Marriage behavior is well understood only through gender relations and structures of any society (Presser and Sen, 2000). In the case of partner choice, Stanger-Ross et al. (2005) segregated the pattern of choice of young adults in three time periods: reciprocity (1900-1950), dependence (1950-1970), and autonomy (1970-2000). Marriage has been changed too many different forms since time, such as exchange marriage, polygamy, group marriage, polyandry, tree marriage, etc². To get legitimate relation with offspring the bonding between man and women is known as marriage (Gough, 1959). Each culture has different customs or laws assigned for men and women to be designated as husband and wife (Westermarck, 1926). Unhappy marriages are characterized by more negative communication behavior during any conflict resolution (Bradbury & Karney, 2013). Since marriage is a personal behavior of two individuals thus researches primarily focuses on individual decisions and synthesis of their

relationship with society (Retherford et al., 2001, Desai and Andrist, 2010). But family relations and societal influence on gender laws deeply impact the marriage system of any society and most of the laws and customs have been nourished with a patriarchal pattern of thinking. Hence the ever-married woman has to face different types of challenges and obstacles in a society of male-centric attitude.

1.1: Marriages in India:

In the case of India, marriage is an important social and religious obligation sometimes that has to be performed with different features for different classes of people. This tradition has been followed over two thousand years ago. The rules, procedures, and customs of marriages vary according to various social strata (Roy et al., 2014). In the case of India marriage is different for north and south zones, wherein northern zone the bride moves to the husband's home and in most of the cases, the husband is unknown to the wife while in the southern zone cross-cousin marriage is allowed, so that the daughter moves within the family (Soy and Sahoo, 2017). In the case of India generally, the marriages were arranged by the parents (Jejeebhoy and Sathar, 2001, Dasgupta, 2014). Lack of autonomy in choosing partners results in lower decision-making power in the household after marriage and restricted empowerment makes them more submissive in fertility related decisions that result in more severe health outcomes for her and the children (Dyson and Moore, 1983, Visaria et al., 1995). When the daughters attain puberty, it becomes a threat to the parents. Thus to protect the chastity of the girls, arranged marriages have immense importance (Sengupta, 2013). In more depth, we observe that the major cause of arranged marriages in Indian culture is the existence of the caste system. People try to maintain the family lineage within their caste or in superior caste that is marriages' are endogamous (Dumont, 1980). Hindu marriages constitute various norms following mythology and holy texts of ancient India while Muslim marriages are inspired by Islamic conventions that were shifted to Indian culture during the era of Mughals and Sultans since from medieval time (Dhar and Dhar, 1986). Hindu marriages are considered Vedic ceremonies. It is observed that families save a huge amount of money for years to spend wedding ceremonies (Currie, 1993). The prevalence of the dowry system is the way to compensate the groom for the economic support they are going to provide the bride in the future (Srinivasan and Lee, 2004). However, some researchers explained that the dowry system is a way to inherit the parental property by the daughter

(Basu, 2001; Goody et al., 1973). The custom of payments in marriage is widespread across the world. Marriage payments are classified into two categories: payment from the bride to the groom is known as dowry while payment from the groom to the bride is termed as bride price. The custom of bride price is most prevalent in Africa (Goody, 1973). However, among other countries, the existence of bride price during the marriage is common in Turkey, Uganda, Iran, Egypt, Thailand, Taiwan, and China (Anderson, 2007). The dowry system is prevalent in South Asian countries, such as India, Pakistan, Bangladesh, and Sri Lanka. India has a remarkable position for dowry prevalence during the marriage in the World. In the Indian marriage market, the most important attribute for the bride is good appearance and chastity whereas for the groom it is his level of education and earning capability (Caldwell, Reddy, and Caldwell, 1983). Dowry is also seen as compensation for the lack of any of the above attributes in the bride. According to Dalmia and Lawrence (2005), the level of dowry increases with an increase in the level of education of the groom. Thus several worrisome and harmful characteristics of marriage are observed and that has its roots connected with the poor status of women in any society. The reasons are deep-rooted in any society following the traditional culture and customs from very ancient times. Now we will take a glance at what mean ever-married women in the context of the marital status of women:

1.1.1 Ever- Married women:

The present thesis concentrates on the problems of ever-married women in India. According to the definitions of Population Division of United Nations³ the term Ever-Married implies that women or men who have been married at least once in their lifetime however their present marital status may not be married. Marital status can be classified into two broad categories according to the census of India (2001), viz;

(i.) Never Married

(ii.) Ever Married

Never married persons are single or bachelors and who has not married. Whereas ever-married persons are those who have married at least once, however they may not be in the currently married group. The ever-married group consists of divorced, separated, or widowed along with

currently married persons. The present thesis uses National Family Health Survey (NFHS) and the District Level Household Survey (DLHS-4) of the Government of India. Both the data set collects information of ever-married women.

To search the link and causes we begin our journey with the brief look at the status of women from the pre-independence period:

1.1.2: Pre-Independence Period:

During the 19th-century British power rapidly grows in India. From that time the marriage system has undergone many changes. Age at marriage has increased in the late nineteenth century in most of the third world countries (Jones, 2007). The incidence of infant marriages was prevalent during the British era. The legal minimum age was increased to 14 years for girls during colonial times with the application of the Child marriage restraint Act (also known as Sharda Act) 1929 formulated by the Imperial Legislative Council of India. Then opposition from Muslim organizations forced the colonial ruler to pass a consent-related act under the Muslim personal law (Shariat Act 1937) which allowed parental permission to child marriage. Early marriage of girls may be considered as benevolence sexism in Bengal in the colonial period of India. The girl child must be married off before attaining her puberty was considered as an honorable gesture of Bengal culture, known as 'Gouridaan'⁴. A similar situation prevailed in southern India as well, where delaying the marriage of a menstruating girl is considered a sign of impurity (Caldwell, Reddy, and Caldwell, 1983). When a woman gets married once then it was impossible to think of any type of remarriage of the girl on account of facing violence in marriage or if she became a widow. The brutal custom of 'Sati-Daha' in Bengal witnessed the horrific status of widowed women and girls during the colonial period. The immolation of the young widow girl into the funeral pyre of her husband is known as 'Sati-Daha' (Bagchi, 1993)⁵. The custom also prevailed in Uttar Pradesh, Bihar, and in some districts of Andhra Pradesh, Orissa, and Tamil Nadu whereas in Rajasthan, Kashmir, and in Punjab the custom was observed among higher caste families⁶.

Table1. 1: Number of Satis (1815-29)

Name of the Division	Predominant by	No. of Satis during the year 1815-28
Calcutta	Hindu	5099
Dacca	Muslim	610
Murshidabad	Muslim	260
Patna	Hindu	709
Bareilly	Hindu	193
Benares	Orthodox	1165

Source: Zamani, R. (2009). *Domestic Violence Against Women in India: A Case Study* (Doctoral dissertation, Aligarh Muslim University).

A similar type of incidence was also prevailed in western India, however, before the 17th century, known as the practice of 'Jauhar' among the Rajput clans and Muslims where the wives of defeated or dead warriors will immolate themselves in the fire which is often termed as mass Sati (Hawley, 1994; Harlan, 1992). Lifelong abstinence, penance, and preserving chastity was considered a symbol of purity of young widow⁷⁸. According to Dreze and Khera (2000) there exist a significant relationship between warfare and patriarchy and historical evidence signifies that violence always increases women subjugation with an increase in patriarchy norms and institutions. Sexual seclusion of females from male observation is still prevalent from ancient times. The 'Purdah Partha' was first initiated by Muslim communities during British dominated India and later adopted among Hindus⁹. Apart from child marriage, the practice of female infanticide was common during the colonial period (Kapur, 2019). The next table gives an overview of the sex ratio in the colonial period:

Table1. 2: Sex Ratio in India before independence (1901-1941)

Year	Sex Ratio
1901	972
1911	964
1921	955
1931	950
1941	945

Source: Registrar General of India, Reported in Health Statistics in India (1985)

Table1. 3 : Sex-Ratio (Males per 1000 females) of the population of Indian Subcontinent according to religious groups:

Territory Religious groups	1891	1901	1911	1921	1931	1941
Indian Subcontinent						
Hindus	1039	1030	1037	1045	1049	1059
Muslims	1061	1065	1085	1096	1107	1107
India- All Religions	----	1029	1037	1047	1053	1058

Source: Census of India: 1961

https://censusindia.gov.in/DigitalLibrary/data/Census_1961/Publication/India/24291_1961_SEX.pdf

Various acts and laws were formulated across the country from time to time during the pre and post-independence era to uplift the status of women in India. However, the situation has changed to a new dimension and magnitude.

1.1.3: Post- Independence Period:

After independence, India initiated rapid changes in every domain of development and growth. Hence with development, several initiatives were taken to uplift women's position from exploitation and life-threatening situations, that prevailed from the 18th century (Kapur, 2019). With

structural and cultural reforms in independent India, several doors of opportunity opened up for women in the field of health, education, employment, and politics. Growth in different economic sectors moved the efficiency of women which is suppressed under the depth of patriarchal norms, towards increased participation in the workforce and leadership. All become possible with the advancement of the increase in female education. The constitution of independent India grants equal rights for both man and women with no discrimination between the two genders¹⁰. Several legislative changes¹¹ are also done to protect women from gender bias and abuse or any type of maltreatment. Further, changes were also made in case of political participation of women, such as reservation of 1/3rd of seats for women in the 3 tier Panchayati raj¹² and also made them aware of their entitlement to vote. Increased participation in the workforce is reflected from several facts, such as more percentage of women got recruited in work related to service sectors apart from agricultural and manual workings. The improvement in various fields in post-independence India is summarized below:

Table1. 4: Female Labour Force Participation rate (all ages):

	Rural Female	Urban Female
1955	25.1	12.5
1956-57	23.3	11.9
1959-60	30.1	12.8
1964-65	23.58	12.39
1972-73	26.76	13.4
1983	37.35	16.56
1989-90	28.85	15.03
1993-94	32.2	14.8
1994-95	33	16.5
1995-96	31.8	14.1
1997	29.7	12.8
1999-2000	29.3	13.7
2004-05	30	14.7

2007-08	33.3	17.8
2009-10	29.2	14.6
2011-12	26.5	15.5
2017-18	18.2	15.9
2018-19	19.7	16.1

Source: Data from published reports of NSSO's employment-unemployment surveys (EUS) and Annual Reports of PLFS by the Ministry of Statistics and Programme Implementation (MOSPI)
<https://data.worldbank.org/indicator/SL.TLF.CACT.FE.NE.ZS?locations=IN>

Table1. 5: Declining Fertility rate of women (total births per women)

Year	Fertility Rate
1960	5.906
1961	5.902
1962	5.894
1963	5.88
1964	5.859
1965	5.83
1966	5.794
1967	5.751
1968	5.702
1969	5.648
1970	5.587
1971	5.519
1972	5.444
1973	5.363
1974	5.278
1975	5.192
1976	5.108
1977	5.029

1978	4.956
1979	4.889
1980	4.827
1981	4.766
1982	4.703
1983	4.636
1984	4.563
1985	4.484
1986	4.399
1987	4.311
1988	4.222
1989	4.132
1990	4.045

Source: <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=IN>

Table1. 6: Literacy rate, adult female (% of the female of age 15 and above): 1981-2018

Year	Literacy rate
1981	25.676
1991	33.73
2001	47.842
2006	50.824
2011	59.277
2018	65.791

Source: <https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?locations=IN>

Despite several measures and reforms in post-independent India, women are still considered inferior to men. Women are entitled to provide their time and energy to household and child care work, which are not considered as economic activities¹³. Globally labour force participation rate for women is around 49% whereas it is 75% for men and it is tougher for a willing woman to find a job

compared to man¹⁴. In the case of the political leadership of women, it comprised only 13.8% in 2000 as parliament members Globally, from 9 % in 1987¹⁵. Gender differences are not only limited to rural and poverty-induced women only, at senior positions women also face discrimination (Garcia-Gonzalez, 2019). The proportion of ever-married women of age 15-49 years who experienced physical or sexual intimate partner violence is 28.8%¹⁶. According to World Health Organisation, the global burden of intimate partner violence is particularly borne by Women¹⁷. India ranked the highest position in an absolute number of married women below 18 years¹⁸. Moreover one in three of the world's such brides of age below 18 years living in India¹⁹. Point to be noted that in India out of 1000 marriages only 13 end in divorce. Thus, in-depth observation is required to search the causes of this deeply penetrated idea of male supremacy over females and to focus on the major problems faced by the ever-married women in India.

1.1.4: Empowerment, Violence and child marriage:

Empowerment: It is defined as a situation of exchange of power in such a manner that women gain more control over their own lives and less controlled by men (Kabeer, 1989). Kabeer (1999) explained empowerment as a process of change and she explained that women may enjoy a great deal of power in various aspects of life, but that does not designate them as empowered, as previously they were not in a position of subjugation.

Domestic Violence: Domestic violence or intimate partner violence refers to conscious menacing, physical, sexual, emotional assault particularly on women by an intimate partner or any other member of a close relationship to establish power or control over the abused. The types of intimate partner violence are segregated into four components: physical abuse, sexual abuse, stalking or controlling behavior, psychological aggression as selected by WHO and the Centre for Disease Control and Prevention.

Child Marriage: The marriage of girls below the legal age of marriage that is 18 years is known as child marriage.

1.2: Background of the study:

Autonomy of women and gender equality works together towards the development of any society in a multiplier process. An empowered woman enlightens the future of an economy by

creating impacts on generations. It is the most crucial aspect to eradicate gender inequality and women constitute half of the entire population thus it is the most essential component of the overall development of a nation. Thus empowerment implies becoming powerful from a position of disempowerment. So, it is necessary to first identify the domains and factors of *disempowerment*. However, failure of achieving empowerment lies in the fact that woman has to face the obstacles from household and relationships and social norms (Malhotra and Schular, 2005). Several other socioeconomic factors influence the incidence of empowerment. Caste and religion have a significant influence on gender differences as observed by Seguino(2011), Ozorak(1996). Thus in the case of Indian states with vast differences in culture and religious beliefs, how far it impacts the magnitude of disempowerment is not properly addressed in the past researches. The power dynamics between man and woman cannot work in balance since the belief system of the world is supportive towards men being aggressive and thus entitled to be obeyed²⁰. But man and woman get married either voluntarily or involuntarily. According to Becker (1973, 1974), people get married to raise their children and to obtain utility from cooperation rather than from being alone. Now marital instability between husband and wife does not address the dissolution of marriage or legally break down of the marriage, but it means that couples will stay together but in a non-cooperative manner with lower marital quality (Booth et al.,1983; Lundberg and Pollak, 2003). The rest of the marriages with low marital satisfaction, which depends on several factors, may result in heated arguments and violence. The problem of *spousal violence* can be solved by empowering the women as examined by Farmer and Tiefenthaler (1997), Lundberg and Pollak (1993). Thus empowering women can be the solution to the problem of marital instability resulting from violence. To what extent spousal violence creates an impact on the incidence of divorce this requires empirical investigation. Further women are neglected or averted from their parental home also since parents may have son preference²¹ the attitude which is a common phenomenon in developing countries. Patrilocal marriage and the patrilineal process of continuing the family tree are the two major causes of daughter aversion (Jejeebhoy and Sathar, 2001). And investment in the education and nutrition of daughters would not be beneficial (Ghosh 2011; Kugler and Kumar, 2017; Dasgupta, 2016). The issue of *child marriage* pops up from here, further providing dowry is another major threat to the parents of daughters. Several past types of

research focused on gender-based selection among children through different methods to terminate girl childbirth or continue to have children unless getting the desired number of sons (Clarke, 2000, Diamond-Smith et al., 2008, Pande and Malhotra, 2006). Thus the importance of correcting this evil practice is of emergent requirement. But whether the incidence of child marriage has any relation with son preference or not needs to be examined.

Thus, the dissertation is devoted to searching the following aspects of ever-married women which were not discussed previously in the literature to the best of our knowledge:

Inter-state variation of magnitude and extent of disempowerment of ever-married woman in India while considering the multidimensionality property of disempowerment. Exploration of factors influencing disempowerment of women considering the state-specific fixed effects. Two suitable econometric models are designed for the estimation of the aforementioned issues. Also, we provide a graphical representation of the variation of disempowerment of women in India over time. The next issue is the influence of empowerment on the incidence of spousal violence on ever-married women while considering inter-state variation. This issue is discussed using theoretical and empirical tools. Next, the study considers the extent to which a woman is likely to divorce in response to spousal violence in India. Another econometric model is designed to investigate this issue. The incidence of child marriage in response to the number of sons in the household, while keeping in mind the inter-state variation of child marriage, for this purpose, a suitable empirical technique of structural equation modeling is applied.

Thus, the present dissertation aims to analyze the well-known yet less investigated, socio-economic problems, that are, *disempowerment, violence, and early marriage*, faced by the *ever-married* women from a developing country like India.

1.2.1: Methodology:

The empirical analyses of the chapters are established by using modern econometric techniques to get more minute details of the research question. Chapter 3 is on measuring disempowerment, a Fairlie-Decomposition Technique is adopted for scrutinizing the difference in

disempowerment in two different demographic settings beside multilevel multivariate logistic regression is applied for factor exploration. In chapter 4 a distinguished variety of graphical representations is applied to check the variation of disempowerment over time. Besides empirical modeling, a theoretical model is also developed in chapter 5 where empowerment and spousal violence on ever-married women together incorporated. In chapter 6 structural equation modeling techniques with path analyses is used to assess the issue of child marriage.

1.2.2 Data:

We have used NFHS-4 (2015-16) data for chapters 3, 4, and 5, while DLHS-4 data (2012-13) set is used for chapter 6 for the issue of child marriage. The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India. The District Level Household Survey (DLHS) of the Government of India, a nationwide survey was conducted during 2012-13 to interview ever-married women.

1.2.3: Organization of Chapters:

The rest of the dissertation is segregated into the following chapters: Chapter 2 titled **Review of Literature** represents a detailed discussion of existing literature on the socio-economic problems faced by the ever-married women. The chapter discusses firstly the issues related to the empowerment of women, including the researches related to the problems associated with the measurement empowerment of women. Next, the literature are chosen for review based on violence faced by the ever-married women, both domestic and intimate partner violence are discussed. Lastly, the chapter is dedicated to the literature based on researches related to the issue of child marriage of girls. In this section papers on son, preference is also discussed. The chapter discussed both theoretical and empirical works related to the issues faced by women. The literature firstly focused on the problem and its importance to the society as a whole, then factors influencing the problems, and lastly it focused on the papers related to its spread and steps taken to resolve the issues.

Chapter 3 is entitled "**Disempowerment of women: The Indian Story**" represents the issue of disempowerment of ever-married women through an empirical investigation of the factors

influencing the problem. The extension of the chapter shows an empirical model of decomposition designed to focus on detecting the difference of disempowerment in two neighboring states.

Chapter 4 named "**Women Disempowerment at Sub-National Level: A Socio-Economic Analysis**" is organized to investigate the extent and magnitude of disempowerment of ever-married women in India. The chapter represents the improvement or deterioration of disempowerment over time in various regions of India and in India as a whole.

Chapter 5 is entitled "**A Study on Spousal violence and Divorce in Indian Families**" is designed to search the association between empowerment and spousal violence faced by the ever-married women in India. Both theoretical and empirical models are built to enhance the investigation. The extension of the chapter built an empirical model to detect the likelihood of divorce decisions of the women in India.

Chapter 6 is titled: "**Child Marriage: Some facts from selected Indian States**" represent the issue of child marriage of girls in India while focusing on the son preference attitude of parents. It also explores some hidden facts of some Indian states regarding this evil practice. The model is designed with advanced econometric techniques.

Chapter 7 concludes the dissertation.

Notes:

¹ As Jejeebhoy and Sather(2001) mentioned in their paper titled "Women's autonomy in India and Pakistan: Influence of Religion and Region".

² <https://www.britannica.com/topic/marriage>

³ <https://www.un.org/en/development/desa/population/publications/dataset/marriage/ever-married.asp>

⁴ Ames, R. T., Kasulis, T. P., & Dissanayake, W. (Eds.). (1998). *Self as an image in Asian theory and practice*. SUNY Press.

⁵ This horrific crime against women was banned by the intervention of Raja Rammohan Roy in 1829 through British General Lord William Bentinck

⁶ <https://www.yourarticlelibrary.com/essay/status-of-women-in-india-during-the-british-period/35181>

⁷ Observing the sorry plight of the child widow in Bengal the widow Hindu remarriage act was passed in 1856 by Lord Canning through the continuous efforts of great reformer Ishwar Chandra Vidyasagar.

⁸ Hindu Women's right to Properties act enacted in 1937 to give equal property rights to women.

⁹ <https://www.britannica.com/topic/purdah>

¹⁰ <https://blog.ipleaders.in/position-women-indian-society-independence/>

¹¹ Hindu Marriage Act(1955), Special Marriage Act (1954), Dowry Prohibition Act(1961), Hindu Succession Act (1956), The Hindu Adoption and Maintenance Act (1956), etc.

¹² 73rd Constitution Amendment Act 1993

¹³ <https://www.ourworldindata.org/female-labor-supply>

¹⁴ <https://www.ilo.org/infostories/en-GB/Stories/Employment/barriers-women#unemployed-vulnerable>

¹⁵ https://www.unicef.org/sowc07/docs/beaman_duflo_pande_topalova.pdf

¹⁶ <https://evaw-global-database.unwomen.org/en/countries/asia/india>

¹⁷ https://apps.who.int/iris/bitstream/handle/10665/77432/WHO_RHR_12.36_eng.pdf;sequence=1

¹⁸ <https://www.girlsnotbrides.org/child-marriage/india/#:~:text=27%25%20of%20girls%20in%20India,18%20in%20the%20world%20%E2%80%93%2015%2C648%2C000.>

¹⁹ <https://data.unicef.org/resources/ending-child-marriage-a-profile-of-progress-in-india/>

²⁰ According to Plumwood (1993), some developed countries accepted and justified the controlling behavior of men on women and children.

²¹ Son preference means that valuing more boys over girls. It reflects an attitude or belief of Parents that sons are going to be more beneficial to them. And for this purpose, parents apply various fertility controlling behavior which would create either more siblings or the boys will be born as younger children of the family (Basu and Jong, 2010).

Chapter 2

Review of Literature

From the very early times, women are subjected to various types of oppression, humility, and subjugation by the patriarchal system of society across the globe, which is evident from the skewed sex ratio in most of the countries of the world. There are about 62 million more numbers of men than women worldwide and 43 million surplus of men in Southern Asia is due to India¹. Not only this, women are denied their basic rights of health, education, employment, property, and many others. . Researchers and policymakers may think that the way out of female deprivation is by empowering² them, but various sociological researches show that economically independent women are subject to more intimate partner violence^{3,4}. This paradoxical yet crucially important aspect for the development of women has been discussed by many researchers. In gross terms, we can summarize that families that show their preferences for a male child, don't want a girl child so they opt for different methods such as sex-selective abortion, or if they have daughters then parents arrange their marriage early⁵ to get rid of the economic burden of daughters. The seed of disempowerment is sown among the child brides at their early age, it starts growing further as the girls face obstacles to attain autonomy from the male egocentric environment. As a result, they become tolerant to violence and they have to face various types of violence from husband as well as from in-laws. However, such entangled marital relations may or may not end through marriage dissolution, rather marital instability settles in. The present chapter provides a brief review of the existing literature on empowerment, marital instability and violence, and child marriage.

Section:2.1:

2.1.1: Empowerment:

An empowered woman enlightens the future of an economy by creating impacts on generations. It is the most crucial aspect to eradicate gender inequality and the most essential component of the overall development of a nation. Moreover, an empowered woman entails her self-

worth and initiates her wellbeing automatically. According to Batliwala (1993) empowerment is about changing the balance of power in any society. Friedman et al. (1992) defined empowerment as a shift from social power to political power which is a result of increased confidence and psychological power. It means a state where women are aware of their selves and gaining the strength to participate in decisions that influence their welfare and control their own lives. (Rahman (2013); Malhotra et al. (2002); Karl (1995); Page and Czuba(1999); Kabeer (1989); Kishor and Gupta (2004)). Empowerment is an amalgamation of three basic components, viz; Agency, Resources, and Achievement (Kabeer, 2005). According to Kabeer, agency implies the process to exercise choices, resources are those paths through which choices will run and achievement means the ultimate result of the choices. Thus agency approach indicates the power of 'decision-making. And resources are the ingredients required to make it possible to achieve that power, and achievement declares the outcome after exercising that power in one's own life, it can be a success or a failure. The power of decision-making enables the functioning of the individual which entails his/her capability. However, agency and wellbeing are different concepts (Sen,1987). Kabeer (1989) defined it as a situation of exchange of power in such a manner that women gain more control over their own lives and less controlled by men and she also (Kabeer (1999)) identified empowerment as a process of change, that is, women may enjoy a great deal of power in various aspects of life, but that does not designate them as empowered, as previously they were not in a position of subjugation. Moreover, the multidimensional nature makes it more difficult to analyze. *Chen and Mahmud (1995) defined* empowerment as the development of women. Employment is considered as a significant accelerator of empowerment, thus in this respect *Kabeer(2005)* explains the role of microfinance on the empowerment of poor women but it is no such 'magic bullet' unless accompanied with education, political quotas, and other interventions. While measuring empowerment, misuses are noted by *Schuler(2006)* through the use of the gender development index and gender empowerment measure. *Schuler et al. (2010)* conclude that the changes in socio, political, and economic dimensions can create significant implications in the measurement of empowerment. *Duflo (2012)* focused on women empowerment and economic development as both way process, that is, economic development raises empowerment of women and if women become more empowered then economic development is inevitable. *Das and*

Chattopadhyay (2012) examined women empowerment in two different socio-economic regions of West Bengal and Bangladesh to check the influence of region on empowerment. Numerous research has been done on the empowerment of women so far. Below a brief detail of the existing literature on empowerment is given:

2.1.1: Some researches on empowerment of women based on Indian Perspective:

➤ *Time-Period: 1980-2010*

Several studies on empowerment were done from 1980 to 2010. Some of the notable studies are *Dyson and Moore (1983)*, *Kabeer (1999)*, *Bloom et al. (2001)*, *Jeejebhoy and Sathar (2001)*, *Jeejebhoy (2002)*, *Kantor (2003)*, *Kishor and Gupta (2004)*, *Basu and Koolwal (2005)*, *Gupta and Yesudian (2006)*, *Garikipati (2008)*, *Kishor and Gupta (2009)*, *Wiklander (2010)*.

Empowerment of Indian women from the view of different aspects is discussed by many authors, such as a study by *Dyson and Moore (1983)* examines the differences in women autonomy in the northern and southern region of India. Another notable study by *Kabeer (1999)* critically examines the validity of the three dimensions of empowerment. *Bloom et al. (2001)* examine the relation of various dimensions of women's autonomy with maternal health care in a sample of 300 women from Varanasi in India. *Jeejebhoy and Sathar (2001)* examined the impact of religion and region on empowerment of women from Uttarpradesh and Punjab and again *Jeejebhoy (2002)* explores the opinion of husband and wife both on female autonomy by collecting data from Uttar Pradesh and Tamil Nadu and he finally concludes that social and cultural norms suppressed the autonomy of women to a large extent and husband's perception about the role of women is more important than her own opinion. *Kantor (2003)* examines the empowerment of female workers in a garment factory in Ahmedabad. *Kishor and Gupta (2004)* examined that women's empowerment is essential not only for their wellbeing but also for the development of the entire family. *Basu and Koolwal (2005)* explore that increased decision-making capacity improves the welfare of the household but not necessarily leads to the welfare of their health. *Gupta and Yesudian (2006)* analysed the spatial, socio-economic, and cultural disparities that exist in empowerment dimensions in India. *Garikipati (2008)* explores that loans given to women do not empower them but enhance the condition of the household. *Kishor*

and Gupta (2009) using NFHS(2&1) data gives a detailed overview of various socio-economic problems faced by Indian women. *Wiklander (2010)* analysed the determinants of women empowerment and discovered the obstacles faced by the women from Uttar Pradesh and Tamil Nadu.

Now we will review some of the literature mentioned above in detail:

Jeejebhoy and Sathar (2001) analyze the impact of religion and region on women empowerment in India and Pakistan. They describe the Indian gender system characterized by its patrilineal and patrilocal setting for women. Region-wise variation in the autonomy of women is observed as the author argues that women in Pakistan have less autonomy than women in India. In the case of India, Women of the south are more empowered compared to women of the north. Here the authors have chosen Punjab from Pakistan and Uttar Pradesh and Tamil Nadu from India for testing the above hypothesis. Further, they verified the influence of all the traditional indicators used to measure the level of autonomy. Thus differences in women's autonomy occur due to differences in religion or in the region that needs to be analyzed. Here the authors have defined autonomy as controlling one's own life according to own terms. For this purpose, they collected data from the above-mentioned states during 1993-94. Huge socio-economic differences were observed in the north (Uttar Pradesh) and south (Tamil Nadu) of India. Literacy levels are higher in Tamil Nadu than those in Uttar Pradesh. It is observed that women from the Muslim religion are more disempowered than Hindu women. The sample consists of currently married women of age group 15-49 years were 1023 women from Punjab province of Pakistan, 859 women from Uttar Pradesh, and 983 women from Tamil Nadu, India Muslim. In the case of household amenities or basic infrastructure in Punjab province, Pakistan scores better than the other two states of India. Endogamous marriage is observed in Punjab province in Pakistan and Tamil Nadu, India. The practice of high levels of dowry is observed among Punjabi and Tamilian women. To measure women's autonomy four major dimensions were selected: decision-making autonomy, freedom of mobility, violence from husband, and control over resources. Each of the dimensions comprised of various indicators and summed up to form an index. Then using the mean value or headcount of each of the indexes is assessed to compare the autonomy in each of the three states. The distribution of each variable within the dimension also

clears the region-wise differences in the autonomy of women. In the case of decision-making autonomy, Tamilian women score better than the northern states of India for each of the indices. Mobility restriction is much higher among Muslim religions than that of Hindu. Next, the authors applied OLS regression to identify the factors influencing women's autonomy. For this purpose, they used the summary of all the indices of autonomy. Then regress it on a range of various factors that influence women's autonomy. In Uttar Pradesh and Punjab major determinants of autonomy are the size of dowry, age, conflict with mother-in-law, nuclear family, having a son but in the case of Tamil Nadu education and working status of women become the strong factors for autonomy. Lastly, the authors concluded that Muslim women face greater control than Hindu. In Uttar Pradesh, Muslim women are more liberal from violence from a husband than Hindu. But their findings suggest that Muslim women have greater autonomy than Hindu women when they are from the same region. Tamilian women have greater autonomy than women from Uttar Pradesh and Punjab. Broadly socio-cultural factors influence women's autonomy to a greater extent for a particular region and religion.

Kishor and Gupta (2004) point out that women's empowerment is necessary not only for their welfare but also for the development of the entire household. Empowerment of women benefits both the sexes by enriching the quality of life with overall development. Here they advocate the empowerment concept as gaining power by the powerless. As the gender relations of the society are inclined more towards men the unequal power distribution influences the magnitude of disempowerment of women. The authors used the NFHS 2(1998-99) data to examine the level of empowerment in 26 states of India. To compare the measures of the various indicators of empowerment the authors use NFHS1(1992-93) data also. To measure empowerment both the success of empowerment as well as access to and control of various resources are necessary to consider. The indicators chosen are freedom of decision making, freedom of movement, attitude towards wife-beating, preference of having son, perception towards the education of boy and girl child comprises the evidence dimension of empowerment. Next, the indicators for access to resources are included, such as education, media exposure, and employment. They have chosen age at first marriage, family structure, age difference, and education difference between husband and wife as the given background

for affecting empowerment. From the percentage distribution, they observed that the majority of the women from Indian states participate in cooking decisions. However, unmarried women have greater say in decisions regarding their health care. The freedom of mobility is found to be extremely restricted for the overall Indian states during the survey period. In some states, a large percentage of women agree to the beating of wife if she found to be slightly away from her assigned duties and responsibility. Next, the authors consider that the preference for sons also measures the perception of women towards gender relations. For this purpose, they have used the percentage of women using contraceptives after achieving their desired number of children. The reflection of son preference attitude is visible from the NFHS 2 data from contraceptive use information. However, the majority of women aspire to give an equal education to both boy and girl child which is an indication of a rise in empowerment score. Next, the authors give detail of sources of empowerment of women. In the case of education, around 50 percent of the women are literate compared to 75 percent literate men. The majority of women have access to any audio or visual medium for mass exposure. Employment plays a significant role in the empowerment of women. Only 2 percentages of the ever-married women are found to be employed. The last dimension for empowerment which is defined as the setting of empowerment gives the descriptive view of the various indicators chosen. It is observed that the median age at first marriage of women is only 16 years for most of the states. Most of the women belong to a joint family structure. The majority of married women are younger than their husbands. Around 52 percent of the women reported that their husband is more educated than her. Next in case of violence, it is observed that one in five women have experienced some form of violence from husband. The data also reveals that women who are justifying the beating of a wife are victims of violence and beating from their husband. Lastly, the states with poor empowerment rank reported lower grades in evidence and sources of empowerment.

Garikipati (2008) examines the significance of credits given to women to empower them, though the goal is not realized to the desired level. Because the loans given to the rural poor women increase the wellbeing of the household but not necessarily empower the women. To answer the above dilemma the author tried to find out the impact of microcredit given to individual women using

the data from two villages of Andhra Pradesh. The result obtained is that the credit does not empower the woman itself but increases the standard of living of her family. The result is defined as an 'impact paradox'. The reason is explained as follows: microcredit is diverted to increase household assets but as the woman herself is not allowed to participate in decision making, the loan amount is not used for any productive asset creation. The empirical section is divided into two parts, one for examining the effect of loan on vulnerability and empowerment of women and the other part is used to check the use and repayment history of the borrower. Next, the author narrated a brief history of the rural credit system of India. The role of self-help groups in providing microcredit to rural poor women is primarily taken into consideration. The data were collected in 2001-03. Next, the authors develop two separate dependent variables; one indicates vulnerability, and the other variable is comprised to check empowerment. Along with that household characteristics, other personal characteristics are taken into account also. After that Logit estimation is applied to examine econometric relations. From the results, the authors found that the need for credit to the households is very high. As a result, the credit amount given to the women was diverted to fulfill the household needs. Next, the women have no control over the assets so she has to depend on her minimum wage-earning for repayment of the loan. And, if the process continues then the loans given to women without sufficient control over assets will increase the gender gap with men becoming a controller and decision-maker whereas women remained suppressed at the household level.

➤ **Time- Period: 2012 onwards**

However, researches on women empowerment after 2012 was also numerous. Some of them are *Banerjee and Ghosh (2012)*, *Bhattacharya and Banerjee (2012)*, *Chakraborty and Biswas (2012)*, *Mishra (2014)*, *Garikipati et al.(2017)*, *Pratley (2016)*, *Biswas (2017)*, *Bhatia and Singh (2019)*, *Pandey and Parthasarathi (2019)*, *Samanta (2020)*.

Banerjee and Ghosh (2012) examined the employment of women in a self-help group in a district of West Bengal which makes them self-sufficient. However, *Bhattacharya and Banerjee (2012)* examined the empowerment of women from two districts of West Bengal in India. *Chakraborty and Biswas (2012)* examined women empowerment by applying SEM methodology

using NFHS3 data and another paper by *Mishra (2014)* applied an amalgamation of indices developed for measuring deprivation to check the multidimensional disempowerment of women in India. *Pratley (2016)* examined the association between women empowerment with maternal and child health. *Biswas (2017)* analyzed deprivation of the power of women makes them unable to make choices of life but the magnitude of deprivation varies across caste, culture, and ethnicity of any society. *Bhatia and Singh (2019)* examined the empowerment of women with financial inclusion in urban slums of Ludhiana in India. Another study by *Pandey and Parthasarathi (2019)* examined the impact of various policies and welfare schemes on women empowerment. *Samanta (2020)* examined the empowerment of women through the lens of self-compassion using IHDS data.

Now we will review some of the literature mentioned above in detail:

Chakrabarty and Biswas (2012) examined the causes of the slow rate of growth in women empowerment in India over the period 1992-93 to 2005-06 and they explored the causal structural relationship of the factors with empowerment which is a latent variable. Despite the formulation of several empowerment-enhancing policies from time to time, the empowerment of women remained far behind the desired rate. Thus, to find out the causes of failure in achieving the desired rate the authors applied a Structural Equation methodology. The interdependent nature of the factors along with the empowerment variable is explored using the MIMIC model. After the theoretical development of the model empirical estimation is done using the NFHS 3 data. The indicators of empowerment are categorized into four dimensions and several other socio-economic factors are chosen. A regional variable is also used to check to assess the regional influence on empowerment. The measurement model is used to check the association with the observed variable to the latent empowerment variable whereas the structural model is applied to check the interdependent relationship with the latent factors and observed variables. LISREL is applied to estimate the data. The authors claimed that the exploration of the structural relationships between the factors will help the policymakers to frame appropriate policies. Further, they have observed that women may participate in joint decision-making but not allowed for individual decision-making. Occupation and exposure to the media of the women were found to be positively influencing women's empowerment.

Respondent's occupation, standard of living, and exposure to media positively affect the mobility freedom of the women. However, the level of education is found to be negatively influencing decision-making powers in some regions. The education level of women is found to be lower in central parts of India. The author's results show that more number of working women are from relatively poor households and they would gain the decision-making authority in their families but that is not reflected in their empowerment level. Next, the authors observed that the husband's education level negatively influencing the empowerment level more in the southern region of India. Lastly, they have stressed the fact that the policies for empowerment must focus on changing the patriarchal mind setting of the families through awareness campaigning programmes and in other possible ways. The underlying structural relationship between the various factors such as education, employment should be kept in mind while investing in empowerment generating policies to get better outcomes. **Duflo (2012)** describes the bilateral relationship between women empowerment and economic development while emphasizing gender equality as the prime requirement for women empowerment. She has given evidence of how women are differentiated in terms of health, education, employment, or even at household domestic work than men. The problem of gender inequality is pervasive worldwide. Data from various countries confirms the fact. In terms of health and longevity, women are more vulnerable to be missing from the world as compared to men which are revealed from the 'missing women data' worldwide. A woman spends more time and energy in household work, child care than men. Discrimination is observed in participating in economic activities such as in inheriting properties, legal rights, or controlling or making decisions in business. Less participation is observed in the case of parliamentary representations or judicial services also. She argues that women empowerment and economic development are interdependent aspects. The development promotes women's empowerment while Sen argues that deprivation of women obstructs the development of a country. Policymakers focused on poverty reduction which is considered as the remedy for gender inequality, but Duflo argues that without improving the condition of women the policies will remain ineffective. Various women-oriented policies and measures are taken by the United Nations and World Bank for correcting gender inequality which is quite justified. She has hypothesized that poverty reduction is the indirect tool for increasing women's empowerment. As

poverty declines then economic prosperity takes place which promotes the improvement of the condition of women more than the economic development. Poor households compromise on women's wellbeing when they have fewer resources for consumption as observed by various researchers. Discrimination is observed between boys and girls in many aspects, starting from serving food to giving immunization shots to girl children. The gender-specific mortality rate is also very high in the case of India, where mainly girls are not well treated when they fall ill. During any type of crisis caused by any natural calamity poverty-ridden households, first-hand start discrimination on women's welfare. She observes that when these households are given facilities such as health scheme benefits, basic infrastructure facilities, etc. then they treat equally both boys and girls. Households when insured against any type of risk also reduces discrimination against women. Thus reduction of poverty by stimulating economic development disproportionately helps women although not aimed towards them. Maternal mortality is also proof of parental neglect towards the girl child. In the case of education, the belief system is strongly inclined towards the fact that girls are denied basic education since their primary role would be of taking care of the household. The solution for the former problem is to increase the employment opportunities that are suitable for women. More infrastructural development of any economy develops more women empowerment by freeing up their available time, such as proper electrification in area or pills given to reduce fertility increases women's autonomy and making them available for labour market. With economic development and technological progress, women are allowed to enjoy some legal rights. Economic development increases the returns to human capital, thus men allow some legal rights to be exercised by women for the development of their children as human capital. However, economic development in terms of advanced technology creates more suitable ways for discrimination against girls by lowering the cost of abortion or making it easier to determine sex before birth. In the case of the subject chosen by females, people have that traditional stereotype thought that men are for science and women do well with arts. In leadership roles or political positions, women get the chance when men do not get. Thus overall a deep assessment on the deprivation of women in different spheres of life is done. The author argues that a small change in policy-making can increase women's control over resources. Further poverty-ridden families cannot ensure the property rights of women, so families cannot be trusted for ensuring gender

equity. Finally, economic development and women empowerment both can work efficiently to remove gender inequality only if policies aimed in favor of women when cut from the share of men. **Das and Chattopadhyay (2012)** analyze women empowerment in two different socio-economic settings: West Bengal and Bangladesh. The Cultural norms and gender rules define women's position in a country (Dyson and Moore (1983)). Hence, women autonomy varies across the region or countries. Religious beliefs and norms also create a significant influence on gender inequality. Caste and religion both have a dominating effect on women's status in society. Here the authors have tried to find out the extent of the effect on religion and region affects women empowerment in West Bengal and Bangladesh. The fertility rate in West Bengal is lower than the national average and women from the Muslim religion recorded a much lower fertility rate than Muslim women residing in other states of India. But in the case of Bangladesh, the decline in fertility rate is a recent issue. However, the two countries are parts of the same province. Bangladesh is predominantly a Muslim country but people in West Bengal are primarily from the Hindu religion. Thus, in these two bordering nations with a diverse cultural setting where fertility rates have declined yet from different periods, then the status of women must have improved in both this nation. Thus, the author's prime research question is that how far religion has played the role to shape women's empowerment in these two nations where cultural assimilation has taken place. Further, the authors have selected broadly three regions: West Bengal, bordering region, and rest of Bangladesh. They have chosen NFHS 1998-99 and 2005-06 for West Bengal and BDHS data of 2000 and 2004 for Bangladesh. The various women empowerment indicators such as individual decision-making, household decision-making, and freedom of mobility are selected to build the women autonomy index. Several other factors such as age at marriage, contraceptive use, education status, and the number of children are also considered for women's autonomy. The OLS regression is performed to check factors influencing women's autonomy in three regions, along with that logistic regression is used to analyze the effect of religion and region over women empowerment with other controls. From the results, it is observed that Muslims of West Bengal recorded the highest illiteracy than the other two regions. On average age at marriage is lowest in the case of Muslim women. The women empowerment index rises with age and as the women grew older then the autonomy index decreases. And the score is lesser for West Bengal than that of

Bangladesh. Muslims are freer to make decisions about spending money than Hindus, in the case of Bangladesh but the fact is not true in the case of Muslims residing in West Bengal. Women are freer to take decisions jointly in Bangladesh than in West Bengal. From the regression result, we observe that as age difference increases the autonomy index decreases in both nations. The majority religion reflects higher autonomy than the minority religious group. Hindus are more aware of contraceptive use than Muslims. Household decision-making is more among women of Bangladesh than that of West Bengal. Mobility freedom is lesser for Bangladeshi women than that of West Bengal. The recent policies of women's education and family planning programmes in Bangladesh increase the autonomy of women. But in the majority of dimensions of empowerment, the women of West Bengal are better off than the women of Bangladesh. The reason may be the deficient employment opportunity for women and the gender norms and traditions that hampered the development of women in Bangladesh.

Banerjee and Ghosh (2012) analysed the impact of employment status on empowerment for women who are members of Self-help groups. Economic empowerment can be enhanced by providing loans to poor women through various micro-credit programmes. However, employment-generating programme are not sufficient for the empowerment of women, as it is a multidimensional issue. As authors give evidence from past studies that employment in self-help groups makes the women financially confident, but not empowered. The role of a self-help group based employment programme on empowerment is examined by the authors using primary survey data from North 24 Paraganas of West Bengal. The primary survey (2005-06 and 2009-10) includes the same women surveyed in the two rounds, employed in SHG of SGSY programme. The authors collected information on socio-economic characteristics and structure of occupation of the women in the first round (290 women of 26 SHGs) while in the second round (268 women of 26 SHGs) of the survey they gathered information regarding their empowerment. The first hypothesis they have made is that the likelihood of empowerment and employment of the women in the second round is determined by the occupation pattern observed in the first round. To test this hypothesis, they applied the bivariate probit regression concerning all the socio-demographic explanatory variables. Lastly, they applied logistic regression to test the influence of each of the socio-economic factors on the indicators of

empowerment. The occupation of the women members is grouped into three categories: self-employed, wage labourers, and animal husbandry. The authors found that among the total number of women 55% become housewives in the second round although they were employed in the first round. Since women empowerment is a latent multidimensional concept so here the authors have chosen couple interaction, political participation, legal awareness, freedom of movement, domestic decision making, and self-esteem as indicators of women empowerment. The authors asked the SHG members about joint pattas and also asked whether they know about gram Sansad to check their legal and political knowledge. Using 10 indicator variables the six dimensions of empowerment were formulated. All the variables are binary. After that, logistic regression was performed to check the effect of the socio-economic factors on empowerment. Religion significantly affects women's empowerment as the authors observed that women from the Muslim religion have less information about their joint Pattas and they enjoy less freedom of movement or less autonomy in decision making than Hindu women. Thus, it is inferred that they are less empowered. But after joining the SHGs they become more self-reliant. The higher age of the woman helps her to have an equal status in the family. A greater number of family members also dominates her spending decisions. The most interesting fact is that after receiving training the SHG women became more self-confident and takes decisions about joining gram sansad meeting, birth control measures, and enjoys more mobility freedom. Next, the authors tested the correlation between empowerment and employment status and the trend of using the loan amount. The bivariate regression results reveal interesting facts. The SHG members with training are more empowered as well as employed currently. The result shows that women who are self-employed and works from home remain in employment continuously than women who work outside of the home and earns a wage. Further, the association between empowerment and loan use pattern reveals that empowered women have more knowledge about loan usage. Thus, the role of training undoubtedly increases the likelihood of empowerment of women of rural SHGs.

