

Behind Closed Doors: Exploring the Link Between Domestic Violence Against  
Women and Child Mortality in India

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## **ABSTRACT**

*Behind Closed Doors: Exploring the Link Between Domestic Violence Against Women and Child*

*Mortality in India*

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Aiming to add to the body of human rights literature on the reverberating effects of domestic violence against women, this paper seeks to understand the relationship between lifetime experiences of domestic violence against women and child mortality rates in India. This study uses a data-driven approach, utilizing longitudinal data obtained from the Indian National Family Health Survey program, with technical assistance from the Demographic and Health Surveys Program administered by the United States Agency for International Development. Using statistical analysis methods, this study tracks changes in domestic violence (both physical and sexual) against women and child mortality in India. This study used data obtained in 2005-06, 2015-16, and 2019-21, with the initial data point of 2005 marking the year the Indian Protection of Women from Domestic Violence Act was passed. The Kaplan-Meier Survival Curve was then used to connect these two variables, by calculating the survival probabilities of children whose mothers experienced domestic violence and children of mothers who did not experience domestic violence, respectively. A statistically significant difference between the mean survival probabilities of these two groups of children was found, supporting a correlation between domestic violence against women and lower survival probabilities in children ages 0-5. This study also found that rates of domestic violence against women and child mortality have both decreased over the period of study, but was unable to isolate any specific causes. Situated within a human rights framework at the intersection of women's rights and children's rights, these findings demonstrate how domestic violence against women is not only harmful to victims themselves, but also to future generations, and therefore must be addressed with protective measures far exceeding those currently in place today.

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## Chapter 1: Introduction

The question of women's rights and equality has been pervasive throughout history and across the globe. Among the many facets of women's rights and equality, the question of domestic violence remains especially pertinent in its use against women. India is included in the group of countries tied for second-highest prevalence of domestic violence globally.<sup>1</sup> At the same time, questions of children's rights have become increasingly prominent, among them matters of survival and mortality.<sup>2</sup> Some research has been conducted to demonstrate the link between women's empowerment and children's survival and success, but this link requires further investigation supported by data, in order to emphasize the importance of this connection. This relationship serves to enhance the timeliness of both issues: simultaneously, enforcing women's rights for the sake of women can be strengthened by the potential benefits to future generations, while children's rights can be better upheld when acknowledging the connection to women's rights. This relationship, therefore, adds another dimension to the case for why violence against women must be eradicated if we are to achieve gender equality and stability for future generations.

Domestic violence against women can take many forms, including physical, sexual, emotional, and financial.<sup>3</sup> For the purpose of this study, domestic violence is defined per the UN definition, which is utilized by the Demographic and Health Surveys (DHS) Program and the Indian National Family Health Survey (NFHS) program. Thus, domestic violence is defined as, "any act of violence that results in physical, sexual, or psychological harm or suffering to

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<sup>1</sup> Sardinha et al.

<sup>2</sup> "Country Comparisons -- Infant Mortality Rate."

<sup>3</sup> International Institute for Population Sciences (IIPS) and ICF, NFHS 2019-21, 639.

women, girls, men, and boys, as well as threats of such acts, coercion, or the arbitrary deprivation of liberty.”<sup>4</sup> This study focuses on physical and sexual forms of violence against women in particular, due to the structuring of the survey data being used, which will be further explained in the **Methods** section of this paper. Domestic violence has been an especially difficult issue to address because it is, by definition, a form of violence that takes place domestically, within the home.<sup>5</sup> Therefore, knowledge of domestic violence is dependent on voluntary self-reporting, and cases of domestic violence are severely underreported around the world, due to fear, stigmas, and other societal pressures. Specifically, according to the 2018 Violence Against Women Prevalence Estimates, the United Nations (UN) estimates that 1 in 3 women experience domestic violence globally.<sup>6</sup> However, this data is largely based on estimates, due to immense variations in data collection methodologies and cultural differences in approaches to domestic violence, among other factors. The report notes that much of the available global data on domestic violence comes from the domestic violence module designed by DHS and administered by local country agencies, such as the NFHS in India. However, this module has some notable omissions: for example, it does not ask questions about domestic violence beyond physical manifestations of direct physical and sexual violence.<sup>7</sup> It similarly cannot guarantee private survey conditions where respondents are free to answer questions honestly, which is an issue most prevalent survey modules currently face.<sup>8</sup> Despite these data limitations, which will be further discussed in the **Methods** section of this study, analyzing the

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<sup>4</sup> IIPS and ICF, NFHS 2019-21, 639.