Another interesting study by **Mishra (2014)** differentiates the measurement procedure for women empowerment from other researches. Here author focused her attention on measuring

disempowerment instead of empowerment. As she justifies the fact that the level of empowerment on different dimensions of empowerment is different because a woman can be empowered in one dimension but may have less autonomy in any other dimension. The gender norms, state-level differences, laws, and regulations, degree of effectiveness of policies, socio-economic structure all affect and cause variations in women empowerment in a particular region or area. Further, due to the multidimensionality property of empowerment, it is difficult to identify the dimensions that are more influential for achievement. The present study adopts the method of measuring social exclusion or deprivation pioneered by Chakravarty and D'Ambrosio(2006) and later applied by Jayaraj and Subramanian(2010) in a modified version to identify the regional differences. The property of decomposability of this measure helps to segregate the dimensions according to their contribution to the overall deprivation. Moreover, the disempowerment measure compares the regional differences of disempowerment for a country. Here the author tried to apply both aspects of the disempowerment measure to compare the indicators and region-wise disaggregation. Also, the measure provides headcount-wise disempowerment of the respondents and the sensitivity of the disempowerment level is measured through the given parametric value. For this purpose, the author has chosen the NFHS 3 data and selected 8 indicator variables specific to the questions related to denials of decision-making power of women in various small as well as big issues related to personal and household aspects along with restriction to mobility freedom. These indicator variables clubbed to form four major dimensions of disempowerment: Fertility decisions, economic decisions, personal decisions, and household decisions. Further, she clustered the major states of India into 3 groups: North, South, and East. The data contains women of mean age 35.8 years with middle-income status and their mean age of marriage was 16.8 years. The headcount result shows that most of the respondents are deprived of decision-making power in case of major household purchases. But, the least value of headcount is observed in the case of fertility decision-making autonomy. The overall data reflects the highest disempowerment in the case of the household decision-making dimension. Next, the result from the multidimensional disempowerment index reflects a clear view of disempowerment across the regions as well as the variation in the contribution of each dimension on total disempowerment. Rajasthan is recorded as the most disempowered state among all northern states, while the same is for West Bengal

among the eastern states. Assam recorded the lowest disempowerment among all the states. The author found that relatively richer states recorded more disempowerment of women than poorer states. Moreover, the 'household purchase decision' is a substantial contributor to disempowerment in the North and South region. It is observed that 'mobility freedom' is more restricted in the northern region compared to the south. At lower magnitudes of disempowerment, the biggest contributor is Madhya Pradesh among all other states, while in the case of higher magnitudes it is Andhra Pradesh. Another interesting finding is that Bihar and Uttar Pradesh recorded lower disempowerment than all Indian levels of disempowerment. Lastly, she found that the majority of women of Southern states recorded the utmost level of disempowerment than the northern region. The method reveals some new as well as interesting pictures of the disempowerment of India. However, some ambiguous finding requires more minute scrutiny such as the magnitude of disempowerment has no such relation with the prosperity of states.

According to **Biswas (2017)** women are not allowed to make decisions and are deprived of the power to make choices in life but the magnitude of deprivation varies across caste, culture, ethnicity for any society. Measurement of women empowerment is a difficult task due to its hidden nature of multidimensionality. Choices made by a woman cannot be executed properly due to the lack of power. The author describes that despite several steps taken by the Government and other agencies, still there exists a gap between the targeted and achieved level of empowerment. Thus, the author demands a careful investigation of this gap in the achieved level of empowerment. Here the prime objective is to measure the attainment of women empowerment and exploration the factors affecting it. For this purpose, she has chosen the NFHS 3 data to design her empirical section. Several socio-economic factors are considered as explanatory variables apart from the decision-making variables chosen as dimensions to measure empowerment of women. Four types of dimensions were formulated. Then using the Alkire et al.⁶ (2013) methodology the decision making dimensions are combined to formulate the empowerment index. Since the intensity of empowerment is not the same for each of the respondents, thus the index is segregated into 3 categories, viz; high, medium, and low. And lastly, multiple regression analysis was performed by considering the empowerment index as the

dependent variable with several household-specific and socio-economic factors taken as explanatory variables. All four dimensions (access to money, spending money, household decisions, mobility freedom) do not have the same level of impact on the empowerment index. The 'mobility' dimension has more influence on the empowerment index rather than 'access to money'. The lowest value is recorded against the 'spending money dimension'. The analysis revealed that only 14% of the respondents recorded a high level of empowerment. However, only 9% were recorded for the low level of empowerment. Finally, the author finds that most of the women have a medium level of empowerment. Next, she justifies the exploration of factors that either increases empowerment or decreases empowerment. Caste, relationship to head, household structure affects negatively the empowerment level. Women from general caste and joint family structure are less empowered than any other caste. The level of empowerment varies directly with religion, age, education, exposure to media, earning difference of husband and wife, husband occupation, and asset endowment of the family. Due to poverty and low level of literacy, most of the women are unemployed or employed in semiskilled jobs or manual jobs and recorded low or medium levels of empowerment. The study confirms the fact that Indian women are allowed to have a medium level of empowerment to run household activities. Further, the author suggests that self-confidence generating factors plays a major role in raising the empowerment level. Education, high-level jobs, and exposure to media are all such contributing factors. Apart from this, if the husband earns well and more aged women gains empowerment over time. The author concludes the discussion with the fact that decision-making autonomy of women is crudely functional with patriarchal norms and rules. Various education-oriented policies and employment-generating programmes would help empower women to a greater extent. However, t emphasis should be given to making women educated more than just making them literate, which will place them in high-level jobs.

2.1.2: Some researches on women empowerment outside the boundary of India:

Among the Literatures based on the empowerment of women outside the purview of a national boundary, we observe some interesting aspects on the issue. The study by *Mullany et*

al.(2005) describes the conflicts in increasing women empowerment with male involvement in women's health in Kathmandu of Nepal. If we check the literature on empowerment in Asian countries together then one notable study of *Ghuman et al.(2006)* explores differing attitudes of husband and wives towards various dimensions of women's autonomy and they collected responses from India, Pakistan, Philippines, Malaysia, and Thailand. Women are denied of making decisions for their health, thus *Crissman et al. (2012)* analysed the sexual empowerment of women within the demography of Ghanaian women where contraceptive use and sexual empowerment are found to be correlated. Similarly, *Upadhyay and Karsek (2012)* analysed women's empowerment through taking decisions of fertility and thus influencing family size as per their desire in a study conducted in Sub-Saharan Africa.

Now we will review some of the literature mentioned above in detail:

Crissman, Adanu, and Harlow (2012) represent empowerment related to sex with a demographic case of Ghanaian women. Sexual empowerment of women has a direct link with reproductive health and intimate relationship thus the unequal power distribution between man and woman needs to be addressed through empowering women. Family planning policies create awareness for women by spreading the benefits of contraceptive use and the practice of secure sex. When women are not sufficiently aware of their right to sexual decision making their knowledge of contraceptives has no use. Various studies explored women empowerment from different dimensions but no exhaustive analysis is done on the sexual empowerment of women. General relationship power does not accurately represent power in sexual decision-making. The importance of sexual empowerment of women influences policymakers to frame policies on sensitive health issues such as HIV prevention programmes. The positive correlation between sexual self-confidence of women and contraceptive use is more consistent than with male condom use. This indicates that cooperation between intimate partners is entangled with typical gender norms of society. Here the authors have chosen sexual empowerment as their domain of analysis among all other dimensions. They define sexual empowerment means that the knowledge of their right in sexual relations, and their self-confidence regarding sexual decision-making. In the present study, the authors hypothesized that there

exists a positive relationship between the sexual empowerment of women and contraceptive use. In Ghana, only 24% of women were found to use contraceptives. The data used here is from Ghana Demographic and Health Survey (2008). A total of 2,104 married women were selected who are married and living with their partner and presently not pregnant. Among the total sample, 589 women who have reported using any type of contraception are categorized as currently using contraceptives whereas 1515 women reported not using any contraceptives. To measure the sexual empowerment of women the authors identified 5 variables related to sexual decision making. Adding the total obtained from each of the variables the authors obtained sexual empowerment score. The score was obtained at the individual level as well as at the regional level. Other explanatory variables include age, marital status, household size, religion, no of children, place of residence, education, employment status, wealth index, region, etc. The correlation between contraceptive use and other bivariate variables was tested using the Rao-Scott F test. Logistic regression models of the odds of contraceptive use were computed to get the odds ratio. Pseudo maximum likelihood estimation was used to compute estimates of regression coefficients. Lastly, design-based linear regression model was fitted to examine to check the association between sexual empowerment and contraceptive use. Women with higher sexual empowerment scores are associated with higher contraceptive use. The unmet need for family planning is high in Ghana. Contraceptive use is higher among women with some amount of education. Employment status was taken in empowerment score thus not included as an explanatory variable and after that empowerment and contraceptive use was found strongly associated. Muslim religious-based women reflect lower odds of using a contraceptive. The association between contraceptive use and sexual empowerment is found to be strong among asset-poor women. Finally, the authors explained the gender stratification of the society with unequal distribution of power between men and women strongly impacts the sexual autonomy of women.

Upadhyay and Karasek (2012) assessed women empowerment with desire for ideal family size by taking fertility decisions in the case of Sub-Saharan Africa. Women empowerment varies widely with various dimensions. The authors critically assessed the traditional method of measuring empowerment with selected dimensions and clubbing then into an empowerment index. They opined

that measurement must include a specific set of questions to a specific set of individuals and questions must differ according to the socio-demographic nature of the population. For this purpose, they have chosen the DHS survey for their empowerment assessment. However, women empowerment in the context of Sub-Saharan Africa is quite different from other countries as the gender norms and environment is much different from the rest. The link between women empowerment and reproductive results is discussed less in the research field. Thus, the issue of empowerment and ideal family size is not addressed before in such a wider quantitative method. Point to be noted that Sub-Saharan Africa has the highest fertility rate in the whole world. But the women in African countries desire to have smaller family sizes. Thus an empowered woman has the power to influence fertility and control the family size, so the present study hypothesized that whether women empowerment has a link with ideal family size while taking into account the husband's desire to influence family size. The authors have chosen four countries of Sub-Saharan Africa: Namibia, Mali, Guinea, Zambia. Gender inequality is more prevalent in Namibia and Zambia. The DHS survey period is from 2005-2007. The data collected on individual women as well as on couples also. An ideal number of children and more than an ideal number of children are taken as the dependent variable whereas several decision-making questions were considered as an independent variable along with socio-demographic characteristics. Multiple logistic regression is used to check the association between empowerment and ideal family size with clustered standard errors. The average ideal number of children is highest in Namibia and lowest in Mali. But women empowerment is higher in Namibia than in the other three countries. From the regression result, authors have found that as empowerment increases the desire for an ideal number of children decreases. Women who had disagreed to justify the beating of wife for any reason are the same women who desired to have fewer children. Education and wealth are negatively associated with the ideal number of children. The desire for the lesser ideal number of children is associated with different indicators of empowerment. As in Guinea, higher household decision making whereas in Mali and Zambia gender equity attitude are associated with a lesser ideal number of children. However, the contradictory result of Namibia where more empowered women reported for the higher ideal number of children creates the view that the more empowered women fulfilled the family desire to have more children but they wanted a smaller family size.

Husband's desire for an ideal number of children is also strongly associated with women's reproductive decisions. However, the role of education is confusing in assessing the coordination between empowerment and fertility may be due to the limitations and scope of the DHS survey. A more sensitive instrument to measure empowerment is required to analyze the association between women's autonomy and reproductive issues.

2.1.3: Literature Gap:

We observe that the issue of disempowerment of women in India is addressed by few researchers with a limited number of dimensions. Due to the multidimensionality property of disempowerment, it is essential to club every dimension linked to women's autonomy. Further, the magnitude of disempowerment across the states is not scrutinized by the researchers. Also, the impact of religion on disempowerment is not well addressed by the researchers based on the states of India. The above studies have not compared the magnitude of disempowerment across the states in India or the change in disempowerment over time in India is not explored so far.

Section 2.2:

2.2.1: Marriage and Spousal Violence

Marriage is a union between men and women when they realize that their joint utility will be higher than their utility from being single (Becker, 1973, 1974). The institution of marriage ensures the legal right of the partners to each other and provides a definite relationship to children in society. Marriage and family are the key structures of any society. Marriage also refers to a legal contract that regulates sexual and family life and it varies by law jurisdiction, religious dogma, and culture⁷. The existence of love rebellion in marriage enters the 18th century (Coontz, 2006). However, when a marriage is characterized by low marital satisfaction, low degree of adjustment, and unhappiness then marital instability sets in (Booth et al. 1983). However, it certainly does not lead to divorce or separation (Lundberg and Pollak (1993)). Each marriage is defined by post-marital bargaining (Manser and Brown, 1980; Bergstrom, 1993; Pollak, 2019). The bargaining power is clubbed with some proper 'threats' imposed by the spouses, facing turmoil in their marriage but not ready to reach the climax of divorce. Sometimes, the low quality of marriage defined by the non-cooperation of the couples, and this non-cooperation may lead to violence in marriage. This happens primarily due to the

existence of a power imbalance between man and woman (Goode, 1971; UN 1993). Spousal violence in marriage is a well-known phenomenon. Domestic violence or intimate partner violence refers to conscious menacing, physical, sexual, emotional assault particularly on women by an intimate partner or any other member of a close relationship to establish power or control over the abused. The types of intimate partner violence are segregated into four components: physical abuse, sexual abuse, stalking or controlling behavior, psychological aggression as selected by WHO and the Centre for Disease Control and Prevention. Spousal violence creates serious health impacts on the victim and most of these incidences remain behind closed doors (Babu and Kar, 2009, Ahmed et al., 2016). Divorce is the process of terminating the marital union legally. However, the option of divorce is not chosen at the first instance due to several well-founded factors.

2.2.2: Theoretical and Empirical literature on marriage and spousal violence:

Now in this subsection, we discuss the literature on marriage and spousal violence. The literature developed along two different strands: theoretical and empirical.

➤ *Theoretical literature:*

There exists a gamut of literature on marriage and spousal violence. Among them some of the notable studies are mentioned here: *Gale and Shapley (1962)*, *Becker (1973,1974)*, *Lundberg and Pollak(1993)*, *Farmer and Tiefenthaler (1997)*, *Chen and Wooley (2001)*, *Pollak (2004)*, *Chiappori and Weiss (2006)*, *Choo and Siow (2006)*, *Vyas and Watts (2009)*, *Ali and Naylor (2013)*, *Dommaraju (2016)*, *Grogan and Sadanand (2016)*, *Kalokhe et al.(2017)*.

Marital instability raises the likelihood of separation and divorce, but sometimes the marriage remains intact through a non-cooperative equilibrium between couples. The fact is examined by several researchers. The patriarchal society does not endorse women's independence or autonomy, the fact explains the issue of intimate partner violence and domestic violence in marital relationships. A vast amount of literature exists on this issue. *Gale and Shapley (1962)* first developed the stability of marriage by optimal assignment of couples through a model of assignments of students applying for college admission. *Becker (1973, 1974)* introduced first the concept of marriage in Economics where

he developed the concept of assortative matching in marriage. The causes of marital conflict or instability occur from non-cooperation that further turns into violence on women. And *Lunberg and Pollak (1993)* introduced a model of non-cooperative equilibrium that is separate from divorce threat. *Farmer and Tiefenthaler (1997)* developed a non-cooperative model of domestic violence and showed that an increase in income of the women or access to financial supports decreases the level of violence. *Chen and Wooley (2001)* analyzed the bargaining game between a couple using the non-cooperative Cournot-Nash framework and then threats are obtained from the Cournot-Nash equilibrium. *Pollak (2004)* analyzed the issue of violence by developing an intergenerational model of domestic violence. *Chiappori and Weiss (2006)* analysed the effect of investing in schooling on the stability of marriage. *Choo and Siow (2006)* analysed the causes of fall in gains from marriage in the United States by developing a model of transferrable utility in the marriage market. *Vyas and Watts (2009)* showed that economic empowerment and poverty reduction can reduce intimate partner violence. *Ali and Naylor (2013)* critically evaluated the causes of the incidence of intimate partner violence in light of feminist, social, and ecological perspectives on IPV by examining the available literature. However, due to conflict in marriages, separation or divorce may occur. *Gorgan and Sadanand (2016)* develop a model to show that the primary cause of violence is to control female resources. *Kalokhe et al.(2017)* reviewed 137 quantitative studies on domestic violence in India to identify the possible research gaps.

Now we will review some of the above-mentioned literature:

Becker (1973, 1974) pioneered the issue of marriage in Economics. He explained the gains from marriage compared to remaining single through the complementarity of various traits used in household production. Through his theoretical model, he has explained the sorting of man and woman using various characteristics. He has explained two types of mating of marriage: Positive assortative matching implies a positive association between the traits of man and woman whereas negative assortative matching implies the negative correlation of the traits. Complementarity of traits leads to the matching of likes, whereas substitute traits lead to the matching of unlike. The existence of a marriage market characterized by competition to search for mates is assumed. The basic idea is that

people will marry if they find that it will increase their utility. And marriage is the only process to raise own children. The time input of males and female are not perfect substitutes of goods and services from the market thus marriage differs from being single. From the optimal sorting of men and women, he has shown that only in 'core' optimality is achieved. The simple marriage model developed by Becker (1973, 1974) assumed that people search for ideal mates to maximize utility where utility depends on household-produced goods. It is further assumed that the marriage market always stays in equilibrium. The gain from marriage depends on the income of the mates and traits like beauty and education and the gain is greater when the substitution of time between the mates is tougher. If some women are not employed outside of the house, then their contribution is taken through 'shadow price' which is greater than the wage rate. Traits with higher value always combine with higher income. Division of marital output between the couple is determined through marriage market equilibrium. The division depends on marginal productivities. In the extended model, the author glorifies the effect of 'love' and caring between the couples and how it affects the marriage market equilibrium. These emotional traits are considered nonmarketable household goods. Becker incorporates 'caring' of mates through the utility functions and families try to maximize a single utility function. Lastly, an explanation of polygamy is also given which is a common incident between successful men according to the author. The significance of natural selection over time and assortative mating is also discussed. The degree of assortative marriage patterns also depends on hereditary traits. Finally, the sorting of mates in the marriage model is done under the assumption of perfect information about each other, but if that information is not adequate or the differences in traits are much larger then divorce or separation may happen. However, separation happens when marriage-specific investments (such as children) are very large. People get married earlier when they are lucky enough to get their mates and no extra hope left to get better and late marriages are for those people who are unlucky in their mate search and are optimistic about waiting for the right one. However, the cost of search inevitably affects the equilibrium.

Lundbark and Pollak (1993) develop a model of non-cooperative equilibrium which differs from the traditional divorce threat situation in a violent marriage. It is known as the separate sphere

model. Here the author examined the impact of various policies such as child allowances given to a couple. Using a bargaining marital model, the authors first examined the impact of the allowances on the mother of the child and then on the father. The separate sphere model is based on a non-cooperative equilibrium on the basis that partners impose threat through not abiding by the gender division of work and break of expectations and it involves transaction costs. The authors first described the interfamily distribution model. Apart from the traditional marriage models of Samuelson (1956), Becker(1973, 1974), the cooperative marriage model where Nash solution is the ultimatum for the partners, the authors followed the non-cooperative Cournot- Nash equilibrium in marriages. The non-cooperation designed by deviation from the roles and responsibilities assigned to oneself is a perfect threat rather than divorce. The ultimate equilibrium depends on the resource owner of the family. Next, the household public good and bargaining model is established, The Nash social welfare function consists of utility and threat point of husband and wife. The threat points depend on the prices and incomes of the individual and Von Neumann Morgenstern utility functions are assumed. Then they maximize the social welfare function subject to the joint expenditure of them to obtain the equilibrium values of public and private goods. The author used the simple Cournot equilibrium to assign the provision of the public goods to husband and wife. This noncooperative equilibrium depends on the child allowance payment. And when the allowance policy is altered then the equilibrium also changes. The results are non-neutral to any alterations. The model is again verified with transfers. However, the husband can transfer the wife's resources and purchase the services for the child in a non-cooperative marriage. The authors argue that the public good (child) can be purchased through a supplementary transfer which is called the price of the good. Finally, the authors relaxed the assumption of the impossibility of divorce, then a separate sphere model characterized by voluntary contribution is better than divorce. Next, the authors developed another two models based on the marriage market with and without binding agreements. Lastly, it is concluded that the equilibrium in the separate sphere marriage market model with a non-cooperative setting can be obtained by the Nash bargaining concept.

Ali and Naylor (2013) provide a detailed analysis of various theories to explain the causation of intimate partner violence (IPV). The authors suggested the feminist, social learning, and ecological theories for the evaluation of IPV. By conducting near about 200 web-search of different sources the literature was retrieved for the analysis. The feminist perspective of IPV was first established in the early 1970s. The feministic theory believes that IPV is not a personal or private matter rather it is a social problem that has emerged from the gender disparity in society ((Bograd, 1988; Dobash & Dobash, 1979; Schechter, 1982). The feministic perspective makes violence against women a criminal offence and they first bring light on the issue of providing shelter and protection for battered women (McPhail et al. 2007). They believe that men always try to control their female partners, and if women use violence that is just for their self-defense. Primarily they focus on women empowerment to solve the issue of IPV. Next, they used the cycle of violence concept to define IPV which was first proposed by Walker (1979). The cycle of violence perpetuates by first creating frustration and anger of the male partner, then violence and aggression imposed on the female partner, and lastly the male partner calms down and then a peaceful, loving environment began which is termed as 'honeymoon period. The cycle continues as the abused women become habitual of this. Next, the authors proposed the theory of 'learned helplessness' to explain IPV. The proponent of the theory is (Maier and Seligman, 1976). Continuous exposure to abuse makes the women tolerant to abuse and they prefer to stay with the abuser. These two theories explain the 'battered women syndrome'(Walker (1979)) concept. Another theory 'Power and control' is based upon the ideology of the Feministic perspective. The proponents of this perspective believe that man uses their power of violence to control their wife (Dobash & Dobash, 1979; Steinmetz, 1987). The cause of acceptance of continued abuse by the women results from 'patriarchy' as suggested by Smith (1990) and Yllo & Straus (1990). However, the feministic perspective of IPV on women always believes that man imposes violence on women which is a quite controversial issue among researchers. Next, the authors provide literature on sociological perspectives (Erchak & Rosenfield, 1994) which explains the causation of IPV. Social norms and attitudes towards women may be a major reason behind IPV on women. Next, the social learning theory explains the causation of IPV on women is due to the learned behavior of acceptance of the abuser and abused (Bandura (1977)). This theory explains the concept of the intergenerational cycle

of violence that directly affects children who become abused or abusers in the future. Next, the resource theory proposed by Blood and Wolfe (1960) explains that in marital relation who possess more wealth and other resources has more control and power upon the partner. Education, employment, income level all define the superiority of the partner compared to the other, and thus power imbalance between the two results in IPV. Lastly, the nested ecological framework theory is explained for the causation of IPV on women which is first proposed by (Bronfenbrenner, 1977, 1979, 1986). This theory covers the societal factors for the causation of IPV on women and this theory has been adopted by WHO (2002) to explain IPV on women. This framework is categorized into 4 levels, individual, relational, community, and societal. Finally, the authors concluded that no such single theory can entirely explain the causation of IPV on women in a marriage relationship.

➤ ***Empirical literature:***

An enormous volume of empirical studies is found on the issue of spousal violence or domestic violence against women. Here we will introduce some of the relevant and noteworthy literature, such as *Visaria (2000), Bloch and Rao (2002), Hindin and Adair (2002), Matud (2005), Panda and Agarwal(2005), Yount (2005), Rowe et al.(2006), Bowles and Seitz(2006), Koenig et al.(2006), Jeyasheelan et al.(2007), Ellsberg et al. (2008), Pandey et al.(2008), Ackerson and Subramainam(2008), Babu and Kar (2009), Rahman et al. (2011), Mathur and Slavov(2013), Fulu et al.(2013), Sabri et al.(2014), Bamiwuye and Odimegwu (2014), Dommaraju (2016), Atteraya et al.(2015), Biswas (2017), Peterman et al.(2017), Schuler and Nazneen (2018), Dhamija and Roychowdury (2018), Ram et al.(2019), Hawcroft et al.(2019), Chaudury et al.(2019).*

Now we will segregate the literature based on research on spousal violence on Indian women and researches on spousal violence in the rest of the world.

2.2.3: Segregation of literature based on the context of India and outside of India:

➤ ***Some researches on spousal violence against women based on the Indian***

Context:

In the case of India, we have found a huge number of empirical research on spousal violence and they are *Visaria (2000)*, *Bloch and Rao (2002)*, *Panda and Agarwal(2005)*, *Koenig et al.(2006)*, *Jeyasheelan et al.(2007)*, *Pandey et al.(2008)*, *Ackerson(2008)*, *Babu and Kar (2009)*, *Ahmed et al. (2019)*, *Bhattacharyya et al.(2011)*, *Mathur and Slavov(2013)*, *Sabri et al.(2014)*, *Dommaraju (2016)*, *Biswas (2017)*, *Dhamija and Roychowdury (2018)*, *Ram et al.(2019)*, *Chaudury et al.(2019)*, *Kalokhe et al.(2017)*.

The issue of spousal violence varies to a great extent based on the diverse demography of India. Several types of research are devoted to discussing the incidence in various parts of the country and each of the studies reveals different dimensions and directions about the evil phenomenon of spousal violence against women. A study by *Visaria (2000)* analysed the magnitude and determinants of domestic violence on women of rural Gujarat. Another study by *Bloch and Rao (2002)* observed that dowry plays an important role in causing violence against women in rural Tamil Nadu and a higher prevalence of domestic violence is also examined in a study by *Ram et al. (2019)* in a rural block of south India. Several socio-economic factors affect the incidence of spousal violence. *Panda and Agarwal (2005)* and *Koenig et al.(2006)* analysed the prevalence of lower risk of physical and emotional violence on women with greater asset holding or higher socio-economic status. The effect of alcohol consumption on intimate partner violence is also examined by several authors. *Jeyasheelan (2007)* and *Chaudury et al.(2019)* observed the association of alcohol consumption by husbands aggravates the risk of spousal violence. In the eastern part of India, the problem is also prominent. In this respect analysed the details of trends, patterns, and variations of divorce and separation in India. An interesting study by *Pandey et al. (2008)* examined the causes of domestic violence against women by collecting data from the slums of Kolkata. The details of the prevalence of domestic violence in eastern India are analysed in a study done by *Babu and Kar (2009)*. A study by *Ackerson and Subramanian(2008)* explored that varying levels of state-wise gender inequality caused the differences in intimate partner violence in India. Employment can reduce or increase the level of violence against women, the fact is debatable. In this respect, a study by *Bhattacharyya et al.(2011)* examined the association of employment and reduced risk of spousal violence by using data from

Uttar Pradesh whereas *Biswas (2017)* found a positive relation between spousal violence and women employment in India. Empowerment acts as a significant deterrent to violence against women as pointed by *Mathur and Slavov(2013)* and *Ahmed et al. (2019)*. Health consequences of women due to this evil phenomenon are also analysed by several researchers. A study by *Sabri et al.(2014)* explored the risk factors from severe physical violence and associated violence-related injuries to women in India whereas *Dhamija and Roychowdury (2018)* opined that lower the women's age at marriage higher will be the incidence of partner violence in India. *Kalokhe et al.(2017)* reviewed 137 quantitative studies on domestic violence in India to identify the possible research gaps.

Now we will review some of the literature based on the Indian context as follows:

Bloch and Rao (2002) give evidence that dowry plays an important role in causing violence against women in rural Tamil Nadu. Extraction of resources from wife's parents is known as dowry and it is the most common cause of violence against women. The authors represent a case study of rural Tamil Nadu for dowry-related violence committed against women. A non-cooperative model of bargaining and signaling is developed based on the data collected from three villages of rural south India. Then empirical estimation is done based on the data collected. The theoretical model uses bargaining as a process of signaling for domestic violence that indicates whether the husband is satisfied in marriage or not. Finally, after empirical investigation, the authors found that low dowry payment has a significant influence on marital violence. Moreover, women who are from wealthy families are more likely to face violence so that they can bring more dowries from their natal home. The authors' selected villages where the prime occupation of the villagers is pottery. Further, the amount of dowry is consistently increasing in, the villages as grooms are scarce. Divorce is almost impossible in the villages due to customs and tradition. Thus, violence is the only instrument to extract dowry from the brides' families. The authors conducted several interviews with the dowry victimized women. The model is based on two phases of dowry demand, one is before marriage and the other is after marriage. The signalling game is based on the satisfaction level of the husband. From the theoretical model it is observed that the chance of violence depends on transfer of resources from wife to husbands family. However, effects of husband's increase of wealth or variation in

couples' traits create an ambiguous effect on the amount of dowry. The likelihood of violence decreases as the marginal utility of income decreases for both families. A total of 137 married women were chosen for the econometric methodology. IVprobit regression methodology is applied with dowry treated as the instrument for estimation of violence. And other explanatory factors are also incorporated. Most of the respondents are poor with low mean schooling years. Women from richer families are more likely to face violence with increasing demands for dowry. Having more male children reduces violence significantly. The most striking result is that a husband's increase in school education increases the incidence of violence to a great extent.

Pandey et al. (2008) examined the extent of domestic violence on women residing in slum areas of Kolkata and they have also explored the underlying factors governing the role of the abuser and the interpersonal relationship between the abuser and the abused. The data collected from the slum of southwest Kolkata with a total population of 124000. The analysis was a cross-sectional descriptive study. A total number of 751 currently married women were finally selected. The authors observed that due to low socio-economic status and low standard of living they are more prone to stress and trauma which causes more addiction to alcohol and drugs and also other critical life ailments. Here the background of violence is settled among households of the slums. Most of the men are engaged in manual labour and daily wage-earning while women are mostly housewives. Two variables were formulated to assess the magnitude of violence. One is an individual variable and the other variable represents the relationship between the couples. The results indicated that the annual domestic violence rate was 17.6%. A surprising fact discovered by the authors is that households with a tougher form of livelihood resulted in a lower rate of violence. Severe alcohol addiction among the slums is due to the cheaply available liquor named 'chulai' is a major cause of the increasing incidence of domestic violence. If the age difference is low, then also it aggravates the chances of more physical violence. The socioeconomic structure increases violence while the joint family structure decreases the incidence. Alcohol, extramarital sex or visit to red light area all increases the likelihood of violence among the slum population. Among other factors, men with no earning, controlling wives' behaviors, son preference attitude, and longer duration of marriage cause more likelihood of violence.

Lastly, the low self-esteem and insecurity of men caused by unfavorable socio-economic conditions and poverty make them more violent to compensate for their lacking traits.

Mathur and Slavov (2013) explored that empowered women are less likely to face any kind of domestic violence in India. For this purpose, they have used NFHS and IHDS data. Here empowerment actually means the economic independence of the women, that is, whether they are employed, or have ownership of any asset with regular income. Economically empowered women are able to leave the violent relationship at the moment of extremities hence have greater bargaining strength. On the other hand, husbands apply violence from the fear that employed wives would be disobedient towards the husband. But contradictory opinion exists that working women face more physical violence. However, women with greater earning are less likely to face partner violence. The authors used a proxy for women's economic empowerment by considering the changes in state-level inheritance laws. The contribution of this paper is distinguished from other studies on the fact that to measure economic empowerment of women, apart from employment, possession of wealth or any type assets are chosen. Wealth inheritance laws change according to religion, but properties inherited improves the bargaining strength of women. The NFHS data during 1998-99 and 2005-06 are chosen while for IHDS data, the period of the survey is 2004-05. Probit regression analysis is performed and standard errors are clustered by state. The dependent variable from IHDS data selected as to whether beating by husband is common in the community and from NFHS data it is the incidence of beating by husband. For considering women empowerment in the model various types of working related variables are chosen along with that wealth-related proxies are also included. From the results, it is observed that women with higher earnings are less likely to be a victim of beating. Along with that, women who are older, educated, and from an urban place of residence reported lesser violence from husband. From the IHDS data, results show that employed women are less likely to face domestic violence but this fact depends on other factors such as the husband's attitude towards women. However, from NFHS data it is observed that women who are working are more likely to face violence than those who are not. Thus, it is observed that employment increases the chances of violence while higher-earning reduces the incidence of beating by a husband. The dummy for

variation in state-level inheritance laws is negatively significant with domestic violence. However, the results are more accurate for NFHS data compared to the IHDS data. Finally, the authors suggested that if the inheritance laws can be amended to be more daughter friendly then it can reduce domestic violence to a great extent.

Sabri et al.(2014) explored the health consequences of women resulted from severe intimate partner violence by using data from NFHS 3. The injuries to the health of women from partner violence are not rigorously addressed in literature as claimed by the authors. A total of 67,226 ever-married women were selected. The domestic violence score is obtained by using a conflict tactics scale. The outcome variables are named severe physical violence (application of any weapon) and violence-related injury (any kind of physical injury to the women exposed to violence). The explanatory variables cover a wide range of factors such as age, duration of the marriage, employment, socioeconomic status, the experience of childhood violence, number of children. Then logistic multivariate analysis was performed. Illiteracy and low level of education, low socioeconomic status is the major cause of the high level of intimate partner violence. And women continue to tolerate this high magnitude of partner violence due to children, poverty, and lesser interaction with family. Further, the authors explored that women's employment status also aggravates the chances of intimate partner violence. Women who experienced severe form life-threatening violence have separated or divorced from the marriage. Alcoholism of husbands, women's tolerant attitude towards violence, and witnessing parental violence are also major contributing factors for increased risk of a severe form of partner violence.

Dommaraju (2016) provides a detailed analysis of trends, patterns, and variations of divorce and separation in India. Indian marriage system is strictly confined to protect the sexual decision of women. Further stability of Indian marriage is guided by parents and other relatives apart from the couple itself. Next, the stature of remarriage is questionable for women but allowed for men in India. The separation strategy in India is that wife can return to her natal family which enhances her bargaining position and gives a chance for reuniting. In North India, due to the high prevalence of exogamous marriages, women lose all contact with the natal home but in South India, the

endogamous marriage system entitles the women to keep contact with the natal family. The sex composition of children is also a major reason for marriage dissolution in India. Women without a son make the husband eligible to remarry. The terms of law and order for divorce and separation in India vary across various religious groups. However, the study reveals an increasing trend of divorce and separation. The trend varies over region and religion. In the selection of mates greater independence could stabilize the marital bond. And education, a greater level of autonomy of women plays an important role in marital stability in India. However, the author analyses that divorce or separation is a poor instrument to check marital happiness in the Indian marriage system.

A paper by **Biswas (2017)** analyzed the positive relation of the incidence of spousal violence and women employment in India using the NFHS 3 data. The problem of violence against women is pervasive worldwide. Domestic violence against women refers to mainly intimate partner violence and violence from in-laws. According to the author, the need for exploration of the root cause of violence is extremely important to combat this evil phenomenon. A patriarchal mindset, gender norms, cultural beliefs dominate the Indian society, thus gender stratification sets rules for the living of women, to make them obedient to men. When women are employed then they have to devote their time and energy to the work field thus house and family-related work receives lesser attention, which increases the likelihood of violence against working women. The author describes that women empowerment, more education, higher earnings compared to husband, financial independence all increase the anger and frustration of the family members and cause domestic violence. The reason for patriarchal dominance in Indian gender norms is elaborated by the author by mentioning the Marxian theory of surplus agriculture holding. Indian families are characterized by the superiority notion of men over women. Patrilineal thought of Indian society teaches the girls from childhood about the roles and responsibilities they have to perform and any disobedience to this deserves punishment. The author justified the violence on employed women on the ground that man uses their physical power to apply control on working wife, but if she is found to be unemployed then financial power of man is enough to keep her under control. To assess the gravity of this problem the author examined the nature, magnitude, and causes of violence on employed wives using the data of NFHS 3 and explored

the factors responsible for the violence. A total of 69100 women are considered after omitting the missing responses. Then a spousal violence index is formed using 19 indicators of violence chosen from data. The violence dimensions are categorized into four heads, that is, physical violence, emotional violence, verbal violence, and sexual violence. The index is formed by aggregating all the indicators, using the Alkire et al.(2013) methodology. Then compare mean test is performed to check the hypotheses that Spousal violence differs with the working status of women and then the Levene test is also applied. To check the variability of violence with the employment status of wives' ANOVA test is performed. Lastly, multiple regression analysis is carried out to find out the factors influencing spousal violence. From the results, it is found that the magnitude of spousal violence varies inversely with job classification. Such as agricultural or manual workers mostly face spousal violence compared to the middle or higher jobholders. However, from the results, we also see that 14% of the owner of higher jobs face physical violence as increasing the financial independence of women raises intimate partner violence. Higher education of wives, alcoholism of husband, number of children increase spousal violence. Thus, the employment of women fails to protect them from the abuse of partners due to social and cultural male-centric belief systems. The problem may be solved by inducing confidence among women and by conducting more awareness-generating programmes about spousal violence.

A paper by **Dhamija and Roychowdhury (2018)** analyses the relation of women's age at marriage and domestic violence in India. Early marriage of woman accelerates the incidence of domestic violence, thus in this paper authors prove that a one-year delay in marriages decreases the incidence of physical violence significantly. Younger women are less powerful to combat marital violence thus easily victimized. However, sexual or emotional violence has no such negative relation with age at marriage. Several other factors also influence this causal relationship. Such as patriarchal norms followed from childhood makes the women more tolerant and silent towards domestic violence. Women at a younger age are expected to be more obedient towards husband and they deserve punishment for any disobedience. The authors used the NFHS 4 data to test this causal relation between age at marriage and domestic violence. The age at marriage in the data might get

influenced by measurement error; to avoid the problem of endogeneity the authors instrumented the age at marriage by the age at menarche. The IV regression is performed with two stage least squares. To measure domestic violence, the authors used the indicators from the data such as the experience of any severe physical violence, less severe physical violence, emotional violence, and sexual violence. After considering the age at menarche within the range of 9-12 years and with other controls applied, then the sample size reduced to 9343 women. The two-stage least square method is applied with clustered standard error at the district level. From the distributional plot, it is observed that age at marriage is positively related to the age at menarche. The validity of the instrument age at menarche is cross-checked with various other correlated indicators such as malnutrition in childhood, geographical factors. Next, the authors checked the measurement error for age at menarche. Lastly, a regression is performed for age at menarche, years of schooling, and age at marriage. The result shows that age at menarche has no significant effect on schooling years while controlling for age at marriage. From the OLS results, we obtain that women's age at marriage has a negative influence on domestic violence. Next, the IV results reveal that a one-year delay in marriage has significantly decreased various types of physical violence while controlling for other demographic factors and district fixed effects. For robustness checking the authors applied the IV-Probit method along with some other econometric tests. Lastly, the authors suggest conditional cash transfer schemes to delay the marriage age of young girls to prevent domestic violence.

➤ ***Researches on spousal violence outside of the Indian context:***

The incidence of spousal violence is a well-discussed issue among researchers worldwide. Some of the notable studies are: *Hindin and Adair (2002)*, *Matud (2005)*, *Rowe et al.(2006)*, *Bowles and Seitz(2006)*, *Ellsberg et al. (2008)*, *Vyas and Watts (2009)*, *Rahman et al. (2011)*, *Fulu et al.(2013)*, *Bamiwuye and Odimegwu (2014)*, *Atteraya et al.(2015)*, *Peterman et al.(2017)*, *Schuler and Nazneen (2018)*, *Hawcroft et al.(2019)*

Aggression on women by men is not limited to the boundary of our nation only, it ranges across the whole world beyond the secular economic segregation of the world, namely, less developed or developed. Several studies witnessed the above statement. *Hindin and Adair (2002)* found that

more decision-making authority of men caused more incidence of intimate partner violence against women in the Philippines. Several other factors influence violence against women. *Yount (2005)* found that household assets decrease physical violence on women in a case study in the Minya region of Egypt. A similar inference is drawn by *Peterman et al.(2017)*. He analyzed the association between women's asset ownership and intimate partner violence using data from 28 countries. Association between employment and domestic violence is studied by many authors. *Rowe et al. (2006)* examined the incidence of domestic violence against working women of Medan in Indonesia. Similarly, employment raises the decision-making power of the women as pointed by *Bowles and Seitz(2006)* where they analysed the effect of employment on domestic violence and divorce decision of women. The impact of domestic violence on women's health is explored by several authors. A study by *Matud (2005)* examined the psychological effect of intimate partner violence by collecting data on Spanish women. Another study by *Ellsberg et al. (2008)* examines the health consequences of women exposed to intimate partner violence by using findings from ten countries and *Hawcroft et al.(2019)* examined the association of poor health situation of women from Arab countries due to the incidence of severe domestic violence. *Rahman et al.(2011)* and *Schuler and Nazneen (2018)* explored the relation of empowerment indicators with intimate partner violence against women from Bangladesh. The determinants of spousal violence are explored in much literature. Such as *Fulu et al.(2013)* observed the variation in the prevalence of intimate partner violence by male partners by using data from 9 countries. Another study by *Atteraya et al.(2015)* examined the factors related to intimate partner violence in Nepal.

Now we will review some of the above-mentioned literatures in detail:

A paper by **Yount (2005)** analysed that the possession of wealth or household assets decreases significantly the incidence of physical violence on women in Minya of Egypt. The tolerance attitude of women towards wife abuse invokes further violence. The author used 2522 married women to test the hypotheses. To check the household economic status a composite score of assets possessed by men is calculated. The family organization also contributes to spousal violence because it consists of type of residence, nuclear or joint structure, any connection to the parental home. Domestic

violence is a common incident in Middle East countries and the recent incident of physical or sexual abuse are reported. Studies have given evidence that a husband's socio-economic status has a significant effect on violence. However, a contradiction arises with the inclusion of other factors while exploration is done on marital violence. Various factors influence domestic violence such as religion, age, duration of the marriage, any experience related to child death. The author opined that studies on domestic violence in the case of Middle East countries are scanty and insufficient. Thus, he argued that the inclusion of factors such as socio-economic status of the husband, family organization, the dependence of wife on husband, whether endogamous marriage, would bring a new horizon to the study of domestic violence on Egyptian women. His hypotheses are that poor women, women with children but no financial independence, women with a tolerant attitude towards beating a wife, women having less contact with natal home, or women having higher wealth status than the husband are more likely to face violence from a partner. A total of 2522 women of age group 15-54 years in the Minya region of Egypt were chosen. The dependent variables are constructed from scores obtained by the respondents on relevant questions filtered by the principal component. The dependent variables are beaten experience, justifying the beating of a wife, and to what extent seeking a divorce. Logit regression is performed with various other controls such as household assets, women's economic or social dependence on husbands, number of sons/daughters, etc. The descriptive finding shows that around 45 % of husbands have no school education. However, 10 % of respondents reported more schooling than the husband. Around 52% of the respondents reported that the beating of a wife is justified. Holding wealth also increases the chances of seeking a divorce by an abused wife. Older women face less incidence of violence to a small extent than younger women. From the multivariate regression result, it is observed that there exists a strong negative correlation between the likelihood of physical violence with household wealth. Further, women with two sons are more likely to be beaten by the husband and they also support the incidence of the beating of wife this happens mainly due to the Egyptian law which grants child custody to father after the divorce, and in Egypt women at old age generally depends on her son. Socio-economic dependence on husbands also aggravates than incidence of violence.

Farmer and Tiefenthaler(1997) draw attention towards the most common yet less discussed issue that is domestic violence against women using a non-cooperative model of violence. The utility function of both the spouses constitutes a threat point as a bargaining instrument. The beating of a wife by their partners is widespread across the world. Men use violence as means to penalize the woman for being disobedient. But when a woman is the only earning member of the family then violence decreases as her earning increases. While it increases with the rise in income of men. Here the authors adopt a simple game-theoretic model where each couple tries to maximize the utility subject to preferences and threats of their partner. The couple receives some transfers from each other through which they maximize utility. Thus, if the income level of the woman increases then her bargaining strength increases thus she might choose to leave the relationship. This indirectly reduces violence. Apart from income, there are other options too such as divorce agreements and the availability of shelters for victims of domestic violence will also increase the threat point of the women. Despite all the threats love and compassion also exists. It is assumed that violence increases the utility of the man as his utility is a function of his self-esteem and power. Moreover, the authors entered the utility of the husband within the utility function of the wife. If the divorce or separation agreements are sufficient for her then she would not hesitate to leave the abusive relationship. The process of the trade-off between transfers and violence continues until MRS of both husband and wife equates. Point to be noted that violence creates negative utility for the woman. And if compassion prevails then when the woman receives positive utility from his happiness then violence increases. Thus, the woman chose to stay in the relationship since the utility she derives from the relation would not be received from outside. The negative effect of income of the woman on violence is also proven from the extended Nash Game model. Several other factors affect the level of violence. Thus, to test it empirically the authors used data on income, and the effect of income, marital capital, and environment variables was considered on violence. A total of 560 observations of panel data set from the Domestic violence experience of Omaha, Nebraska are used and 340 observations were chosen from the Spouse Assault Replication Project from Charlotte of North Carolina. The dependent variable is 'number of physical violence occurred for the first data set and 'number of times physical violence occurs' for the second data set during the past six months on the women with income other

controls such as several monetary and public assistance to the victim. Tobit regression is used for both the data sets. A significantly negative effect of income and violence was found. Similarly, male employment has a negative effect on violence but an increase in nonwage income increases violence. Availability of alternative services increases the threat point of the women. A positive effect on violence is observed for a total number of children due to the financial dependence on the father while having young children creates a negative effect on violence as the mother believes that violence can harm the baby. Thus, it depends on whether, the magnitude of violence accelerates or retards the level of marital utility for the woman, over her threat point.

A paper by **Bowlus and Seitz (2006)** shows empirically the effect of employment on domestic violence and to what extent abused women are likely to divorce. Further, the study reveals that abusive husbands are more likely to have experience of violent childhood background. The authors describe the abusive relationship as a cycle of violence as it continues with violence and then repentance of the abuser and then again violence. The victimized women are characterized by 'learned helplessness' as they have to stay in abusive relationships. The authors have used Canadian Violence against Women Survey data to examine their hypotheses. They develop a model based on domestic violence, divorce, and employment to check that whether abused women make any difference to their own life after employment and most abusive husbands whether witnessed violence among parents. A total sample of 5266 women was retained after correcting for age, schooling, and other parameters. The abuse indicator is composed of various forms of physical violence. Further, it is categorized on the basis of high severity and low severity of abuse. It is found that low severity violence is not so highly correlated with divorce and employment. From the descriptive statistics, it is found that women with a low level of education and having experience of parental violence are more abused in marital relations. Abusive husbands are from violent families with below University level education. The decision of divorce by the abused wife reduces the future chances of abuse. From the dynamic and sequential model authors tried to simplify the problem of married couples by allowing the employment decisions and incidence of abuse to occur in several ways. The model is tested empirically with the cross-sectional data containing incomplete information. Multinomial logit

regression with reduced form is applied for estimation. The tendency to abuse is positively linked with the age of the husband. The results further show that women of age group 15-49 years are more prone to abuse if they are not employed. But older married women are less likely to face violence from husband although they are not working. Longer marriage duration, marital specific capital is significantly reducing the chances of abuse. The results also reveal that the abused women are not unable or unwilling to leave the violent relationship. More aged women are willing to get employed after facing domestic violence from spouse. Lastly, the authors found that women have a lesser preference for getting married if they are from violent homes. Based on this dynamic model and empirical study several appropriate policies can be applied to prevent domestic violence. More stringent laws for domestic violence can be formulated and counseling programmes must be arranged for abusive couples. The authors experimented with the policies into their empirical framework to check the behavioral implications for the above-mentioned domestic violence issues. And finally, they conclude that women should apply their employment tool at the first incident of violence from husband, but if the incident becomes regular then divorce is the only option. And in another way to reduce abuse from marriage effectively, policies must aim towards men to check their behaviour.

2.2.4: Literature Gap:

Since empowerment and violence against women is a long-debated issue, the past studies put us in a confusing state for the relationship between empowerment and spousal violence on women. Further, the incidence of marital dissolution or divorce whether provoked by spousal violence is not checked empirically by the existing studies.

Section 2.3

2.3.1: Child Marriage

The legal or customary union of two people where one or both bride and groom is below the legal age of marriage is termed as 'child marriage'. The practice is more frequent in the case of girls and causes disastrous consequences. Child marriage is often termed as forced marriages since it may occur without consent. Young girls being child brides become exposed to severe mental and health threats. Early sex life without proper education makes the girls more susceptible to various

gynecological diseases. Again early unplanned and frequent pregnancies cause severe health trauma⁸. Further, the break of education life, disconnection with parental relation, adjustment, and obedience to husband destroy the budding stage of the personality of the girls and results in low self-esteem, tolerance, and low confidence. Finally, they become vulnerable to more intimate partner violence. And the chain of abuse may continue through generations. Child marriage violate human rights and causes violence, exploitation, and abuse.⁹ The concept of “child marriage” is deeply rooted in India from very ancient times (Efevbera and Bhabha, 2020). The social and cultural norms undervalue the rights of girls. The practice of child marriage is the major constraint to global development and gender equality. Child marriage violates not only a single right of marriage at 18 years but it breaks a series of rights, such as violates the right to education, right to reproductive decisions, right to freedom from gender-based violence. From very early literature by Roy (1888), it is found that child marriage in India is an age-old practice and which was also common in all western and non-western communities. The cause of this phenomenon requires deep investigation. Girls are less valuable than boys as they will not contribute in the parental home thus not entitled to education, nutrition, immunization, etc. Daughter aversion as a reflection of son preference is discussed by many authors. Son preference refers to the attitude of preferring more boys than the girl child. This gender bias attitude causes a severe threat to girls and women's welfare. The obsession of preferring boys than girls leads to a skewed sex ratio by female infanticide, sex-selective abortion, and many other methods. Surviving girls face discrimination in nutrition and education, the fact is observed from several pieces of literature. Here we mention some of the literature on this vast area of child marriage and son preference.

Now we will segregate the literature based on research on child marriage in the case of India and researches in the rest of the world.

2.3.2: Segregation of literature based on the context of India and outside of India:

➤ Some researches on child marriage of girls based on Indian Context:

The issue of child marriage is well known to the researchers of India and many excellent studies have examined the details of this incidence in the context of diverse

heterogeneous demography like India. Here we will mention some of these studies as follows: *Sivaram et al.(1995)*, *Dubey and Dubey (1999)*, *Clark (2000)*, *Goli(2016)*, *Raj et al.(2009)*, *Santhya et al.(2010)*, *Ghosh and Kar (2010)*, *Speizer and Pearson (2011)*, *Ghosh (2011)*, *Pramila (2013)*, *Singh and Anand (2015)*, *Roest (2016)*, *Raj et al.(2018)*, *Chandra-Mouli et al.(2018)*, *Saha (2019)*, *Jejeebhoy (2019)*, *Paul(2020)*.

The prevalence of child marriage is detrimental to the social development of any country. Here we mention some of the literature on this issue in the context of India. The difference in the incidence of child marriage between North and South of India is observed by many researchers. *Sivaram et al.(1995)* examine the differences in child marriage of girls in rural and urban areas of South India. While *Pramila (2013)* gives a detailed study of child marriage in terms of its prevalence, causes, consequences, and measures to end the practice in the context of India with special reference to Tamil Nadu. However, the variation in the Southern and Northern regions is observed by *Singh and Anada (2015)*. They investigated the relationship between child marriage of girls and empowerment along with the prevalence of physical violence in two states Bihar and Tamil Nadu of India. Another paper by *Dubey and Dubey (1999)* investigated the association of child marriage and empowerment of girls by using data from the village and urban slum of Rajasthan. Rajasthan is well known for the extreme prevalence of child marriage. The prevalence of spousal valence is also linked with child marriage as pointed by *Speizer and Pearson (2011)*. They have examined the association between early age at marriage of girls and the prevalence of intimate partner violence in the state of Rajasthan and Bihar. Several studies found evidence of child marriage in West Bengal. A paper by *Ghosh and Kar (2010)* analyzed the details of child marriage of girls by using data from the rural southern part of West Bengal. Similarly, *Ghosh (2011)* describes the incidence of child marriage in the rural area of Malda district of West Bengal where the role of leaders, teachers, and the community is examined. Severe health consequences among the girls are observed due to early marriage. As noted by *Raj et al.(2009)*. They have examined the association of child marriage and fertility control behaviors of married young women in India. Another paper by *Santhya et al.(2010)* investigated the reproductive health outcomes among young married girls in India due to the prevalence of child

marriage. Another paper by *Saha (2019)* explored the regional pattern of the existence of the youngest brides and adolescent mothers in India. The prime threat to the health of young girls is early pregnancy and childbirth. A paper by *Roest (2016)* investigated the background of the girls who are mostly exposed to early marriage and the girls who become the victim of early pregnancies in India. Another paper by *Raj et al. (2017)* analysed the health consequences of the child bride across the globe. The pervasiveness of this grave issue in the case of India is examined by various researchers. A paper by *Goli(2016)* gives a detailed picture of child marriage in India while addressing the states where most of the child marriages occur. Similarly, *Paul(2020)* examines the trends and prevalence of child marriage in India through the exploration of regions, districts, and states of India. Researchers have also examined the existing policies and also tried to recommend appropriate measures and strategies to prevent this problem. A paper by *Chandra-Mouli et al.(2018)* analyzed the multi-sectoral approach of the Govt. applied in selected states of India to prevent child marriage of girls. Another paper by *Jejeebhoy (2019)* analysed the details of strategies that can be applied to delay early marriages of girls in India.

Now we will review some of the above-mentioned literature on child marriage in the context of India in detail:

Santhya et al.(2010) examined the reproductive health-related consequences due to the incidence of child marriage of women in India. Along with this, the authors tried to investigate the agency of the married young women in the household, and the link between age at marriage with power in a marital relationship is assessed. The authors selected five states of India where they surveyed for the empirical setting. The states are Andhra Pradesh, Bihar, Jharkhand, Maharashtra, and Rajasthan since the incidence of child marriage is highly prevalent in these states of India. . The data collected during the period of 2006-2008. A total number of 8314 married women of age 20-24 years were selected. Here child marriage of girls is chosen as an independent variable along with a large number of other socio-economic control were selected for the empirical exercise. Various marriage planning-related indicators and marital relationship-related indicators were chosen as the outcome variable. Both the dimensions cover a wide range of variables related to marriage planning decision

making and communication with spouse regarding reproductive decisions. Also, the spousal violence-related variables were included. Then the authors compared the outcome variables with the women who had married before 18 years and with women whose age at marriage remained above 18 years using multivariate logistic regression. The women who are married early are less educated with less knowledge about contraceptive use. Those who married late reported they had taken active participation in the selection of their spouses or had love marriages. Further communication with spouse regarding marital issues such as spending money, or discussion about having children or not reported by the women who had late marriages. Moreover, in the case of reproductive health outcomes women who had early marriages reported stillbirth or miscarriage issues. Experience spousal violence is also highly prevalent among women whose age at marriage was less than 18 years. The authors opined that the autonomy of women compromised on the ground of marriage at a younger age. The beating of a wife is more justifiable among the women who had married early. The authors also found that intimacy between the couples is stronger when the women were not child brides. Next, the authors found that pregnancy complications and delivery mishaps are more prevalent among the women who had married early. Delaying pregnancies soon after birth is more common among women who had married after 18 years. Lastly, the authors suggested that policies to prevent child marriage of girls are of utmost importance but more active policies are required to help those women who had undergone early marriage already. More active efforts should be applied to enable those women who were child brides, to take charge of their own life.

A paper by **Ghosh (2011)** analyses the incidence of child marriage and the role of a rural community in the rural Malda district of West Bengal by conducting a field survey. The irony is that most people are aware of the fact that child marriage is illegal but people are involved and supportive of child marriage. The author suggested that the evil effect of this institution is widely discussed in many pieces of literature and laws enacted to prohibit the incidence but they will not be effective until some special measures are adopted. Thus, the present study records the responses of the rural community to the incidence of early marriage of daughters in Malda district. The data collected based on focussed group discussions, in-depth interviews, and participatory research. Apart from the

villagers, information was collected from the various religious community and local leaders, self-help group members, school teachers, students, and others. Malda ranked the second-highest position in child marriage in West Bengal as per the 2001 census. More than 49 percent of the population is Muslim in Malda and most of them are of OBC categories and the prevalence of child marriage is most here than any other category. The Chai mondol communities among this OBC group reports more incidences of child marriage compared to any other community. The causes of this incidence primarily lie in the patriarchal belief system and cultural norms. Poverty, unemployment, lack of schooling, health facility all is primarily responsible for this incidence. The aristocratic group such as political leaders, school teachers, and local leaders all supported the elimination of this evil custom but failed to do anything. Parents also support this system of early marriage of daughters if they find the school is very far from their residence, or with the argument of safety threat to their daughter and if the result of their daughter school examination is poor. Moreover, though the public administration system has agreed to the prevalence of the evil practice of child marriage in the district and stressed the elimination of the system, the Panchayat or ICDS workers tried to hide the incidence. The Muslim communities are mostly of large family size with at least five children. Further, the incidence of girl trafficking is high in Malda district. Political leaders and groups are aware of these gender-related crimes but this matter does not lie in their priority list. However, school teachers strongly condemn this custom but their activities are limited since they cannot influence the traditional belief system and supportive attitude of the villagers towards this evil incident. Lastly, the author mentioned that adolescent school-going girls can play a major role in eliminating their early marriage. Most of the programmes for child marriages remain on paper. For the successful implementation of the policies, it is needed to build an enabling environment to stop this incidence, more awareness-generating programmes should be conducted with the active involvement of the educated participants who are free from age-old belief systems. Finally, the author accepts the fact that it is harder to reach the goal.

Singh and Anand (2015) analyzed the link between child marriage and early pregnancies of girls along with intimate partner violence in two states of India: Bihar and Tamil Nadu. The major objective of the study is to assess the influence of child marriage and empowerment of women on

spousal violence in the two states. The authors justified that Bihar and Tamil Nadu have an opposite and diverse socio-cultural background with significant geographical north south division makes the two states ideal for the study. The autonomy of women is more prominent in the southern region of India than in the northern part. Property rights inheritance and mobility freedom or maintaining relationships with natal home are more liberal in Tamil Nadu as compared to Bihar. However, the authors noted that Bihar recorded the highest level of physical violence among all the northern states while Tamil Nadu secured the same in southern states during 2005-06. To assess the hypotheses that whether child marriage and empowerment are linked to spousal violence the authors used the NFHS 3 data. Experience of spousal violence in the last 12 months is chosen as the dependent variable whereas the independent variables included age at marriage which covers both child marriage and marriage after 18 years. The empowerment index is also calculated using several indicator variables through principal component analysis. After applying multivariate regression techniques, the authors summarised the results as the incidence of spousal violence and empowerment is higher in Bihar compared to Tamil Nadu. The logistic regression revealed that early marriage of women increases the risk of physical violence in both the states but more in Bihar than in Tamil Nadu. Lesser autonomy of women who got married early are more vulnerable to partner violence and the issue is more prevalent in northern India. The mean age at marriage is higher in Tamil Nadu compared to Bihar. And the prevalence of cross-cousin marriage and joint family structure in Tamil Nadu protects the child bride from violence to some extent compared to Bihar. The authors concluded that determinates and correlates of spousal violence aggravated from child marriage and women disempowerment are different for the two states. Socio-cultural differences influence the magnitude of violence fuelled by child marriage and subjugated autonomy. Further, the authors opined that child marriage is the precursor of spousal violence as pre-marital sex has abstained in India. However, confusion surmounted the question that whether child marriage or dominated women empowerment causes spousal violence. The exact correlation depends on several factors and associated characteristics of the place and the clan.

A paper by **Goli (2016)** gives a detailed scenario of child marriage in India in his empirical paper. The author identified the 'hot spots' of the problem from his analytical study. The rate of child marriage is not decreasing at the desired level according to the estimate. For this purpose, the author used the IHDS II and NFHS data of the last three rounds. More than 75 percentages of child marriages take place in rural areas of India. The state-wise analysis shows huge inter-state variation in the occurrence of child marriage. 10 major states were classified where more than 80 percentages of total child marriages occur in India. 4 districts of Rajasthan (Bhilwara, Chittaurgarh, Tonk, and Ajmer) and 1 district of Uttar Pradesh (Lalitpur) were identified for 50 percentages of all child marriages that take place in India, apart from this 20 districts are identified as 'hot spots for child marriage. The trend of early marriage is declining globally though at a decreasing rate. The author argued that socio-economic factors are not the sole reason for child marriages since some major states are reflecting a higher prevalence of child marriage with the developed socio-economic background. The incidence of child marriage is higher among Muslim religion, scheduled castes, and rural poor women. Yet the lowest wealth quantile group shows the incidence is higher but the striking fact is that it is also prevalent among the higher wealth quantile group. Poverty and the education of women have a significant negative contribution to child marriage. More women-oriented education policies with easy availability to the child brides will reduce the exploitation of the girls to a great extent. The age gap between bride and groom also significantly affects gender inequality and reduces the autonomy of women. The declining sex ratio also increases child marriage in India. Sex-selective abortion and female infanticide primarily decrease the sex ratio. The author pointed out that this skewed sex ratio creates a scarcity of potential spouses in the marriage market thereby causing a marriage squeeze. The tradition of dowry payment creates a huge financial burden on a girl's family thus it increases child marriage. Apart from these major causes several other socio-cultural factors and belief system also aggravates the incidence of child marriage. The detrimental consequences of child marriage are well documented by the author. Several health complications with early pregnancies, multiple births, and less knowledge about contraception and abortion arises which may become fatal. Further, child marriage also increases the infant mortality rate. Moreover, child marriage creates mental health disorders of the women which are caused from intimate partner violence or psychological distress

from restrictions and controls on autonomy. Last but not least child marriage may lead to human trafficking as observed by the author. The policy recommendations based on the above-detailed findings include enactment of laws to restrict child marriage and application of various policies to educate the child brides and cash transfer schemes to poor parents to protect their daughter from early marriage. Special attention must be given to the 'Hot Spots' of child marriage.

➤ ***Some researches on child marriage of girls based on the outside of Indian***

Context:

Despite economic success and development from the ancient and medieval times, the world has undergone subsequent changes in attitude, however, the early marriage of girls remains prevalent all over the world. A great many studies are conducted on this issue across the globe besides India. Among them some of the impressive studies are: *Singh and Samara(1996)*, *Jones (2001)*, *Mikhail(2002)*, *Mathur et al. (2003)*, *Clark (2004)*, *Choe et al. (2005)*, *Nour (2006)*, *Jenson and Thronton(2010)*, *Zahangir and Kamal (2011)*, *Raj and Boehmer (2013)*, *Gage(2013)*, *Erulkar (2013)*, *Godha et al.(2013)*, *Nasrullah et al. (2013)*, *Hossain et al.(2016)*, *Green et al. (2015)*, *Kamal et al. (2015)*, *Sekine and Hodgkin (2017)*, *Groot et al. (2018)*, *Greene and Stiefvater(2019)*, *Efevbera and Bhabha (2020)*.

The global prevalence of the issue is examined by several researchers. As *Singh and Samara(1996)*, *Mathur et al.(2003)*, and *Efevbera and Bhabha (2020)* explored the variation of age at marriage of women in most of the developing countries of the world which is mostly below 18 years. Another paper by *Greene and Stiefvater(2019)* gives a detailed analysis of prevalent gender norms and cultural beliefs which fuel the decision of early marriage of girls across the world. The magnitude and severity of child marriage in the context of African countries are explored in some notable studies. A paper by *Clark (2004)* analyzed the association of early marriage of girls with an increased likelihood of getting infected with HIV/AIDS in a case study from Kenya and Zambia of Sub-Saharan Africa. Another paper by *Nour (2006)* investigated the health consequences of early marriage of girls in African countries. Health consequences of the early married young girls of African countries are also examined by several researchers. One such notable study by *Groot et al. (2018)* analyzed the

prevalence of child marriage among the extremely poor women of Northern Ghana with adverse health situations of both mother and child, low level of education, and lesser decision-making authority in household matters. The issue of child marriage is also examined in the context of Nepal and Pakistan. *Choe et al. (2005)* and *Sekine and Hodgkin (2017)* explored the determinates for early marriage and early motherhood among the women of Nepal. A paper by *Nasrullah et al. (2013)* examines the association between child marriage and fertility outcomes of young women from Pakistan. Several studies were conducted in Bangladesh to check the prevalence of child marriage. Papers by *Hossain et al. (2016)* and *Kamal et al. (2015)* explored the factors associated with child marriage of women in Bangladesh and also investigated the declining trend of the evil incidence over time. The factors responsible for the prevalence of child marriage in Bangladesh are examined by *Zahangir and Kamal (2011)*. He explored those tribal women of Bangladesh who have been exposed to child marriage due to low educational attainment, pre-marital work status, and ethnic norms of the community. *Godha et al. (2013)* and *Green et al. (2015)* examined the prevalence of child marriage in south Asian countries. *Godha et al. (2013)* investigated the association of child marriage of girls with fertility outcomes and with maternal health care in South Asian countries. A study by *Jones (2001)* investigated the trend of child marriage in Indonesia which is a Southeast Asian country by identifying the girls who are mostly become the victim of early marriage than other women. Studies on child marriage in Ethiopia are done by many authors. In this context, *Erulkar (2013)* and *Gage (2013)* provides some insights into the issue. *Gage (2013)* examined the association of increasing suicidal thoughts among the girls who had married early in a sample of Ethiopian women.

Some other interesting studies on child marriage are also noted here. A paper by *Jenson and Thronton (2010)* gives a detailed discussion of the trends and patterns of child marriage with special attention to the evil consequences of child marriage. *Mikhail (2002)* finds similarities between child marriage and child prostitution.

Now we will review some of the noteworthy literature on child marriage of girls in detail:

Jensen and Thronton (2003) analyzed the trends and patterns of child marriage in the developing world and discusses the evil consequences of early marriage. Young girls in most of the developing countries are subject to marry before attaining the legal age of marriage. Child marriage severely impacts the physical, mental and psychological health of girls. Early pregnancies increase the maternal mortality rate of the country. Further marriage stops the education of the girl as she has to engage herself in homemaking and child care. Thus in this paper authors represent an empirical investigation about the trend of age at marriage of girls. For this purpose, DHS data is chosen where women respondents of ages up to 25 and over were selected. The mean age at marriage is a minimum of 16 years and it is about a maximum of 20 years in South East Asia. But the trend is diverse across the regions. To detect the consequences of early marriage on young girls the authors have chosen 4 countries, with all available factors to check the wellbeing of women. The countries are Benin, Columbia, India, and Turkey. The results reveal interesting findings. The age at marriage has a significant influence on the education of women. Here the women receive lesser school education at an early age at marriage. Further, there is a positive relationship between childbearing and age at marriage. Early pregnancies increase the chances of maternal mortality. The age gap of couples indicates that husbands are much older than the younger bride. The reason may be attributed to the fact that women at lesser age will be submissive towards husband. Next, the authors gather information on empowerment dimensions such as decision-making autonomy, mobility, financial independence. Violence-related information was also collected. Clearly, the findings indicate that younger girls have lesser autonomy and they are more likely to face any type of violence. The younger girls are also supportive of justifying the beating of the wife as they are tolerant of this type of torture. Finally, the authors recommended institutional and law-related reform towards ending child marriage. The supply side of child marriage is that the daughter's parents are burdened with financial obligations to raise more than one child and further patriarchal norms prohibit girl child education thus marrying early is the only possible way out. And if parents delay the marriage then the amount of dowry also increases. From the demand side, the young girls are preferred more due to the longer reproductive durability and they will be more submissive to the husband. Thus, the interplay of various forces is responsible for the existence of child marriage in developing countries.

Mikhail (2002) describes child marriage as a disguised form of child prostitution since it violates a child's rights and involves financial transactions. The author articulates the fact by taking evidence from the Middle East and South Africa. Child marriage is considered a traditional and pure way of protecting the virginity of a girl, whereas prostitution involves intimate relations with an unknown person by the financial exchange. However, the incidence of child marriage has been on a declining trajectory with time due to the implementation of various policies and laws to prohibit child marriage. The author collected data from the Middle East and South Africa by conducting interviews and direct communication with the victims of child marriage. Child marriage involves a transaction between the supplier and the client just similar to prostitution. The author supported the paper using various religious scriptures and documents. The tradition of dowry payment from the bride to the groom's family is a form of payment and sometimes the groom pays to the bride (in Muslim religion) known as mahr. The author argued that dowry should be given to the bride, not the groom. The tradition of child marriage is prevalent over the world in various latent forms, such as in Iran or in Egypt, where short-term or short period marriages take place. The author found that child marriage actually a form of child prostitution and sexual servitude by the girls. Disobeying they may face partner violence and various other forms of distress. Without seeking consent from the child the incidence of marriage causes severe detrimental effects on the child's carrier. Next, the health complication that arises due to early marriage is also similar to the effects of child prostitution. Both child marriages and child prostitution face a severe economic crisis that resulted from a lack of education and skill. The child brides are denied their basic education whereas child prostitutes may attend school during their free time but it varies. Lastly, the child prostitute and child bride may face social exclusion. In the case of child marriages, separation or divorce may occur to the child bride. Thus, various women-oriented policies and skill enhancement programme may empower the child and protect her from this so-called institution of marriage whereas strict enactment of law and order is required to protect the child and punishment with a penalty to stop child prostitution.

Raj A (2015) presents a detailed analysis of the health consequences of child marriage across the Globe. Her study focused on child marriages in South Asia and Sub-Saharan Africa. She pointed

out that marriage of girls below 18 years primarily a common phenomenon in rural parts of a country with inadequate health services. But the primary reason for child marriage is prevailing gender bias, low-level education of girls and women, and lastly availability of fewer women-oriented job opportunities as noted by the author. Child marriage also fuels the issue of intimate partner violence and destructs the autonomy of women. Most of the time child marriages are a form of forced marriages arranged by family members of some other senior guardian. Thus, various types of oppression and torture by the older husband on the younger bride with lesser experience and education are inevitable. Apart from these issues, the author describes the health problems of girls associated with early marriage. Early pregnancies increase the risk of maternal mortality and other reproductive complications. Without proper knowledge of contraception, the risky conjugal life makes the child bride more vulnerable to various diseases and deliberate pregnancies. Not only the young mother suffers these health consequences, but the newborn also faces a greater risk of infant mortality or other neonatal health disorder. The author mentioned that some literature shows that young married girls of South Asia and Africa are more prone to depression and more likely to commit suicide. Due to less freedom of sexual decision-making autonomy, the child bride faces forced sex and sexual violence. Further, the author mentioned that various types of sexually transmitted infections may be caused to young girls with little or no education. Thus the author examines the health risks associated with age at marriage in India using NFHS3 data. The total numbers of ever-married women chosen are 14628. Association between age at marriage and various health parameters along with various other social variables are checked. The OLS regression also confirms the positive association between age at marriage and health issues. The incidence of multiple pregnancies, rapid childbirth, infant mortality, and maternal mortality also increases with age at marriage. However, the author observed that the incidence of HIV is more common in urban areas but child marriage is prevalent in rural areas, thus people in rural areas opt for early marriage of girls keeping in mind the urban disease. Next, the author explained various causes of child marriage. She found that unmarried girls are seen as impure as they might engage themselves in premarital sex, or even they may get involved in prostitution so early marriage will protect the chastity of the girls. Finally, the author recommended for implementation of stricter laws to practice such evil phenomena. Easy access to education of girls

and more women-oriented employment opportunities in rural areas is required. Since the married girls have little option to leave the forced bond thus easy availability of medical services pertaining to maternal and child health issues is required. Family planning programmes must include emergency contraceptive and abortion service availability.

A paper by **Greene et al. (2015)** proposes some efficient way out to ending child marriage after addressing root causes of child marriage in Global south countries. However, the article focuses on both girls and boys as the victim of early marriage. The in-depth study of child marriage reveals that the male-centric norms and attitudes towards girls invoke this evil practice. The authors conducted various surveys including International Men and Gender Equality Surveys to draw inferences about the attitudes of men towards child marriage. The male members of society have a significant influence on the nurturing of child marriage of girls. In Sub-Saharan Africa, girls are treated as goods that can be purchased and sold against price. The incomplete education of the girl leaves her disempowered and engages her into unpaid domestic work. Poverty and resource-deficient parents are eager to arrange the marriage of their daughter early as it will reduce the economic burden of the household. Another fact is that younger girls are chosen for marriage as they will have longer reproductive life and they will be more obedient to their husbands. But young girls face exploitation in terms of physical, emotional, and psychological aspects. Their lack of knowledge of sexual life makes them vulnerable to complicated health issues even pre-mature death due to early pregnancies. Next the author critically examines the attitudes of men towards child marriage. The patriarchal division of labour of men and women creates strong gender discrimination that is deeply penetrated the male community. Several surveys across the world by the author support this view. Most of the men accept the fact that women should do household core work and take care of the child. Next, the author pinpoints the social norms for sexuality which makes the thought that women must remain chaste before marriage and they must be submissive towards the sexual needs of men. Men who have witnessed parental violence are more likely to be harsh on women and thus prefer to have a submissive wife. Gender inequality and poverty induce families to marry their daughter at a young age. Despite all these obstacles, the authors pointed out that some report from surveys shows that

higher education of boys and girls makes them free from a patriarchal belief system and cultural norms thus change in attitude can end child marriage. The authors recommended several policy options to work with boys as well as with men or future husbands to change the perception towards women. Lastly, fathers are also included in this programme of changing attitude towards daughters. Apart from this, enabling an environment is needed for eliminating child marriage from society. Encouraging the Local Government officials and leaders to promote policies is also beneficial for ending child marriage.

2.3.4: Literature Gap:

The above literature review on child marriage does not encounter the incidence of early marriage of girls when families have more number of boy children than the girl child. Further, the studies have not addressed the effect of parental marriage patterns on the likelihood of girl-child marriage.

After revealing the gaps in the literature, we have planned to perform the followings in the subsequent chapters:

- Here we tried to explore the extent of disempowerment across states using an econometric model that catches the inter-state variation. So here we apply a decomposition strategy to check the impact of religion on the difference in disempowerment for two seemingly equal and neighboring states.
- Further here we tried to compare the disempowerment level of women across states of India for two different periods using a unique D-curve methodology.
- Here we applied a two-stage bargaining model and find that an increase in empowerment can reduce spousal violence. Next, we validate this finding empirically and we have applied an econometric model where we estimate the probability of divorce of ever-married women while taking spousal violence as an endogenous factor.

- Lastly, we check the issue of child marriages of daughters to marital patterns of the parents and son dominance in the families, while taking into account the interstate variation in the incidence across states of India.

Notes

¹ https://unstats.un.org/unsd/gender/downloads/worldswomen2015_report.pdf

² Empowerment means people become aware of their selves and gaining the strength to participate in decisions that influence their welfare (Rahman, 2013; Malhotra et al. 2012; Karl, 1995). It means gaining control over won lives (Page and Czuba, 1999). Kabeer (1989) defined it as a situation of exchange of power in such a manner that women gain more control over their own lives and less controlled by men.

³ As noted by Biswas (2017) in her paper titled “Spousal violence against Working Women in India”.

⁴ Intimate partner violence is defined as any behavior in a close relationship that causes physical, mental, sexual suffering to the partner, especially to the wife (Patra et al., 2018).

⁵ Here Child marriage refers to the marriage of minor girls that is below 18 years.

⁶ Alkire et al. (2013) constructed a unique empowerment index (5DE) based on five dimensions comprised of decisions about agricultural activities and shows the percentage of women who are empowered as well as the intensity of disempowerment.

⁷ <https://plato.stanford.edu/entries/marriage/#DefMar>

⁸ https://www.unfpa.org/sites/default/files/resource-pdf/7B_fact_sheets_en.pdf

⁹ [https://www.unicef.org/rosa/what-we-do/child-protection/child-marriage#:~:text=ROSA%2F2017%2FBronstein-,Challenge,a%20partner%20as%20if%20married.&text=Almost%20half%20\(45%25\)%20of,before%20the%20age%20of%2018.](https://www.unicef.org/rosa/what-we-do/child-protection/child-marriage#:~:text=ROSA%2F2017%2FBronstein-,Challenge,a%20partner%20as%20if%20married.&text=Almost%20half%20(45%25)%20of,before%20the%20age%20of%2018.)

Chapter 3

Disempowerment of Women: The Indian Story

3.1.Introduction

Disempowerment of women is a process that deprives them of their rights, authority, and power; makes women ineffectual, and excludes them from decision-making activities at home and outside. Disempowerment of women signifies the long history of discrimination against women and is evident in every sphere of life in different societies. Today there are over 200 million women were 'missing' worldwide due to sex-selective abortion and death of females¹. Even if women are able to survive they are denied basic entitlements of life, such as good health, education, employment, and acceptance in the family. In India, 53 percent of women from the age group 15-49 are anemic (NFHS 4 2015-16). According to Sen (1987), lower bargaining strength in household decisions is the result of a female shortage in Eastern Asia. India has one of the lowest female labor force participation rates among the developing countries (Das et al. 2015). Every third woman experienced domestic violence of various form in India as revealed from NFHS4 data². All these facts reveal the existence of a long-standing tradition of deprivation, social exclusion, and obvious disempowerment among women. The objective of the present study is to focus on measuring the disempowerment of women of India and pinpoint the factors influencing it at the state level using National Family Health Survey (NFHS-4) data. There exist many studies on the empowerment of women³ which is the fifth Sustainable Development Goal (SDGs). However, to become empowered women need to exercise agency, must be able to access the resources, and have positive accomplishments. In the present study, we try to

¹<https://www.weforum.org/agenda/2015/10/where-are-all-the-women/>

²<https://www.news18.com/news/india/the-elephant-in-the-room-every-third-woman-in-india-faces-domestic-violence-1654193.html>

³ A mammoth of literature exists on the issue of empowerment of women that means a state where women are aware of their selves and gaining strength to participate in decisions that influence their welfare and control their own lives. (Rahman (2013), Malhotra et al. (2002), Karl (1995), Page and Czuba(1999), Kabeer (1989), Kishor and Gupta (2004), Upadhyay and Karasek (2012). Crissman et al.(2012), Boateng et al.(2014), Biswas (2016), Chakraborty and Biswas (2012), Bhattacharya and Banerjee (2012), Jejeebhoy and Sathar (2001), Banerjee and Ghosh (2012), and many others.

determine the extent of failure to attain the above three basic ingredients of empowerment, or in other words, we evaluate the extent of disempowerment among women in India.

According to Kawewe (2001), the disempowerment of women may arise from major structural forces of society in various ways: cultural, economic, political, and resource distribution. Garba (1999) concluded that endogenous strategies which involve external source enable disempowered women to empower themselves in case of Nigerian women. Sarin (2001) revealed that due to the imposition of various forest management policies the forest women of Uttarakhand, India become severely disempowered in decision making for use of forest resources that are usually managed by them. The study by Ganle et al. (2015) on the rural women of Ghana, showed that some women became empowered from the access of micro-credit, and some left disempowered due to failure in proper management of the loan money. Mofolo (2011) identified disempowerment of women which is caused by culture, lack of financial family support, lack of information, and limited government, as a major cause of poverty and other societal ills faced by many African countries. Islam et al. (2019) identified the existence of legal gender disparity and its impact on disempowering women through lower participation of women in the private sector labour market along with the lower likelihood to become top managers and owners of firms, using data from 104 economies. The evidence also indicates that access to finance and corruption is routed by which legal gender disparities disempower women in the labor market. There are some studies on measuring the disempowerment level. Alkire et al. (2013) constructed a unique empowerment index (5DE) based on five dimensions comprised of decisions about agricultural activities and shows the percentage of women who are empowered as well as the intensity of disempowerment. Another study by Ahmad and Khan (2016) focuses on assessing the disempowerment of women of Pakistan. Bhuyan (2006) focussed on the deprivation of women in political decision-making in India. Mishra (2014) represents a multidimensional aspect of measuring disempowerment using the NFHS3 data using only eight indicator variables. The present study also computes a multidimensional disempowerment index with 18 indicator variables from NFHS4 data using a methodology proposed by Chakravarty and Ambrosio (2006) and Jayaraj and Subramanian (2010). We explore the extent of disempowerment of women

across states and determine the socio-economic and demographic factors affecting disempowerment using a multilevel logistic regression model to focus on inter-state variation. This is one important contribution of this chapter to the existing literature.

Secondly, data exploration revealed that two neighbouring states of India, Punjab, and Haryana show diametrically opposite trends regarding the extent of women's disempowerment. Haryana is a landlocked region which was carved out from East Punjab in 1966 as an independent state due to religious and language differentials of both the states⁴. Haryana shares a borderline with Punjab by 799.26 Km (approximately) and both states share the common capital city Chandigarh. When Green Revolution in India took place, the two states became the biggest contributor to the increase of food grains and it created a critical socio-economic impact in both states (Shiva, 1991)⁵. Now, the state of Punjab is the abode of people of the Sikh religion⁶. Studies observed that different religions have diverse effects on people's economic attitudes and some religious groups tend to be more provincial and less friendly to women's rights (Guiso et al. (2003); Klingorova and Havlicek (2015)). Sikhism has a different ideology towards women's status, which segregates them from other states of northern parts of India, inspired by their doctrine of *Guru Grantha Saheb* (scriptures) (Dyson and Moore (1983), Kaur and Gill (2018), Kaur(2014)). The authentic teaching mention that the location of Iof that scripture raised the position of women in Sikh society from unequal gender relations⁷. Men and women have equal rights in entering the *Gurudwara* and can participate in various religious activities such as participation in a community kitchen (*langar*) (Kaur and Gill (2018)).

Given this backdrop, we apply the Fairlie decomposition method to assess the contribution of Sikh religious identity in the difference in disempowerment in two neighboring states. This is another important contribution of this chapter.

The results show that the likelihood of disempowerment is high among rural unemployed young Muslim women from joint families with low asset and education endowment and who

⁴ <https://www.drishtias.com/know-your-state/haryana>

⁵ The location of Punjab and Haryana on Map of India is shown in figure A1 in appendix 1.

⁶ 76.2% of people from the Sikh Religion reside in Punjab. <http://www.punjabdata.com/Sikh-Population-In-India.aspx>

⁷ https://www.academia.edu/27296476/Women_Empowerment_Historic_Contribution_of_Guru_Granth_Sahib

witnessed parental violence as a child. Further, the nonlinear decomposition analysis reveals a significant contribution of the Sikh religion to women's autonomy in Punjab visà vis Haryana.

The rest of the chapter is arranged in the following way: Section 2 describes the data and methodology. Section 3 discusses the details of the variables chosen for our study. The empirics and results are discussed in Section 4. Section 5 concludes the major findings.

3.2: Data and Methodology

3.2.1: Data:

We use the NFHS4(2015-16) data for our analysis⁸ containing information of all the 36 regions (States and Union territories) of India. We have merged⁹ the household questionnaire and the ever-married women's questionnaire for 17 major states of India. We have chosen only information on currently married women. After the removal of missing responses for variables relevant for our study, we include a total of 26,096 women in the NFHS4 in our analysis

3.2.2: Methodology

3.2.2.A1: Construction of Disempowerment Index at the state level

The disempowerment index is a multidimensional latent variable and it is measured using various dimensions and indicators. Following Chakravarty and Ambrosio (2006) and Jayaraj and Subramanian (2010), we construct the measure of multidimensional disempowerment faced by women in any region or country. If n_j is the number of women who are disempowered in exactly j dimensions, $j = 0, 1, \dots, K$, where n be the total population size and H_j is the proportion of the population that is deprived in exactly j dimensions.

Where $H_j = n_j/n$ for $j=1,2, \dots, K$,

⁸ The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India. The Ministry of Health and Family Welfare (MOHFW), Government of India, designated the International Institute for Population Sciences(IIPS) Mumbai, as the nodal agency, responsible for providing coordination and technical guidance for the survey. IIPS collaborated with a number of Field Organizations (FO) for survey implementation. Retrieved from <http://rchiips.org/nfhs/>.

⁹Before merging we have consolidated the sample by retaining only women whose relationship with the household head is coded as wife (100 % of the respondents) and where the household head is a husband (100% of the respondents). For merging, we have used the unique cluster number and the line number of each household member along with the same of the individual woman in ever-married women data.

Then the disempowerment index is defined as

$$\pi_{\alpha} = \sum_{j=1}^K \left(\frac{j}{K}\right)^{\alpha} H_j \text{ for } \alpha \geq 0 \quad 1.$$

In this case as α increases from 1 to higher values, π_{α} gives greater weight to the headcount of women who are disempowered in more and more decisions. At very high α values, it measures the magnitude of extreme disempowerment (Mishra, 2014). This index satisfies symmetry, range monotonicity, range sensitivity, strong range sensitivity, and decomposability property. Jayaraj and Subramanian(2010) showed that for $\alpha=3$, the above index satisfies all the properties, so it is considered as the ideal index by the authors.

3.2.2.A2: Construction of Disempowerment Score at Individual Level:

At the individual household level, first, we have calculated the disempowerment score for woman respondents using the Alkire et al.(2013) methodology. They constructed a unique empowerment index (5DE) based on five dimensions including decisions about agriculture production, ownership of productive resources, authority to control how to use income, whether supervise in community and how she allocates time between production sector and domestic works and also for her leisure activities. This 5DE index shows that the percentage of women who are empowered as well as the intensity of disempowerment. Similarly here we have first calculated the scores for each of the dimensions of disempowerment, then we created the Disempowerment Score using the weighted sum of the 5 dimensions from Table 1.

Such as for the dimension:

Freedom of Mobility = $1/3 \times (\text{visits to family or relatives?} + \text{allowed to go to the market?} + \text{allowed to go to places outside this village?})$

Finally,

Disempowerment Score = $1/5 \times (\text{Freedom of mobility score} + \text{Decision making autonomy score} + \text{Couple interaction score} + \text{Attitude towards physical violence score} + \text{Financial ownership score})$

3.2.2.B. Econometric Analysis

Model 1

Individual-level factors, as well as state-level factors, influences the determinants of any outcome variable that we desire to analyse from demographic data (Goldstein (2003), Novak and Pahor(2017)). The NFHS4 data is based on multistage stratified unequal probability sampling, thus, the traditional technique of logistic regression may give over or underestimated results and the observations are often correlated as they emerge from several levels of hierarchy (Khan and Shaw (2011)). So we have chosen multilevel multivariate logistic regression or mixed-effect logistic regression¹⁰ which captures both fixed effects and random effects from variances at different levels.

Our empirical model is designed to search whether the incidence of disempowerment of women in India, which is caused by various types of dimensions and indicators, changes either positively or negatively with the level of deprivation faced by that household while taking into account the random effects caused from interstate variance.

Here the unit of analysis is that the household is nested within a state. Since the incidence of disempowerment of women varies across the states and each household is clustered within the states thus they share common cluster-level random effects.

The model can be stated as follows:

Let Y_{ij} be a variable that takes value =1 if the woman in i -th household nested in the j th state is disempowered where $j = 1, \dots, M$ clusters or states, with i consisting of $i = 1, \dots, n_j$ households.

Let p_{ij} be the conditional probability that $Y_{ij} = 1$.

Under multilevel logistic regression we have defined our model in this way:

$$\ln\left(\frac{p_{ij}}{1-p_{ij}}\right) = \beta + v_{0j} + (\rho + v_{1j}) \text{deprivation_dummy}_{ij} + \zeta \vec{X}_{hhcontrols_{ij}} \quad 2.$$

$$v_{0j} \sim N(0, \sigma_0^2) \text{ iid and } v_{1j} \sim N(0, \sigma_1^2) \text{ iid independent of } v_{0j}$$

Here $\vec{X}_{hhcontrols_{ij}}$ is the vector of exogenous explanatory variables that includes household-specific socio-demographic and economic controls and here β is the fixed intercept, whereas v_{0j} is

¹⁰and see <https://www.stata.com/manuals13/memelogit.pdf>

the deviation of the cluster-specific intercept from the fixed intercept. Similarly, for deprivation _dummy ρ is the fixed slope, whereas v_{1j} is the deviation of the cluster-specific slope from the fixed slope.

3.2.2.C. Non-Linear Decomposition Analysis:

Model 2

Finally, we try to analyze the stark difference in the disempowerment level of women in two neighboring states of India Punjab and Haryana using Fairlie (2003) nonlinear decomposition method. Individual and State level factors were estimated to quantify how much they contribute to the difference in disempowered rates across the two states. Using the Fairlie (1999), Livingstone and Fairlie (2012) decomposition technique for a nonlinear equation where the outcome variable is binary:

$Y = F(X\hat{\beta})$ can be written as :

$$\bar{Y}^P - \bar{Y}^H = \left[\sum_{i=1}^{N^P} \frac{F(X_i^P \hat{\beta}^P)}{N^P} - \sum_{i=1}^{N^H} \frac{F(X_i^H \hat{\beta}^P)}{N^H} \right] + \left[\sum_{i=1}^{N^H} \frac{F(X_i^H \hat{\beta}^P)}{N^H} - \sum_{i=1}^{N^H} \frac{F(X_i^H \hat{\beta}^H)}{N^H} \right] 3.$$

Where, $\bar{Y}^j$ represents the mean probability of being disempowered for women from jth state 'j' = P, H.

$\bar{Y}^P - \bar{Y}^H$ represents the gap in the average probability of being disempowered for women from Punjab and Haryana. X_i^j is the vector of explanatory variables for women from 'j'th state. $\hat{\beta}$ is the slope coefficient that measures the differences that occurred in disempowerment rates of two groups of women that accrued from the explanatory variables included in the equation obtained from Logitmodel. Following Fairlie (2006) the first term in brackets in equation (3) represents the part of the disempowerment gap that is due to group differences in distributions of X , the set of explanatory variables and the second term represents the part due to differences in the group processes (β coefficients) determining levels of Y . The second term also captures the portion of the disempowerment gap due to group differences in immeasurable or unobserved endowments. According to Fairlie (2003) an equally valid expression for decomposition instead of equation (3) can be found by using coefficients for Haryana $\hat{\beta}^H$ as the weight in the first term and the independent variables for Punjab $\vec{X}^P$ as the weights in the second bracketed term in equation (3). A third

alternative, used in Neumark (1988) and Oaxaca and Ransom (1994), is to weight the first term of the decomposition expression using coefficient estimates from a pooled sample of the two groups. In the present analysis, we used the Fairlie module in STATA to perform decomposition analysis with logistic regression and the coefficients from the pooled model overall cases (Punjab and Haryana) be used for the decomposition. The decomposition technique involves the one-to-one matching of cases between the two groups. For unequal group size, a sample is drawn from the larger group. Since the results depend on the specific sample, we repeat the process 1000 times without replacement and the mean results are reported.

3.3. Dimensions and Indicator Variables for Disempowerment Index:

We constructed the disempowerment index using the following dimensions: freedom of mobility, decision-making autonomy, couple interaction, attitude towards physical violence, and financial ownership. Each of these dimensions is measured using various indicators¹¹ expressed in Table3.1.

Table 3. 1 : Dimensions and Indicator Variables Chosen for Disempowerment measurement using NFHS4 Data along with their percentage of responses:

Disempowerment Dimensions with weights	Indicator Variables (questions as given in NFHS-4)	Weights	Percentage of responses	
			Alone or with Husband (0)	not at all / Other(1)
Freedom of Mobility (1/5)	Who usually makes decisions about visits to your family or relatives?	1/3	77.8	22.2
	Are you usually allowed to go to the market?	1/3	56.02	43.98
	Are you usually allowed to go to places outside this village?	1/3	49.24	50.76
Decision making autonomy (1/5)	Who usually makes decisions about making major household purchases?	1/4	77.41	22.59
	Who usually makes decisions about health care for yourself ?	1/4	77.19	22.81
	Who decides how your husband’s earnings will be used?	1/4	74.51	25.49

¹¹Tetrachoric correlation between the indicator variables is available on request.

	Do you have money of your own that you alone can decide how to use?	1/4	41.49	58.51
Couple Interaction dominated by husband (1/5)			Percentages of responses	
			No(0)	Yes(1)
	Are (were) you afraid of your husband	1/3	19.62	80.38
	Husband tries/tried to limit your contact with family	1/3	84.85	15.15
	husband does/did not permit you to meet your female friends	1/3	79.20	20.80
Attitude towards physical violence (1/5)	In your opinion, is a husband justified in hitting or beating his wife in the following situations:			
	If she goes out without informing	1/5	74.85	25.15
	If she neglects child	1/5	30.03	69.97
	If she argues with husband	1/5	70.88	29.12
	If she refuses sex	1/5	86.43	13.57
	If she refuses to cook food	1/5	80.58	19.42
Financial Ownership (1/5)			Percentage of responses	
			Yes (0)	No(1)
	Do you have a bank or savings account that you yourself use?	1/3	52.48	47.52
	Do you have any mobile phone that you yourself use?	1/3	41.38	58.62
	Do you own this or any other house either alone or jointly with someone else?	1/3	43.73	56.27
Related References for the above indicator variables are	Kishor and Gupta (2004), Upadhyay and Karasek (2012), Mishra (2014), Boateng et al. (2014), Wiklander (2010), Chakrabarty and Biswas(2012), Bhattacharya and Banerjee (2012), Upadhyay and Karasek (2012), Porter et al.(2020), Batool (2018), Chew et al.(2015)			

Source: Authors compilation

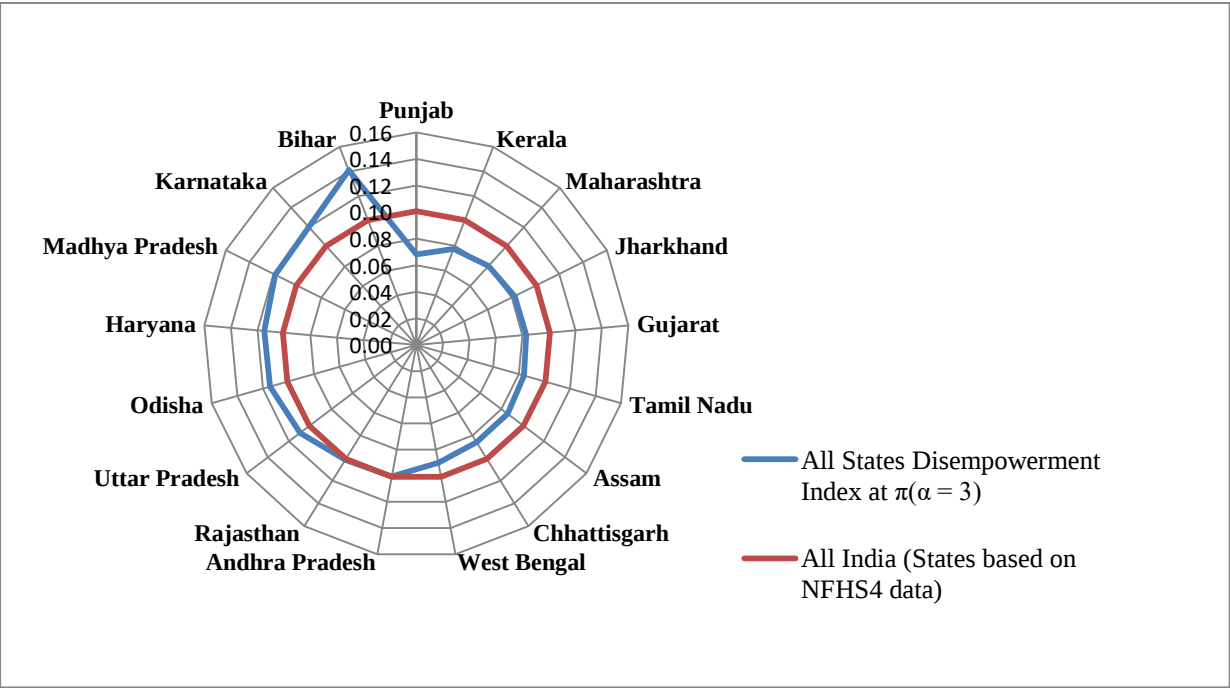
From Table 3.1, we observed although most of the women have the freedom for visit to family or going to market. In the case of decision-making autonomy, 59 percent of the women do not have money that they alone can decide how to use. For decisions regarding, large household purchases, own health care, and spending of the husband earning, most of the women have reported sufficient autonomy. Next, we observe that around 81 percent of the women said they are afraid of their husband/partner most of the time or sometimes whereas most of the women agree on the fact that

their husbands do not limit their contact with family or do not impose any restriction on meeting female friends. Around 70 percent of the women justify beating their wife if she neglects the child. In the case of the dimension of financial empowerment, around 59 percent of the women do not have a mobile phone and 56 percent of the women do not own any house either alone or jointly although more than 51 percent of the total women have their own savings account.