<sup>5</sup> “What Is Domestic Abuse?”.

<sup>6</sup> “Examining Domestic Violence Around the World: The Cost of Doing Nothing.”

<sup>7</sup> World Health Organization, “Violence Against Women Prevalence, Estimates,” 13-14.

<sup>8</sup> *Ibid.*, 38.

data that does exist for trends and societal significance still reveals important insights.

Nonetheless, these limitations suggest that significant further development is needed in the field.

High infant and child mortality rates are also important issues across India, and appear to be impacted by similar factors to domestic violence, including birth intervals, household wealth, and region.<sup>9</sup> The World Health Organization (WHO) found that half of all under-five deaths in 2020 occurred in five countries: Nigeria, India, Pakistan, the Democratic Republic of the Congo and Ethiopia.<sup>10</sup> Additionally, India, along with Nigeria, accounted for nearly a third of all the deaths alone, with India ranking second for highest number of under-five deaths, behind only Nigeria.<sup>11</sup> While India has seen a modest, steady decrease in infant and child mortality rates, it remains a prevalent issue in need of much more rigorous research and policy changes to create not only immediate, temporary solutions, but also address greater societal factors and social determinants of health (SDH).

As such, this study seeks to position itself at the intersection of women and children's rights, using statistical analysis tools to understand the relationship between domestic violence against women and child mortality in India. This study is guided by the following questions: What is the relationship between domestic violence against women and child mortality in India? Does domestic violence against women affect child mortality rates? How have domestic violence and child mortality rates in India changed over time, and why?

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<sup>9</sup> Sahu et al.

<sup>10</sup> "Child Mortality (under 5 years)."

<sup>11</sup> Ibid.



## Chapter 2: Theoretical Framework

### I. International Human Rights Law & Literature

#### A. Women's Rights

Domestic violence is universally considered to be a violation of human rights. The Universal Declaration of Human Rights (UDHR) states in Article 2 that:

*Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.<sup>12</sup>*

This non-discrimination clause is implemented in the International Covenant on Civil and Political Rights (ICCPR), further adding in Article 3 that, “The States Parties to the present Covenant undertake to ensure the equal right of men and women to the enjoyment of all civil and political rights set forth in the present Covenant.”<sup>13</sup> Additionally, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) especially tackles and prohibits discrimination against women in all spheres of life, including physical discrimination, education, employment, and so on.<sup>14</sup> India has ratified all of these documents, and is legally bound to the latter two, due to their legally binding nature as conventions. It is important to note that none of the aforementioned documents of international human rights law mention violence, nor any explicit right to be protected from violence, especially gender-based.

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<sup>12</sup> United Nations General Assembly, *Universal Declaration of Human Rights*, Article 2.

<sup>13</sup> United Nations General Assembly, *International Covenant on Civil and Political Rights*, Article 3.

<sup>14</sup> United Nations General Assembly, *Convention on the Elimination of All Forms of Discrimination against Women*.

Much has been written on women's rights, using both feminist and human rights perspectives in tandem. While women are legally entitled to the same rights as their male counterparts, the ongoing reality of the world continues to demonstrate how this ideal is far from the truth. In *Women's Rights, Human Rights: International Feminist Perspectives*, edited by Julie Peters and Andrea Wolper, various international perspectives are gathered to examine the state of women's rights around the world. In an essay included in this text, Charlotte Bunch writes that, "The assumption that states are not responsible for violations of women's rights in the private or cultural spheres ignores the fact that such abuses are often condoned or even sanctioned by states even when the immediate perpetrator is a private citizen."<sup>15</sup> Indeed, the very nature of domestic violence is that it represents an act of violence committed by one citizen against another. As such, since human rights legislation is worded in a way where the perpetrator is the state, there is no concrete human rights framework that addresses human rights violations committed by citizens to other citizens, with the notable exception of rules of war in the Geneva Conventions.<sup>16</sup> Of course, domestic law addresses such issues, which will be discussed particularly in the case of India. However, if a true human rights approach is to be applied to the field of women's rights, this omission must be addressed. Bunch adds that when women's rights are "privately" denied, this extends into the "public" sphere, demonstrating the permeable barrier between the public and private arenas.<sup>17</sup> Bunch also specifically address the issue of domestic violence using a human rights paradigm: "Battery of women, for instance, is a form of torture that often includes imprisonment in the home, whether enforced physically or psychologically through fear and terrorization."<sup>18</sup> The idea that "women's rights are human rights," therefore, is not merely a

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<sup>15</sup> Bunch, 14.