3.3.1 Observations from Disempowerment Index at the State level:

Using equation 1 we have derived disempowerment indices for different levels of α . Figure3.1 gives a comparative picture for 17 major states corresponding to a particular value of π at $\alpha = 3$.

Figure 3. 1: Disempowerment index (based on $\pi (\alpha= 3)$) across 17 major states of India



Source: Author’s drawing based on NFHS4 data

From figure3.1, we observe that disempowerment levels for the states of Haryana, Uttar Pradesh, Odisha, Madhya Pradesh, Karnataka, and Bihar are found to be higher, with that of Bihar being the highest. Alternatively, we observe the state of Punjab has the lowest level of women disempowerment. The surprising fact is that though Punjab and Haryana are two neighboring states, they are showing a completely opposite picture related to women's disempowerment level. The state of Punjab and Haryana both are characterized by low sex ratio at birth (number of girls per thousand

boys) compared to the national average¹² a due long history of practicing sex-selective abortion. The lack of women in society has led to bride trafficking in Haryana(Samal (2016)). Girls including minors from poor families are brought (mostly against money)from other states of India like Assam, Odisha, West Bengal, Kerala, Andra Pradesh to Haryana. These trafficked brides are known as *Paro* or *Mulki*¹³. These brides are extremely abused and exploited¹⁴ and even their children face intergenerational discrimination (Kukreja(2018)). Not only this, the state of Haryana is one of the states with high crime rates against women and it is increasing over time (Rajeshwari and Singh(2015)). The National Crime Report Bureau (2018) and NFHS-4 fact-sheet report the following information which clearly throws light towards the underprivileged condition of women in Haryana compared to Punjab which in turn leads to higher disempowerment of women in the state.

Table 3. 2: A comparison of Punjab and Haryana over reported crime against women and other parameters

	Punjab	Haryana	All India
Murder with Rape (Rate)[#]	0.0	0.2	0.0
Abatement to suicide of women (sec 305/306 IPC) [#]	1.2	1.5	0.8
Kidnapping and Abduction of women (Rate)	9.0	25.6	11.3
Procurement of minor girls (sec 366AIPC)(Rate) [#]	0.0	6.7	0.5
Women with 10 or more years of schooling (%)^{\$}	55.1	45.8	35.7
Women with age 20-24 years who were married before age 18 years (%)^{\$}	7.6	19.4	26.8
All women age 15 -49 years who are anemic (%)^{\$}	53.5	62.7	53.1

#Source:<https://ncrb.gov.in/sites/default/files/Crime%20in%20India%202018%20-%20Volume%201.pdf>

\$ Source: http://rchiips.org/NFHS/factsheet_NFHS-4.shtml

¹² According to NitiAayog number of girls per thousand boys is 889 for Punjab, 831 for Haryana while the national level is 900 during 2013-2015. Source: <https://niti.gov.in/content/sex-ratio-females-1000-males>

¹³<https://timesofindia.indiatimes.com/city/gurgaon/paro-the-trafficked-bride;https://www.newindianexpress.com/nation/2019/jan/07/not-a-minor-problem-bride-trafficking-remains-a-booming-business-in-haryana-1921519.html> ; <https://ssrn.com/abstract=3231480>;

¹⁴<https://www.theguardian.com/global-development/2018/mar/07/india-girls-women-trafficked-brides-sexual-domestic-slavery>

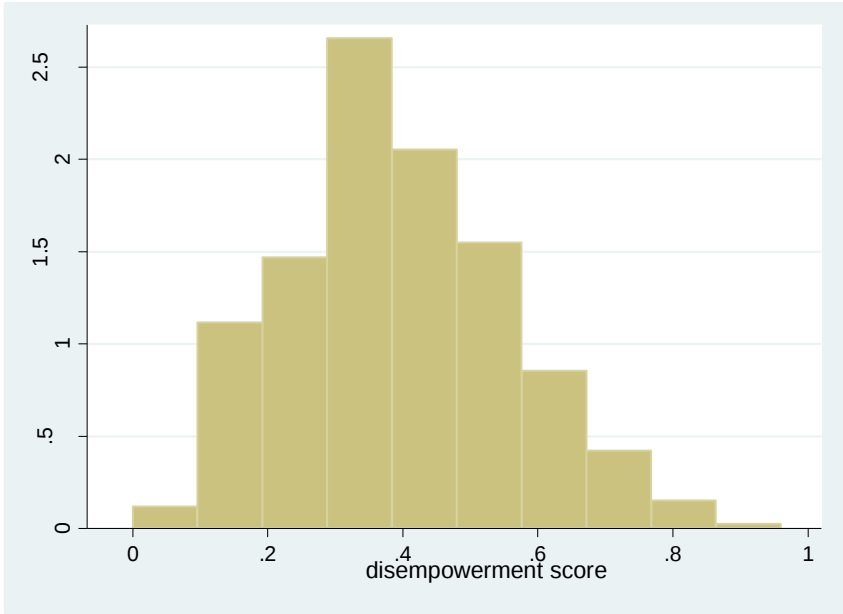
Our objective is to find the influence of the religious difference in two states, if any, on the divergence of disempowerment level between these two states. According to the 2011 census in the state of Punjab, 57.69% of the population are from the Sikh religion¹⁵, whereas Haryana has 87.64% of the Hindu population and only 4.91% of the Sikh population¹⁶. Now, Sikhism believes in equal treatment of men and women (Tatla (2008), Singh (2014)). This religious philosophy, practice, and teaching may have caused differential outcomes of gender between these two neighboring states. In our later section, we will explore this interesting fact.

3.4. Variables chosen for empirical analysis

Outcome Variable: Disempowerment Score at Individual Level

Next, we define the disempowerment dummy in the following way: from the overall disempowerment score obtained by using the methodology described in subsection A.2, median disempowerment score is obtained. If for a woman respondent, the disempowerment score is more than the median score we consider her as disempowered, and disempowerment dummy equal to unity for her, and otherwise it is zero.

Figure 3. 2: Distribution of Disempowerment score across the sample:



Source: Author’s own drawing based on NFHS4 data

¹⁵<https://www.census2011.co.in/data/religion/state/3-punjab.html>

¹⁶<https://www.census2011.co.in/data/religion/state/6-haryana.html>

Control Variables

Deprivation Score:

Asset holding and the standard of living has an impact on the empowerment of a woman (Duflo(2012), Mohun et al. (2016)) Woman's economic empowerment is possible with the availability of time-saving infrastructures, such as electricity, running water, sanitation (Kabeer(2012)). Easy access to water and sanitation facility empowers women by protecting them from sexual harassment^{17,18}. Unavailability of toilet facilities creates fear and psychosexual distress among women and girls¹⁹. A study by Ting et al. (2014) using NFHS3 data, shows that women who watch TV programmes are more aware of their autonomy. Another report provides evidence that having a two-wheeler raises mobility freedom of girls and women in many states of India²⁰. Access to clean cooking fuel like LPG saves time and energy for women and creates an opportunity for becoming empowered²¹. Zaman et al.(2008) have shown that women respondent of Bangladesh living in the pucca house has more decision making power. Based on the available information from NFHS4 data we have created a deprivation score for each household. First, we have prepared scores of each household for 4 separate dimensions. Each of the Indicator variables is binary in nature (0/1). If the household has no access to any of the indicators it is coded as 1, otherwise zero.

Table 3. 3: Details of the dimensions and variables included for Deprivation Score:

Dimensions	Weight	Indicator variables (Yes (0) and No (1))	Weight
Access to water	1/5	1.Proper source of water:	1/2
		2.Location of water	1/2
Access to Vehicle	1/5	1.Bicycle	1/3
		2.Motorcycle	1/3
		3.Car	1/3

¹⁷https://www.un.org/waterforlifedecade/pdf/un_water_policy_brief_2_gender.pdf

¹⁸https://econpapers.repec.org/article/paldevelp/v_3a51_3ay_3a2008_3ai_3a1_3ap_3a63-67.htm

¹⁹<https://onlinelibrary.wiley.com/doi/abs/10.1002/wat2.1122>

²⁰<https://www.thehindubusinessline.com/opinion/columns/harish-bijoor/Two-wheeler-and-women%E2%80%99s-empowerment/article20785599.ece>

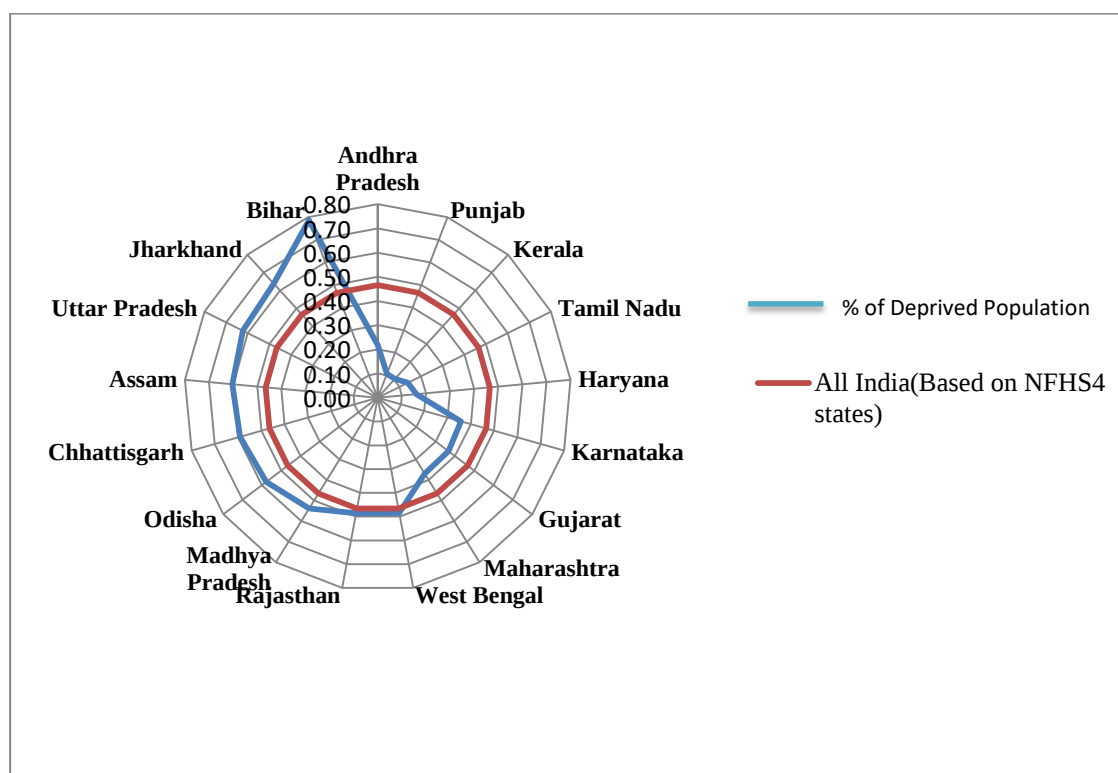
²¹<https://www.wlpga.org/wp-content/uploads/2015/09/2014-cooking-with-lp-gas-women-report.pdf>

Access to entertainment	1/5	1.Radio	1/2
		2.Television	1/2
Access to Basic Infra	1/5	1.Access to clean fuel	1/2
		2.Access to electricity connection	1/2
Access to proper living	1/5	1.Type of House	1/2
		2.Access to toilet	1/2

Source: Author's calculation

The following radar chart shows the percentage of the population who are denied of their basic infrastructure across states²². Figure 3.3 is drawn in the following way: After calculating the individual level deprivation score, we find the median level of score across all individuals. After that, we calculated the percentage of the population with a deprivation score above the median level for each state, which is depicted in figure 3.3.

Figure 3. 3: Radar Chart showing state wise Percentage of population who are deprived of basic infrastructure



Source: Author's own drawing based on NFHS4 data

²²Various studies have observed the correlation between empowerment and mass media exposure of women, in our study, we have not exclusively included it as a variable, rather access to television has been taken care of into the deprivation score. Further, we observe a high correlation between readings of newspapers with deprivation score. The biserial correlation coefficient is -0.44. Thus families who are asset deprived have actually less access to mass media.

From the above diagram, we observe that Bihar is showing the highest percentage of the population who are deprived of their infrastructure and amenities with reference to the all India average. Among the other states, Uttar Pradesh, Jharkhand, Assam, Chattishgarh, Odisha, and Madhya Pradesh are also reflecting a higher percentage of deprivation than the all India level.

Education level of respondent:

The significance of education on women empowerment has undeniable importance. Ranging from decision-making capability or exercising control of resources, education plays the key role in empowering women (Duflo (2012); Bhat(2015); Shetty and Hans (2015); Chiappori et al.,2009). Here around 38 percentages of the women have a secondary level of education whereas 39 percent of the women reported as illiterate. The least percentage of disempowered women is clustered in the higher education category.

Employment status of the respondent

The incidence of disempowerment is greatly affected by women's employment status. The relationship between economic empowerment and the employment of women is a widely discussed issue (Duflo (2012)). Further, increased duration of employment creates greater empowerment and autonomy of women (West (2006)). Here around 69 % of respondents who are under the disempowerment category are unemployed.

Religion:

Religious beliefs and traditions impact social norms and cultures. Higher religiosity of states reflects higher levels of gender inequality (Seguino(2011)). Due to the patriarchal nature of most religious systems by practice, it becomes unfriendly to women (Ozorak(1996)). According to Agadjanian and Yabiku (2015), more the liberal religious customs higher is in the autonomy of women. The negative relation between Islam and women empowerment is explained by Njoh and Akiwumi (2012) using data from 47 countries of Africa. Given this backdrop, we include religion as a variable in our study.

Marital duration:

Another major factor responsible for the incidence of disempowerment is the duration of the marriage. It significantly affects the decision-making power of the women (Dong and Li (2007)). According to Hindin (2002) duration of marriage has a close link with women's autonomy in decision making but jointly with husbands in most cases. In our sample, around 77 percent of the respondents are married for more than 10 years who are reported as not disempowered.

Household Structure

Family structure has a significant effect on the decision-making autonomy of women (Biswas and Mukhopadhyay (2018)). Relationship structure in a family affects women's status and agency (Dyson and Moore (1983)). The idea of autonomy is not so pronounced in joint families even for working women (Maral and Kumar, 2017).

Type of residence

Whether the woman is a resident of a rural or urban area significantly impacts the empowerment issue (Haque et al., (2011); Boateng et al. (2014)) as a type of residence influences the decision-making and mobility freedom of women.

Witnessed parental violence

Children are the primary victim of parental violence²³. Various studies show that the rates of abuse among women are higher if they had seen their mothers being abused²⁴. Thus, it may be a cause for the disempowerment of women.

Age of the respondent

Age is a key factor for measuring women's empowerment (Biswas (2017), Gupta and Yesudian(2006)). A woman, with age, takes a more active part in family matters and gradually becomes empowered.

²³<https://www.ncbi.nlm.nih.gov/pubmed/20384972>

²⁴<https://www.unicef.org/media/files/BehindClosedDoors.pdf>

Table 3.4: Description of the variables for entire sample

Variables		Mean	Std. Dev.
<i>A. Outcome</i>			
<i>variable</i> DISEMP_DUMMY	= 1 if the value of disempowerment score is more than the median score 0 otherwise.	0.529	0.500
<i>B. Explanatory Variables</i>			
Deprivation Score		0.462	0.289
Current Age of the Respondent		34.53	7.77
Type of Residence dummy	0. Urban (31.32%) 1. Rural (68.68%)	0.687	0.464
Employment status of the respondent dummy	0. No (67.24%) 1. Yes (32.76%)	0.328	0.469
Witnessed parental violence dummy	0. No (79.46%) 1. Yes (20.54%)	0.205	0.404
Cohabitation duration of the married couples dummy	0. Less than 10 years (25.26%) 1. More than equal to 10 years (74.74%)	0.747	0.434
Family Structure of the household dummy	0. Nuclear (71.73%) 1. Nonnuclear (28.27%)	0.283	0.450
Religion Category	0. Hindu (83.16%)	0.832	0.374
(Reference Category: Hindu)	1. Muslim (11.58%)	0.116	0.320
	2. Other (5.25%)	0.052	0.223
Highest level of education	0. No education (39.03%)	0.390	0.488
Categories of the Respondent	1. Primary (15.67%)	0.157	0.363
	2. Secondary (38.34%)	0.383	0.486
	3. Higher (6.95%)	0.690	0.254
Number of observation 26,069			

Source: Author’s calculation based on NFHS4 data

Table 3. 5: Pairwise Association between the variables included in Multilevel Logistic Regression Analysis

Variables	Biserial Correlation [@]		Tetrachoric Correlation [#]												
			Religion Groups							Education Categories					
			DISEMP_Dummy	Employment Status	Witnessed Parental Violence	Type of Residence	Household Structure	Hindu	Muslim	Other	No Education	Primary	Secondary	Higher	Duration of marriage
Number of observations= 26,069															
DISEMP_Dummy	0.24	-0.08													
Employment status of the respondent	0.17	0.08	-0.05	1											
Witnessed Parental violence	0.01	-0.02	0.08	0.15	1										
Type of Residence	0.48	-0.04	0.25	0.26	0.02	1									
Household Structure	-0.04	0.03	0.04	-0.01	-0.01	0.08	1								
Religion Groups															
Hindu	0.06	0.01	-0.03	0.21	0.10	0.19	0.07	1							
Muslim	0.00	-0.04	0.12	-0.30	-0.12	-0.24	-0.08		1						
Other	-0.10	0.04	-0.15	0.02	-0.01	-0.01	-0.02			1					
Education Categories															
No education	0.43	0.18	0.28	0.24	0.03	0.38	-0.02	0.03	0.06	-0.18	1				
Primary	0.02	-0.01	0.07	0.02	0.05	0.09	-0.02	-0.02	0.04	-0.03		1			
Secondary	-0.30	-0.16	-0.18	-0.24	-0.02	-0.24	0.02	-0.03	-0.04	0.14			1		
Higher	-0.28	-0.02	-0.41	-0.05	-0.14	-0.48	0.03	0.05	-0.15	0.11				1	
Duration of marriage	-0.08	0.65	-0.08	0.22	-0.03	0.02	-0.03	0.04	-0.06	0.02	0.35	0.06	-0.27	-0.26	1
Pearsonian correlation between Deprivation Score and Age of the Respondent is -0.1180															

[@]Biserial correlation shows the correlation between variables among the dummy variable and the other one is continuous in nature.

[#]Tetrachoric correlation shows the correlation between two variables when they are dichotomous in nature.

Source: Author's calculation based on NFHS4 data

3..4.1: Variable chosen for Fairlie decomposition Analysis

For the decomposition analysis, the control variables are similar as chosen for our earlier model except the following: we have introduced religion as a dummy variable which is unity for Sikh religion and zero otherwise.

Table 3. 6: Description of the variables for Punjab and Haryana

Variables		Percent	Mean	Std. Dev.	Percent	Mean	Std. Dev.
		Punjab			Haryana		
A. Outcome variable: DISEMP_DUMMY	= 1 if the value of disempowerment score is more than the median score	64.21(No)	0.360	0.480	47.71(No)	0.523	
	0 otherwise.	35.79 (Yes)			52.29(Yes)		0.500
B. Explanatory variables							
Deprivation Score			0.234	0.184		0.288	0.192
Current Age of the Respondent			36.25	7.26		34.40	7.42
Employment status of the respondent dummy	0.No	80.32	0.197	0.398	76.34	0.240	0.425
	1.Yes	19.68			23.66		
Witnessed parental violence dummy	0.No	85.61	0.144	0.351	81.68	0.183	0.387
	1.Yes	14.39			18.32		
Cohabitation duration of the married couples dummy	0.Less than 10 years	22.14	0.790	0.415	25.67	0.743	0.440
	1. More than equal to 10 years	77.86			74.33		
HH Structure Dummy	0.Nuclear	73.06	0.269	0.444	70.99	0.290	0.454
	1.Nonnuclear	26.94			29.01		
Religion_dummy	0.Non-Shikh	39.85	0.601	0.490	96.47	0.035	0.185
	1.Shikh	60.15			3.53		
Highest level of education of the Respondent	No Education Dummy	29.89	0.310	0.463	31.01	0.299	0.460
	Primary Education Dummy	15.50	0.155	0.362	17.65	0.155	0.362
	Secondary and above Education	54.61	0.546	0.498	51.34	0.513	0.500
Number of observation		Total 1861	813			1048	

Source: Author’s calculation based on NFHS4 data

Table 3. 7: Pairwise Association between the variables included in Fairlie decomposition Analysis

Variables	Biserial Correlation[@]		Tetrachoric Correlation[#]									
			Education Category DISEM P_Dum Employment Status Witnessed Parental Violence Type of Residence Household Structure Religion Primary Secondary Higher Duration of marriage									
Number of observations= 1861												
DISEMP_Dummy	-0.27	0.13	1									
Employment status of the respondent	-0.12	-0.02	-0.08	1								
Witnessed Parental violence	-0.06	0.04	0.13	0.19	1							
Type of Residence	-0.27	0.05	0.12	0.11	0.04	1						
Household Structure	0.07	0.07	0.02	0.01	0.00	0.14	1					
Religion	0.11	-0.11	-0.14	-0.07	-0.09	0.27	-0.02	1				
Education Categories												
Primary	-0.10	0.03	0.21	-0.07	0.08	0.22	-0.05	-0.02	1			
Secondary	0.23	0.13	0.21	-0.07	0.08	0.22	-0.05	-0.02	1	1		
Higher	0.27	0.02	0.21	-0.07	0.08	0.22	-0.05	-0.02	1	1	1	
Duration of marriage	0.08	-0.65	-0.12	0.09	0.00	0.00	-0.16	0.12	-0.01	-0.01	-0.01	1
Pearsonian correlation between Deprivation Score and Age of the Respondent is -0.1405												

[@]Biserial correlation shows the correlation between variables among the dummy variable and the other one is continuous in nature.

[#]Tetrachoric correlation shows the correlation between two variables when they are dichotomous in nature

Source: Author's calculation based on NFHS4 data

3.4. Results and Discussion

3.4.1: Multilevel logistic regression

The result of the multi-level logistic regression is given in Table 3.8. Firstly our study shows the existence of inter-state variance in incidence of disempowerment of women as the variance of random intercept term is $0.123 > 0$. Thus the incidence of disempowerment of women varies across surveyed states of India.

Table 3. 8: Result of Multi level Logistic Regression:

Variables	Coefficients with Errors	Standard	Margins with Standard Errors
Incidence of Disempowerment of Women (DISEMP_Dummy)			
Deprivation Score	1.048*** (0.108)		0.225*** (0.022)
Type of Residence:			
Base: Urban	0.260*** (0.068)		0.057*** (0.015)
1.Rural			
Household Structure:	0.159*** (0.027)		0.035*** (0.006)
Base: Nuclear			
1.Non-nuclear			-0.004*** (0.001)
Age of the Respondent	-0.019*** (0.003)		
Duration of Marriage:	-0.160*** (0.040)		-0.035*** (0.009)
Base: 0: less than 10 years			
1: more than 10 years			
Employment Status: Base: Unemployed	-0.366*** (0.042)		-0.080*** (0.009)
1.Employed			
Witnessed Parental violence:			0.048*** (0.012)
Base: No	0.221*** (0.055)		
1.Yes			
Religion:			0.075*** (0.019)
Base: Hindu	2.Religion: (Muslim)	0.349*** (0.092)	
	3.Religion (other)	-0.120 (0.078)	-0.026 (0.017)
Education Level of Respondent		-0.208*** (0.037)	-0.046*** (0.008)
Base: No Education	1.Primary		
	2. Secondary	-0.582*** (0.052)	-0.131*** (0.011)
	3. Higher	-1.423*** (0.102)	-0.313*** (0.022)
var (deprivation Score)		0.138 (0.062)	
var(_cons)		0.123 (0.046)	
Number of groups: 17 Observation per group: Min= 641, Avg = 1,533.5, Max: 3,547 Log pseudolikelihood= -16562.202, Prob>chi2= 0.000 Integration method: mean variance adaptive Gauss-Hermite quadrature Integration points: 7 Wald chi2(12) = 5316.13 Conditional intraclass correlation: Level: state = 0.036(0.013) (conditional on zero values of random effect covariates) Akaike's information criterion: 33154.4 Bayesian information criterion: 33276.93			

Robust standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's estimation based on NFHS4 data

Our analysis shows that the incidence of disempowerment of women increases with rise in deprivation score with 22.5 percentage points if the woman belongs to infrastructure deprived household at state levels. The result is consistent to our earlier discussion. Also, we observed that the women with higher level of deprivation score have less access to mass media like newspaper TV, radio. This leads to low level of awareness about their rights, opportunities and entitlement, thereby causes disempowerment among them. Further, the estimated variance of random slope coefficient is positive, implying an interstate variation in effect of infrastructure deprivation in household on the incidence of disempowerment of women.

Next we observe that, the incidence of disempowerment increases by 5.7 percentage points if the woman is a resident of rural area with reference to urban. This is in line with the earlier findings by Saravanakumar and Varakumari (2019), Tabassum et al. (2019).

The likelihood of disempowerment of women rises by 3.5 percentage points if a woman stays in a non-nuclear family or joint family where she has to abide the rules set by her elder parents-in-laws.

Interestingly, age of women (by 0.4 percentage point) and duration of marriage more than ten years (by 3.5 percentage point) are negatively affecting the incidence of disempowerment. The second result supports the earlier discussion of the studies that longer duration of marriage enables the women to exercise decision making autonomy in the household, even if jointly with her spouse. Basically, an aged woman who is married for more than ten years gradually attains the maturity and seamlessly participates in decision making process within the households and becomes less disempowered.

Our analysis shows that the probability of disempowerment of women decreases by 8 percentage points when the women is employed compared to being unemployed at state level. Kabeer(1997) pointed out that if the woman is found to be able to take care of children and herself if her husband lefts then this paid employment increases her autonomy in the family.

Next, we observe that the incidence of disempowerment of women increases by 4.8 percentage points if they observed that their father beat their mother at state level. Observing parental violence and torture on mother creates psychological trauma within a girl child (Carlson, 1991) and lowers her self-esteem (Shen, 2009) which in turn makes her less confident at adult age to fight for her autonomy.

Further we observed that the probability of disempowerment of women increases by 7.5 percentage points if she belongs to Muslim household compared to Hindu at state level while controlling for various socio-economic and demographic variables. This observation is in contrast to the findings of Jejeebhoy and Sathar (2001) who observed no significant religious differences in decision making autonomy of women in India and Pakistan. However, Das and Chattopadhyay (2012) found from their empirical study on West Bengal and Bangladesh, that the population of 'majority' religion are more liberal to women's autonomy than the clan of 'minority' religion. This may explain the disempowerment of Muslim minority women in India,

Next, we observe that the likelihood of disempowerment of women decreases by 4.6 percentage points if she has achieved primary education only; if she has secondary level of education then it will decrease by 13.1 percentage points; finally, for higher education the margin indicates 31.3 percentage points of decrease in incidence of disempowerment. Higher level of education empowers women by increasing self-esteem and by strengthening their decision making skills.

3.4.2 Results from Fairlie Decomposition Analysis

The nonlinear decomposition analysis explains the extent of difference in disempowerment level of women for two neighboring states: Punjab and Haryana. Table 3.9 gives the result.

Table 3. 9: Fairlie Decomposition for two states Punjab and Haryana

Outcome variable :Disempowerment Dummy	Logistic Results	Decomposition
Independent Variables	Coefficient with robust standard error	Coefficient with standard error
Deprivation Score	1.921*** (0.308)	0.0229*** (13.88%) (0.0036)
Employment Status: Base: Unemployed	-0.455***	-0.0034*** (2.06%)
1. Employed	(0.123)	(0.0010)
Household Structure:	0.193	0.0007
Base: Nuclear	(0.111)	(0.0005)
1. Non-nuclear		
Education Level of Respondent (EDU_PRI)	-0.046 (0.150)	-0.0002 (0.0008)
Base: No Education		
1. Primary		
Education Level of Respondent (EDU_PRI)	-0.720*** (0.128)	0.0028*** (1.69%) (0.0009)
Base: Below Secondary		
1. Secondary		
Education Level of Respondent (EDU_PRI)	-1.846*** (0.265)	0.0069*** (4.18%) (0.0011)
Base: Below Higher		
1. Higher		
Witnessed Parental violence:	0.237 (0.133)	0.0022 (0.0012)
Base: No		
1. Yes		
Religion:	-0.328***	0.0405*** (.24.54%)
Base: Non-Shikh	(0.114)	(0.0140)
1. Shikh		
Duration of Marriage:	-0.073 (0.157)	0.0006 (0.0014)
Base: 0: less than 10 years		
1: more than 10 years		
Current age of the Respondent	-0.035*** (0.009)	0.0140*** (0.0038)
Group (Haryana)		0.52290076
Group (Punjab)		0.35793358
Difference		0.16496718***
Unexplained Gap		0.07787758 (47.21%)
Explained Gap		0.0870896 (52.79%)
Constant	1.124 (0.344)	
Observations	1861	Log pseudolikelihood=-1150.87
Wald chi2(9)= 205.68	Prob>chi2=.000	

*** p<0.01, ** p<0.05, * p<0.1; (percentages within the parentheses are with respect to total difference)

Source: Author's estimation based on NFHS4 data

From Table 3.9 we observe the result of the logistic regression is in the same line with that of the Table 3.8. Only, the redefined religion dummy shows that likelihood of disempowered reduces if the woman belongs to Sikh category. The decomposition result shows that the likelihood of being disempowered is much higher in Haryana relative to that of Punjab. The difference is approximately 0.16497 and significant. This indicates that the probability of a female from Haryana being disempowered is 16.497 percentage point higher compared to a female from Punjab. Further, we observe that different socioeconomic-demographic variables explain 52.79 percentage of this difference. The most important finding is that religion difference accounts for 24.54 percent of disempowered probability difference of women across the two states. Next to this, 13.88 percent of difference is explained by the deprivation score. Thus, our hypothesis that the influence of Sikh religion on the sample from Punjab is a reason behind low disempowerment level among women vis à vis women from Haryana is justified.

3.5.Conclusion

From the above study we observe that the incidence of disempowerment of women varies significantly across the states of India. We observe rural unemployed young woman with low asset endowment and education and belonging to Muslim community are disempowered. Also, the joint family structure and witnessing parental violence as child positively influences to the disempowerment whereas disempowerment of women decreases with higher level of education, employment, longer duration of marriage and as she become more aged. Thus, the government policies should aim at improving education level and employment opportunities among women. A recent data shows that labour force participation rate of women in India has gone down from 32.2 percent in 2005 to 23.45 in 2019¹. In respect to our finding this observation has profound impact on the disempowerment of women in India. Therefore, government policies should focus on increasing the employability of women through skill enhancement training that would make them either job-market ready or self-employed. There are different government policies like self-help groups run by females, Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)- SABLA,² Indira Gandhi MatritvaSahyogYojana (IGMSY)³, Support to Training and Employment Programme for

Women (STEP)⁴, RashtriyaMahilaKosh (RMK)⁵, SWADHAR: Scheme for Women in Difficult Circumstances⁶, Working Women Hostel Scheme and many others that work at helping disempowered women to gain their autonomy. Also, government needs to pay special attention towards Muslim women for improvement of their situation. This requires special policy scheme for them as well. Further, the disempowerment is high in asset poor families. This is again a concern as a recent study by Sarma et al. (2017) and a report by Oxfam (2017)⁷ observed a hike in asset inequality in the country. The Oxfam report shows that 73% of the wealth generated in 2017 went to the richest 1%, while 67 million Indians who comprise the poorest half of the population saw only a 1% increase in their wealth. This situation is more likely to deteriorate the condition of woman in asset poor families. Thus, an overall development policy for recuperation of poorer households is required for lowering disempowerment among women. From the decomposition analysis we observe that there is significant difference in disempowerment of women in Punjab and Haryana is explained by religion difference. Hence, religious attitude plays a significant role towards shaping people's perception towards women. Our analysis shows that Punjab has to some extent practices a liberal attitude towards women's autonomy than Haryana. Various schemes and Government policies are framed and applied to combat disempowerment of women in India. But the removal of women disempowerment from India needs women to be aware of their self-esteem, they should understand their own worth and they must always stand beside another woman to remove any kind of gender inequality.

3.6. Appendix 3A.1

Figure 3A. 1: The two states



Notes:

¹<https://economictimes.indiatimes.com/news/company/corporate-trends/how-indias-workforce-participation-rate-of-women-has-sharply-declined-over-the-years/articleshow/74531505.cms?from=mdr>

² The Government of India initiated the **Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) Sabla** under Ministry of Women and Child Development on April 1, 2011 for adolescent girls in the age group of 11-18 years. <https://www.india.gov.in/rajiv-gandhi-scheme-empowerment-adolescent-girls-sabla>

³Indira Gandhi Matritva Sahyog Yojana (IGMSY) – this policy was initiated by Government of India in 2010 for pregnant women and lactating mothers. It is a conditional maternity benefit scheme. https://niti.gov.in/writereaddata/files/document_publication/IGMSY_FinalReport.pdf

⁴Support to Training and Employment Programme for Women (STEP)—this policy was initiated by Government of India in 2009. The programme aims to create impact on women by upgrading skills for self and wage employment. https://wcd.nic.in/sites/default/files/Revised%20schemeof%20STEP_0.pdf

⁵RashtriyaMahilaKosh (RMK)— This policy was initiated by Government of India in 1993. It aims to provide financial assistance with backward and forward linkages for women in unorganised sector through Intermediary Micro Finance Organisations and self-help groups.<https://rmk.nic.in/>

⁶SWADHAR-- The programme is initiated by Government of India in 2015. It addresses to the primary needs to serve women in difficult

circumstances.<https://wcd.nic.in/sites/default/files/Revised%20Guidelines%20Swadhar%20Greh%2C2015%20%28%20English%29.pdf>

⁷<https://www.oxfam.org/en/india-extreme-inequality-numbers>

Chapter 4

Women Disempowerment in India at Sub-National Level: A Socio-Economic Analysis

4.1:Introduction

Women empowerment, the fifth goal of the Sustainable Development (SDGs) and previously the third Millennium Development Goal (MDG) is a continuous process that enables women to participate in every aspect and decision makings of their lives, which in turn, directly affect their welfare. It is one of the crucial and essential aspects to eradicate gender inequality and to ensure the overall development of a nation. .Empowerment is a composite concept that is an amalgamation of three basic components, viz; Agency, Resources, and Achievement (Kabeer, 2005). According to Kabeer (2005), agency implies the process to exercise choices, resources are those paths through which choices will run and achievement means the ultimate result of the choices. Thus agency approach indicates the power of 'decision-making. And resources are the ingredients required to make it possible to achieve that power, and achievement declares the outcome after exercising that power in one's own life, it can be a success or a failure. The power of decision-making enables the functioning of the individual who entails his/her capability. However, agency and well-being are different concepts (Sen, 1987). It is a multidimensional phenomenon just analogue to the aspect of multidimensional poverty. Identification of dimensions for its measurement is a delicate task and necessitates careful attention while constructing an empowerment index or scales relating to empowerment (Malhotra et al., 2002). Therefore, instead of gauging the empowerment, it is important to identify the situations of denial of making choices, areas where lack of resources are observed, and finally the magnitude of the failure of desired achievements or in gross terms, we can define it as measuring of 'Disempowerment.' It is necessary to first identify the domains and factors of disempowerment and then the process of empowering the disempowered can be assessed. The objective of the present study is to focus on measuring the disempowerment of women of India using

a comprehensive multidimensional approach based on the National Family Health Survey (NFHS3 and 4) data. Our second objective is to compare the change in disempowerment level between the two-time points corresponding to NFHS3 and 4.

Several pieces of research have been done on measuring the empowerment of women in India and abroad. Kishor and Gupta (2004) developed a percentage-based method for making comparisons of empowerment using NFHS 2 and NFHS 1 data. Wiklander (2012) used a binary choice probit model which estimates the marginal effects on different empowerment variables in rural India, including decision-making power, mobility of freedom, expression of views, freedom from domestic violence, and having property rights. Perception towards violence on women also indicates the 'achievement' aspect of empowerment. Agreement or disagreement of a woman on the beating of the wife by the husband signifies the attitude towards other women according to Upadhyay and Karasek (2012). They used DHS (District Level Health Survey) data for empowerment measure and along with decision-making variables they also included the husband's influence for an ideal number of children and attitude towards refusing sex. Crissman et al.(2012) considered the sexual empowerment of women as the prime issue that needs to be addressed in Ghana. Another study in Ghana by Boateng et al.(2014) examined the relationship between wealth and women's involvement in household decision-making in the context of healthcare, large household purchases, daily household purchases, and mobility. In the context of India, using NFHS3 data Biswas (2016) constructed an empowerment index and concluded that self-confidence and various awareness creating factors mainly influence the empowerment of women belonging from east India. Another study by Chakrabarti and Biswas (2012) using NFHS3 data focused on the relationship between various decision-making and mobility variables responsible for achievement level of empowerment. The concept of women's autonomy is widely discussed in the empowerment literature. Level of education, health conditions, and autonomy of decision-making significantly affect women's empowerment as suggested by Bhattacharya and Banerjee (2012). Apart from education and health factors, the influence of religion and region is observed on women's empowerment by Jejeebhoy and Sathar (2001) using samples from two Indian

states and Pakistan's Punjab Province. Using primary data in West Bengal, Banerjee and Ghosh (2012) showed that self-employment has a major influence on women's empowerment.

Disempowerment of women may arise from major structural forces of society in various ways: cultural disempowerment, economic disempowerment, political disempowerment, resource distribution disempowerment (Kawewe, 2001). Based on a case study of Nigerian women, Garba (1999) concluded that endogenous strategies which involve external source enable disempowered women to empower themselves. There are some studies on measuring the disempowerment level of women. A notable work by Alkire et al., (2013) constructed a unique empowerment index (5DE) based on five dimensions including decisions about agriculture production, ownership of productive resources, authority to control how to use income, whether supervise in community and how she allocates time between production sector and domestic works and also for her leisure activities. This 5DE index shows that the percentage of women who are empowered as well as the intensity of disempowerment. Another study by Ahmad and Khan (2016) focuses on assessing the disempowerment of women of Pakistan. Bhuyan (2006) focussed on the deprivation of women in political decision-making in India. A case study by Sarin (2001) on forest women of Uttarakhand, India revealed that due to the imposition of various forest management policies the local women become severely disempowered in decision making for use of forest resources that are usually managed by them. The study by Ganle et al.(2015) on the rural women of Ghana, revealed that some women became empowered from the access of micro-credit, and some left disempowered due to failure of repayment of loans, wrong investment, lack of control on the use of the credit and the income generated from the investment. Mishra (2014) represents a multidimensional aspect of measuring disempowerment using the NFHS3 data using only eight indicator variables. Our main contribution is that we take a comprehensive multi-dimensional approach to measuring the disempowerment of women. In our study, we introduce the use of mobile phones as an indicator while measuring disempowerment. The relation of use between mobile phones and female empowerment has been discussed by many previous authors (Porter et al.(2020); Batool (2018); Chew et al.(2015)). In recent years use of mobile phones have increased by many folds in India. As per DoT, India, the

number of mobile phone subscribers was 996.13 million and 1059.33 million in 2015 and 2016 respectively¹. However, NFHS4 data showed that only 46% of women have a mobile phone while this percentage is only 37% for rural women². Access to mobile phones opens up various opportunities to women. Thus, our objective is to check that, to what extent the unavailability of mobile phones contributes towards the disempowerment of women using the headcount or percentages of women under this category. Also, this study will contribute to the literature by comparing the disempowerment level of Indian women over time. We identify fifteen indicator variables that are common in NFHS3 and NFHS4 data set. Based on these indicators, we compare the disempowerment level of women across states of India for 2005-2006 (NFHS3) and 2015-16 (NFHS4) using a unique D-curve methodology developed by Jayaraj and Subramanian (2010). We believe that this methodology was not used earlier for comparison of women's disempowerment level over time. The rest of the chapter is arranged in the following way: Section-II will describe the data and methodology. Section-III discusses the details of indicator variables chosen for our study. The results and discussions are presented in Section-IV. Section V concludes the major findings.

4.2: Data:

We use the NFHS3 (2005-06) and NFHS4 (2015-16) data for our analysis³. The data contain information of all the 36 regions (States and Union territories) of India. We exclude all the Union territories and create 3 groups based on regions as **North** (Gujarat, Rajasthan, Uttar Pradesh, Madhya Pradesh, Punjab, and Haryana), **South** (Kerala, Tamil Nadu, Andhra Pradesh, Karnataka, and Maharashtra) and **East** (Bihar, West Bengal, Odisha, Assam, Chhattisgarh, and Jharkhand) follow Mishra (2014). The data on women (the total number of observations) were 6,99,686 and 1,24,385 in NFHS4 and NFHS3 respectively. However, after the removal of missing responses for variables relevant to our study, we include a total of 29,625 women in the NFHS4 and 27,956 women in NFHS3 in our analysis. Table 4.1 presents the socioeconomic description of the sample:

Table 4. 1: Descriptive Statistics of Socio-Economic Characteristics of Women:

Variables	Categories/Labels	Mean	Standard Deviation	Mean	Standard Deviation
		2015-16		2005-06	
Type of place of Residence	Urban	0.304	0.460	0.476	0.499
	Rural	0.695	0.460	0.515	0.500
Religion	Hindu	0.835	0.371	0.818	0.386
	Muslim	0.115	0.319	0.109	0.312
	Other	0.050	0.218	0.073	0.259
Caste	SC	0.207	0.405	0.183	0.386
	ST	0.136	0.342	0.062	0.242
	OBC	0.449	0.497	0.373	0.484
	General	0.209	0.406	0.383	0.486
Frequency of reading newspaper or magazine	Not at all	0.714	0.452	0.599	0.490
	Less than a week	0.111	0.314	0.134	0.341
	At least once a week	0.079	0.271	0.103	0.304
	Almost Everyday	0.095	0.294	0.164	0.370
Frequency of listening to radio	Not at all	0.888	0.315	0.560	0.496
	Less than a week	0.041	0.199	0.153	0.360
	At least once a week	0.042	0.200	0.104	0.305
	Almost Everyday	0.028	0.166	0.183	0.387
Frequency of watching television	Not at all	0.285	0.451	0.260	0.439
	Less than a week	0.076	0.264	0.099	0.299
	At least once a week	0.100	0.300	0.108	0.310
	Almost Everyday	0.540	0.498	0.533	0.499
Wealth Index	Poorest	0.238	0.426	0.122	0.328
	Poorer	0.217	0.412	0.149	0.357
	Middle	0.194	0.396	0.179	0.383
	Richer	0.188	0.390	0.240	0.427
	Richest	0.163	0.369	0.309	0.462
Age Category of Women	Below 20	2.871	0.804	0.023	0.151
	21-30	0.332	0.471	0.377	0.485
	31-40	0.400	0.490	0.426	0.494
	Above 40	0.246	0.431	0.174	0.379
Highest Educational Level	No Education	0.401	0.490	0.377	0.485
	Primary	0.159	0.365	0.159	0.366
	Seconadry	0.375	0.484	0.368	0.482
	Higher	0.065	0.247	0.097	0.296

Source: Author’s calculation based on NFHS4 data

4.3: Methodology

4.3.1: Construction of Disempowerment Index

The disempowerment index is a multidimensional latent variable and it is measured using various dimensions and indicators. Following Chakravarty and Ambrosio (2006) and Jayaraj and Subramanian (2010), we construct the measure of multidimensional disempowerment faced by women in any region or country. If n_j is the number of women who are disempowered in exactly j dimensions, $j = 0, 1, \dots, K$, where n be the total population size and H_j is the proportion of the population that is deprived in exactly j dimensions.

Where $H_j = n_j/n$ for $j=1, 2, \dots, K$,

Then the disempowerment index is defined as⁴

$$\pi_\alpha = \sum_{j=1}^K \left(\frac{j}{K}\right)^\alpha H_j \text{ for } \alpha \geq 0 \quad 1.$$

H_j is the proportion of the population that is deprived in exactly j dimensions.

$$\pi_\alpha = \frac{1}{K} \frac{n_1}{n} + \frac{2}{K} \frac{n_2}{n} + \dots + \frac{K}{K} \frac{n_K}{n} = \sum_{j=1}^K \left(\frac{j}{K}\right)^\alpha H_j \text{ and } H_j = n_j/n \text{ and } j = 1, \dots, K$$

Here α measures the magnitude of disempowerment.

In this case as α increases from 1 to higher values, π_α gives greater weight to the disempowerment rates of women who are disempowered in more and more decisions, that is, the more disempowered women and, at very high α values, it measures the magnitude of extreme disempowerment (Mishra 2014).

4.3.2: D-curve Approach of comparing disempowerment over time

For graphical comparison of disempowerment of women in various states of India over time, we have used the D-Curve (deprivation distribution profile) methodology as developed by Jayaraj and Subramanian (2010). The curve is obtained by plotting cumulative proportions or headcount ratios of each dimension with cumulative fractions of dimensions in which people are deprived or disempowered. Let H_j imply the proportion of the women disempowered in exactly j dimensions out of total K dimensions.

Let $Q_j = \sum_{l=0}^j H_l$ where $0 \leq j \leq K$

Thus, each coordinate of the D-curve will reflect $(j/k, Q_j)$ where $j = 0, 1, \dots, K$. Thus the points will be $(0, H_0), (1/K, H_0 + H_1), (2/K, H_0 + H_1 + H_2), \dots, (K-1/K, H_0 + H_1 + \dots + H_{K-1}), (K/K, H_0 + H_1 + \dots + H_K = 1)$. The D-curve will be smoother as the number of dimensions increases. D-curve is a non-decreasing curve going from a point on or vertically above the origin of the unit square to the point (1,1). If all the women are disempowered in zero dimensions then the D-curve will coincide with the upper left corner of the unit square. Alternatively, if all the women are disempowered in all the dimensions then it will coincide with the lower right corner of the unit square.

If two D-curves are drawn for two different sets of headcount ratios then one can dominate the other, only if that D-curve lies wholly above the other D-curve. This criterion is called D-dominance. The D-curve approach is similar to the Lorenz concept of measuring income inequality.

4.3.3: Details of the Indicator Variables:

In the present analysis, in order to calculate the disempowerment level of women across the states of India, we take a comprehensive multi-dimensional approach. To this end, for comparing the disempowerment level of Indian women between 2005-06 and 2015-16, we identify five dimensions comprising of only 15 indicator variables that are common in NHFS3 and NFHS4, and drop the following indicator variables: Are (were) you afraid of your husband: most of the time, sometimes or never?', 'Do you own a mobile phone of your own?', 'Do you have any property alone or jointly?'. Table 4.2 and 4.3 describe our indicator variables along with data level and percentage of responses.

Table 4. 2: Details of Disempowerment Dimensions and Indicator variables

Dimensions	Indicator Variables	Related References
Freedom of Mobility	Who usually makes decisions about visits to your family or relatives?	Kishor and Gupta (2004), Upadhyay and Karasek (2012), Mishra (2014), Boateng et al. (2014), Wiklander (2010), Chakrabarty and Biswas(2012), Bhattacharya and Banerjee (2012)
	Are you usually allowed to go to the market?	
	Are you usually allowed to go to places outside this village?	
Decision-making autonomy	Who usually makes decisions about making major household purchases?	Upadhyay and Karasek (2012), Mishra (2014), Boateng et al. (2014), Wiklander (2010), Chakrabarty and Biswas(2012), Bhattacharya and Banerjee (2012), Kishor and Gupta (2004).
	Who usually makes decisions about health care for yourself?	
	Who decides how your husband's earnings will be used?	

	Do you have money of your own that you alone can decide how to use?	
Couple Interaction dominated by husband	Are (were) you afraid of your husband : most of the time, sometimes or never? ⁵	Wiklander (2010), Biswas (2017)
	Husband tries/tried to limit your contact with family	
	husband does/did not permit you to meet your female friends	
Attitude towards physical violence	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	Upadhyay and Karasek (2012), Crissman, Adanu, Harlow (2012), Biswas (2017)
	If she goes out without informing	
	If she neglects child	
	If she argues with husband	
	If she refuses sex	
	If she refuses to cook food	
Financial Ownership	Do you have a bank or savings account that you yourself use?	Wiklander (2010), Biswas (2017)
	Do you have any mobile phone that you yourself use?	
	Do you own this or any other house either alone or jointly with someone else?	

Source: Author’s estimation based on NFHS4 data

Table 4. 3: Indicator variables along with their percentages of responses:

Indicator Variables	Percentage of Responses			
	Alone or with Husband (0)	not at all / Other(1)	Alone or with Husband (0)	not al all / Other(1)
	2015-16		2005-06	
Who usually makes decisions about visits to your family or relatives?	77.27	22.73	70.43	29.57
Are you usually allowed to go to the market?	55.71	44.29	63.89	36.11
Are you usually allowed to go to places outside this village?	49.3	50.7	47.25	52.35
Who usually makes decisions about making major household purchases?	76.98	23.02	62.53	37.47
Who usually makes decisions about health care for yourself ?	76.76	23.24	69.32	30.68
Who decides how your husband’s earnings will be used?	74.14	25.86	74.13	25.87
Do you have money of your own that you alone can decide how to use?	41.09	58.91	48.07	51.93
	Percentage of Responses			

	2015-16		2005-06	
	No (0)	Yes(1)	No (0)	Yes(1)
Are (were) you afraid of your husband : most of the time, sometimes? ⁶	19.21	80.79	-----	-----
Husband tries/tried to limit your contact with family	84.14	15.86	92.37	7.63
husband does/did not permit you to meet your female friends	78.49	21.51	86.49	13.51
Beating of Wife by husband:				
If she goes out without informing	74.64	25.36	72.31	27.69
If she neglects child	30.32	69.68	66.26	33.74
If she argues with husband	70.49	29.51	71.92	28.08
If she refuses sex	86.33	13.67	86.09	13.91
If she refuses to cook food	80.42	19.58	81.42	18.58
	Percentage of Responses			
	Yes (0)	No(1)	Yes (0)	No(1)
Do you have a bank or savings account that you yourself use?	51.83	48.17	20.64	79.36
Do you have any mobile phone that you yourself use?	40.27	59.73	-----	-----
Do you own this or any other house either alone or jointly with someone else?	43.52	56.48	-----	-----

From Table4.3, in the case of freedom of mobility, from NFHS 4 survey, we observe that more than 50 percent of the total women cannot go to places outside the villages and it was around 52 percent for the NFHS3 survey round. Although, most of the women have the freedom to visit family or going to market. In the case of decision-making autonomy, according to the NFHS4 round around 59 percent of the women do not have money that she alone can decide how to use and it was 52 percent for the NFHS3 round, indicating a worsening of income earning capability of women over time. This finding is consistent with the observation that the percentage of women who work has declined over time, from 36% of women being employed in 2005-06 to 24% in 2015-16⁷. For decisions regarding, large household purchases, own health care, and spending of the husband earning, most of the women have reported sufficient autonomy.

Next, we observe that approximately 81 percent of the women said they are afraid of their husband/partner most of the time, sometimes whereas most of the women agree on the fact that their husbands do not limit their contact with family or do not impose any restriction on meeting female friends. Another very interesting observation is that around 70 percent (in NFHS4 survey) and 34 percent (NFHS3 survey) of the women justify beating their wife if she neglects the child. Also, wife-beating is justified by more than 25% of women in both rounds of NHFS survey for indicators like 'if wife argues with husband and 'if the wife goes outside without informing.' These observations show that the patriarchal family system has taught Indian girls from their childhood a picture of an 'ideal wife' who should be the primary caregiver in the family and should always obey her husband. As a result, even now, women justify wife-beating when a wife doesn't satisfy the criteria of 'an ideal wife.' If this attitude persists, the empowerment of Indian women will remain a distant dream.

In the case of the dimension of financial empowerment, around 60 percent of the women do not have a mobile phone and 57 percent of the women do not own any house either alone or jointly although more than 50 percent of the total women have their savings account in case of NFHS4, whereas more than 79 percent of the women had recorded that they do not have any savings account in 2005-06.

4.4: Results and Analysis

4.4.1: A Comparison of Disempowerment levels between 2005-06 and 2015-16

The present section will try to gauge the change in the disempowerment level of Indian women between 2005-06 and 2015-16. In this case, we are compelled to consider only 15 indicator variables on which information is available for both rounds of NFHS.

D- Curve approach for Comparison of Disempowerment level:

The present subsection uses the D-curve approach to compare the change in disempowerment level across regions and all India levels. As already mentioned this approach is based on the cumulative disempowerment headcount ratio of women across various indicators. Table 4.4 gives the coordinates of the D-curve for All India and different regions.

Table 4. 4: Co-ordinates for D-curves for all Regions for 2005-06 and 2015-16

	Cumulative Headcount ratio of disempowerment							
	All India		North		South		East	
Cumulative (j/15)th Fraction of the indicators in which disempowerment occurs. J=1,2, 15	2005-06	2015-16	2005-06	2015-16	2005-06	2015-16	2005-06	2015-16
0/15	0.0397	0.0031	0.0454	0.0019	0.0397	0.0064	0.0326	0.0026
1/15	0.1217	0.0776	0.1378	0.0852	0.1142	0.0806	0.1123	0.0647
2/15	0.2398	0.1912	0.2609	0.2033	0.2277	0.2019	0.2305	0.1664
3/15	0.3686	0.3327	0.3934	0.3436	0.3528	0.3428	0.3603	0.3102
4/15	0.4957	0.4865	0.5182	0.4944	0.4717	0.4995	0.5024	0.4662
5/15	0.6104	0.6341	0.6332	0.6375	0.5795	0.6429	0.6266	0.6233
6/15	0.7183	0.7411	0.7396	0.7406	0.6920	0.7534	0.7299	0.7334
7/15	0.8080	0.8250	0.8219	0.8196	0.7915	0.8416	0.8145	0.8214
8/15	0.8811	0.8908	0.8906	0.8846	0.8673	0.9042	0.8894	0.8905
9/15	0.9276	0.9430	0.9337	0.9400	0.9183	0.9492	0.9333	0.9429
10/15	0.9578	0.9713	0.9618	0.9707	0.9508	0.9754	0.9628	0.9694
11/15	0.9777	0.9880	0.9774	0.9875	0.9751	0.9893	0.9818	0.9878
12/15	0.9909	0.9956	0.9912	0.9957	0.9899	0.9966	0.9920	0.9948
13/15	0.9982	0.9988	0.9984	0.9988	0.9987	0.9989	0.9973	0.9986
14/15	0.9999	1.0000	0.9999	1.0000	0.9997	1.0000	1.0000	1.0000
15/15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Source: Authors’ estimation following the methodology developed by Jayaraj and Subramanian (2010)

Figures 2,3, 4 and 5 give the comparison of ‘D-curves” for all India.

Figure 4. 1: D –Curve for all India over time

Figure 4. 2: D –Curves for North over time

Figure 4. 3: D-Curves for East over time

Figure 4. 4: D-Curves for South over tim

Fig 1: D –Curve for all India over time

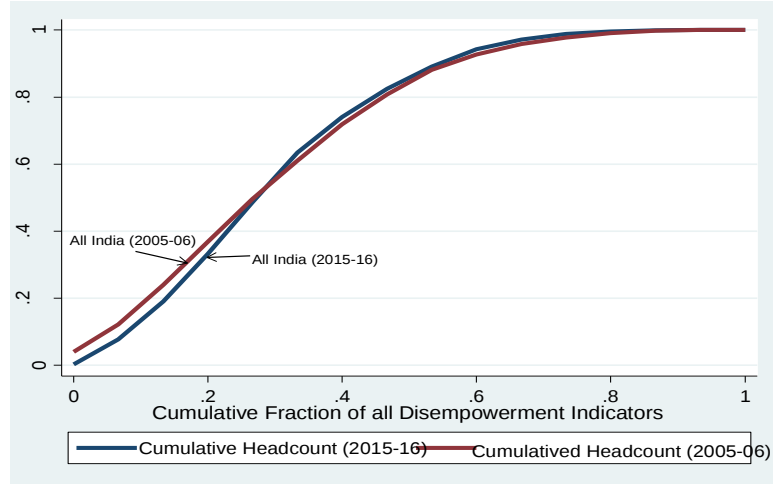


Fig 2: D –Curves for North over time

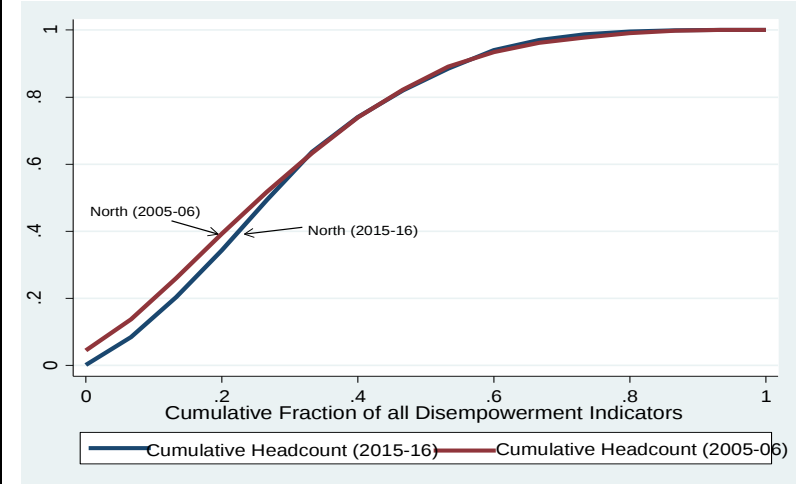


Fig 3: D-Curves for East over time

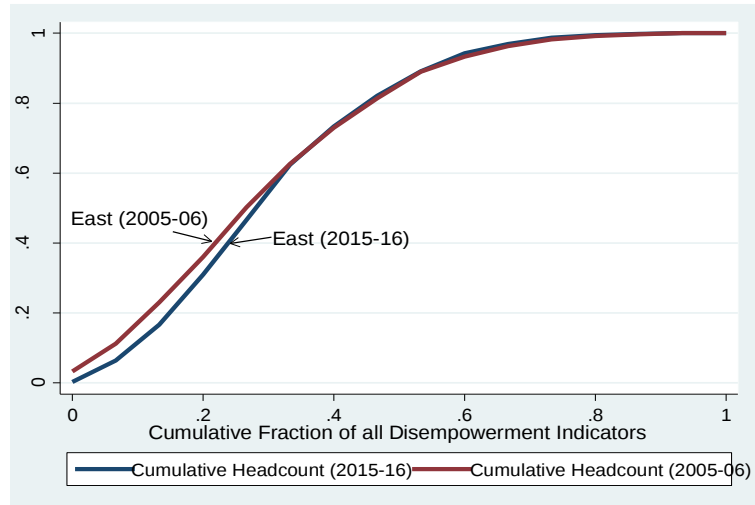
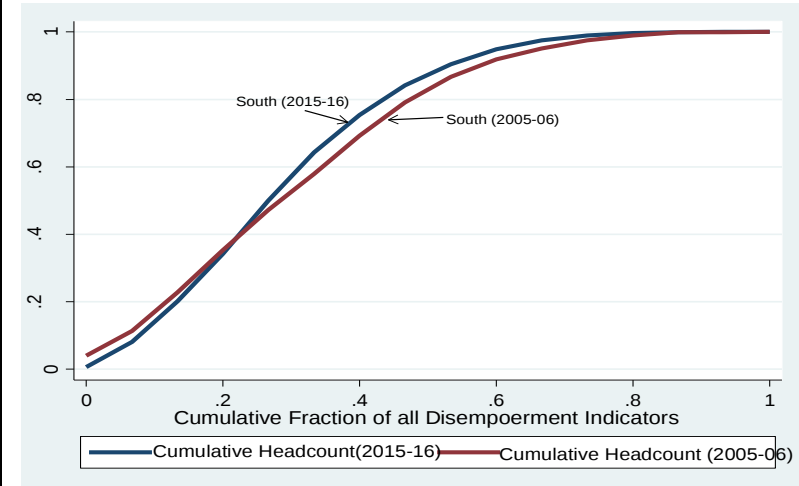


Fig 4: D-Curves for South over time



From the above figures, we observe that D-curves have intersected and as a result, clear 'D-dominance' across periods are not observed. Thus, from the D-curves, we cannot conclude that disempowerment over time has increased or decreased. Thus, for further analysis, following Jayaraj and Subramanian (2010) we have categorized the intensity of multidimensional disempowerment level in the following manner across the states:

- None-disempowered: Women who are not disempowered in any of the selected indicators.
- Mildly-disempowered: Women who are disempowered in one to three indicators.
- Moderately-disempowered: Women who are disempowered in four to seven indicators.
- Considerably-disempowered: Women who are disempowered in eight to eleven indicators.
- Severely-disempowered: Women who are disempowered in twelve or in all the dimensions.

Table 4.5 gives the head-count rates of women for the above-mentioned disempowerment categories.

Table 4. 5: Headcount Ratios for magnitudes of disempowerment:

	2005-06					2015-16				
	None- Disempowered	Mildly- Disempowered	Moderately- Disempowered	Considerably - Disempowered	Severely- Disempowered	None- Disempowered	Mildly- Disempowered	Moderately- Disempowered	Considerably - Disempowered	Severely- Disempowered
North	0.042	0.326	0.436	0.169	0.027	0.003	0.374	0.453	0.158	0.012
Gujarat	0.033	0.332	0.423	0.180	0.031	0.005	0.424	0.427	0.139	0.005
Rajasthan	0.044	0.269	0.452	0.195	0.040	0.001	0.365	0.474	0.151	0.009
Uttar Pradesh	0.055	0.405	0.418	0.112	0.010	0.001	0.320	0.496	0.172	0.010

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	2005-06					2015-16				
Madhya Pradesh	0.049	0.371	0.412	0.147	0.021	0.001	0.262	0.519	0.198	0.020
Punjab	0.034	0.291	0.451	0.201	0.022	0.007	0.511	0.373	0.107	0.002
Haryana	0.038	0.289	0.458	0.178	0.036	0.000	0.364	0.427	0.183	0.025
South	0.035	0.304	0.450	0.187	0.024	0.007	0.316	0.516	0.151	0.010
Kerala	0.025	0.302	0.503	0.160	0.010	0.009	0.277	0.579	0.131	0.005
Tamil Nadu	0.019	0.293	0.534	0.149	0.006	0.008	0.365	0.470	0.144	0.013
Andhra Pradesh	0.033	0.282	0.430	0.217	0.038	0.008	0.282	0.529	0.174	0.007
Karnataka	0.021	0.224	0.425	0.278	0.051	0.003	0.228	0.548	0.204	0.016
Maharashtra	0.078	0.416	0.360	0.129	0.017	0.005	0.429	0.455	0.104	0.007
East	0.033	0.344	0.448	0.160	0.016	0.003	0.322	0.507	0.157	0.011
Bihar	0.025	0.319	0.503	0.139	0.015	0.000	0.192	0.524	0.253	0.030
West Bengal	0.041	0.291	0.465	0.176	0.026	0.007	0.404	0.458	0.125	0.007
Odisha	0.015	0.236	0.440	0.282	0.027	0.003	0.222	0.551	0.211	0.014
Assam	0.034	0.448	0.414	0.099	0.004	0.003	0.383	0.467	0.139	0.009
Chhattisgarh	0.016	0.333	0.517	0.129	0.006	0.003	0.377	0.510	0.107	0.003
Jharkhand	0.065	0.435	0.350	0.134	0.016	0.002	0.352	0.532	0.110	0.004
All India	0.040	0.329	0.439	0.170	0.022	0.003	0.330	0.492	0.163	0.012

Source: Authors' estimation following the methodology developed by Jayaraj and Subramanian (2010)

Table 4.5 records that there has been a considerable decrease in the headcount of women under the categories of considerable and severe disempowerment in 2015-16 compared to 2005-06, but the HCR has marginally increased in the period 2015-16 for those women who are mildly and moderately disempowered at all India level. The most alarming observation is that the HCR of women under none disempowerment category decreased considerably in 2015-16 for all the states. Thus, even though the HCR of women showing extreme disempowerment has gone down, but few women who were previously empowered now become disempowered in 2015-16 at the all-India level. Thus, following figure 4.3, we cannot unambiguously say that the disempowerment level has decreased at all Indian level between 2005-06 and 2015-16. All the three regions Northern, Southern and Eastern have also recorded a decrease in HCR under the categories of considerable and severe disempowerment. Only in the case of the Eastern region, the magnitude has also decreased for the category under mildly disempowered whereas the disempowerment magnitude has recorded a rise in the case of the category of mild and moderate in Northern and Southern regions of India. In Northern, among all the states, women of Uttar Pradesh and Madhya Pradesh have reflected an increase for the categories of moderately and considerably disempowerment. Punjab has recorded a fair level of drop-in disempowerment at moderate, considerably, and severely disempowerment categories but the magnitude has increased in the category of mild disempowerment and it is the highest among all the states in the Northern region. In the Southern region, all the states have registered an increase under the categories of mildly and severely disempowerment except Kerala. The magnitude has decreased for the category of moderate disempowerment only in Tamil Nadu. Women of Bihar and Assam facing an increase in their disempowerment for the categories of moderate, considerable, and severe in the Eastern region whereas the magnitude has increased for the mild disempowerment category in the case of West Bengal and Chhattisgarh. Next, we calculate the multidimensional disempowerment index using the two data sets: NFHS3 and NFHS4 by using equation 1. Table 4.6 summarizes the two-period indices for all the selected states and all India and Table- 4.7 gives a more clear view of the change in the rate of disempowerment index in all the States.

Table 4. 6: Comparison of the Measures of Multidimensional Disempowerment Index (With 15 indicator variables for both the time periods) :-

	$\pi(\alpha=0)_{2005-06}$	$\pi(\alpha=0)_{2015-16}$	$\pi(\alpha=1)_{2005-06}$	$\pi(\alpha=1)_{2015-16}$	$\pi(\alpha=2)_{2005-06}$	$\pi(\alpha=2)_{2015-16}$	$\pi(\alpha=3)_{2005-06}$	$\pi(\alpha=3)_{2015-16}$	$\pi(\alpha=4)_{2005-06}$	$\pi(\alpha=4)_{2015-16}$	$\pi(\alpha=5)_{2005-06}$	$\pi(\alpha=5)_{2015-16}$
North	0.958	0.997	0.326	0.315	0.146	0.131	0.077	0.065	0.046	0.036	0.029	0.022
Gujarat	0.967	0.995	0.335	0.292	0.153	0.114	0.083	0.054	0.051	0.029	0.034	0.017
Rajasthan	0.956	0.999	0.356	0.313	0.171	0.128	0.096	0.062	0.059	0.034	0.040	0.020
Uttar Pradesh	0.945	0.999	0.277	0.334	0.109	0.142	0.051	0.070	0.028	0.039	0.016	0.023
Madhya Pradesh	0.951	0.999	0.299	0.358	0.126	0.159	0.064	0.082	0.037	0.047	0.024	0.030
Punjab	0.966	0.993	0.346	0.259	0.156	0.093	0.082	0.041	0.048	0.021	0.030	0.011
Haryana	0.962	1.000	0.343	0.331	0.158	0.149	0.085	0.080	0.051	0.049	0.033	0.032
South	0.965	0.993	0.340	0.326	0.154	0.135	0.082	0.065	0.048	0.035	0.031	0.021
Kerala	0.975	0.991	0.327	0.321	0.137	0.126	0.067	0.057	0.036	0.029	0.021	0.016
Tamil Nadu	0.981	0.992	0.331	0.315	0.138	0.130	0.065	0.064	0.034	0.036	0.019	0.021
Andhra Pradesh	0.967	0.992	0.361	0.339	0.174	0.143	0.097	0.069	0.059	0.037	0.039	0.022
Karnataka	0.979	0.997	0.405	0.369	0.208	0.165	0.121	0.085	0.077	0.048	0.052	0.029
Maharashtra	0.922	0.995	0.275	0.285	0.114	0.108	0.059	0.049	0.035	0.026	0.022	0.015
East	0.967	0.997	0.315	0.328	0.134	0.137	0.068	0.067	0.039	0.037	0.024	0.022
Bihar	0.975	1.000	0.318	0.402	0.133	0.195	0.065	0.108	0.036	0.065	0.022	0.042
West Bengal	0.959	0.993	0.335	0.295	0.152	0.114	0.081	0.053	0.048	0.028	0.031	0.016
Odisha	0.985	0.997	0.386	0.366	0.188	0.163	0.104	0.083	0.063	0.047	0.041	0.029
Assam	0.966	0.997	0.270	0.307	0.099	0.122	0.045	0.057	0.023	0.031	0.013	0.018
Chhattisgarh	0.984	0.997	0.308	0.298	0.120	0.113	0.055	0.051	0.028	0.026	0.016	0.014
Jharkhand	0.935	0.998	0.272	0.302	0.113	0.113	0.059	0.049	0.035	0.024	0.022	0.013
All India	0.960	0.997	0.324	0.328	0.143	0.138	0.075	0.068	0.044	0.038	0.028	0.023

Source: Authors' estimation following the methodology developed by Jayaraj and Subramanian (2010)

Table 4. 7: Percentage change in disempowerment index and State ranks during the period 2005-06 to 2015-16

	% change $\pi(\alpha = 0)$	% change $\pi(\alpha = 1)$	% change $\pi(\alpha = 2)$	% change $\pi(\alpha = 3)$	% change $\pi(\alpha = 4)$	% change $\pi(\alpha = 5)$	States'sRank (Ascending Order) based on $\pi(\alpha = 3)$	
							(2005- 06)	(2015- 16)
North	4.15	-3.49	-10.06	-15.53	-20.31	-24.69	--	---
Gujarat	2.92	-12.79	-25.43	-35.31	-43.41	-50.40	10	5
Rajasthan	4.42	-11.98	-25.36	-35.31	-43.01	-49.28	12	7
Uttar Pradesh	5.74	20.80	30.62	36.71	39.99	40.90	2	10
Madhya Pradesh	5.09	19.53	26.30	28.37	27.90	26.07	5	12
Punjab	2.82	-25.08	-40.50	-50.04	-56.85	-62.35	9	1
Haryana	3.96	-3.46	-5.43	-5.31	-4.46	-3.35	11	11
South	2.96	-4.19	-12.74	-20.61	-27.34	-33.04	--	--
Kerala	1.59	-1.85	-8.09	-14.32	-19.79	-24.58	7	6
Tamil Nadu	1.12	-4.97	-5.13	-1.67	4.11	11.41	6	8
Andhra Pradesh	2.56	-6.34	-18.07	-28.59	-37.41	-44.72	13	9
Karnataka	1.87	-8.80	-20.36	-30.19	-38.03	-44.22	5	14
Maharashtra	7.97	3.60	-5.58	-15.89	-25.19	-32.87	4	2
East	3.06	4.29	1.94	-1.64	-5.41	-9.00	--	--
Bihar	2.56	26.56	46.62	64.70	81.11	95.65	6	15
West Bengal	3.57	-11.93	-24.79	-34.58	-42.43	-49.15	8	4
Odisha	1.22	-5.12	-13.12	-20.12	-25.56	-29.60	14	13
Assam	3.27	13.80	22.77	28.68	31.96	33.56	1	6
Chhattisgarh	1.29	-3.39	-5.50	-7.01	-8.35	-9.58	3	3
Jharkhand	6.67	10.85	-0.18	-15.50	-29.68	-41.31	4	2
All India	3.81	1.16	-3.67	-8.80	-13.65	-18.14		

Source: Authors’ estimation following the methodology developed by Jayaraj and Subramanian (2010)

From table 4.5 and 4.6 we observe that the disempowerment index has decreased at all Indian levels throughout 2005-06 to 2015-16 except for $\alpha = 0$ and 1. All the states have registered a higher percentage increase in disempowerment index at $\alpha = 0$ and for higher values of α , all the states have experienced a decrease in disempowerment index except Bihar, Madhya Pradesh, Uttar Pradesh, and Assam. The highest percentage decrease in disempowerment is observed in Punjab. D-curve for Punjab as given in figure 6 also corroborates this fact. After Punjab, Gujarat, Rajasthan, and West Bengal are also showing a larger decrease in disempowerment in 2015-16. The percentage drop in

disempowerment is more in South than North and East. In the East region, women of West Bengal⁸ recorded the maximum percentage decrease in disempowerment than the other States of East in 2015-16. Table 4.8 also reports the change in rank of states based on the disempowerment index for $\alpha = 3$. The states of Uttar Pradesh, Madhya Pradesh, Tamil Nadu, Bihar, Assam, and Chhattisgarh have recorded lower rank in 2015-16 reflecting higher disempowerment from 2005-06. Punjab secured the first position in 2015-16 from 9th in 2005-06, which reflects an increase in welfare and development towards women empowerment. The cause of this higher rank of Panjab may be attributed to the change in some of the key factors that stimulate women empowerment, such as the gap between male and female literacy rates decreased from 17.58% in 1971 to 9.70 % in 2011 (Pathania (2017)), percentage of women turnout voters in General Election 2014 is 71% in the state compared to all India percentage of 66%⁹, the development of SHGs in Punjab which had played a major role in entrepreneurship development programmes among rural women (Biswas, 2017). The result that the downward slide in the ranks of Uttar Pradesh¹⁰, Madhya Pradesh and Bihar, is in line with the findings of Mishra(2014). It is also observed that these states have also secured the bottom three positions in the list of HDI index of all States in India in 2015¹¹.

Figure 4. 5: D-curve for Punjab over time recording ‘D-Dominance’ for 2015-16 over 2005-06.

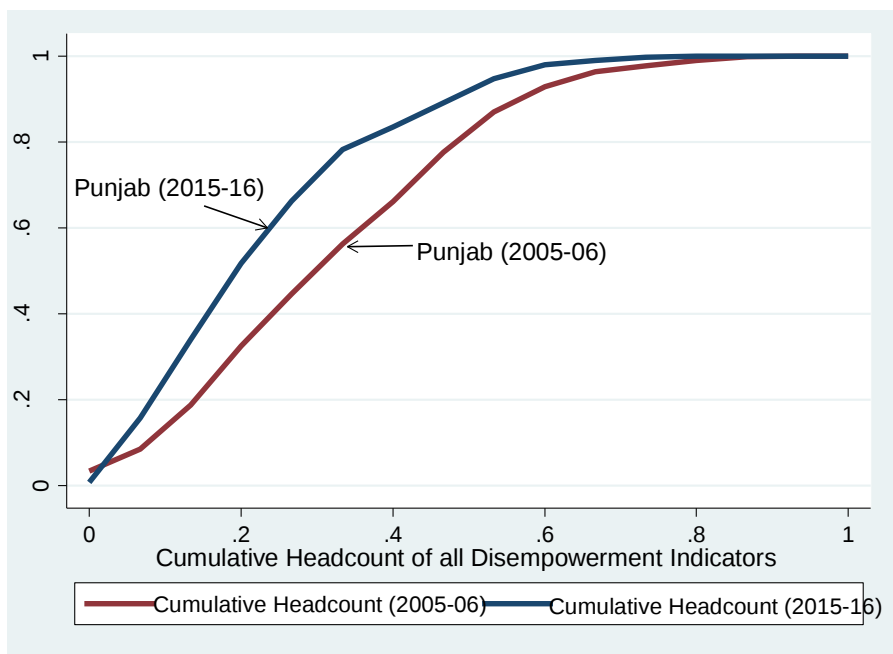
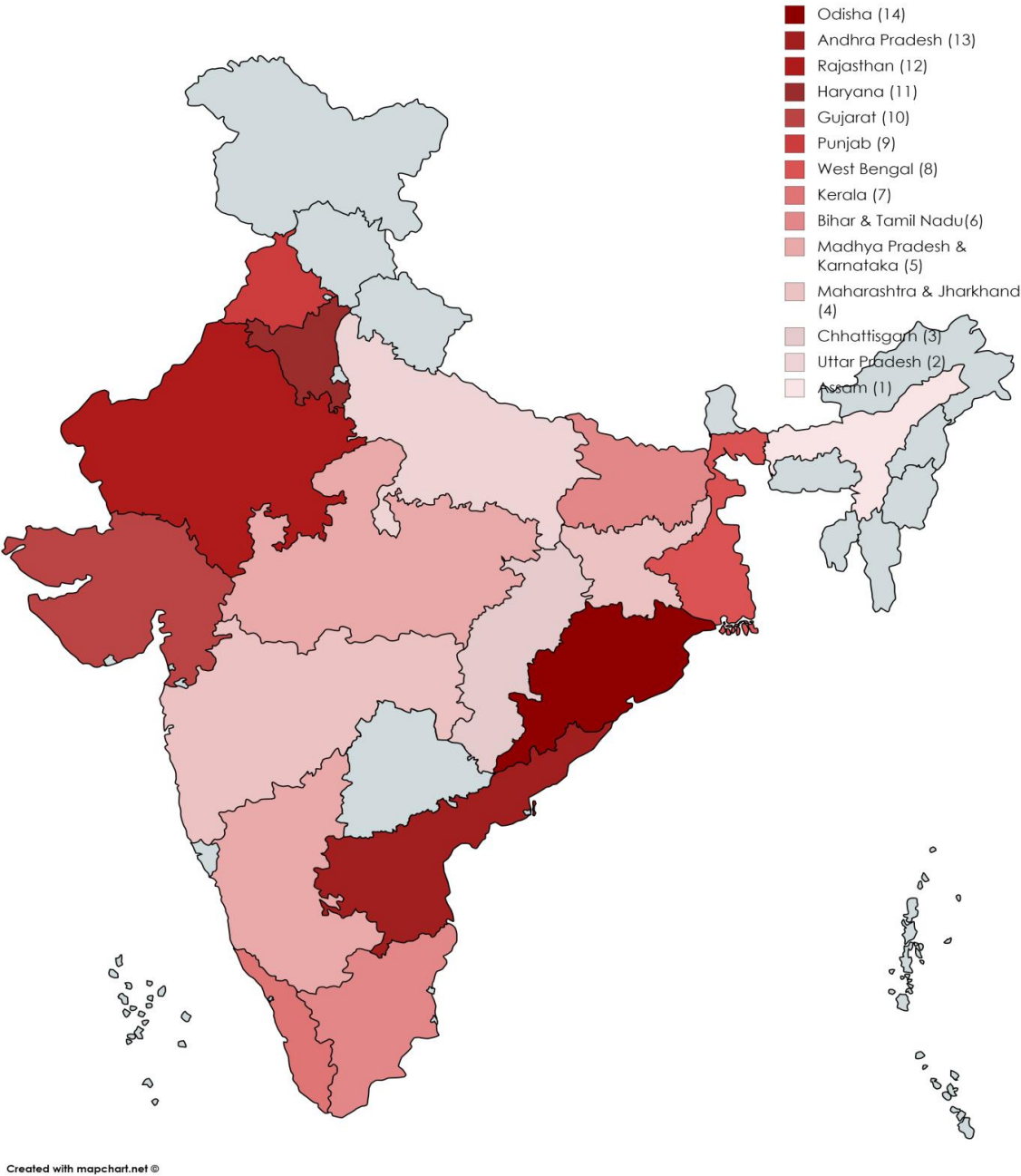
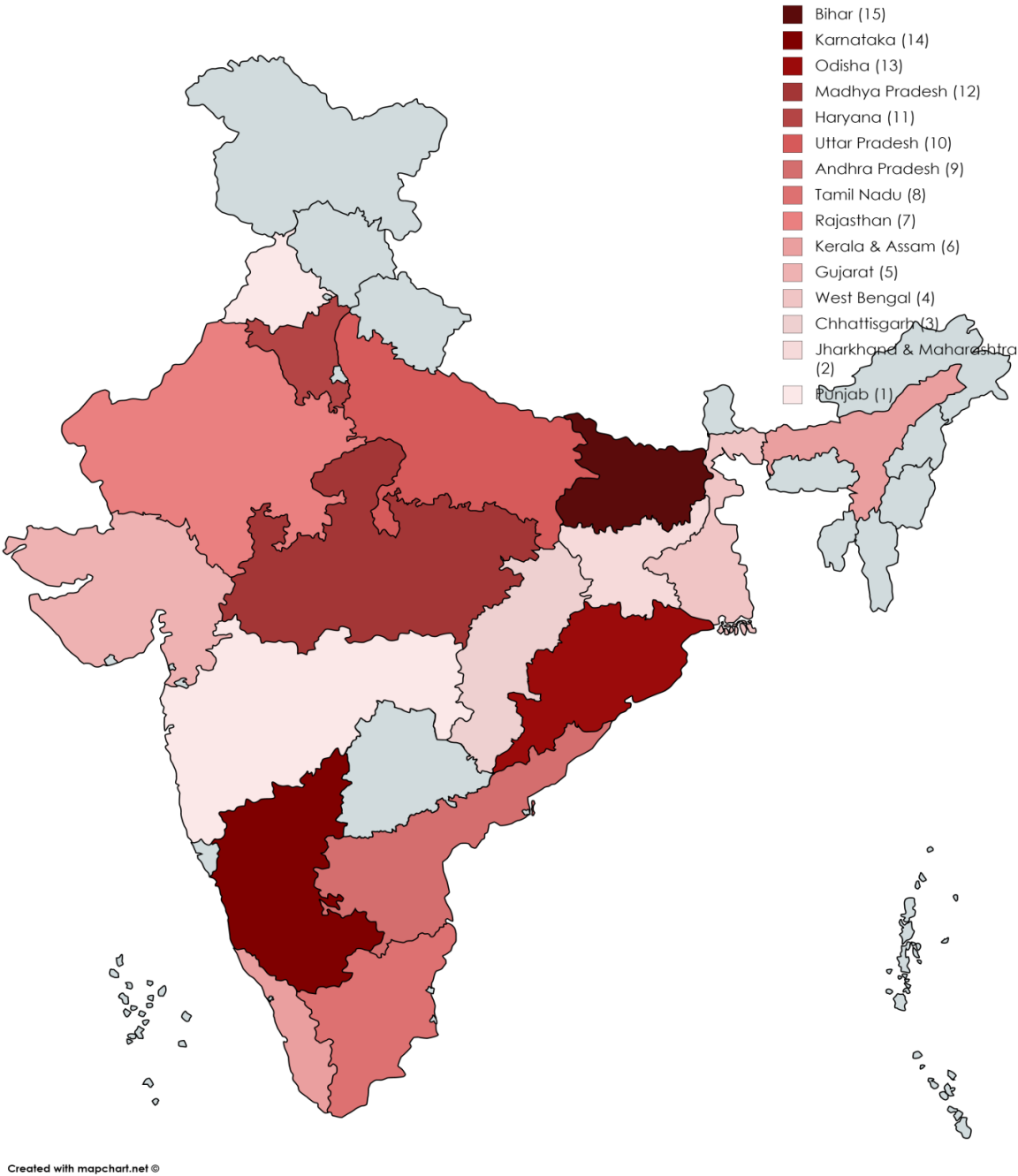


Figure 4. 6: State wise magnitude of disempowerment based on disempowerment index at $\pi(\alpha=3)$ in 2005-06



The darker shade reflects more disempowerment. The states are arranged in ascending order of disempowerment based on the ranking of Table 4.7.

Figure 4. 7: State wise magnitude of disempowerment based on disempowerment index at $\pi(\alpha =3)$ in 2015-16



The darker shade reflects more disempowerment. The states are arranged in ascending order of disempowerment based on the ranking of Table 4.7.

Various parameters such as employment status, family structure, type of residence, religion and caste, household assets, and infrastructure are some specific causes of empowerment as reported by many earlier researchers. The causes of this variation in disempowerment can be explained with the following tables 4.8 and 4.9, where some details of women-related parameters were taken from the NFHS fact sheet and National Crime Records Bureau. We observe that the magnitude of disempowerment has increased in Bihar, Uttar Pradesh, Madhya Pradesh, and Karnataka. The reasons may be that the percentage of literate women is less than the all-India level in the case of Bihar, Uttar Pradesh, and Madhya Pradesh for both periods (Table 4.8). But in the case of Punjab, the percentage of literate women is higher than the all-India level in both periods. Punjab has recorded the largest drop (37.5 % drop) in the percentage of women who are anemic from 2005 to 2015 among all the selected states. From table 9 we observe the rates of different types of crime. The rate of dowry death has recorded the highest increase from 2005-06 to 2015-16 in Uttar Pradesh. Haryana has recorded the highest increase in the rate of Kidnapping and abduction of women and girls. In the case of the rate of sexual harassment, Maharashtra has recorded the largest increase among the selected states. Bihar and Karnataka are also showing an increase in all of the mentioned crime rates.

Table 4. 8: Some women related parameters in percentage:

	2005-06				2015-16			
	Women who are literate	Women with 10 or more years of schooling	Women with 20-24 years married before age 18 years	All women age 15-49 years who are anemic	Women who are literate	Women with 10 or more years of schooling	Women with 20-24 years married before age 18 years	All women age 15-49 years who are anemic
Gujarat	63.8	23.5	38.7	55.3	72.9	33.0	24.9	54.9
Rajasthan	36.2	11.7	65.2	53.1	56.5	25.1	35.4	46.8
Uttar Pradesh	44.9	18.3	58.6	49.9	61.0	32.9	21.1	52.4
MadhyaPradesh	44.4	14.0	57.3	55.9	59.4	23.2	32.4	52.5
Punjab	68.7	38.4	19.7	38.0	81.4	55.1	7.6	53.5
Haryana	60.4	29.6	41.2	56.1	75.4	45.8	19.4	62.7
Kerala	93	48.7	15.4	32.8	97.9	72.2	7.6	34.3
Tamil Nadu	69.4	31.8	22.3	53.2	79.4	50.9	16.3	55.0
Andhra Pradesh	54.9	7.8	27.1	54.8	62.9	34.3	33.0	60.0
Karnataka	59.7	27.8	41.8	51.2	71.7	45.5	21.4	44.8
Maharashtra	70.3	30.7	39.4	48.4	80.3	42.0	26.3	48.0
Bihar	37.0	13.2	69.0	67.4	49.6	22.8	42.5	60.3
West Bengal	58.8	15.7	54.0	63.2	70.9	26.5	41.6	62.5
Odisha	52.2	15.6	37.2	61.1	67.4	26.7	21.3	51.0
Assam	63.0	19.3	38.6	69.3	71.8	26.2	30.8	46.0
Chhattisgarh	44.9	12.3	55.0	57.5	66.3	26.5	21.3	47.0
Jharkhand	37.1	15.1	37.9	69.5	59.0	28.7	37.9	65.2
All India	55.1	22.3	47.4	55.3	68.4	35.7	26.8	53.1

#Source: NFHS3 and NFHS4 Fact Sheet
<http://rchiips.org/NFHS/factsheet.shtml>
http://rchiips.org/NFHS/factsheet_NFHS-4.shtml

Table 4. 9: Some rates of crime against women:

	2005-06				2015-16			
	Kidnapping and Abduction of Women and Girls	Dowry Deaths	Cruelty by husband and Relatives	Sexual harassment	Kidnapping and Abduction of Women and Girls	Dowry Deaths	Cruelty by husband and Relatives	Sexual harassment
Gujarat	2.1	0.1	7.5	0.2	3.4	0.0	14.0	1.8
Rajasthan	3.2	0.6	9.7	1.0	7.5	1.3	41.6	1.9
Uttar Pradesh	1.6	0.9	2.5	1.6	5.6	2.3	8.5	5.8
MadhyaPradesh	1.3	1.1	4.5	1.2	8.8	1.8	14.3	6.9
Punjab	1.9	0.4	2.8	0.2	5.9	0.6	11.9	3.0
Haryana	2.2	0.9	9.1	2.6	12.9	1.9	28.3	5.5
Kerala	0.7	0.1	9.8	0.5	0.8	0.0	20.2	6.3
Tamil Nadu	1.6	0.3	2.5	1.0	2.3	0.2	5.5	0.6
Andhra Pradesh	2.0	0.6	10.9	3.1	1.8	0.7	23.9	4.2
Karnataka	1.1	0.5	3.4	0.1	3.8	0.8	8.9	1.8
Maharashtra	3.0	0.3	6.0	0.9	6.9	0.5	13.5	8.4
Bihar	1.4	1.1	1.8	0.0	6.9	2.3	7.6	0.2
West Bengal	1.4	0.5	8.2	0.1	6.6	1.1	44.6	1.5
Odisha	1.7	0.9	4.3	0.5	7.7	1.7	17.2	4.2
Assam	6.1	0.3	7.7	0.1	18.1	1.4	71.5	3.2
Chhattisgarh	1.1	0.4	3.2	0.6	8.1	0.7	4.9	4.0
Jharkhand	2.1	0.9	2.0	0.1	4.2	1.6	10.2	3.3
All India	2.1	0.6	5.3	0.9	6.6	1.3	18.7	4.0

#Source:<https://ncrb.gov.in/sites/default/files/Crime%20in%20India%202016%20-%20Full%20Publication.pdf>
[https://ncrb.gov.in/sites/default/files/crime in india table additional table chapter reports/Tabl e%201.8 2005.pdf](https://ncrb.gov.in/sites/default/files/crime%20in%20india%20table%20additional%20table%20chapter%20reports%20table%201.8%202005.pdf)

4.5: Conclusion

Our study presents an exhaustive picture of the disempowerment of women in India by comparing the disempowerment of women in 2015-16 with 2005-06, using a comprehensive approach that incorporates a wide range of dimensions of women disempowerment. Firstly, using the NFHS4 data set, we observe that women's perception regarding wife-beating, afraid of the husband, and lack of access to mobile phones are contributing severely towards the incidence of women disempowerment.

Next, using NFHS4 and NFHS3 data with the common fifteen indicator variables, we compare the change in disempowerment level across the states of India. The D-Curve presentation using cumulative headcounts of disempowered women depicts the scenario of all the regions for both periods and shows that we cannot say that disempowerment in India has gone down over time. We observe that in the case of overall India, the incidence, severity, and considerable disempowerment has decreased in 2015-16. This may be attributable to various schemes like self-help groups run by

females, Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)- SABLA, Indira Gandhi Matritva Sahyog Yojana (IGMSY), Support to Training and Employment Programme for Women (STEP), Rashtriya Mahila Kosh (RMK), SWADHAR: Scheme for Women in Difficult Circumstances, Working Women Hostel Scheme, Kishori Shakti Yojana (KSY), Ujjawala - Scheme to Combat Trafficking, Beti Bachao Beti Padhao, Kanyashree Scheme in West Bengal and many others.

However, we observe that some women who were not at all disempowered in 2005-2006, have become mildly disempowered in 2015-16 as we observed from the headcount ratio of Table 4.5. This is a matter of concern. Further, in the states like Punjab, West Bengal, Gujarat, and Rajasthan the disempowerment has gone down. But the picture of Bihar, Uttar Pradesh, Madhya Pradesh, and Karnataka show an increase in the incidence of disempowerment over years.

Another matter of concern is the attitude of women towards other women, which is reflected through the response of women where they justify wife-beating of husbands for the negligence of women in child care and household chores. Also, the percentage of women who are afraid of their husbands is very high. This implies women of India are still confined in the age-old belief that a wife should be submissive and primarily responsible for household chores, childbearing, and child-rearing activities. This is reflected in the fact that the value of unpaid care work as a percentage of GDP contributed by women is 3.1% whereas for men it is only 0.4%. Also, women spend 312 minutes per day in urban areas and 291 minutes per day in rural areas on such unpaid care work whereas men spend only 29 minutes in urban and 32 minutes in rural areas on unpaid care work¹². Thus, the removal of women's disempowerment from India needs women to be aware of their self-esteem, they should understand their worth and they must always stand beside another woman to remove any kind of gender inequality.

Notes:

¹<http://dot.gov.in/sites/default/files/Telecom%20Statistics%20India-2017.pdf>

² <http://rchiips.org/Nfhs/NFHS-4Reports/India.pdf>

³ The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India. The Ministry of Health and Family Welfare (MOHFW), Government of

India, designated the International Institute for Population Sciences(IIPS) Mumbai, as the nodal agency, responsible for providing coordination and technical guidance for the survey. IIPS collaborated with a number of Field Organizations (FO) for survey implementation. Retrieved from <http://rchiips.org/nfhs/>

⁴ This index satisfies symmetry, range monotonicity, range sensitivity, strong range sensitivity and decomposability property. Jayaraj and Subramanian(2010) showed that for $\alpha=3$, the above index satisfies all the properties. They summarized the prominent features of π_α when $\alpha = 0, 1, 2, 3$ and ∞ i.e; π_0 satisfies axioms of symmetry and decomposability, π_1 satisfies axioms of symmetry, decomposability, and monotonicity, π_2 satisfies axioms of symmetry, decomposability, monotonicity and transfer or sensitivity but not strong sensitivity axiom, lastly π_3 and π_∞ satisfies all the axioms.

⁵ We coded zero (0) for ‘never afraid’ and one (1) for ‘most of the time’ and ‘sometimes’

⁶ We coded zero (0) for ‘never afraid’ and one (1) for ‘most of the time’ and ‘sometimes’

⁷ Source Economic Survey of India 2017-18

⁸ Percentage of establishments under women entrepreneur by a major source of finance in West Bengal in 2014 is 10.33, higher than Gujarat (6.6%) and Maharashtra (8.25%) (Sixth Economic Census,2014).

⁹<http://mospi.nic.in/publication/women-and-men-india-2014>

¹⁰ Percentage of crime against women to total crime within State is 10% in Uttar Pradesh, higher than the all India percentage. Source:ncrb.gov.in/.../CII2016/.../Crime%20in%20India%20-%202016%20Complete%20PDF%...

¹¹<https://globaldatalab.org/shdi/shdi/>

¹² Source: <https://www.oxfamindia.org/Mind-Gap-State-of-Employment-in-India>

Chapter 5

Spousal Violence and Divorce in Indian Families

5.1. Introduction:

Marriage is the social and legal union between man and woman for the motive of joint production and consumption with an aim to maximization of joint utility (Becker (1973,1974), Grossbard (1993)). According to Lewis and Spanier (1979) quality of a marriage depends on social and personal resources, satisfaction with lifestyle, and rewards from spousal interaction. Sometimes one partner receives a threat from the spouse which leads to turmoil in the marital relationship. However, the disharmony in marriage does not always lead to the outcome of divorce or separation (Booth et al., (1983); Lundberg and Pollak (1993)) even if the partners are facing marital violence. Spousal violence, which includes physical, sexual, and mental abuse is prevalent across the world. The incidence can be life-threatening or may cause long-term physical or psychological impairment of the woman (Campbell (2002)). Ali and Naylor (2013a) explored various theories to explain the causes of intimate partner violence (IPV) and they have analysed the feminist, social learning, and ecological theories for the evaluation of IPV. Another study by Ali and Naylor (2013b) provided an integrated review of biological and psychological explanations of IPV. The cause of this problem is deeply penetrated in an unequal division of gender roles with the patriarchal mind setup (Dobash and Dobash (1979)). It is a universal belief that a man being violent is very natural (Breines et al. (2000)). According to the estimates of the World Health Organisation, around 35 % of the women worldwide experienced physical or sexual intimate partner violence in their lifetime¹. This stunning fact is in contrast with the 5th goal of Sustainable Development Goals² of ensuring equal rights for both sexes and empowerment of women. According to the Bureau of Justice Statistics (1995), women reported six times more for intimate partner violence than men³. In the case of India, 83% of the women reported that the executioner of violence on them is their husband and 9 percent said that the perpetrator was their former husband.^{4,5} The women who are victims of these tortures, apart from

being physically battered, also become severely depressed resulting in low self-esteem⁶. However, according to Bowlus and Seitz(2006), by leaving the violent relationship some women deviate from the traditional notion of "learned helplessness". Sometimes easy affordability of divorce can reduce violence from marriage⁷.

In this chapter, first, we develop a theoretical model to explore the association between spousal violence and women empowerment within a marital relationship, where we hypothesize that an empowered woman is less vulnerable to the extent of spousal violence. Empowerment improves the threat point of the wife, where the threat point is defined as her utility outside the marital relationship (Farmer and Tiefenthaler (1997)). Next, we use NFHS-4 data to identify the extent of spousal violence among Indian married women in the age group of 15-49 years and we try to pinpoint the impact of women empowerment⁸ on spousal violence. Finally, we explore the causes of marriage dissolution or divorce among the ever-married women and check the association between spousal violence and divorce.

Existing literature discusses different aspects of marriage, empirically as well as theoretically. The studies by Lundberg and Pollak (1993), Pollak (2004), Bergstrom(1993), theoretically discussed the aspects of bargaining among husband and wife within a marriage. Pollak (2004) in a theoretical model of intergenerational transmission of violence, has shown that the spouses who grew up in violent homes may end up with a violent marital relationship. A similar inference is drawn by Lundberg and Pollak (1993). Farmer and Tiefenthaler(1997) showed that an employed wife with her income and wealth is less likely to suffer abuse at home. There also exists a gamut of literature⁹ that empirically discusses the marriages, spousal violence, and its relation to women empowerment. Empowerment acts as a significant deterrent to violence against women as pointed by Mathur and Slavov(2013) and Ahmed et al. (2019). Rahman et al.(2011) and Schuler and Nazneen (2018). Sanawar et al.(2018) found that less empowered Bangladeshi women are more susceptible to the risk of IPV. Kim et al.(2007) found that the economic and social empowerment of women reduces spousal violence in South Africa. Another notable study by Gosh and Pasupuleti (2019) examined empirically the causal relationship between women empowerment and intimate partner violence while considering the causal

role of various socio-economic, cultural, and demographic factors and they observed that women with higher levels of autonomy the odds of facing physical violence from husband is lower. In this context, we must mention the paper by Ahmed et al. (2019) that explores the determinants of spousal violence using multilevel logistic regression analysis from NFHS-4 data. However, some studies discovered the inverse relation also. Mitra & Singh (2007) observed that despite the highest level of literacy Kerala records a higher percentage of wife-beating incidence compared to the all-India level. IPV is high among Albanian women when they are more empowered due to the onset of favorable economic changes to women's independence and employment according to Burazeri et al.(2005). Murshid and Cretelli (2020) found that empowerment may stimulate spousal violence as the husband's perceived observation of women empowerment as a threat to his power and authority. Gibbs et al.(2020) find that social and economic empowerment programme did not impact IPV in Afghanistan. Green et al.(2015) find no improvement in the reduction of IPV after economic empowerment of women in northern Uganda. Eswaran and Malhotra (2011) explored the endogeneity of spousal violence and women autonomy empirically in the South-Asian context using NFHS 3 data where it is observed that greater autonomy invokes more spousal violence and more violence negatively affects female autonomy. Angelucci and Heath (2020) give a critical analysis of theories on intimate partner violence with women empowerment as proposed by various social scientists and they classified the theories into 5 categories: Instrumental/Extractive, Intrinsic/Expressive, Status Threat, Stress/Scarcity, Exposure. The present chapter explains the association between women empowerment indicators with spousal violence indicators at different socio-ecological environments and observed an inconclusive association of spousal violence with women's empowerment. However, the authors omitted any form of verbal violence and they have not formed any type of index using the dimensions and indicators for spousal violence and women empowerment.

The Seminal paper of Becker et al. (1977) identified age of marriage, earnings, and presence of young children significantly influence the probability of divorce. Using this concept, Huber and Spitz (1980) observed that in the United States, women are more likely to have a thought of divorce. However, the earnings of the husband have no impact but the presence of young children negatively affects the

husband's thought of divorce. Lehrer (2008) showed marital instability measured in terms of divorce is related to age at marriage in the United States. Various studies like Bose and South (2003), Xu et al. (2015), Odimegwu et al. (2017) showed the effect of the sex composition of children on the dissolution of marriage. Using Booth et.al (1983) index, Yeh et al. (2006) showed that in the sample with 283 married couples, the couples who were satisfied with their sexual relations are happy with their marriages and better marital quality, in turn, improved marital stability. However, in the case of India, the most couple chose to remain separated rather than divorced due to its cost and length of time (Belliappa, 2013). When marriage is based on institutional norms and rules with the basic function assigned for childbearing and rearing then the marriage is more stable (Wilcox and Nock, 2006; Nock, 2006). In the Indian context, Dommaraju (2016) provides a detailed analysis of trends, patterns, and variations of divorce and separation in India. Bose and South(2003) prove that couples are less likely to divorce if they have at least one son rather than a daughter using NFHS3 data. The fact is true for couples with fewer children or one child.

In the present study, first, we develop a theoretical model to consider empowerment as a threat option used by the women in violence inflicted marriage where men used violence as an instrument to create fear and victory of ego (Bloch and Rao (2002), Lundberg and Pollak (1993)). Our first contribution is that, using a two-stage bargaining model we show that an increase in empowerment can reduce spousal violence. Next, for empirical validation of the theoretical model, using NFHS4(2015-16) data, we construct two indices: spousal violence score and empowerment score. The chapter uses a quantile regression technique clustered at the state level to identify the sensitivity to spousal violence to change in the level of women empowerment for presently married women, which to the best of our knowledge has not been attempted before in the literature. Finally, our third contribution is that we estimate the probability of divorce using data on ever-married women while considering spousal violence as an endogenous regressor in an IVprobit model with clustered standard error.

The results show that among the presently married women severity of spousal violence is reduced when women empowerment goes up theoretically and empirically both. The intensity of spousal violence is high in a poor family with an alcoholic husband, a large number of children, and employed

wife, and a more educated husband. The probability of divorce increases with the extent of spousal violence, and the age of women. It is also high among the Muslim religious group.

The next section will describe the theoretical model and section III presents the details of the data, variables, and the econometric techniques chosen for the empirical model. Section IV summarizes the results of the empirical study. Section V concludes the chapter.

5.2. Theoretical Model

In the theoretical model, we constructed a two-stage game. In the first stage, we have a Nash bargaining model where bargaining between husband and wife decides the degree of spousal violence in the household. Given that level, in the next stage of the game agents simultaneously maximize their private utility to determine their level of private consumption, leisure, and labour time contributed towards the production of the household public good. Farmer and Tiefenthaler (1997) considered a Nash bargaining model to determine the level of spousal violence in the family where the husband receives positive utility from spousal violence. The bargaining concept in the marriage market involves a two-stage game that is solved by backward induction (Pollak, 2019). Let a man m and a woman f form a union by marrying each other. Their utility from marriage (u_i) is composed of their private consumption C_i and from household public good g which they jointly produce and consume and personal leisure time (l_i). Both m and f obtain satisfaction from the household public good and spend l_{gm} and l_{gf} time respectively on housework, rearing and taking care of children, spending time on the education of children, and maintaining household work related to children welfare. Using Stone Geary Utility Function with parameter :

$$u_f = (C_f - \bar{C})^\alpha (l_f - \bar{l})^{1-\alpha} (g - \bar{g})^\gamma \quad (1)$$

$$u_m = (C_m - \bar{C})^\alpha (l_m - \bar{l})^{1-\alpha} (g - \bar{g})^\gamma (1 - \beta)^\mu \quad (2)$$

$$\text{And } g = \beta(l_{gm} + l_{gf}) \quad (3)$$

Here, $\bar{C}$, $\bar{l}$ and g^- are the subsistence levels of the respective goods. Here we assume β as the stability or no violence parameter in marriage, where $0 < \beta \leq 1$.¹⁰ If $\beta = 1$ then the family does not spend any time on violence or argument. We assume that $(1 - \beta)$ increases man's level of utility since violence raises husband's self-esteem and bargaining power. Here μ measures the elasticity of husbands' utility with respect to violence. The private consumption of each agent is the same as their wage income received from outside work and excluding income sacrificed for personal leisure hour and time devoted for the household public good

$$C_f = w_f(1 - l_f - l_{gf}) \quad (4)$$

$$C_m = w_m(1 - l_m - l_{gm}) \quad (5)$$

Now to obtain the optimum values of l_f , l_m , l_{gm} and l_{gf} we maximize the logarithmic version of the utility functions after substituting (3), (4) and (5).

Solving the above equations, we obtain

$$l_{gm} = \frac{(1+\gamma)K_m - K_f + \gamma \frac{\bar{g}}{\beta}}{\gamma^2 + 2\gamma} \quad l_{gf} = \frac{(1+\gamma)K_f - K_m + \gamma \frac{\bar{g}}{\beta}}{\gamma^2 + 2\gamma}$$

$$l_f = A_f - \frac{\bar{g}(1-\alpha)}{\beta(\gamma+2)} \quad l_m = A_m - \frac{\bar{g}(1-\alpha)}{\beta(\gamma+2)}$$

Where $K_f = \gamma(1 + \bar{l}) - \frac{\gamma(2-\alpha)\bar{C}}{\alpha w_f}$ $K_m = \gamma(1 + \bar{l}) - \frac{\gamma(2-\alpha)\bar{C}}{\alpha w_m}$

$$A_f = (1 - \alpha) \left(1 - \frac{\bar{C}}{w_f} \right) + \alpha \bar{l} - \left[\frac{(1-\alpha)}{\gamma(\gamma+2)} \{ (1 + \gamma)K_f - K_m \} \right]$$

$$A_m = (1 - \alpha) \left(1 - \frac{\bar{C}}{w_m} \right) + \alpha \bar{l} - \left[\frac{(1-\alpha)}{\gamma(\gamma+2)} \{ (1 + \gamma)K_m - K_f \} \right]$$

Next, we solve the Nash bargaining game between husband and wife to determine the level of β . We denoted threat points of man and woman as T_m and T_f . Man imposes violence as the threat and woman uses her empowerment strength as her threat point. We hypothesize that when T_f increases due to the effect of empowerment then it will reduce spousal violence and raise β , as empowered women can devote more time and energy to the betterment of the children and family. Now, V denotes the Nash Bargaining utility function,

$$V = (\ln u_m - \ln T_m)^\delta (\ln u_f - \ln T_f)^{1-\delta} \quad (6)$$

Where δ denotes the bargaining power $0 < \delta \leq 1$

$$\frac{\partial V}{\partial \beta} = 0 \text{ implies}$$

$$\delta (\ln u_f - \ln T_f) \frac{1}{u_m} \frac{\partial u_m}{\partial \beta} + (1 - \delta) (\ln u_m - \ln T_m) \frac{1}{u_f} \frac{\partial u_f}{\partial \beta} = 0 \quad (7)$$

From equation 2 we have

$$\frac{1}{u_m} \frac{\partial u_m}{\partial \beta} = \frac{\alpha}{c_m - \bar{c}} \left\{ \frac{\alpha \bar{g}}{\beta^2 (\gamma + 2)} \right\} + \frac{1 - \alpha}{l_m - \bar{l}} \left\{ \frac{\bar{g} (1 - \alpha)}{\beta^2 (\gamma + 2)} \right\} + \frac{\gamma}{g - \bar{g}} \left\{ \frac{K_m + K_f}{\gamma + 2} \right\} - \frac{\mu}{1 - \beta} \quad (8)$$

Now if μ is sufficiently high then only $\frac{\partial u_m}{\partial \beta} < 0$ as all other terms are positive and $u_m \neq 0$. And

similarly from 1

$$\frac{1}{u_f} \frac{\partial u_f}{\partial \beta} = \frac{\alpha}{c_f - \bar{c}} \left\{ \frac{\alpha \bar{g}}{\beta^2 (\gamma + 2)} \right\} + \frac{1 - \alpha}{l_f - \bar{l}} \left\{ \frac{\bar{g} (1 - \alpha)}{\beta^2 (\gamma + 2)} \right\} + \frac{\gamma}{g - \bar{g}} \left\{ \frac{K_f + K_m}{\gamma + 2} \right\} > 0 \quad (9)$$

Thus an interior solution with $\beta < 1$ will exist if and only if μ is sufficiently high. In that case, an atmosphere with violence will exist in the family. We have hypothesized that empowerment of women causes her to increase her level of threat in case of any instability, thus an increase in empowerment raises T_f and this will raise β .

$$\frac{\partial \beta}{\partial T_f} = - \frac{\frac{\partial^2 V}{\partial T_f \partial \beta}}{\frac{\partial^2 V}{\partial \beta^2}} \quad (10)$$

The denominator is always negative from the second-order condition.

$$\frac{\partial^2 V}{\partial T_f \partial \beta} = (\ln u_m - \ln T_m)^{\delta-1} (\ln u_f - \ln T_f)^{-\delta} (-\delta) \frac{1}{u_m} \frac{\partial u_m}{\partial \beta} \frac{1}{T_f}$$

Now from the first-order condition for a sufficiently high μ $\frac{\partial u_m}{\partial \beta} < 0$. In that case, $\frac{\partial^2 V}{\partial T_f \partial \beta} > 0$ Which

in turn implies that when optimal $\beta < 1$, $\frac{\partial \beta}{\partial T_f} > 0$. In families where women face spousal violence, an

increase in empowerment will reduce the degree of spousal violence and increase the production of household consumption goods. Given this theoretical background in subsequent analysis, we will try to find the relationship between women empowerment and the degree of spousal violence in married

couples. Next, we will try to determine the reasons for divorce among Indian women using NFHS4 data.

5.3: Data and Variables:

5.3.1: Data

We use the NFHS-4 (2015-16) data for our analysis.¹¹The data contain information of all the 36 regions (States and Union territories) of India¹². We have chosen only information on currently married women and on divorced women. We have merged¹³ the two data sets with our selected variables. However, after the removal of missing responses for variables relevant to our study, the merged data sets contain 28,081 observations of married women and only 519 divorced women with 17 states. Thus, we use two data sets; one is based on only married women and the other contains married and divorced women together.

Outcome Variable:

Our primary outcome variable is the degree of spousal violence measured by a spousal violence score¹⁴ with four dimensions comprising of nineteen indicators following Alkire et al.(2013)¹⁵ methodology¹⁶. The four dimensions used are emotional or psychological violence (Tu and Lou, 2017), physical violence, sexual violence (Rahman et al., 2011), and verbal violence. The dimensions and the indicator variables are listed in Table 5.1. Each of the Indicator variables is binary in nature.

Table 5. 1: Spousal Violence Dimensions and Indicator variables along with their percentages of responses:

Dimensions Indicator Variables (questions as given in NFHS4)		Percentage of Responses (only married women) (28081)		Percentage of Responses (only divorced women)(519)	
		No (0)	Yes(1)	No (0)	Yes(1)
Verbal Violence	Husband/Partner jealous if respondent talks with other men	73.63	26.37	50.29	49.71
	Husband/partner accuses respondent of unfaithfulness	91.91	8.09	58.19	41.81
	Husband tries/tried to limit your contact with family	84.04	15.96	58.96	41.04
	husband does/did not permit you to meet your female friends	78.55	21.45	65.90	34.10
	Husband/Partner insists on knowing where respondent is	79.24	20.76	55.30	44.70
	Husband/Partner doesn't trust respondent with money	74.67	25.33	63.78	36.22
Emotional violence Score	Ever been humiliated by husband ?	90.98	9.02	55.88	44.12
	Ever been threatened with harm by husband ?	94.98	5.02	66.86	33.14
	Ever been insulted or made to feel bad by husband ?	92.74	7.26	55.30	44.70
	Are (were) you afraid of your husband	19.05	80.95	14.84	85.16
Sexual _violence_score	ever been forced into other unwanted sexual acts by husband/partner	94.46	5.54	79.58	20.42
	Ever been physically forced into unwanted sex by husband	97.31	2.69	86.13	13.87

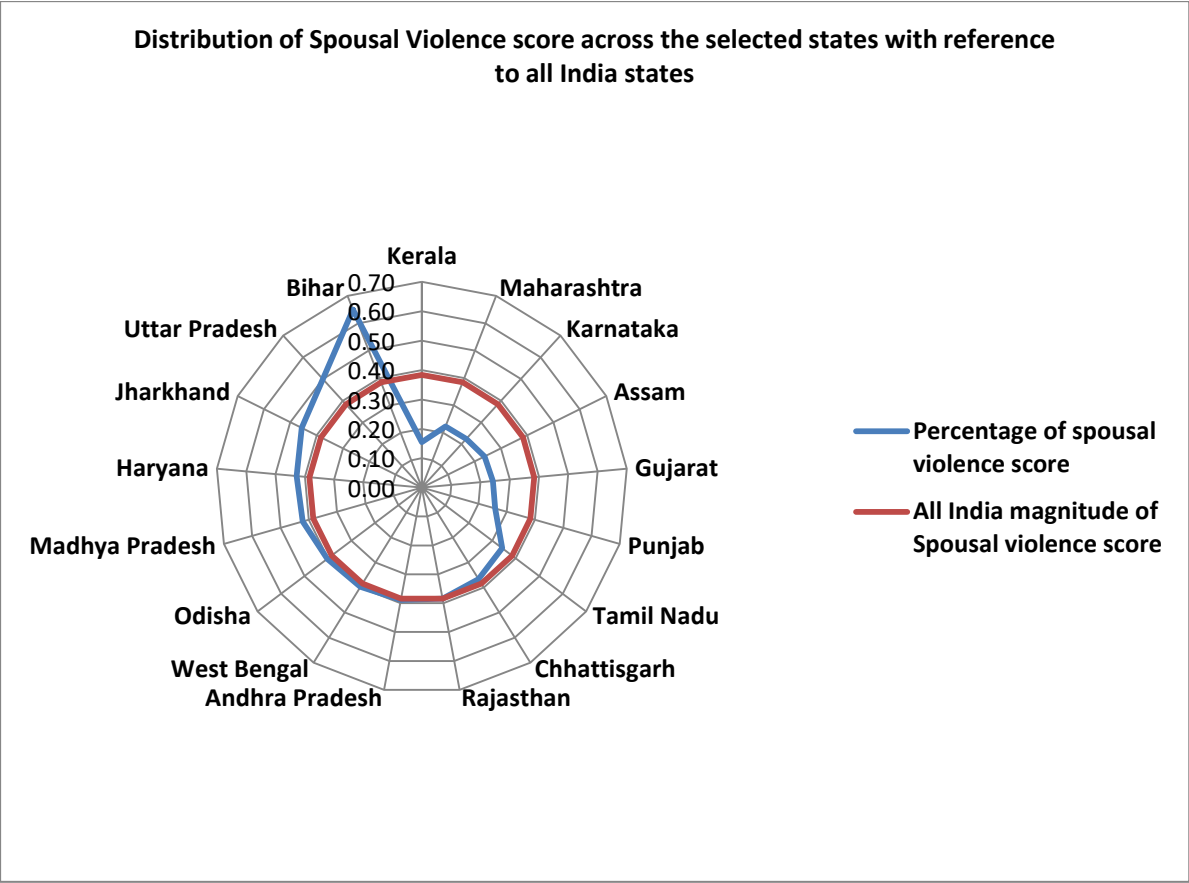
Dimensions	Indicator Variables (questions as given in NFHS4)	Percentage of Responses (only married women) (28081)		Percentage of Responses (only divorced women)(519)	
	ever been physically forced to perform sexual acts respondent didn't want to	96.32	3.68	86.13	13.87
Physical_Violence_Score	ever been pushed, shook or had something thrown by husband/partner	85.96	14.04	53.56	46.44
	ever been slapped by husband/partner	70.25	29.75	42.20	57.80
	ever been punched with fist or hit by something harmful by husband/partner	91.22	8.78	64.16	35.84
	ever been kicked or dragged by husband/partner	91.25	8.75	62.04	37.96
	ever been strangled or burnt by husband/partner	98.46	1.54	83.62	16.38
	ever been threatened with knife/gun or other weapon by husband/partner	99.30	0.70	92.10	7.90
	respondent ever physically hurt husband/partner when he was not hurting her	92.08	7.92	88.25	11.75
	no person other than husband/partner ever physically hurt respondent	7.92	92.08	10.02	89.98
Related references: Biswas(2016), Dhamija and Roychoudhury(2018), Shakti Golder ¹⁷ , Ahmed, Khan and Mozumdar(2019), Kimuna et al.(2013),					

Source: Authors compilation based on NFHS 4 Data

Here we observe that the affirmative responses related to the experience of spousal violence are always higher for divorced women than the married women which may indicate the cause of their probable marital disruption. Around 36 % of the respondents reported experience of at least any one of the abovementioned eight indicators of physical violence and around 47 % said that their husband does not trust them and they experience at least one indicator among the four indicators of verbal violence dimension. To compare the distribution of spousal violence across the marital status of the women we have performed a mean comparison test for the spousal violence score across the two groups of women: currently married and divorced, using a t-test. The mean score is lesser for the married group than the divorced group at a 1% level of significance ($\Pr(T < t) = -15.4281$) with unequal variances (Welch's degrees of freedom = 524.849). This actually implies that the women who no longer can tolerate the severe spousal abuse, usually walk out of the marriage. Further, data exploration shows that around 67.05% of divorced women faced spousal violence whereas that percentage for presently married women is 31.93%.

Next, in Figure 5.1, we present the distribution of the incidence of spousal violence across the states of India:

Figure 5. 1: Radar Chart showing State-wise distribution of spousal violence with reference to all India



Source: Author’s drawing based on NFHS4 Data

From the above radar chart, we observe that the states of Bihar, Uttar Pradesh, Madhya Pradesh, Jharkhand, and Haryana are showing spousal violence above the all India level where Bihar tops the tally. Whereas, Kerala, Maharashtra, Punjab, Gujarat, Assam is reflecting lower score with respect to the all India level. In Bihar, Uttar Pradesh, and Madhya Pradesh, dowry-related deaths are also very high as compared to other states¹⁸. The presence of severe spousal violence in Bihar is also observed by the studies of the Union Health and Family Affairs Ministry¹⁹ and Bihar State Women Commission (BSWC)²⁰ even when the state has a designated women helpline for its 35 districts since 2013²¹. According to Singh and Anand (2015) the existence of child marriage, low women empowerment are important causes of spousal violence in Bihar. Furthermore, women are subjected

to abuse in Bihar across caste and class groups for not bringing enough dowry or for not having a son. (Satija (2013))

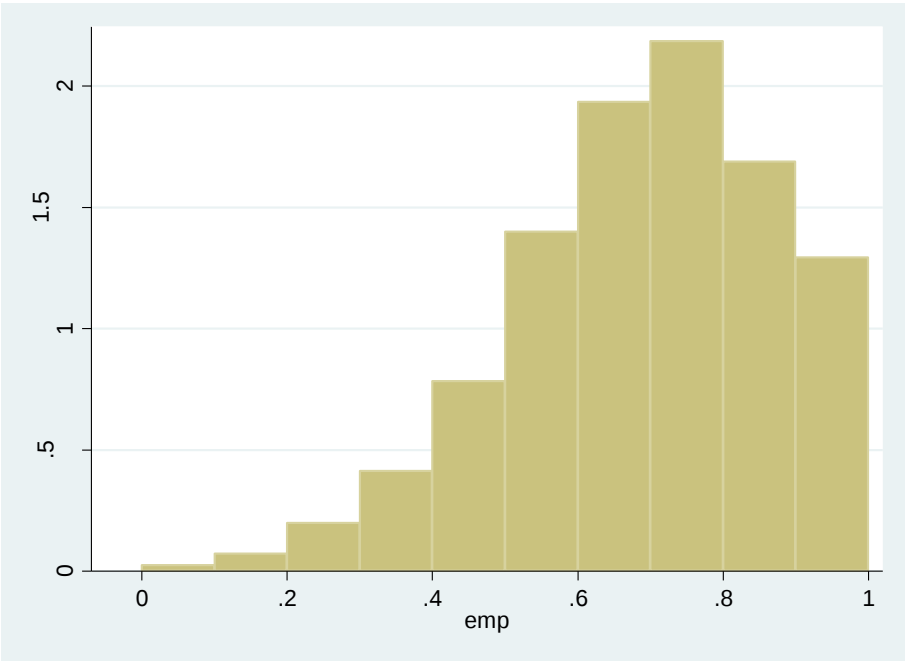
Divorced Status:

To check the incidence of divorce we used a simple binary variable based on the marital status of the respondents. If divorced the variable takes the value 1 and 0 otherwise. Most of the divorced women are employed compared to the married women group. Around 56 % of the divorced women agreed to the fact that husband drinks alcohol much higher than the married respondents:

**5.3.2: Control Variables:
Empowerment Score**

Women's autonomy and violence by their mates is a long-debated issue. Severe reduction in autonomy is observed with greater domestic violence²². While greater autonomy may invoke more violence²³. The details of the dimensions and indicator variables for empowerment score for presently married women (using Alkire et al.(2013) methodology) are given in appendix-5A table 5A.1. Figure 5.2 presents the distribution of empowerment scores across presently married women.

Figure 5. 2: Distribution of empowerment score across the sample of presently married women



Source: Author’s drawing based on empowerment score calculated from NFHS4 Data

Wealth:

Association between household poverty-wealth and spousal violence is found in many studies (Bamiwuye and Odimegwun (2014), Kishor and Johnson (2006)). Asset holding and basic infrastructure for maintaining life above the subsistence level have an impact on the marital life of a couple (Jejeebhoy and Cook (1997)). The NFHS 4 data has categorized wealth index variables as poor, poorest, middle, rich and richest. We formulated a binary variable that takes the value 1 if the women belong to a household marked as middle, rich, or richest and 0 if the household is indexed as from poor or poorest.

Education difference of the couples

We include the education difference of husband and wife as a control variable in the study. Following Dalmia (2011), we argue that if marriages are positive assortative with minimal education difference among the spouses, they may have equal bargaining strength in the decision-making process in the family; otherwise, distribution of power is skewed towards one with more education endowment, causing an atmosphere of tension and violence (Bonnes (2016)). Ackerson et al. (2008) showed that a totally illiterate wife may experience five times more spousal violence than a college-educated wife, in India.

Working status of respondent:

The incidence of spousal violence is greatly affected by the wife's employment status (Macmillan and Gartner (1999)). If she earns more than her husband then it may increase her bargaining strength and hence lowers the turmoil in marriage, but still, the fact is debatable (Pollak (2004), Bhattacharya et al.(2011)). Here around 66% of married respondents are not currently working.

Religion:

Religious beliefs and traditions impact the social norms and cultures, which can affect attitudes towards women and the extent of spousal violence. The Muslim religion has shown a higher rate of divorce than Hindu in the case of India may be due to the existence of '*Triple Talaq*' during the

survey period²⁴ ‘*Nikah Halala*’ and polygamy system(Chattopadhyay (2017)). Given this backdrop, we include religion as a variable in our study.

Alcoholism of Husband:

Alcohol consumption by the husband aggravates the risk of spousal violence (Jeyasheelan, 2007). The strong association between alcohol consumption and an increase in intimate partner violence has been observed²⁵. Here in our data around 31 percent of the married respondents confirm that their husband drinks alcohol regularly.

Witnessed parental violence

Children are the primary victim of parental violence²⁶. Various studies show that the rates of abuse among women are higher if they had seen their mothers being abused²⁷. Thus, it may be a cause for the victimization of women.

Age of the respondent:

Age-related factors have strong implications towards spousal violence, whether it is the age gap of the partners or age at marriage (Dhamija & Roychowdhury(2018)). Here we use the current age of the respondent as an explanatory variable for spousal violence.

Type of Residence:

The extent of spousal violence varies from rural to urban areas. It was observed that in rural areas the prevalence of physical whereas sexual violence is more in urban areas²⁸. Thus, it may be a cause for explaining spousal violence faced by Indian women. However rural-urban difference is not so prominent in the case of divorce²⁹.

Number of children:

The presence of children affects spousal or domestic violence. More number of children may be a stress factor for parents for their proper upbringing, thus conflict may arise.

Next, Table 5.2 gives the descriptive statistics of the control variables included in the study.³⁰

Table 5. 2: Descriptive Summary Statistics

Variables		No of Observations: 28081 (Currently Married women only)		No of Observations: 28600 (Ever married women: Married ->28081 and Divorced -> 519)		
	Categories with %	Mean	Std. Dev	Categories with %	Mean	Std.Dev
Outcome variable:						
1. Divorced Status	1.Married (98.19%) 2.Divorced (1.81%)				0.018	0.133
Spousal_Violence_Score		0.146	0.138		0.172	0.157
Explanatory variables						
EMP_SCORE (Empowerment_Score)		0.688	0.184			
CURRENTAGE_RESP WEALTH		34.47	7.78		34.48	7.78
	1.Poor (45.17%) 2. Rich (54.83%)	0.548	0.498	1.Poor (45.19%) 2. Rich (54.81%)	0.547	0.498
EDUCATION_DIFF (Difference of education of husband and wife.)	1. Nodifference (53.14%) 2.Husband more educated (35.40%) 3.Wifemore educated (11.46%)	0.583	0.687	1.Nodifference (53.13%) 2.Husband_more educated (35.23%) 3.Wife more educated (11.64%)	0.585	0.689
Employment status of the Respondent	1.Unemployed (66.18%) 2.Employed (33.82%)	0.338	0.473	1.Unemployed(65.76 %) 2.Employed(34.24%)	0.343	0.475
ALCOHOLIC_HUSB (Husband Drinks alcohol)	1.No (69.08%) 2. Yes (30.92%)	0.309	0.462	1.No (68.63%) 2. Yes (31.37%)	0.314	0.464
PARENTAL_VIO (Respondent's father ever beat her mother)	1.No (79%) 2.Yes (21%)	0.209	0.407	1. No (78.94%) 2. Yes (21.06%)	0.210	0.408
TYPE_RESIDENCE	0.Urban (30.67%) 1. Rural (69.33%)	0.693	0.461	0.Urban (30.71%) 1. Rural (69.29%)	0.693	0.461
RELIGION	0.Hindu (83.48%) 1.Muslim (11.48%) 2.Other (5.04%)	0.216	0.519	0.Hindu (83.39%) 1.Muslim (11.54%) 2.Other (5.07%)	0.217	0.521
NUMBER_CHILD		2.523	1.402		2.499	1.409

Source: Author’s calculation based on NFHS 4 Data

5.4: Methods and Empirical Analysis

5.4.1. Methods

We estimate two empirical models in the study. Model 1 probes whether the incidence of spousal violence in marriage changes either positively or negatively with the level of empowerment of the woman. Next, the Model 2 investigates the factors influencing the incidence of divorce of the women who has an experience of facing spousal violence from husband.

The model I: Quantile regression for robust and clustered standard errors

The NFHS uses a systematic multistage stratified sampling process, where the households are nested within the states. Thus, the error terms at the household levels may be correlated within a state.

Further, in the present analysis, we observe that the spousal violence score among married women is positively skewed. Thus we use the Quantile regression technique (Koenker and Bassett, 1978) with clustered standard error at the state level. The spousal violence score is taken as our dependent variable and we have performed median and upper quartile (0.75) Quantile regression. Let $SPOUSAL_VIO_{ij}$ represents the spousal violence score for each of the women respondent residing in i -th household nested in j th state, where $j = 1, \dots, M$ clusters or states, with i consisting of $i = 1, \dots, n_j$ households. Formally the model is defined as :

The regression equation with θ quartile is given by,

$$Q_{\theta}(SPOUSAL_VIO_{ij} \mid EMPOWERMENT_{ij}, \vec{X}_{controls_{ij}}) = \beta_{\theta} + \rho_{\theta} EMPOWERMENT_{ij} + \zeta_{\theta} \vec{X}_{controls_{ij}} + u_{ij} \quad (A)$$

Y_{ij} represents the score of spousal violence in marriage on the women respondent. $EMPOWERMENT_{ij}$, represents the empowerment score of married women. $\vec{X}_{controls_{ij}}$ is the vector of exogenous explanatory variables that includes household-specific socio-demographic and economic controls explained in Table 5.2 and u_{ij} is the random disturbance term.

Model II: Instrumental variable probit analysis with clustered standard errors

Instrumental variable probit model estimates probit regression with endogenous regressor which can be correlated with the equation error term. Further, the households are nested within the states. Thus, the error terms at the household levels may be correlated within a state. Here we have used spousal violence score ($SPOUSAL_VIO$) as the endogenous regressor in the model. The IV probit model with endogenous regressor is defined as follows:

Let Y_{ij} be a variable that takes value =1 if the women respondent is divorced residing in i -th household nested in j th state, where $j = 1, \dots, M$ clusters or states, with i consisting of $i = 1, \dots, n_j$ households.

Formally the model is defined as :

$$\text{Prob}(Y_{ij} = 1 \mid SPOUSAL_VIO, \vec{X}_{controls_{ij}}) = \Phi(\beta + \rho SPOUSAL_VIO + \zeta \vec{X}_{controls_{ij}}) \quad (A')$$

Where Φ is standard cumulative normal. Alternatively, the model can be written as

$$Y_{ij}^* = \beta + \rho SPOUSAL_VIO + \zeta \vec{X}_{controls_{ij}} + u_{ij}$$

Here we cannot observe Y_{ij}^* .

We observe $Y_{ij} = \begin{cases} 0 & \text{if } Y_{ij}^* < 0 \\ 1 & \text{if } Y_{ij}^* \geq 0 \end{cases}$

The reduced form of ‘SPOUSAL_VIO’ in linear form is

$$SPOUSAL_{VIO} = \pi_0 + \pi_1 ALCOHOLIC_{HUSB_{IJ}} + \vec{\Pi} \vec{X}_{controls_{ij}} + v_{ij} \quad (B)$$

$\vec{X}_{controls_{ij}}$ is the vector of exogenous explanatory variables that includes household-specific socio-demographic and economic controls explained in Table 5.2. Also, β, ρ and ζ are structural parameters whereas π_0, π_1 and $\vec{\Pi}$ are reduced-form parameters. The variable $ALCOHOLIC_{HUSB_{IJ}}$ is used as the instrument of endogenous regressor SPOUSAL_VIO as existing studies identify the strong association between alcoholic husband and wife abuse (Leonard and Jacob(1988); Dvoskin (1981) and Jeyasheelan (2007)).

The error terms, following multivariate normal distribution, are corrected by clustering at the state level. $v_{0j} \sim N(0, \sigma_0^2) iid$ and $v_{1j} \sim N(0, \sigma_1^2) iid$ independent of v_{0j}

5.4.2. Results and Discussions

Table 5. 3: Results of Econometric Analysis

Explanatory Variables	Model 1: Clustered Quantile Regression Dependent Variable: Spousal Violence score		Model 2: Instrumental Variable Probit Regression Dependent Variable: Incidence of Divorce dummy	
	Median regression	.75 Quantile regression	Coefficients with clustered robust standard errors	Margins with Delta Method Standard Error
	Margins with Delta Method Standard Error	Margins with Delta Method Standard Error		
EMP_SCORE	-0.061*** (0.015)	-0.164*** (0.015)	-----	-----
WEALTH	-0.018*** (0.004)	-0.027*** (0.007)	0.092 (0.054)	-0.001 (0.001)
CURRENT_AGE_RESP	-0.0004*** (0.0001)	-0.001*** (0.0002)	0.025*** (0.003)	0.001*** (0.0002)
EDU_DIFFERENCE: 1. Husband Base: No more educated difference 2.Wife more educated	0.004*** (0.002) -0.001 (0.001)	0.007** (0.003) -0.002 (0.004)	-0.080** (0.035) 0.161*** (0.043)	-0.002 (0.002) 0.008 (0.002)
Employment status of the Respondent	0.004 (0.003)	0.012*** (0.004)	0.279*** (0.056)	0.014*** (0.003)
ALOCOHOLIC_HUSB	0.046*** (0.005)	0.079*** (0.008)	-----	-----

PARENTAL_VIO		0.052*** (0.007)	0.079*** (0.008)	-0.373*** (0.064)	-0.006** (0.003)
RELIGION	1. Hindu	0.005 (0.005)	0.015** (0.007)	-0.246** (0.097)	-0.008 (0.005)
	Base: Other				
	2. Muslim	0.007 (0.006)	0.030*** (0.010)	0.035 (0.115)	0.013** (0.005)
NUMBER_CHILD		0.005*** (0.001)	0.008*** (0.001)	-0.410*** (0.026)	-0.017*** (0.003)
TYPE_RESIDENCE		-0.0001 (0.002)	-0.002 (0.004)	-0.024 (0.048)	-0.0004 (0.002)
Base: 0. Urban					
1. Rural					
Spousal violence score (endogenous regressor: instrumented by Alcoholic Husband in Model 2)		-----	-----	5.169*** (0.322)	0.064** (0.027)
R-squared		.14718729	.15110193	corr(e.spousalvio,e.divorcedstatus) = 0.59 sd(e.spousalvio) = 0.16 Number of obs = 28600 Log pseudolikelihood= 10043.14 Prob> chi2 = 0.0000 Wald chi2(11)= 3202.55 Wald test of exogeneity (corr = 0): chi2(1) = 63.46 Prob> chi2 = 0.0000 Akaike's information criterion:- 20054.29 Bayesian information criterion: - 19922.11	
Number of obs		28081	28081		
Objective function		.04227266	.04173545		
Parente-Santos Silva test for intra- cluster correlate Ho: No intra- cluster correlation		T =207.636 P> T = 0.000	T = 132.083 P> T = 0.000		

Source: Author’s estimation based on NFHS4 data.; Robust standard errors in parentheses; Std. Err. adjusted for 17 clusters

in state; *** p<0.01, ** p<0.05, * p<0.1

5.4.2.1. Discussion of Model 1

From Table 5.3 we observe that in Model I, the Parente-Santos Silva test for Intra cluster correlation rejects the null hypothesis of no intra cluster correlation for both median and upper quantile regression. Our model 1 validates the result of our theoretical model, that among presently married women, an increase in empowerment level reduces the median and upper quartile value of spousal violence score significantly. The median spousal violence score decreases by 6.1 percentage points and the upper quantile level decreases by 16.4 percentage points for a 1% increase in empowerment level at a 1 % level of significance. The result is compatible with our earlier justification for linking autonomy and spousal violence. Greater empowerment of women raises their bargaining power, reduces conflict among partners, and maintains marital stability. Our result is in contrast with the existing studies of Biswas (2016), Rahman et al. (2013), Biswas et al. (2017) that document the existence of more intimate violence for an increase in women autonomy under various circumstances. The median and upper quartile of spousal violence decreases by 1.8 percentage points and 2.7 percentage points respectively, with a 1 percent rise in wealth status of the women respondent. Thus,

poverty is one prime factor for intimate marital violence (Jewkes, 2002, Dekeseredy and Schwartz, 2002). Next, if the husband is more educated than a wife, the median (by 0.4 percentage points) and the upper quartile (by 0.7 percentage points) level of spousal violence increase significantly. This result reiterates the fact that a more educated wife can maintain marital stability (Dommaraju (2016)). In line with the findings of Biswas (2016), we observe that when the women respondent is employed then only the upper quartile of spousal violence score increases further by 1.2 percentage points. Studies such as Watts (2006) and Kjersti et al. (2009) reveal that employment of women increases more incidence of IPV. Thus, a woman who is employed may fail to satisfy her role of primary caregiver in a patriarchal family and will experience spousal violence as a consequence. The median and upper quartile of spousal violence score increase by 4.6 percentage points and 7.9 percentage points respectively with alcoholic husbands, thereby supporting the fact that alcoholism ignites the husband being more abusive towards wife³¹. We observe that the respondents who have observed parental violence also experience spousal violence in their own marriage as the mean and quartile level of spousal violence score are raised by 5.2 and 7.9 percentage points respectively. If a girl observes that her father beats on mother, creates psychological trauma within a girl child (Carlson, 1991) and lowers her self-esteem (Shen, 2009) which in turn makes her less confident at adult age in her own marital life. Further, we observe that the upper quartile of spousal violence increases for the Muslim women by 3 percentage points whereas that of Hindu women by 1.5 percentage points with reference to any other religion. Lastly, we observe that the number of children in the family raises the median as well as upper quartile of spousal violence score by 0.5 and 0.8 percentage points respectively. An increase in the number of children in the family raises the stress and tension of upbringing them in resource-poor families, thus conflict among the couple increases. This finding is in sharp contrast with Biswas (2016) where spousal violence decreases with more number of children.

5.4.2.2. Discussion of Model II:

In Model II we explore the factors which affect the incidence of divorce considering spousal violence as an endogenous regressor. From Table 5.3 we observe that the Wald test of exogeneity rejects the null hypothesis of no endogeneity in the model ($\chi^2(1) = 63.46$ with p value=0). Here we observe that the likelihood of divorce of women increases by 6.4 percentage points if spousal violence

increases by 1 percentage point at the state level. Divorce is the response to continuous victimization of marital abuse (Bowlus and Seitz (2006)). Secondly, the incidence of divorce increases by 1.4 percentage points if the women respondent is employed with reference to unemployed women. Thus, we can easily infer that employment, that makes women self-sufficient induces them to break away from unsuccessful marriage whereas no employment creates a tolerant attitude to spousal abuse. Next, we observe that the likelihood of divorce increases as the woman grew older (by 0.1 percentage points). This result may be observed due to two possible reasons: first, as the respondent grows old she becomes confident about walking away from an unsuccessful marital relation; second, the husband may choose to divorce an aged woman in order to marry a younger one. The probability of divorce decreases by 0.6 percentage points if the woman witnessed parental violence in childhood. The result is in line with our earlier discussion as well as with our finding from model I, indicating that the girl child who observed abuse of her mother in childhood become too submissive and compromising in her own marriage. If the women respondent belongs to the Muslim religion, then the likelihood of divorce increases by 1.3 percentage points with reference to other religions. The existence of the '*Teen Talaq*' system during the survey period may be a reason behind this phenomenon. Also, the result is consistent with the findings of Dommaraju (2016) that is the incidence of divorce and separation in India varies according to various religious groups may be due to differences in marriage laws. The likelihood of marital dissolution decreases (by 1.7 percentage points) if the couple has more children. Raising more than one child after becoming a single parent is challenging and guessing the detrimental effect of divorce on children (Crossman and Adams (1980)), the mother chooses to stay even with the abusive partner. Finally, the relationship between divorce and the education status of the partners is ambiguous. The regression coefficient shows that incidence of divorce increases if a woman is more educated than the male partner, though the marginal effects are insignificant.

5.5. Conclusions

Spousal violence is a phenomenon that is detrimental to the physical and mental wellbeing of wives who face constant abuse. In a patriarchal society like India, women are expected to compromise continuously with their husbands and in-laws after marriage, the failing of which leads to spousal

violence. In this context, our study shows that women empowerment can reduce the extent of spousal violence both theoretically and empirically. Empowerment makes women more confident and self-reliant which in turn improves their bargaining capacity in their marital lives. Among the other factors, the extent of spousal violence is low among aged and respondents from wealthy families. The extent of spousal violence is high if the husband of the respondent is alcoholic and more educated than the wife. This result signifies the importance of policies for spreading education among girls, which in turn can make them self-sufficient and empowered to reduce the extent of spousal violence. Also, we observe that the higher number of children in the family acts as a positive stimulus for spousal violence. Basically, the higher the number of children, the family has to struggle hard for their upbringing thereby it causes tension and triggers violence in the marital relationship between the parents. This has a policy implication that family planning measures should be implemented stringently among the poorer section of the population to control wife abuse. A finding of great concern is that the employed women experience spousal violence, indicating that our society is still far behind accepting the changing gender role in the family, and contravening of traditional social norms has an adverse effect on women.

Our result also indicates that spousal violence is the most important factor behind divorce in India. The incidence of divorce is high among employed and aged women. Further, the incidence of divorce is high among women from Muslim religious groups vis-à-vis other religious groups. Again a matter of apprehension is that a higher number of children though increases the extent of spousal violence reduces the incidence of marriage dissolution. In families with more children battered women get trapped in an abusive environment. This result again indicates the importance of implementing family planning measures among the poorer section of the population. Finally, we observe that if the respondent experienced parental violence, they face spousal violence in their own life and are less likely to divorce. This indicates an experience of parental violence actually makes the daughters psychologically vulnerable to fight for their own troubles in the future.

The Indian constitution provides some safeguard against domestic violence. The **Protection of Women against Domestic Violence Act 2005** prohibits a wide range of abuse against women — physical, emotional, sexual, and economic and all these are extensively defined under the Act.³²

Section 498A of the Indian penal code restricts abuse of women on the ground of dowry which is forbidden under the **Dowry Prohibition Act, 1961**.³³ The National Commission of Women (NCW) India has email, WhatsApp, online complaint registration system for domestic abuse. Also, various states have (including Bihar with the highest incidence of Spousal Violence) Women Helpline to report the crime. However, the basic problem in a country like India is that, even if legal provisions are there, not all women can avail them; poor illiterate women from remote villages of India do not have access to the internet or smartphones to lodge an online complaint; visit nearest police station may not be helpful for the women in the patriarchal form of society. Thus, the 'culture of silence' continues to prevail and women continue to get abused. Also, the women do not have the financial resources to seek legal help. Thus, most of the cases of domestic abuse and spousal violence are not reported at all. In this context, we feel that there should be a comprehensive network like "Childline"³⁴ for rescue and rehabilitation of battered women. The problem of wife-beating must be dealt with along with proper relocation, rehabilitation, and gainful employment of these women. In India after marriage, if a woman seeks divorce she does not always get support from her parental family and will become homeless if she leaves her husband; as a result, women continue to tolerate the abuse. Thus, an inclusive system incorporating Government agencies, NGOs, legal services along with safe shelters are required to control spousal violence. The rescued women should be given training so that they become gainfully employed to earn their own living. We also need societies like Legal Aid Services, West Bengal (LASWEB)³⁵ in other states of India to provide legal help to the poorer section of the women.

The present study suffers the same limitations as discussed by Ahmad et al.(2019) related to NFHS 4 data set. Another limitation that we felt is the lack of data on empowerment indicators of divorced women. As a result, it makes it difficult to compare the empowerment level of the presently married group and divorced women. Also, data did not take account of the violence inflicted by other members of the marital home of the married Indian women.

Notes:

¹ <https://www.who.int/news-room/fact-sheets/detail/violence-against-women>

²<https://www.un.org/sustainabledevelopment/gender-equality/>

³https://en.wikipedia.org/wiki/Epidemiology_of_domestic_violence

⁴<https://www.livemint.com/Politics/2On0uNbW6ufjrjabfKZwPnM/Marital-rape-Survey-takes-lid-off-sexual-violence-by-husban.html>

⁵<https://www.news18.com/news/india/the-elephant-in-the-room-every-third-woman-in-india-faces-domestic-violence-1654193.html>

⁶44.6% of women in India (2016) justified beating of a wife by their husbands according to the World Bank data (<https://data.worldbank.org/indicator/SG.VAW.REAS.ZS?locations=IN>)

⁷<https://www.journals.uchicago.edu/doi/full/10.1086/683666>

⁸ Empowerment means enhancing the capacity of an individual or group to make purposive choices and to transform those choices into desired actions and outcomes.(World Bank, 2007) Source: <http://siteresources.worldbank.org/WBI/Resources/EmpowermentLearningModulebody.pdf>

⁹The study by Nazier and Ramadan (2016) shows that the post-marital decision-making power of the women, after marriage significantly improves with empowerment in the MENA region. Jejeebhoy and Cook (1997) observed that the incidence of wife-beating results from the lack of autonomy and low economic endowment of the wife. Jeyaseelan et al. (2007) identified regular alcohol consumption by the husband, dowry harassment by in-laws, and a gap in employment status between wife and husband are the factors that emerged as risk factors for spousal physical violence. Bowlus and Seitz (2006) empirically, showed that if the husband had the experience of violence in their childhood they tend to be a more abusive partner, and employment of a wife acts as a strong deterrent to violence. Biswas(2017) found that women empowerment, higher education, and/or better job and partner's alcoholism increase spousal violence against working women in India. But Schuler et.al (1997) shows that various micro-credit programmes that contributed towards women empowerment helped to reduce violence faced by women.

¹⁰ For $\beta = 0$, the family is not producing any meaningful public good for consumption, and time is wasted on agitation and conflict.

¹¹The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India. The Ministry of Health and Family Welfare (MOHFW), Government of India, designated the International Institute for Population Sciences(IIPS) Mumbai, as the nodal agency, responsible for providing coordination and technical guidance for the survey. IIPS collaborated with several Field Organizations (FO) for survey implementation. Retrieved from <http://rchiips.org/nfhs/>.

¹²The household questionnaire contains information on all members of the household and the socioeconomic characteristics of the household, assets possessed, etc. The ever-married women's questionnaire contained information on women's characteristics, socioeconomic conditions, maternal care, contraception and fertility preferences, reproductive health, etc. We exclude all the Union territories.

¹³Before merging we have consolidated the sample by retaining only women whose relationship with the household head is coded as wife (100 % of the respondents) and where the household head is a husband (100% of the respondents). For merging, we have used the unique cluster number and the line number of each household member along with the same of the individual woman in ever-married women data. Further for the inclusion of divorced women with the married women, we have merged again the household data with the ever-married women dataset without retaining the previous condition as imposed for the married women dataset. However, the entire dataset of the ever-married questionnaire contains only 7,854 divorced and separated women with 4,99,627 married women.

¹⁴The reliability test for spousal violence score is performed with a Cronbach's Alpha measure. The value of Cronbach's Alpha Based on standardized items is 0.821.

¹⁵Alkire et al. (2013) constructed a unique empowerment index (5DE) based on five dimensions related to the participation of women in agriculture. This 5DE index shows that the percentage of women who are empowered as well as the intensity of disempowerment.

¹⁶The tetrachoric correlations between the indicator variables are available on request.

¹⁷<https://www.oxfamindia.org/sites/default/files/2018-10/WP-Measurement-of-Domestic-Violence-in-National-Family-Health-Survey-surveys-and-Some-Evidence-EN.pdf>

¹⁸<http://ncrb.gov.in/StatPublications/CII/CII2016/pdfs/NEWPDFs/Crime%20in%20India%20-%202016%20Complete%20PDF%20291117.pdf>

¹⁹ Please see <https://www.livemint.com/Politics/zYMOzZBUU8XjfrehwQkzFJ/Bihar-tops-states-in-domestic-violence.html>

²⁰ Read more at:

http://timesofindia.indiatimes.com/articleshow/76374748.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

²¹ Read more at:

http://timesofindia.indiatimes.com/articleshow/17990114.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

²²<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-5982.2011.01673.x>

https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=ESPE2015&paper_id=402

²³<https://psycnet.apa.org/record/2005-16792-005>

<https://link.springer.com/article/10.1007/s10896-011-9375-3>

²⁴ The Parliament of India declared the practice of Triple Talaq illegal and unconstitutional on and from On 30 July 2019. Further, Triple Talaq is punishable act from 1 August 2019.

²⁵https://www.who.int/violence_injury_prevention/violence/world_report/factsheets/fs_intimate.pdf

²⁶<https://www.ncbi.nlm.nih.gov/pubmed/20384972>

²⁷<https://www.unicef.org/media/files/BehindClosedDoors.pdf>

²⁸<https://www.dovepress.com/comparison-of-domestic-violence-against-women-in-urban-versus-rural-ar-peer-reviewed-article-IJWH>

²⁹https://www.academia.edu/38094410/Speaking_of_Abuse_The_Pyramid_of_Reporting_Domestic_Violence_in_India

³⁰ For the association between the variables please see appendix-5A table 5A.2 and 5A.3.

³¹https://www.who.int/violence_injury_prevention/violence/world_report/factsheets/fs_intimate.pdf

³²<https://www.shethepeople.tv/law-and-her/domestic-violence-and-connected-laws-indian-women-should-know-of/>

³³ The Indian legal system has different systems of attaining divorce under different marriage codes. Please see <https://scholarblogs.emory.edu/postcolonialstudies/2014/06/20/divorce-in-india/>

³⁴ CHILDLINE India Foundation (CIF) is the nodal agency of the Union Ministry of Women and Child Development acting as the parent organization for setting up, managing, and monitoring the CHILDLINE 1098 service all over the country. CIF is the sole agency/body responsible for establishing the CHILDLINE service across the country, monitoring service delivery and finance, training, research, and documentation, creating awareness, advocacy as well as resource generation for the service. <https://www.childlineindia.org>

³⁵ Legal Aid Services, West Bengal (LASWEB), one of the pioneering legal aid offering civil society organizations in India, empowers the poor and the disadvantaged with varied legal entitlements.

5.6. Appendix 5A: Details of Women Empowerment Indicators and Association between the Variables

Table 5A. 1: Dimensions and Indicator Variables Chosen for Empowerment measurement using NFHS4 Data along with their percentage of responses:

Empowerment Dimensions	Indicator Variables (questions as given in NFHS-4)	Percentage of responses	
		Alone or with Husband (0)	not al all / Other(1)
Freedom_Mobility	Who usually makes decisions about visits to your family or relatives?	77.8	22.2
	Are you usually allowed to go to the market?	56.02	43.98
	Are you usually allowed to go to places outside this village?	49.24	50.76
Decision_making_autonomy	Who usually makes decisions about making major household purchases?	77.41	22.59
	Who usually makes decisions about health care for yourself ?	77.19	22.81
	Who decides how your husband's earnings will be used?	74.51	25.49
	Do you have money of your own that you alone can decide how to use?	41.49	58.51
Attitude towards physical_violence	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	Percentages of responses	
	If she goes out without informing	No(0)	Yes(1)
	If she neglects child	30.03	69.97
	If she argues with husband	70.88	29.12
	If she refuses sex	86.43	13.57
	If she refuses to cook food	80.58	19.42
Financial_Ownership	Percentage of responses		
		Yes (0)	No(1)
	Do you have a bank or savings account that you yourself use?	52.48	47.52
	Do you have any mobile phone that you yourself use?	41.38	58.62
Related References for the above indicator variables are	Kishor and Gupta (2004), Upadhyay and Karasek (2012), Mishra (2014), Boateng et al. (2014), Wiklander (2010), Chakrabarty and Biswas(2012), Bhattacharya and Banerjee (2012), Chew et al.(2015)		

Source: Authors compilation based on NFHS 4

Table 5A. 2: Pairwise Association between the variables included in Quantile Regression Analysis

Number of observations= 28,081	Biserial Correlation [@]		TetrachoricCrrlation [#]												
			Religion Groups									Education Categories			
Variables	Spousal violence Score	Age of the Respondent	Empowerment score	Wealth	Employment Status	Wittnessed Parental Violence	Alcoholic Husband	Type of Residence	Hindu	Muslim	Other	No difference	Husband more educated	Wife more educated	
Wealth	-0.0008	0.096	0.21	1											
Employment status of respondent	0.012	0.084	-0.01	-0.27	1										
Wittnessed parental violence	0.23	-0.02	-0.08	-0.05	0.15	1									
Alcooholic Husband	0.253	-0.004	-0.06	-0.21	0.20	0.28	1								
Type of residence	0.08	-0.04	-0.17	-0.68	0.25	0.02	0.10	1							
Religion Groups															
Hindu	0,02	0.015	0.01	-0.17	0.21	0.08	0.24	0.20	1						
Muslim	0.006	-0.04	-0.05	0.07	-0.29	-0.11	-0.38	-0.24	-1	1					
Other	-0.04	0.04	0.05	0.27	0.02	-0.01	0.08	0.02	-1	-1	1				
Education Difference															
No Difference	-0.02	-0.02	0.04	0.04	0.00	0.00	0.01	-0.06	-0.04	0.00	0.10	1			
Husband more educated	0.03	0.09	-0.07	-0.07	0.01	-0.02	-0.02	0.12	0.12	-0.08	-0.14	-1	1		
Wife more educated	-0.015	-0.09	0.04	0.06	-0.02	0.04	0.01	-0.09	-0.13	0.14	0.05	-1	-1	1	
Pearsonian correlation between Spousal violence Score and Age of theRespondent is -0.0264 Pearsonian correlation between Empowerment Score and Age of theRespondent is 0.0573 Pearsonian correlation between Spousa Violence Score and Empowerment Scorel is -0.2155															

[#]Tetrachoric correlation shows the correlation between two variables when they are dichotomous in nature

[@]Biserial correlation shows the correlation between variables among the dummy variable and the other one is continuous in nature.

Source: Author's calculation based on NFHS4 data

Table 5A. 3: Pairwise Association between the variables included in Instrumental Variable Probit Analysis

Number of observations= 28,081 + 519= 28,600	Biserial Correlation@		TetrachoricCrrrelation#										
			Religion Groups							Education Categories			
Variables	Spousal violence Score	Age of the Respon dent	Wealth	Employme nt Status	Wittnesse d Parental Violence	Alcoholi c Husband	Type of Reside nce	Hindu	Muslim	Other	No differen ce	Husband more educated	Wife more educate d
Wealth	0.0024	0.09	1										
Employment status of respondent	0.007	0.08	-0.27	1									
Wittnessed parental violence	0.02	-0.02	-0.05	0.15	1								
Alcooholic Husband	0.015	-0.004	-0.21	0.21	0.28	1							
Type of residence	-0.008	-0.04	-0.68	0.25	0.02	0.10	1						
Religion Groups													
Hindu	-0.005	0.015	-0.16	0.20	0.08	0.23	0.20	1					
Muslim	-0.004	-0.04	0.07	-0.28	-0.11	-0.38	-0.24	-1	1				
Other	0.013	0.04	0.27	0.03	-0.006	0.09	-0.02	-1	-1	1			
Education Difference													
No Difference	-0,004	-0.02	0.03	-0.003	-0.005	0.01	-0.06	-0.04	0.00	0.10	1		
Husband more educated	-0.008	0.08	-0.07	0.009	-0.02	-0.02	0.11	0.12	-0.08	-0.14	-1	1	
Wife more educated	0.02	-0.09	0.06	-0.012	0.04	0.02	-0.09	-0.13	0.14	0.05	-1	-1	1
Pearsonian correlation between Spousal violence Score and Age of theRespondent is -0.042 Pearsonian correlation between Empowerment Score and Age of theRespondent is 0.0425 Pearsonian correlation between Spousa Violence Score and Empowerment Scorel is 0.0679													

[#]Tetrachoric correlation shows the correlation between two variables when they are dichotomous in nature; [@]Biserial correlation shows the correlation between variables among the dummy variable and the other one is continuous in nature. Source: Author's calculation based on NFHS4

Chapter 6

Child Marriage: Some facts from selected Indian states

6.1: Introduction:

Child marriage is a complex socio-cultural variable which is determined by a set of values, belief, attribute, behavior shared by a group of people from one generation to another; it varies over time and space. One age-old social problem in India is the practice of child marriage of daughters before the legal age of marriage. According to UNICEF¹, child marriage is most prevalent in South Asia, where around half (45%) of all women aged 20-24 years reported being married before attaining the age of 18, and our country India has the highest number of child brides (one-third of the global total). However, in the Indian context, the only ray of hope is the fact that the proportion of women aged 20-24 years who were married before age 18 has declined from 47 percent to 27 percent from 2005-06 to 2015-16². Given this backdrop, we try to explore the factors at the household level (as well as at the state level) leading to the perpetual existence of girl child marriage in different states of India, using data from the District Level Household & Facility Survey (DLHS-4)³ of the Government of India.

The child marriage of girls not only leads to the abuse of girl children, it severely impedes the girl children's basic human rights (Raj (2010); Raj et al.(2010); Mikhail (2002)). It obstructs the education opportunity of the girls and creates severe health complications through early pregnancies for the girl as well as for the child (Jensen and Thronton (2003); Raj et al., (2010)). Child marriage of girls is considered on the ground of social norms or custom and parents often believe that the chastity of girls may be ruined if they delay their marriage (Bicchieri et al. (2014)). Also, parents have to pay a lower amount of dowry if girls are married off young, thus child marriage prevails (Srinivasan et al.(2015)). In rural Tamil Nadu, a daughter's aversion is mainly caused due to proliferation of dowry. Thus, fear of having many female children leads to a drastic decline in fertility (Diamond-Smith et al. (2008)). The paper by Hodgkinson (2016) gives a detailed overview of child marriage regarding the

performance of different organizations in controlling the incidence and severity of child marriage of girls. According to Abbhi et al. (2013), the decline in the overall sex ratio is one of the major causes of child marriage in India. Ghosh(2011) has given a detailed study of child marriage in the Malda district of West Bengal using a field survey. Bhabha and Kelly (2013) assess the obstacles to education due to child marriage of daughters using data from Gujarat and Maharashtra. Another study by UNICEF⁴ gives a detailed overview of child marriage in India using NFHS data. A study by the Human Rights Centre (Freccero and Whiting (2018)) provides detailed findings on the prevention of child marriage in humanitarian context⁵. The district-level study (DLHS-3(2007-08)) across all India by Srinivasan et al.(2015) explores the variation of trends and patterns of child marriages. According to the findings of Goli (2016), socio-economic and demographic factors varies across states in India, thus deriving some specific causes of child marriage is difficult. His state-wise analysis (using NFHS1 and IHDS 2 data) reveals huge interstate variation in the likelihood of child marriage in India. Apart from some of the major states which account for a higher prevalence of child marriage (Uttar Pradesh, Rajasthan, Bihar, and Madhya Pradesh), North-East states also reveal a high incidence of child marriage.

India is a country with a patriarchal form of society where a son is considered an asset for the family. From their early childhood, daughters face various types of oppression and they are denied their basic rights (Barcellos et al.(2014)). The reason can be explained as follows: in the Indian family system, it is expected that a son will provide economic support to the parents during their old age, whereas daughters impose burdens on the parents as the family has to provide a dowry during the marriage (Clark (2000)). Another reason for daughter neglect may be the patrilocal marriages in India, where a daughter would move to her husband's home after marriage (Dimond-Smith et al. (2008)). This attitude towards female child leads to abortion of the child and an additional child if the first child is a girl which has caused a skewed sex ratio in India (Clark (2000); Rehman (2014); Kugler and Kumar (2017)). According to Dreze and Kingdon (1999), parents are often reluctant to send their daughters to school as daughters will get married and leave their paternal home. Using NFHS-2 data Clark (2000)⁶ confirmed the hypothesis that girls from larger families are actually belonging to families that do not

want girls. According to Pande and Malhotra (2006), whether parents discriminate against a daughter depends on the sex of her older siblings specifically⁷.

Given the existing literature, the present study focuses on the interstate variation in child marriage in India using DLHS 4 data set. Our special focus is on the incidence of child marriage in son-dominant families. Broker et al. (2017), Jejeebhoy et al. (2015) noted that gender-specific sex selection is a serious problem across states of India due to the existence of son preference. As a result, the sex ratio at birth in India is heavily biased and stood at 900 females per 1000 males in 2015⁸, far below the ideal sex ratio of 952 females per 1000 males.⁹ This biased sex ratio in India clearly indicates towards the existence of “missing women” as conceptualized by Sen(1992). Today there are over 200 million women were 'missing' worldwide due to sex-selective abortion and death of females¹⁰.

In this context, we probe deep into the menace of girl-child marriage in families having more boys than girls. Also, we will look into the connection between the marriage patterns and marital attributes of the parents and the incidence of child marriage in the family. To the best of our knowledge, this issue has not been addressed in the literature. Following Dalmia (2011)¹¹ the present study considers the age and education difference between husband and wife as two attributes to take into account the parental marriage pattern. The type of marriage affects the bargaining process between the husband and wife. Our objective is to find to what extent this phenomenon affects the early marriage of girl child in the family. Given the existing studies, the present paper will contribute to the existing literature by linking the issue of child marriages of daughters to marital patterns of the parents and son dominance in the families along with other socio-economic and demographic factors using DLHS-4 data. To the best of our knowledge, the effect of parental marriage pattern and son-dominance in the families are not considered in the literature while investigating the issue of child marriage. Also, we will take account of interstate variation in the likelihood of child marriage across states of India. To this end, we face two problems. First, the problem of endogeneity; this arises as we deal with the issue of girl child marriage in the son dominant families. The existing literature clearly shows that due to gender-specific sex selection in India, the number of sons to the number of children in the families is an endogenous variable and we need to take this into account in our model. Secondly, we need to

choose the multilevel regression model instead of traditional logit or probit analysis to consider the interstate variance in the incidence of child marriage. Hence, we have estimated a simple instrumental probit model with clustered standard error at the state level and also a multilevel instrumental probit model using the `gsem` module in STATA 15. In both these models following the studies by Lee(2008), Schultz(2007), Rosenblum(2013), Kugler and Kumar (2017) we use sex of firstborn as an instrument for the gender composition of children in the family.

The result shows that the marriage decision of a girl child is negatively related to more number of sons in the family. Further, we find that greater holding of assets saves the girl child from being a bride before attaining the legal age. The age difference of parents has a significant impact on the decision of early marriage of daughters. Also, it is found that child marriage is more prevalent among tribal communities. The rest of the chapter is divided as follows: Section 2 describes the data and the variables; Section 3 describes the methodology pertaining to empirical analysis. Section 4 deals with the results of the models and lastly Section 5 concludes the chapter.

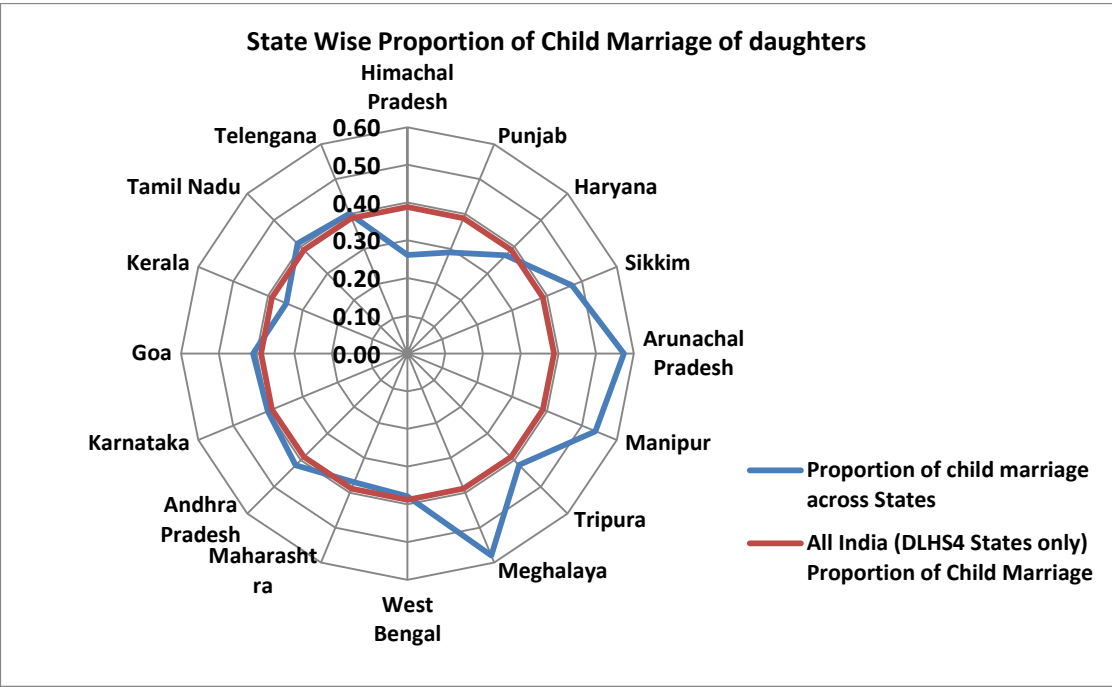
6.2. Data and Variables:

The District Level Household Survey (DLHS-4) of the Government of India, a nationwide survey was conducted during 2012-13 to interview ever-married women aged between 15-49 years. In the present paper, we have worked with the household data and ever-married women data¹². We have merged¹³ the two data sets with our selected variables. The merged data sets contain 48,194 observations with 16 states.¹⁴

6.2.1.Outcome Variable

Our main outcome variable of the study is the incidence of child marriage in the families, which is a binary variable assuming a value equal to unity if the household has arranged marriage of at least one daughter at the age of above 6 years and below 18 years. The radar diagram given in Figure 6.1 depicts the state-wise distribution of the incidence of child marriage of daughters.

Figure 6. 1: Proportion of Child Marriage of daughters across the States of India included in DLHS-4 survey



Source: Author’s drawing based on DLHS4 Data

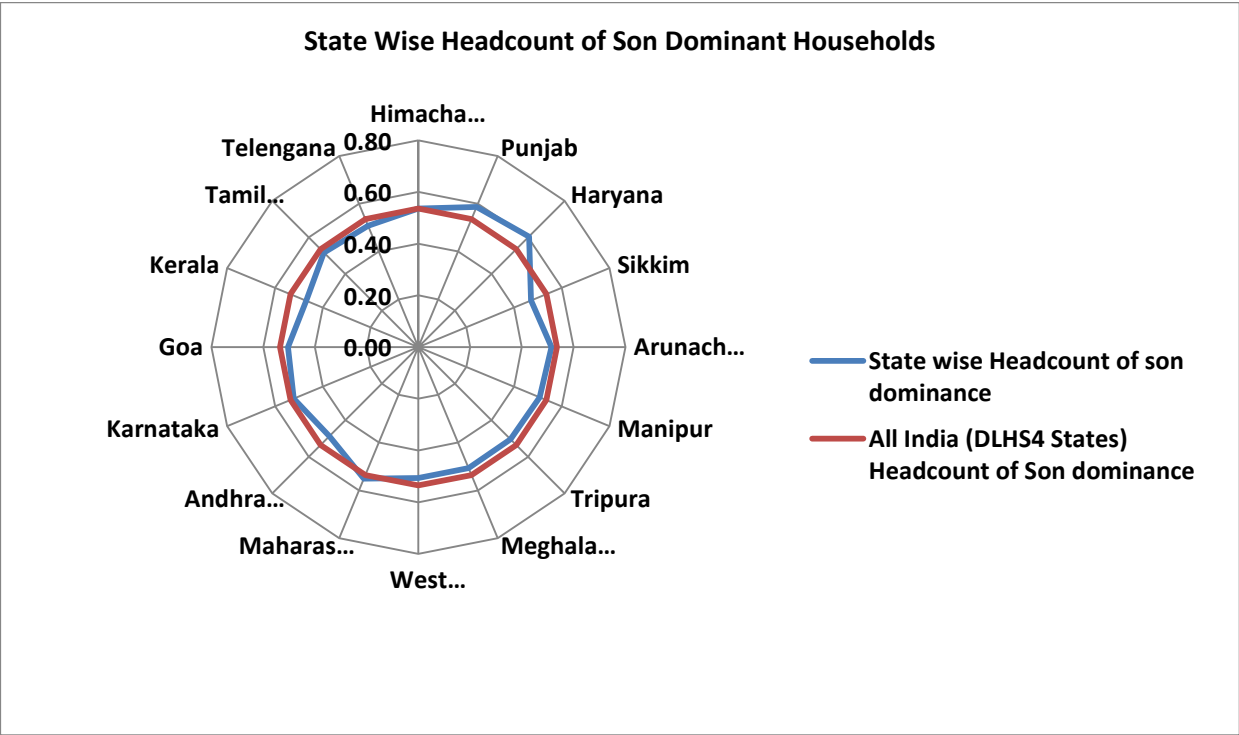
We observe that the North East States like Meghalaya, Arunachal Pradesh, Tripura, Manipur, and Sikkim are showing more incidence of child marriage of daughters than the all India (all DLHS4 states) proportion among all other states. The same result is also obtained from NFHS-4 (2015-16) survey data¹⁵. The North-East states of India are predominantly tribal states¹⁶ having different cultures, customs, social norms, and rituals. Among various tribes, the *Khasi* and *Garo* tribes of Meghalaya are well known for their matrilineal form of social character. Interestingly, in some North-East states where *Hajong* tribes are present bride-price is paid at the time of marriage¹⁷. The exchange of bride-price is present in parts of Manipur and Arunachal Pradesh as well¹⁸. Secondly, in Manipur, among *Meitei* society, there is one traditional type of marriage where boy and girl will elope, (“*Nupi Chenba*”) or girl will be abducted (“*Nupi Chingba*”)¹⁹. Adherence to this tradition by the Manipuri society can be considered as a possible reason behind child marriage in this state²⁰. Thirdly, in North East tribal states pre-marital sex is allowed among men as well as among women (Agarwal (1994)). Subaiya (2008) using the NFHS-3 data set observed a higher incidence of pre-marital sex among women and men in North-East states. The practice of pre-marital sex in adolescence without proper

sex education leads to teenage pregnancy. NFHS-4 (2015-16) survey data revealed a high rate of teenage pregnancy among North-East states like Meghalaya, Manipur, and Tripura²¹. This teenage pregnancy may lead to the early marriage of a daughter to suppress the possible social scandal.

6.2.2. Control Variables:
Son Dominance

One objective of this study is to find the relationship between son dominance in the family and the early marriage of daughters in the family. Among the families with both son and daughter, if there is more number of sons than daughter, we define a son dominance dummy equal to unity, and it is zero otherwise. It is observed that around 46.45 percentages of the families are not son-dominant²². Figure 6.2 gives the headcount of son-dominant families across states of India included in the DLHS-4 survey.

Figure 6. 2: Head-count of Son-dominant households in the States of India included in DLHS-4 survey



Source: Author’s drawing based on DLHS4 Data

Further, we define the variable 'son pro' which is the proportion of son among the living children in a family. This variable is used as an endogenous regressor in the subsequent econometrics analysis. The literature shows that gender-based sex selection clearly affects the composition of children in the families in the patriarchal society that believes a boy child is an asset whereas a girl child is a liability to the family. Also, due to the 'stopping rule" families tend to have children until they have desired number of sons (Clark, 2000). Thus, the gender composition of a family is endogenous. Following the existing literature, we have used the sex of first born as an instrument of the gender composition of the children in the family. According to Rosenblum (2013) parents whose first child is male will stop having children sooner than parents whose first child is female and will have a higher proportion of sons compared to parents of a first-born daughter. Our sample also corroborates this fact as shown in the following table.

Table 6. 1: Son dominance and Sex of first born

Sex of first born child	Son Dominance		
	No	Yes	Total
Daughter	22,386	11,116	33,502
Son	0	14,692	14,692
Total	22,386	25,808	48,194
Cramér's V = 0.6168			

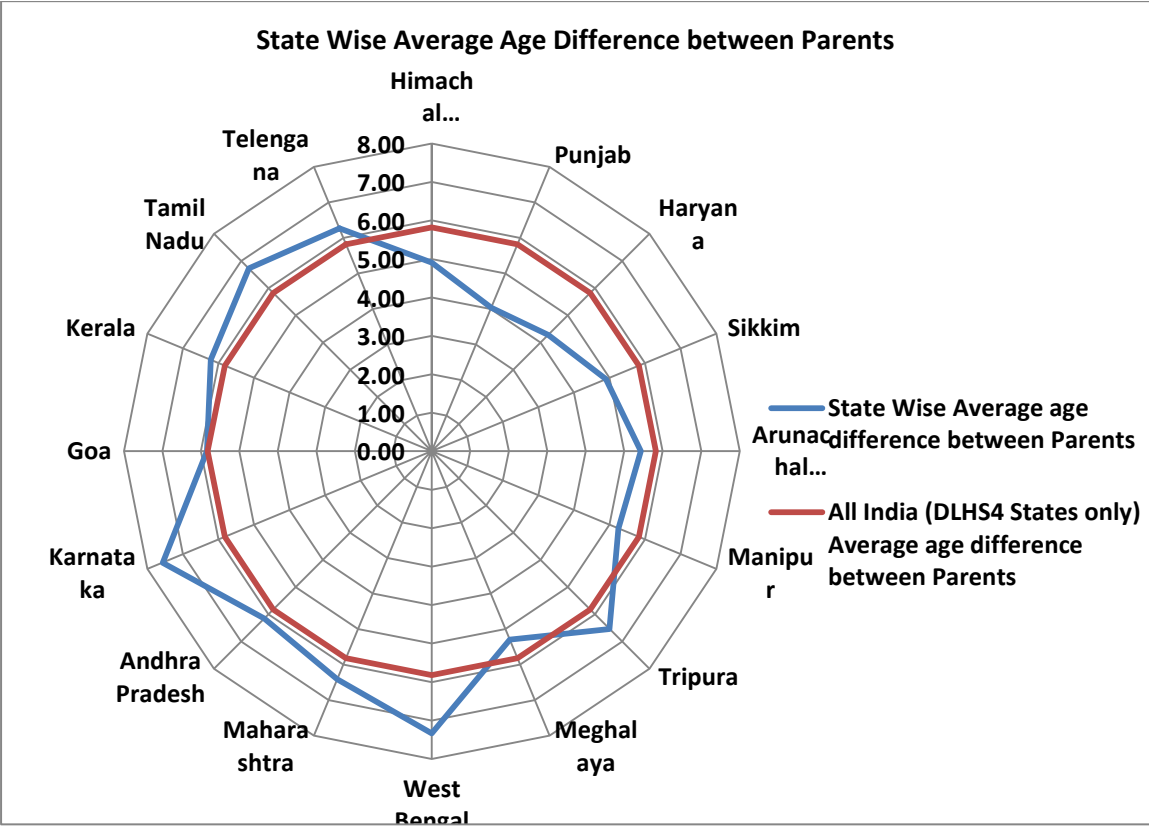
Source: Author’s calculation based on DLHS4 Data

Thus, the families where the gender of first born is male, are son dominant families.

Type of marriage of the couples

Next, we have incorporated marital attributes of parents to find the relationship between the marriage pattern of parents and early marriage of girl child. We have taken the education difference and age difference of parents as the control variable in the study. Figure 6.3 gives the state-wise average age difference among the parents.

Figure 6. 3: Average Age Difference between husband and wife in the States of India included in DLHS-4 survey



Source: Author’s drawing based on DLHS4 Data

Interestingly, North East states except Tripura, show a positive assortative marriage pattern in terms of age. While considering education difference between spouses we have formulated a control variable education gap, which is zero if parents are equally educated (33.21% of the sample) and assumes a value equal to unity if the husband is more educated than the wife (46.49% of the sample) and assumes value equals to two if the wife is more educated than the husband (20.30% of the sample). We observe that if we consider only households where the wife is more educated, then more than 44 % of them positively responded to the child marriage of daughters.

Other Exogenous Controls:

We have included land ownership and Asset and Infrastructure endowment score²³, Religion and Caste as control variables in the model. Table 6.2 gives the details of the reason for the inclusion of these variables.

Table 6. 2: Details of the exogenous controls included:

Exogenous controls	The rationale behind the inclusion of the variables	Related References
Land Ownership and Asset and Infrastructure Endowment	Since there is a positive link between wealth and desire for a male child, so we have included this variable to check the impact of possessing sufficient assets on the condition of a girl child in the family.	Gaudin (2011), Arokiasamy and Goli(2012)
Religion: Hindu (0), Muslim (1), and Other (2) & Caste: Scheduled Caste(SC) (0), Scheduled Tribe(ST) (1), Other Backward Caste(OBC) (2) and Other (3)	Institution of religion and caste are assumed to be the most traditional factors responsible for decelerating the wellbeing and development of the girl child, moreover, higher caste continues to have a desire for sons over daughters throughout the generations. We have included these two variables in order to check whether a daughter's early marriage is typical to any religious or social group.	Borooah and Iyer (2004), Parab(2016), Ghosh (2011), Edlund (1999), Gupta (2011), (Singh and Vennam, 2016)

Next, Table 6.3 gives the descriptive statistics of the control variables included in the model.²⁴

Table 6. 3: Descriptive Summary Statistics

Variables with description		Mean	Std. Dev.
Child marriage	A. Outcome variable		
	= 1 if daughter gets married between age 6-18 years, 0 otherwise.	0.388	0.487
Proportion of son	B. Explanatory variables		
	Number of son/total number of children	0.507	0.162
Sex of the first born child dummy	= 0 if the first born child is the daughter	0.305	0.460
	1 if the first born is the son		
Caste Categories Different caste categories are coded as follows and reference the category is SC (0)	0.SC	0.233	0.423
	1.ST	0.140	0.347
	2. OBC	0.375	0.484
	3.Other	0.252	0.434
Religion Different categories of religion are coded as follows with reference category Hindu (0)	0.Hindu	0.727	0.445
	1.Muslim	0.089	0.285
	2. Other	0.184	0.387
Land Ownership dummy Households having any land of their own	Yes=1	1.655	0.475
	No=0		
Asset and Infrastructure - Endowment Score	Different household-level information on assets and house infrastructure	0.364	0.177
Age difference	Difference of current age of husband and wife	5.955	4.007
Education Difference Difference of education of husband and wife. The reference category is the same education level (0)	0.Equally Educated	0.332	0.471
	1.Husband more educated	0.465	0.499
	2. Wife more educated	0.203	0.402

Source: Author’s calculation based on DLHS 4 Data

For the relation between the variables in terms of Cramer's V and Correlation coefficient see appendix 6A.2.

6.3. Methods and Empirical Analysis:

Our empirical model is designed to search whether daughters of age more than 6 years but less than 19 years are married off before the age of 18 years, from son dominant families while taking into account the random effects caused from interstate variance. Individual-level factors, as well as state-level factors, influences the determinants of any issue that we desire to analyse from demographic data (Goldstein(2003), Novak and Pahor(2017)). The DLHS-4 data is based on multistage stratified unequal probability sampling, thus, the traditional technique of logistic/probit regression may give over, or underestimated results, and the observations are often correlated as they emerge from several levels of hierarchy (Khan and Shaw (2011)).

Along with this, we have an endogenous explanatory variable in the model which requires the use of the instrumental variable estimation technique. Thus, we actually estimated the same model in the following ways:

Model 1: Instrumental Variable Probit Model (IVProbit) with clustered standard error

Instrumental variable probit model estimates probit regression with endogenous regressor which can be correlated with the equation error term. Further, the households are nested within the states. Thus, the error terms at the household levels may be correlated within a state. Further, instrumental probit estimation in STATA requires that the endogenous regressor cannot be a binary variable. Hence we have used son proportion in the family (son pro) as the endogenous regressor in the model. The IV probit model with endogenous regressor is defined as follows:

Let Y_{ij} be a variable that takes value =1 if child daughter marriage has occurred in i -th household nested in j th state, where $j = 1, \dots, M$ clusters or states, with i consisting of $i = 1, \dots, n_j$ households.

Formally the model is defined as :

$$\text{Prob}(Y_{ij} = 1 | \text{sonpro}, \vec{X}_{hhcontrols_{ij}}) = \Phi(\beta + \rho \text{sonpro} + \zeta \vec{X}_{hhcontrols_{ij}})$$

Where Φ is standard cumulative normal. Alternatively, the model can be written as

$$Y_{ij}^* = \beta + \rho \text{sonpro} + \zeta \vec{X}_{hhcontrols_{ij}} + u_{ij} \quad (1)$$

Here we cannot observe Y_{ij}^* .

We observe $Y_{ij} = \begin{cases} 0 & \text{if } Y_{ij}^* < 0 \\ 1 & \text{if } Y_{ij}^* \geq 0 \end{cases}$

The reduced form of ‘son pro’ in linear form is

$$sonpro = \pi_0 + \pi_1 sex\ of\ first\ born_{ij} + \vec{\Pi} \vec{X}_{hhcontrols_{ij}} + v_{ij} \quad (2)$$

$\vec{X}_{hhcontrols_{ij}}$ is the vector of exogenous explanatory variables that includes household-specific socio-demographic and economic controls explained in Table 6.2 and two variables defining the marriage type of the parents: Education difference and age difference of the parents. Also, β, ρ and $\vec{\zeta}$ are structural parameters whereas π_0, π_1 and $\vec{\Pi}$ are reduced form parameters. The variable *sex of first born_{ij}* is used as the instrument. The error-terms, following multivariate normal distribution, are corrected by clustering at the state level. We estimated the model with a maximum likelihood estimator with clustered robust standard error under STATA15.²⁵

Model 2: Multilevel Instrumental Variable Probit Model (IVProbit)

Here the unit of analysis is that the household is nested within a state. Since the incidence of child marriage varies across the states and each household is clustered within the states thus they share common cluster-level random effects. Hence, we also estimated the multilevel instrumental variable probit model which captures both fixed effects and random effects from variances at different levels. We use the gsem module of STATA 15 to estimate the model with a path diagram. Under this methodology equation (1) is revised as follows in (3):

$$Y_{ij}^* = \beta + v_{0j} + (\rho + v_{1j}) sonpro + \vec{\zeta} \vec{X}_{hhcontrols_{ij}} + u_{ij} \quad (3)$$

Here v_{0j} is the deviation of the cluster-specific intercept from the fixed intercept and v_{1j} is the deviation of the cluster-specific slope from the fixed slope and $v_{0j} \sim N(0, \sigma_0^2)$ iid and $v_{1j} \sim N(0, \sigma_1^2)$ iid independent of v_{0j} . The other notations and equation (2) remains the same as Model 1²⁶. Estimated results of Model 1 and Model 2 are present in Table 6. 4 and Figure 6.4 gives the path-diagram for Model 2.

6.4. Results:

Table 6. 4: Estimation of Model 1 and Model 2

Explanatory Variables:	Model 1: Instrumental Variable probit Regression			Model 2: Multilevel Instrumental Variable Probit model	
	Incidence of Child Marriage	Proportion of Son among children		Incidence of Child Marriage	Proportion of Son among children
	Coefficients with clustered-robust standard error	Margins with Delta Method Standard Error	Coefficients with robust clustered standard error	Coefficients with clustered robust standard error	Coefficients with clustered robust standard error
sonpro: Proportion of son in family (Endogenous Regressor)	-1.999*** (0.109)	-0.169*** (0.039)	---	-1.432*** (0.146)	---
Caste category: 2.ST Base: 1.SC	0.192*** (0.069)	0.067*** (0.023)	0.003 (0.005)	0.052* (0.027)	0.003 (0.005)
3.OBC	-0.037 (0.025)	-0.008 (0.009)	-0.009*** (0.002)	-0.057** (0.025)	-0.009*** (0.002)
4.General	-0.089*** (0.025)	-0.027*** (0.009)	-0.010*** (0.002)	-0.073** (0.031)	-0.010*** (0.002)
Religion 1. Muslim Base: 0. Hindu	0.199*** (0.028)	0.062*** (0.010)	0.018*** (0.006)	0.205*** (0.032)	0.018*** (0.006)
2. Other religion	0.041 (0.053)	0.009 (0.019)	0.009** (0.004)	-0.035 (0.028)	0.009** (0.004)
Land Ownership dummy	0.140*** (0.030)	0.051*** (0.009)	-0.001 (0.003)	0.134*** (0.021)	-0.001 (0.003)
Asset and Infrastructure Endowment score	-1.380*** (0.067)	-0.479*** (0.025)	-0.035*** (0.008)	-1.431*** (0.066)	-0.035*** (0.008)
Age difference between parents	-0.016*** (0.003)	-0.006*** (0.0009)	-0.001 (0.0003)	-0.016*** (0.002)	-0.001 (0.0002)
Education Difference 1.Husband more between husband and wife: educated Base: Equally Educated	-0.157*** (0.024)	-0.056*** (0.008)	0.001 (0.001)	-0.152*** (0.024)	-0.001 (0.001)
2. Wife more educated	-0.225*** (0.033)	-0.082*** (0.011)	0.002 (0.001)	-0.228*** (0.031)	0.002 (0.002)
Sex of First born dummy (Instrument) =1 if first child is son =0 otherwise	---	---	0.255*** (0.003)	---	0.255*** (0.003)
Constant	0.122 (0.128)	---	0.449 (0.008)	1.016 (0.124)	0.449 (0.008)
Number of observations = 48,194	corr(e.sonpro,e.child_marriage)= 0.172 (0.015) sd(e.sonpro)=0.112 (0.002) Wald test of exogeneity (corr = 0): chi2(1) = 123.07 Prob>chi2 = 0.0000 Wald chi2(11) = 3361.63 Log pseudolikelihood = 6911.982 Prob>chi2 = 0.0000 Akaike's information criterion: -13793.96 Bayesian information criterion: -13662.22			M1[state] =1 (constrained) c.sonpro#M2[state]=1 (constrained) var(M1[state])=0.151 (0.049) var(M2[state])=0.264 (0.094) cov(M1[state],M2[state])= -0.186*** (0.063) var(e.sonpro)=0.013 (0.0003) Log pseudolikelihood = 6907.9265	

Standard errors in parentheses; Std. Err. adjusted for 16 clusters in state;*** p<0.01, ** p<0.05, * p<0.1. M1[state] and M2[state] are latent variables, where var(M1[state]) measures variability of fixed coefficient across states and var(M2[state]) measures variability of slope coefficient of the dependent variable child marriage dummy with respect to 'sonpro'.

Source: Author's estimation of the model with DLHS-4 data set using STATA 15 software

Figure 6. 4: Path analysis corresponding to Model 2

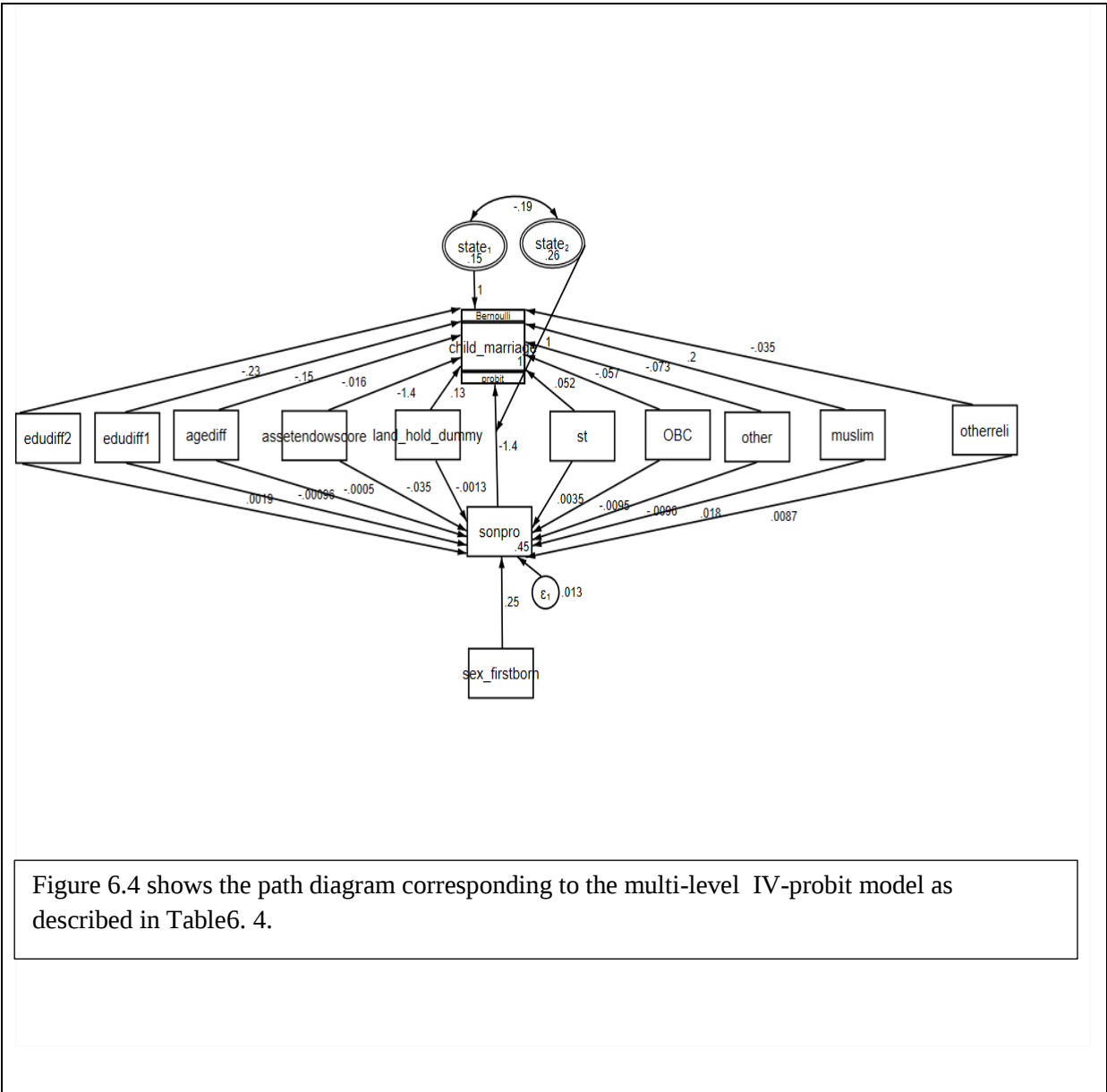


Figure 6.4 shows the path diagram corresponding to the multi-level IV-probit model as described in Table 6. 4.

6.4.1.Discussion of Results:

From Table 4 we observe that in Model 1, the Wald test of exogeneity rejects the null hypothesis of no endogeneity in the model ($\chi^2(1) = 123.07$ with p value=0).

Model 2 shows the existence of inter-state variance in incidence of child marriage as the variance of random intercept term is $0.151 > 0$. Thus, the incidence of child-daughter marriage varies across surveyed states of India.

Effects of son dominance on the Condition of the Girl Child

Our analysis shows that the incidence of child marriage decreases with a rise in the proportion of sons in the family at the state level, in Model 1 and in Model 2, where this endogenous covariate is instrumented by a dummy variable: sex of first born child in the family. That is, the more the number of sons among the total children, the likelihood of early marriage of the girls' decreases, while we control for all other socio-economic and demographic factors. From the marginal effect as reported by Model 1, the probability that a daughter is married off before 18 years decreases by 16.9 percentage points in families where son proportion increases by 1 unit at a 1 % level of significance. Thus, having more sons may not be the cause for the early marriage of the daughters. The reason could be attributed to social norms and belief systems. Firstly, due to the 'stopping behaviour' in order to have the desired number of sons, a family may end up with more number of daughters than sons. As a result, the family arranges an early marriage for these 'unwanted daughters'. Secondly, in a daughter dominant family, parents try to marry off their daughters in order; as a result, elder daughters are married off early. Thirdly, the literature shows that level of dowry increases with the age of the bride (Anderson (2007), Dang et al. (2018)). As a result, in daughter-dominant families, parents try to marry off their daughters early. Also, Pande and Malhotra (2006) argued that more number of brothers in the family might be regarded as the protection of the girl child from early marriage as the parents have achieved their goal of more sons. Further, the estimated variance of random slope coefficient as reported by Model 2 is positive, implying an interstate variation in the effect of son dominance in the family on the incidence of child-daughter marriage.

Effects of Religion

Both Model 1 and Model 2 show that the likelihood of child marriage is higher in Muslim households vis-à-vis the Hindu families. Model 1 shows the positive margin of 6.2 percentage points indicating that the daughters from households of Muslim are more likely to be married off (significant at 1 % level) at an early age compared to the reference category Hindu while controlling for all other socio-demographic variables. The fact is in line with the findings of Now (2014) and Adebawale et al. (2012). This also confirms the descriptive findings from the data²⁷. Interestingly, this observation is

in contrast to the idea of a consensual marriage system of Islam where both parties have the freedom and capacity to give consent²⁸.

Effect of Land Ownership:

The incidence of child marriage increases if the household does not own any land at the state level as reported in Model 1 and Model 2. Further, from Model 1 the marginal effect indicates that the probability increases by 5.1 percentage points for households without any landholding. The sample contains around 65.5 percent of the households without any landholding and among the families reported for early marriage of their daughter 67.73 percent of households have no land.

Effects of Asset and Infrastructure Endowment:

Both Model 1 and Model 2 show that a higher level of asset holding reduces the phenomenon of child marriage. The likelihood of child marriage decreases by 48 percent if the asset endowment score increases by one percentage point as shown by Model 1. The families with a low level of asset values consider girls as their burden for which they have to pay dowry at the time of marriage. Thus, they try to marry off their daughters at an early stage of life. Alternatively, in North-East states where bride price is received by the girl's family, the poor families may have the incentive to marry off their daughters early. However, if the family is well endowed with resources and basic amenities of life, they might prefer delaying the age at marriage of their daughters.

Effects of Marital attributes of parents:

In terms of the age gap of parents, with negative assortative matching, the probability of child marriage decreases as reported by Model 1 and Model 2. The margin reported by Model 1 shows that the probability of child marriage decreases by 0.6 percentage points if the age difference of parents increases by one year. Thus, in families where the age gap between the parents is high (negative assortative marriage), the incidence of child marriage in the family is low.

Education difference among parents is measured through completed years of schooling of the couples. The probability of child marriage decreases with negative assortative matching in terms of education. However, marginal effects from Model 1 show that if the father is more educated than the mother, then child marriage decreases by 5.6 percentage point whereas it reduces by 8.2 percentage point

when the mother is more educated than the father compared to equally educated parents. This result is very interesting and brings out the importance of spreading education among women. An educated woman, who is more aware of the vices of early marriage of her daughter, will try to protect her daughter.

Effects of Caste:

In the case of caste, the incidence of child marriage is higher in scheduled tribe (ST) families but lower among households from general caste (other) compared to the reference category scheduled caste(SC). The marginal effect reported by Model 1 shows that the probability of child marriage of daughters is 2.7 percentage point lower in general caste families but 6.7 percentage point higher in ST families than the SC families. As we have mentioned earlier, according to the 2011 census of India the North-East states with a higher incidence of child marriages are mostly populated by scheduled tribes. Thus, this result indicates that different traditions and other complex social dynamics of tribal societies in India have raised the incidence of child marriage in recent years.

Determinants of Proportion of Son in the family

The results from Model 1 and Model 2 show that the sex of first born dummy is positively significant implying that in families with first male children have a higher number of sons in the family. Also, the proportion of sons in the family is higher among Muslims and other religious groups compared to Hindu households. Interestingly, families with lower asset endowment tend to have less number of sons in the family while controlling for other socio-economic and demographic factors. Finally, households belonging to the general caste and other backward castes have a lower son proportion vis-à-vis the scheduled caste families.

6.5. Conclusion:

Results from our present study indicate that girls are married off early in the families with more number of girls rather than in son-dominant families while taking into account the interstate variation effect. We observe that the high age difference of parents, high asset level reduces the incidence of early marriage of daughters. But in Muslim families and among schedule tribes the incidence is high. Also, we find a higher level of asset holding reduces the incidence of child-daughter marriages. This result has an interesting policy implication. The direct cash transfer mechanism to households can be

used to act as a bait mechanism to push the girl-child towards completing her education at least up to a higher secondary level, thereby delaying the marriage and after which she must receive a lump sum amount. This is exactly done in the Kanyashree Prakalpa (2013) and Rupashree Prokalpa (2018) adopted by the government of West Bengal or the scheme 'Apni Beti Apna Dhan' launched by the government of Haryana in the year 1994²⁹. Various government policies aimed at daughter protection and welfare of the girl child has been applied in India³⁰. These programmes try to keep the girls in school and delay the marriage age. However, the only announcement of new programmes should not be enough, the local self-government (Panchayat), other government officials at the village level should work in tandem to properly implement these programmes. The result indicates that an educated mother is more likely to reduce the incidence of child marriage in the family than an educated father. This has a policy prescription towards providing better education facilities for women, which in the long run will help to reduce the social evil of girl child marriage. Also, the parents should be informed regarding the adverse health effects of early marriages of daughters. A general awareness must be developed among the parents so that they must realize that the early daughter marriage is a social evil. Sometimes existing social norms and practices induce parents to marry off their daughters before the legal age. The government should take necessary steps to raise the consciousness among the parents against these age-old practices so that innocent girl children are not deprived of their childhood.

6.6. Appendix 6A.1:

Construction of Asset and Infrastructure Endowment Index:

First, we have prepared scores of each individual household for 4 separate dimensions. The dimensions and the indicator variables are listed below:

Each of the Indicator variables is binary in nature (0/1).

Table 6A. 1: Details of the dimensions and variables included for Asset and Infrastructure Endowment Score:

Dimensions	Weight	Whether Household have	Weight
Possession of vehicles	1/4	1.Bicycle	1/3
		2.Motorcycle/Scooter	1/3
		3.Car/Jeep	1/3
Possession of Electronic asset	1/4	1.Washing Machine	1/5
		2.Refrigerator	1/5
		3.TV	1/5
		4.Cooler/AC	1/5
		5.Computer without Net connection	1/5
Possession of communication gadgets	1/4	1.Computer with Net connection	1/3
		2.Telephone	1/3
		3.Mobile	1/3
Possession of Infrastructure facility	1/4	1.Access to LPG as fuel for cooking	1/5
		2.Access to electricity connection	1/5
		3.Access to toilet facility ³¹	1/5
		4.Access to water pump/tube well	1/5
		5. House made of Pucccka building material ³²	

After calculating the scores for each of the dimensions we created the Asset Endowment Score using a weighted sum of the 4 indices. This is explained below with the example:

For the dimension: Possession of vehicles = $\frac{1}{3} \times (\text{Bicycle} + \text{Motorcycle/Scooter} + \text{Car/Jeep})$
Asset and Infrastructure Endowment Score = $\frac{1}{4} \times (\text{Vehicle Score} + \text{Electronic Asset Score} + \text{Communication Gadget Score} + \text{Infrastructure Score})$

6.6.1. Appendix 6A.2:

Table 6A. 2: Biserial correlation coefficient:

Variables	Labels	Age difference	Asset infrastructure-endowment score ³³	Proportion of son ³⁴
Education Difference	Equally educated	0.028	0.0008	-0.003
	Husband more educated	-0.038	-0.004	0.005
	Wife more educated	0.015	0.004	-0.004
Religion	Hindu	-0.060	0.009	-0.005
	Muslim	-0.076	0.016	0.0216
	Other	0.125	-0.022	-0.009
Caste category	SC	0.025	0.109	-0.003
	ST	0.046	0.210	0.010
	OBC	-0.108	-0.013	0.015
	Other	0.059	-0.259	-0.022
Land Ownership			0.051	0.005
Sex of first born child		-0.025		
		0.007	-0.088	-0.717

Table 6A. 3: Association between the variables using Tetrachoric Correlation Coefficient:

Variables	Child marriage	Sex of first born child	Land
Child marriage	1		
Sex of first born child	-0.322	1	
Land	-0.066	-0.022	1

Table 6A. 4: Association between the variables using Cramer’s V

Variables	Religion	Caste	Education difference
Child marriage	0.054	0.117	0.065
Sex of first born child	0.0704	0.082	0.018
Religion		0.301	0.023
Caste			0.043

Notes:

¹Source: https://www.unicef.org/protection/files/Final_India_Unicef_Rosa_Online.pdf

² Source: International Institute for Population Sciences and Macro International, *National Family Health Survey* (NFHS-4), 2015–16: *India Fact Sheet*, IIPS, Mumbai, 2016, p.2.

³The District Level Household and Facility Survey (DLHS-4) is a nationwide survey that was conducted during 2012-13. The Ministry of Health and Family Welfare (MoHFW), Government of India has designated the International Institute for Population Sciences (IIPS), Mumbai as the nodal agency for organizing and carrying out the District Level Household and Facility Survey. *The survey excludes the AHS (Annual Health Survey) states (Uttar Pradesh, Chhattisgarh, Madhya Pradesh, Uttarakhand, Jharkhand, Orissa, Bihar, Assam, Rajasthan).* Around 1400 households with a population of approximately 7000 per district are framed to be covered under this programme.

⁴file:///C:/Users/admin/Downloads/Child-Marriage_India_for-digital_0215.pdf

⁵https://www.girlsnotbrides.org/wp-content/uploads/2018/07/child_marriage_report_june20181.compressed.pdf

⁶According to Clark (2000), due to the practice of differential stopping behavior, the couple has children continually, until the couple reaches their desired number of sons. This process creates a negative relationship between family size and the proportion of sons.

⁷The empirical research by Adsera (2012) using NFHS-3 data shows that when son preference increases from 0 to 1 (desired number of sons/ desired number of total children) then the difference of time spent on household core work hour by the daughter and the son increases by 2.5 hours.

⁸ Source: NitiAayog India. <https://niti.gov.in/content/sex-ratio-females-1000-males>

⁹ Source: World Health Organization. http://origin.searo.who.int/entity/health_situation_trends/data/chi/sex-ratio/en/

¹⁰<https://www.weforum.org/agenda/2015/10/where-are-all-the-women/>

¹¹Sonia Dalmia (2011) has found 'age' for females and 'years of schooling for males' as a marital trait significant for marital matching in India which supported the view of transferable utility in the marriage assignment of Becker Shapley Shubik model.

¹²The household questionnaire contains information on all members of the household and the socioeconomic characteristics of the household, assets possessed, etc. The ever-married women’s questionnaire contained

information on women's characteristics, socioeconomic conditions, maternal care, contraception and fertility preferences, reproductive health, etc. The Household data contain 391772 observations covering 23 states. The ever-married women data contain 319695 observations covering 21 states.

¹³Before merging we have consolidated the sample by retaining only women whose relationship with the household head is coded as wife (82 % of the respondents) and where the household head is a husband (100% of the respondents). For merging, we have used the unique primary key (prim_key) and the line number of each household member along with the same of the individual woman in ever-married women data.

¹⁴To obtain the sex of the firstborn child of each couple we have used the variable "Birth order of the child only for live birth". But the DLHS dataset contains a huge number of missing responses for this Birth order variable. Among the 1,77,820 families, only 49,143 have responded. Thus, after the removal of the missing responses the sample size reduced to 48,194.

¹⁵Source:<http://ncpcr.gov.in/showfile.php?lang=1&level=1&sublinkid=1671&lid=1677>

¹⁶Source: http://censusindia.gov.in/Census_And_You/scheduled_castes_and_scheduled_tribes.aspx

¹⁷Source:<http://southwestgarohills.gov.in/peopleculture.html>

¹⁸Source:-

pao.net/epSubPageExtractor.asp?src=manipur.Arts_and_Culture.Traditional_marriage_institutions_of_Kabuis_2

¹⁹Source: <https://indianexpress.com/article/research/age-of-consent-in-manipur-was-low>

²⁰Source:http://e-pao.net/epPageExtractor.asp?src=features.Love_vis-a-vis_Arrange_Marriage_in_Meitei_Meetei_Society_A_View.html

²¹<http://ncpcr.gov.in/showfile.php?lang=1&level=1&sublinkid=1671&lid=1677>

²²This fact may uphold the view of Clark (2000) that a couple continues to have children until they obtain their desired number of sons, thus may end up with more number daughters and less number of boys in India.

²³For details of the asset infrastructure and endowment, score see appendix 6A.1 Table 6A.

²⁴For the association between the variables please see appendix 6A.2, Table 6A.2, 6A.3, and 6A.4.

²⁵<https://www.stata.com/manuals13/rivprobit.pdf>

²⁶We have to estimate both the models because the gsem module does not provide the marginal effects.

²⁷Among the Muslim households, 45.49% of families recorded an incidence of child marriage, while this percentage is 37.35% among the Hindus.

²⁸Source: <https://www.girlsnotbrides.org/wp-content/.../IRW-Islamic-persepctive-on-CM.pdf>

²⁹https://www.icrw.org/wp-content/uploads/2016/10/IMPACCT_Hires_FINAL_3_20.pdf

³⁰Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)- SABLA Support to Training and Employment Programme for Women (STEP), Rashtriya Mahila Kosh (RMK), SWADHAR: Scheme for Women in Difficult Circumstances, Working Women Hostel Scheme, Kishori Shakti Yojana (KSY), Ujjawala - Scheme to Combat Trafficking, BetiBachaoBetiPadhaoYojana, SukanyaSamriddhiYojana, BalikaSamriddhiYojana

³¹Access to Toilet facility = 0 if household members go to open field

1 if the household has any type of toilet

³²House-made of Pucccka house building material = 1 and = 0 if the material is semi Pucccka, Kacchha, or other

³³Correlation coefficient of age difference and asset infrastructure-endowment score is -0.0568

³⁴Correlation coefficient of age difference and proportion of son is -0.0173

Correlation coefficient of asset and infrastructure score and proportion of son is 0.0176

Chapter 7

Conclusion and Policy Implications

The issues of gender inequality, aggression, spousal abuse on women or girl child marriage are still burning problems in the Indian context even after seventy-three years of independence. Women's autonomy, a long-debated issue among the researchers, is crucially important for the overall development of a society. However, in a patriarchal environment, policy framing to enhance the empowerment of women is utterly difficult and critical to guarantee the success of any measure. Intimate Partner Violence (IPV) against women is a response by the male partner to the threat imposed by the woman to the societal defined level of the masculine power of the man. Thus the solution to the problem of IPV or domestic violence requires systematic strategic intervention to eradicate the traditional notion of gender stereotypes and norms apart from changes in legislation to penalize the wrongdoer or to protect the victim. Child marriage of girls, which is considered an ancient and worldwide tradition, imposes life threats to young girls' calls for social and legal framework transformation to uproot the evil practice.

The present chapter represents a brief conclusion drawn from the entire dissertation. It covers the important findings of the four chapters of the thesis consisting of various empirical models to draw particular inferences for the investigation of the socio-economic problems faced by the ever-married women: the disempowerment of women, spousal violence, and lastly the problem of early marriage of daughters. The empirical models focused on the extent and magnitude of the problem besides it explores the factors influencing the issues.

7.1: Major Findings:

Chapter two of the thesis gives a detailed review of past literature on the basic research subjects of the dissertation: women's disempowerment, spousal abuse, and girl child marriage.

The literature on empowerment focuses on the exploration of factors that are responsible for the causation of empowerment of women or the factors which restrict the autonomy of women. The

literature based on the Indian context explains how far the lack of autonomy among women affects the welfare of the women as well as the development of society. Besides, among the other societal factors, the magnitude of effect by region, religion, and caste factors on women's autonomy are examined in India. The literature provides state-wise differences in women empowerment in India. Various dimensions of empowerment are examined and it is found that there exists interstate variation in the causation of empowerment by any particular dimension. The imposition of various schemes and policies how far affects the empowerment of women is widely discussed.

Next, the literature on the issue of spousal violence against women sheds light on one of the major threats that ever-married women have been facing from very early times. The literature focused on the consequences of domestic violence or intimate partner violence on women in deteriorating health and efficiency. Both physical and cognitive impairment from this phenomenon is discussed by many researchers. Further, the articles concentrate on the exploration of factors that are responsible for IPV on women. Both empirical and theoretical studies on spousal violence are focused on discovering the major factors that are responsible for the perpetuation of spousal violence on women. In the case of India, the region-wise differences in the causation of spousal violence are observed by the researchers. Different cultural norms and defined structures of gender roles may cause variations in the magnitude of spousal violence on women in India. The literature on child marriage is vast and interesting findings are observed on this prevailing age-old custom of the marriage of under 18 girls across the whole world. Various factors are explored for the occurrence of this incidence by many researchers. Inter-state variation in child marriage is observed in the case of India. The consequences on the health of young girls, due to early marriage, are examined by the researchers. The studies explored the trends and prevalence of child marriage in India through the exploration of regions, districts, and states of India. Besides India, the global prevalence of this evil incidence is also examined by many researchers.

The third chapter of the dissertation discusses the issue of disempowerment of women in India using the NFHS-4(2015-16) data set. The chapter first establishes that the extent of disempowerment varies significantly across the states, and the magnitude alters across the dimensions of disempowerment.

For this purpose, a wide range of indicator variables are segregated and then clubbed to form specific dimensions using the Alkire et.al (2013) methodology for exploration of factors multilevel logistic regression is applied with an inter-state variation. It is observed that women from a rural areas with less education and if unemployed are more disempowered. Further, it is found that women from the Muslim religion compared to Hindus have lesser autonomy. Younger women in a joint family with children have less empowerment. Next, if the women have observed parental violence in childhood then they became more tolerant to lesser freedom and thus more disempowered. Women with longer marriage duration are more empowered and women with lesser asset holding are also more disempowered. The chapter has found that religious differences also affect the disempowerment of women. The Fairlie decomposition analysis is used to compare the disempowerment of women of two neighboring states: Punjab and Haryana. Shikh dominated Punjab has reflected more autonomy and liberty for the women rather than Haryana. This implies that the religious belief of any society has a significant influence on attitude towards gender equality. The two states have also reflected major differences in the incidence of crime against women, and Haryana ranked for more cases of such women-related crime compared to Punjab undoubtedly. The impact of the incidence of violent marriages critically enlarges the difference in the disempowerment of women of the two states. The socio-economic indicators measured through education of women, health and nutrition of women, age at marriage, and exposure to mass media are also higher in Punjab than in Haryana. Lastly, the chapter stressed the fact that women must believe in their strength and focus on increasing self-esteem so that they can fight for their autonomy.

Chapter four compares the change in the disempowerment of women of India from 2005-06 to 2015-16 Using NFHS-3 and NFHS-4 data sets and it concludes that Punjab, West Bengal, Gujarat, and Rajasthan have shown lesser disempowerment of women among the states included in the study while Bihar, Uttar Pradesh, Madhya Pradesh and in Karnataka recorded more disempowerment in 2015-16. The descriptive findings reflect the fact that women who are afraid of husband and who don't have a mobile phone are more disempowered and further women who supported the incidence of wife-beating have reported more disempowerment. Next to compare the disempowerment of women the

chapter applied a unique D-curve methodology from which it can be inferred that disempowerment has decreased over time in India. The various categories of disempowerment are created to check the extent of disempowerment of women across the country. During the given time range the incidence of severe and considerable disempowerment has decreased. Various women-oriented schemes have been adopted by the policymakers to empower and to help women from any unfavorable situation. However, the state-wise result of disempowerment has reflected a mixed response, that is, some of the states have shown lesser disempowerment of women while some have reported more disempowerment. The fact may be attributed to the socio-economic differences and active government intervention towards women's education and employability may have caused these state-wise differences. Lastly, a huge percentage of women reported that they are afraid of their husband always or sometimes which is a major cause of their lesser autonomy.

The fifth chapter deals with the question that whether empowerment of women decreases spousal violence against women in a developing country like India. For this purpose, theoretical as well as empirical modeling has been done. The theoretical model is built by using the two-stage bargaining game of the marriage market, where the first stage involves the bargaining between husband and wife that predicts the degree of intimate partner violence and the next stage involves simultaneous maximization of private utility, which incorporates the household public good along with individual factors and the method of backward induction is applied. The Nash bargaining between husband and wife determines the level of violence in marriage. Here it is also assumed that violence raises the man's self-esteem, status, and domination in the family. It is assumed that empowerment raises the outside utility of the women in the Nash bargaining process. The model finally shows that the increase in the empowerment of women decreases spousal violence in marriage and nurtures the household consumption good that is childcare and family welfare. Next, using NFHS-4 (2015-16) data set the empirical section applies the quantile regression on spousal violence score of women using women empowerment level as control with all other exogenous socio-demographic controls. To check the state-level effects, clustered variance is assumed. It is observed that empowerment reduces spousal violence significantly as the empowerment increases the confidence of the woman which in turn

raises her bargaining power and they try to resist ill-treatment. Further, it is observed that violence increases when the woman is aged and if she has an asset-rich parental family. Again it is found that violence significantly increases if the husband is an alcoholic or if the husband is more educated than the wife. Thus, here comes the importance of active policies that raises the education of women. If the family has children, then also spousal violence significantly increases. Since the burden of raising more children creates stress and anxiety among parents which in turn causes more violence and instability in marriage. Thus, policymakers must conduct more awareness generating programmes of family planning which in turn will reduce violence on wives. One important finding from the empirical model is that the employment of women accelerates spousal violence. The fact is straightforward for a patriarchal society where man is primarily crowned with the role of breadwinner and woman will confine herself with homemaking. Next, using the IV-probit regression model, it is observed that spousal violence increases the incidence of divorce among highly educated, employed, and aged women. The incidence is higher if the couple is from the Muslim religion compared to Hindu family background and if the woman has witnessed parental violence in childhood then divorce is less likely to happen. The fact is explained as observing childhood violence causes serious depression and lowers self-esteem thus the girl becomes more tolerant to violence. Lastly, if the family has children then also the incidence of divorce decreases. Several policies are recommended to help the battered women and to provide shelter to the women and children from a violent relationship.

Next, chapter 6 draws attention to the issue of the child marriage of girls. The empirical investigation is done by using the DLHS-4 data set. From the literature review, it is found that preferring sons or son dominance might have an implication with the early marriage of daughters, yet the idea has not been tested so far. Thus, the present chapter is dedicated to searching the link of child marriage with son dominance in the family where son dominance is conceptualized by more number of sons to daughter in the family. For this purpose, an empirical model is built where the sex of the firstborn child is used as an instrument for son dominance in the family. Then instrumental variable probit, as well as multilevel probit regression, is done to check the influence of son dominance attitude of the family on the incidence of child marriage of daughters with other socio-economic controls. It is

observed that the incidence of child marriage decreases significantly when the daughter is from a son-dominant family. Thus if the couple has a sufficient number of boy child then the parents are willing to raise the daughters instead of marrying them off early. Further, if the parents have high age gap and if the family has a high level of asset endowment then the incidence of child marriage decreases. Thus here some appropriate policy recommendation is done along with discussions on the ongoing policies to stop child marriage. Hindu originating families are not so tempted to arrange an early marriage of their daughters compared to Muslim families. Further, it is found that the incidence is high among schedule tribes. The fact is also clear from the descriptive finding of the chapter that Northeastern states are reflecting more incidence of child marriage than other parts of India while controlling for the 'hotspots' of child marriage (such as Rajasthan, Uttar Pradesh). So it is found that the practice of child marriage is high among some tribes although they are from the matrilineal community. Thus it calls for more active policy implication among the rural tribes to stop this evil incidence and also spreading of more awareness generating programme concerning the bad consequences of early marriage on daughter will bring efficient outcome.

7.2: Policy Implications:

Over the years, several initiatives adopted and implemented by policymakers across the globe for the welfare of women and girls. The World Bank (2001) in its 'Engendering Development' programme, recommends policies to correct gender imbalance and also proposed that institutional structures be renovated to promote gender equality. Policies such as scholarships for girls, reservations for women in parliament are primarily focused. In the case of India, with rapid growth and development in the last 50 years, policies to promote human rights for women in India are notable, such as the Domestic Violence Act (2005), and the 73rd and 74th amendments to the Constitution to provide reservations for women at the Panchayat level. Two main wings of the Government of India are designated to implement policies for gender equality, one is the Ministry of Women and Child Development and the National Commission for Women¹. The Grievance Cells under the National Commission for Women is set up for receiving complaints about violence and prepare reports after investigation². Political reservations for women are considered as a stimulus for women to participate in political decision-making (Chattopadhyaya and Duflo, 2004). Thus quotas for women representation give possible direct

benefits in political competition. The policymakers always tried to promote easy accessibility of various institutional credit facilities to women. Such as policies like, Rashtriya Mahila Kosh (RMK)³, Pradhan Mantri Suraksha Bima Yojana (PMSBY)⁴, Friends of Women's World Banking (FWWB)⁵ and Atal Pension Yojana (APY)⁶. Gender Budgeting (GB) has been adopted by the Government of India in the XI plan, for ensuring sufficient budgetary commitments for women. Various women's organizations have also take care of the credit needs of the women by Self Employed Women's Association (SEWA) in Ahmedabad, Gujarat, Working Women's Forum (WWF) in Chennai, Tamil Nadu, and Annapurna Mahila Mandal in Mumbai, Maharashtra, Kanyashree Scheme in West Bengal, Bhamasaha Yojana in Rajasthan⁷. However, the adjacent problems and structural constraints faced by an ever-married woman in terms of her ability, family, and background cause the unsuccessful implementation of the credit policies. Women's movement and continues demand for better laws and provisions brought rapid changes to the existing laws such as the recent changes in India's Rape Laws (Rape Amendment Act 2006)⁸. To combat the trafficking of women and girls, India has adopted several anti-trafficking measures, such as, the Immoral Traffic Prevention Act 1956 which aimed to summon traffickers and prevent prostitution. Several acts and laws are formulated and implemented to protect women's rights and ensure wellbeing since independence (Sati Prevention Act (1987), Dowry Prohibition Act and Rules (1985), Domestic Violence Act 2005⁹). However, the efforts are still far from successful.

In chapters 3 and 4, the coverage of the issue of disempowerment of women in India reflects the need for policies that raise self-esteem and confidence among ever-married women by focusing on the spreading of education and skill enhancement programmes. The different government policies for increasing autonomy of disempowered women, such as Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)- SABLA,¹⁰ Indira Gandhi Matritva Sahyog Yojana (IGMSY)¹¹, Support to Training and Employment Programme for Women (STEP)¹², Rashtriya Mahila Kosh (RMK)¹³, SWADHAR: Scheme for Women in Difficult Circumstances¹⁴, Working Women Hostel Scheme, and many others. However, the policies remain ineffective until it fails to accelerate the self-confidence and self-esteem among the women. Programmes such as Enterprise Development programme which

would help the young woman to flourish their entrepreneurial skills by providing them adequate financial help, technical support, guidance, and training. Such as Mahila E-Haat¹⁵, Mahila Shakti Kendra (2017)¹⁶ schemes with effective implementation among rural and asset poor women would be beneficial. Along with that, periodical reward and appreciation would also help to raise their confidence in decision-making power. Thus programmes such as Nari Shakti Puraskar (1999)¹⁷ must be framed to award the successful entrepreneurial service of a woman. Apart from this, strategies to improve women's self-efficacy and attitudes towards the negotiation of sexual activity by making programmes on fertility awareness, women health, and hygiene must be implemented.

In chapter 5 the policies for prevention against the incidence of domestic violence and IPV in the context of India are discussed. Economic policies have the efficacy to reduce both primary (preventing from initiation of IPV) and secondary (preventing from continuing) prevention against IPV (Tankard and Iyengar, 2018). But an economic program primarily concentrates on lower-income groups where the rates of IPV are quite higher, with short-term benefits. But when cultural norms are deep-rooted then it requires an extended period to bring the required change in attitude. Several steps and policies have been applied to prevent IPV and protect the victim. Such as the National Commission of Women (NCW) India has an email, WhatsApp, online complaint registration system for domestic abuse. Various states have Women Helpline to report the crime. Due to less accessibility of the poor and illiterate women to any type of help from outside, most of the IPV cases remain underreported. Moreover, the less help-seeking attitude of Indian women makes the crime and criminal unnoticed. A comprehensive network like "Childline"¹⁸ for the rescue and rehabilitation of battered women would be of great help in this regard. Another policy named The One-stop Centre Scheme¹⁹ of Govt of India protects the battered women with its integrated 24-hour helpline helps to protect the victim of violence. An initiative named 'Bell Bajao'²⁰ the campaign was created in 2008 which uses the multimedia facility (television, print, radio, Internet, and a video van), designed to model the ways to stop the incident of abuse without resisting the abuser. Apart from protecting the victim or intervening in resisting the evil incident, programmes should focus on the perpetrator of the abuse. Programmes such as Domestic violence perpetrator programmes²¹ emerged in the UK during

the 1980's or Domestic Violence Intervention Project in London²² would help by organizing counseling programmes with violent husbands by using a combination of cognitive, therapeutic, and teaching techniques to bring attitudinal changes in men. For protection from sexual coercion, schemes must incorporate obstetric, gynecologic, and reproductive health care facilities and guidelines. Small group intervention programmes would also be beneficial in bringing attitudinal changes in men, such as 'Yaari Dosti'²³ programme (2006) which is conducted in interactive peer-led group educational sessions among young men where significant positive changes were noticed in gender attitudes, condom use at last sex, healthy partner communication. To correct the abuse tolerating attitude of women it requires public education programmes to rectify the victim-blaming attitude and violence-condoning norms of the society. In India divorcee-woman does not always get cooperation from her parental family and will become homeless if she leaves her husband; as a result, women continue to tolerate the abuse. Thus, Government agencies, NGOs, legal services along safe shelters are required to control spousal violence. Financial Schemes, such as Sanjay Gandhi Niradhar Yojana²⁴ provides financial assistance to divorced women, may be of help. We also need societies like Legal Aid Services, West Bengal (LASWEB)²⁵ in other states of India to provide legal help to the poorer section of the women. Laws, such as protection of the '*Streedhan*'²⁶, which are considered as the property of the women-only under **Section 27 of the Hindu Marriage Act, 1955** and **Section 14 of the Hindu Succession Act**, would be beneficial for divorced or separated women.

Lastly, in chapter 6 the policies to prevent child marriage are discussed and evaluated. In the past two decades, child marriage prevention programmes have become increasingly important following the 1994 UN's international conference on population and Development and conference on women (1995). To judge the efficacy of the child marriage prevention programme WHO put larger efforts (2009) to understand which programmes reduce pregnancy and poor pregnancy outcomes among young child brides. According to Lee-Rife et al.(2012) programmes to prevent child marriage works in threeway. In the first category (horizontal efforts) the prevention policies primarily focus on empowering the young girls by providing a skill, resources, and information. The second category (vertical efforts) includes programmes that promote school education and other incentive-oriented

programmes to delay the early marriage of young girls. And lastly, the third category is known as 'activists programmes' emphasizes legislative changes and national advocacy to prevent child marriage. Keeping in mind the above plethora of strategies and dilemma of policy implication, the dissertation focused on various schemes and policies to prevent the three major threats faced by the ever-married women in India. The direct cash transfer mechanism to households pushes the girl-child towards completing her education at least up to a higher secondary level, thereby delaying the marriage. This is exactly done in the Kanyashree Prakalpa (2013) and Rupashree Prokalpa (2018) adopted by the government of West Bengal or the scheme 'Apni Beti Apna Dhan' launched by the government of Haryana in the year 1994²⁷ (See Table below). Various government policies aimed at daughter protection and welfare of the girl child has been applied in India²⁸. These programmes try to keep the girls in school and delay the marriage age. Apart from the Prohibition of Child Marriage Act, other laws such as the Juvenile Justice (Care and Protection of Children) Act, 2000 and Protection of Children from Sexual Offences Act, 2012 would help to prevent the practice. Among other initiatives, such as, making it compulsory of providing birth certificates during marriage registration is a step followed in many countries. In Rajasthan, 47000 tent dealers collaborated (Kiraaya Vyavsai Samit) by refusing to supply tents for marriage ceremonies involving children and made birth certificates mandatory for booking of tents²⁹. In Swaziland of Southern Africa, the Children Protection and Welfare Act (2012) penalizes parents and guardians who conspire with adult men to organize a child marriage with prison terms of up to 20 years which is only for 2 years in the case of India under the Child Marriage Act³⁰. The Girl Child Policy (2013)³¹ of Rajasthan focused on overall growth development and empowerment of a girl with declaration that of her to right to life with dignity and no discrimination. Such type of policies clubbed with stronger enforcement of law and order would be beneficial for the adolescent.

Table 7. 1: State-wise different conditional Cash Transfer Schemes to prevent child marriage of girls:

Cash Transfer Schemes	States
Balika Samriddhi Yojana	Gujarat, Himachal Pradesh
Balri Rakshak Yojana	Punjab
Bhagyalakshmi scheme	Karnataka
Girl Child Protection scheme	Andhra Pradesh
Indira Gandhi Balika Suraksha Yojana	Himachal Pradesh
Kunwarbainu Mameru scheme	Gujarat
Ladli Lakshmi scheme	Madhya Pradesh
Ladli scheme	Delhi, Haryana
Apna Beti Apna Dhan	Haryana
Mukhya Mantri Kanya Suraksha Yojana	Bihar
Mukhya Mantri Kanya Vivah Yojana	Bihar
Mukhya Mantri Kanyadan Yojana	Madhya Pradesh
Kannyasree, Rupasree	West Bengal

Source: <https://cbps.in/wp-content/uploads/Child-Marriage-UNICEF.pdf>

Based on the observations we suggest that the following policies must be given more importance to improve the condition of Indian women in families and society.

We have already discussed the different government policies that are adopted for increasing the autonomy of disempowered women. We feel that the policies must primarily concentrate on skill development, wage employment, direct cash assistance, nutritional assistance to young mothers, and lastly protection and shelter to battered women. The results from the empirical findings suggest that empowerment policies must concentrate on improving the asset and infrastructure of the family, along with prohibitions of early marriage should be imposed. Lastly, women's autonomy may be ensured by

organizing counseling programmes for the different clans of religion. We feel that government should arrange different skill development programmes from the school level that will pave the way for self-sufficiency for the girls in the future.

Since there exists indigeneity of women autonomy with IPV (Eswaran and Malhotra (2011), Fakir et al., 2016) thus it is crucial to frame appropriate policies to enhance women empowerment. Greater women empowerment on the one hand raises the bargaining power of women by making them more self-sufficient, thereby reducing the level of spousal violence, on the other hand increase in women, autonomy may cause more incidence of IPV as the male partners may face the status threat. Thus policies aiming at increasing women's autonomy must accompany simultaneous actions to control male aggression. However, the solution to domestic violence and IPV lies in enhancing women's position in family and society. The fact is established in Chapter 5 which reflects that greater empowerment reduces domestic violence. That will be possible by taking into account the indicators that positively influence IPV or domestic violence. Employment generating programmes will be beneficial if women can exercise control over the money they are going to earn. Family planning programmes will remain ineffective until women have the fertility control decision-making power. Educational policies and working opportunities may create a limited expansion to women's autonomy until it takes into account direct action to couple dynamics by social counseling programmes. Since the experience of parental violence, and longer duration of experiencing spousal violence creates a deep impact, thus psychological counseling programmes for women need to be arranged to change the abuse tolerating or submissive attitude of women to break the cycle of violence as well as to stop the intergenerational transmission of violence.

In the sixth chapter programmes focused on direct cash transfer mechanism, skill enhancement programme, and school enrolment of young girls. However, the results from the empirical exercise reveal that the son preference attitude of parents provokes early marriage of girls that may be corrected by applying stronger law enforcement schemes to prevent prenatal sex determination or sex-selective abortion. Besides this, it is advisable to organize social counseling programmes for parents of the girl child to correct the son-obsession attitude. Lastly, the result also indicates that educating

the mother of the girl would stop the incidence, which points to the importance of implementing mother education programmes. Finally, legislative changes for the prevention of child marriage which is the activist's programmes, also need to be implemented.

7.3: Scope for Future Research:

The present dissertation has some limitations also. The dimension of disempowerment is limited to some of the specific indicators that were available in the NFHS 4 data set, however, the dimensions may increase to other various indicators that are relevant to the day-to-day lifestyle of the ever-married women.

Second, the attitude of men towards the empowerment of women needs to be analyzed using dimensions and indicators that are relevant to measure the perception of men towards their wives. To check the causes of the state-wise disempowerment of women state-wise infrastructure index clubbed with the economic and political climate of the state needs to be taken into account. Caste-wise decomposition of difference in the disempowerment of women may be applied to check the issue of disempowerment more minutely.

Next, as the state Bihar recorded the higher incidence of spousal violence against women along with the lowest level of asset and infrastructure among the major states considered in the study, similarly the research can be extended to search the Kerala paradox where more cases of wife-beating are observed despite the highest level of literacy rate. To prepare an empowerment index for the divorced women the present dataset was inadequate thus this can be done using a more comprehensive dataset that captures the dimensions of the divorced and separated women also. Similarly, dimensions of spousal violence can also be extended to several other relevant forms of abuse-related variables that were not covered by the NFHS 4 data set. The exact cause of being abused by the abuser needs further investigation. Dimensions and indicators regarding marital conflict or marriage dissolution decision of any couple can be collected to prepare a marital instability score to address the nexus of marital instability and women empowerment.

Lastly to understand the higher incidence of girl child marriage in matrilineal communities of northeastern states requires further research on the attitude of women towards woman and man both. Apart from this, several other forms of threats against ever-married women are not covered in the dissertation such as digital abuse against women by the partner, in terms of doxing, stalking, sextortion, trolling, etc. These new forms of violence against women through information and technology would be scope for future research by conducting a primary survey in the Indian context. Further, several other types of spousal abuse in terms of denial of food, isolation, spiritual abuse is also not addressed in the dissertation due to lack of data. Violence against women from other members of the in-laws apart from the husband is also not covered in the thesis. Lastly, violence against men by women in the context of India also calls for further research. A primary survey would be needed to bring light to these areas.

Notes:

¹ <https://wcd.nic.in/>

² <http://ncw.nic.in/frnComplaintUnit.aspx>

³ <https://rmk.nic.in/>

⁴ [https://financialservices.gov.in/insurance-divisions/Government-Sponsored-Socially-Oriented-Insurance-Schemes/Pradhan-Mantri-Suraksha-Bima-Yojana\(PMSBY\)](https://financialservices.gov.in/insurance-divisions/Government-Sponsored-Socially-Oriented-Insurance-Schemes/Pradhan-Mantri-Suraksha-Bima-Yojana(PMSBY))

⁵ <https://fwwbndia.org/>

⁶ <https://www.npscra.nsdl.co.in/scheme-details.php>

⁷ Rajasthan Bhamashah Yojana was launched in the year 2008. The project aims to make women financially independent and provide the benefits of multiple other schemes through the Bhamashah Card Yojana.

<https://vikaspedia.in/schemesall/schemes-for-women-schemesall/women-empowerment-schemes/bhamashah-yojana>

⁸ <https://evaw-global-database.unwomen.org/en/countries/africa/liberia/2006/rape-amendment-act#:~:text=This%20Act%20states%20that%20a,rape%20using%20a%20weapon%2C%20gang>

⁹ The Domestic Violence Act 2005 is based on article 21 of the constitution of women's bodily integrity

¹⁰ The Government of India initiated the **Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)** Sabla under the Ministry of Women and Child Development on April 1, 2011, for adolescent girls in the age group of 11-18 years. <https://www.india.gov.in/rajiv-gandhi-scheme-empowerment-adolescent-girls-sabla>

¹¹ Indira Gandhi Matritva Sahyog Yojana (IGMSY) – this policy was initiated by the Government of India in 2010 for pregnant women and lactating mothers. It is a conditional maternity benefit scheme.

https://niti.gov.in/writereaddata/files/document_publication/IGMSY_FinalReport.pdf

¹² Support to Training and Employment Programme for Women (STEP)—this policy was initiated by the Government of India in 2009. The programme aims to create an impact on women by upgrading skills for self and wage employment. https://wcd.nic.in/sites/default/files/Revised%20schemeof%20STEP_0.pdf

¹³Rashtriya Mahila Kosh (RMK)— This policy was initiated by the Government of India in 1993. It aims to provide financial assistance with backward and forward linkages for women in unorganized sector through Intermediary Micro Finance Organisations and self-help groups.<https://rmk.nic.in/>

¹⁴SWADHAR-- The programme is initiated by the Government of India in 2015. It addresses the primary needs to serve women in difficult circumstances.<https://wcd.nic.in/sites/default/files/Revised%20Guidelines%20Swadhar%20Greh%2C2015%20%28%20English%29.pdf>

¹⁵ The scheme launched on 7th March 2016. It will help women to make financial and economic choices which will enable them to be a part of ‘Make in India’ and ‘Stand Up India’ initiatives. <https://www.jagranjosh.com/general-knowledge/women-empowerment-programmes-1322720937-1>

¹⁶ The policy aims to empower rural women with opportunities for skill development, employment, digital literacy, health, and nutrition. The Mahila Shakti Kendras work through community engagement through student volunteers in the 115 most backward districts. <https://yourstory.com/herstory/2019/08/india-government-schemes-women-empowerment-modi>

¹⁷ To recognize women who have exceeded expectations to challenge the status quo and make a lasting contribution to women's empowerment.

¹⁸CHILDLINE India Foundation (CIF) is the nodal agency of the Union Ministry of Women and Child Development acting as the parent organization for setting up, managing, and monitoring the CHILDLINE 1098 service all over the country. CIF is the sole agency/body responsible for establishing the CHILDLINE service across the country, monitoring service delivery and finance, training, research, and documentation, creating awareness, advocacy as well as resource generation for the service. <https://www.childlineindia.org>

¹⁹ The scheme was launched in 2015 with the Nirbhaya Fund also known as ‘Sahki’. The main aim of Sahki or One Stop Centre Scheme is to provide shelter, police desk, legal, medical, and counseling services to the victims of violence. It has been established at locations throughout the country. <https://wcd.nic.in/schemes/one-stop-centre-scheme-1>

²⁰ A public service advertisement urges local residents to take a stand against the physical abuse of women in their neighborhood. <https://in.one.un.org/page/bell-bajao/>

²¹ <https://whatworks-csc.org.uk/evidence/evidence-store/intervention/domestic-violence-perpetrator-programmes/>

²² <https://dvp.org/about-us/>

²³ <https://www.popcouncil.org/uploads/pdfs/horizons/yaaridostieng.pdf>

²⁴ <https://mumbaisuburban.gov.in/sanjay-gandhi-yojana/>

²⁵Legal Aid Services, West Bengal (LASWEB), one of the pioneering legal aid offering civil society organizations in India, empowers the poor and the disadvantaged with varied legal entitlements.

²⁶ Any kind of property or gifts that a bride receives at the time of marriage or before marriage from relatives is called Streedhan. It is different from dowry and is voluntarily given gifts.. <https://bnblegal.com/article/womens-rights-during-and-after-divorce-in-india/>

²⁷https://www.icrw.org/wp-content/uploads/2016/10/IMPACCT_Hires_FINAL_3_20.pdf

²⁸Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)- SABLA Support to Training and Employment Programme for Women (STEP), Rashtriya Mahila Kosh (RMK), SWADHAR: Scheme for Women in Difficult Circumstances, Working Women Hostel Scheme, Kishori Shakti Yojana (KSY), Ujjawala - Scheme to Combat Trafficking, BetiBachaoBetiPadhaoYojana, SukanyaSamriddhiYojana, BalikaSamriddhiYojana

²⁹

<https://openknowledge.worldbank.org/bitstream/handle/10986/25184/%20The0role0of0id00Development00ID4D00.pdf?sequence=1>

³⁰ <https://legislative.gov.in/sites/default/files/A2007-06.pdf>

³¹ <https://www.girlsnotbrides.es/documents/653/SSAP-Child-Marriage.pdf>

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