<sup>16</sup> "The Geneva Conventions of 1949 and Their Additional Protocols."

<sup>17</sup> Bunch, 14.

<sup>18</sup> *Ibid.*, 15.

catchy slogan, but points to the idea that there exist various violations of women's rights that can and should be addressed using the legal framework of human rights.

Despite the practical difficulties in applying a human strategy to address domestic violence, some research has been conducted on the effects of implementing a rights approach for women who are victims of domestic violence, specifically battery. Merry, for example, examines the impacts on identity that law enforcement has on men, women, and family units in cases of battery. She found that the greater willingness of women to use the law to address gender violence "is a response to a powerful feminist movement to redefine the meaning of battering from an inevitable feature of everyday life—an inescapable risk—to a domain of behavior subject to prevention and change," as well as a response to greater willingness and ability of the law to deal with these issues in this way.<sup>19</sup> She also, however, discusses the "humiliating" nature of law enforcement entering the home sphere: "the intervention of the law into the inner workings of the family—the police at the door, the judge reading the description of the blows—is generally experienced as a humiliating experience, even by women."<sup>20</sup>

The state's right to interfere in the home sphere is a contested issue, as are the ways in which such interventions impact not only legal precedents but personal subjectivities. Merry adds that, "the adoption of a rights consciousness about a particular form of behavior requires a shift in subjectivity, one that depends on wider cultural understandings and individual experience."<sup>21</sup> That is, this 'rights consciousness' has, in some cases, been shown to empower women to report behaviors by male spouses, while publicly reprimanding men for said

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<sup>19</sup> Merry, 379.

<sup>20</sup> Ibid., 378.

<sup>21</sup> Ibid., 381.

behaviors, effectively causing a shift in personal subjectivities and self-perceptions, with potential to then shift behaviors.

The legislation and scholarship discussed in this section serve to indicate the challenges and opportunities present in applying a human rights framework to domestic violence against women. Specifically, the lack of international legislation on gender-based domestic violence, as well as questions of public versus private jurisdictions of the state, pose notable challenges to addressing domestic violence through the international human rights framework, though some community initiatives have created unique systems, as previously discussed.

## **B. Children's Rights**

The Convention on the Rights of the Child (CRC), ratified by most UN member states by the early 1990s, represents the central piece of international legislation on children's rights today.<sup>22</sup> The CRC was created to address weaknesses in the preceding 1924 League of Nations Declaration of the Rights of the Child and 1959 UN Declaration of the Rights of the Child, neither of which were legally binding and did not recognize children's agency.<sup>23</sup> The biggest difference present in the CRC is that it recognizes the autonomy and voice of the child, whereas previous documents saw the child as an appendage of adults, lacking agency. Specifically, Article 12 states that, "States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child."<sup>24</sup> India has ratified the CRC, and is therefore legally bound to it. In Article 1 of the CRC, a 'child' is

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<sup>22</sup> Peleg, 20-21.

<sup>23</sup> Ibid., 20-21.

<sup>24</sup> United Nations General Assembly, *Convention on the Rights of the Child*, Article 12.

defined as, “every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier.”<sup>25</sup> In Article 6, the CRC guarantees children’s right to life, survival, and development, stating that:

- 1. States Parties recognize that every child has the inherent right to life.*
- 2. States Parties shall ensure to the maximum extent possible the survival and development of the child.*<sup>26</sup>

The right to life here replicates Article 3 of the UDHR, under which “Everyone has the right to life, liberty and security of person.”<sup>27</sup> As written in the CRC, it especially indicates this right as pertaining to children. The CRC also addresses adequate standards of health for survival and prosperity in Article 24.<sup>28</sup> Specifically, Article 24 states that:

- 1. States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services.*
- 2. States Parties shall pursue full implementation of this right and, in particular, shall take appropriate measures:*
  - (a) To diminish infant and child mortality;*
  - (b) To ensure the provision of necessary medical assistance and health care to all children with emphasis on the development of primary health care;*
  - (c) To combat disease and malnutrition, including within the framework of primary health care, through, inter alia, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution;*
  - (d) To ensure appropriate pre-natal and post-natal health care for mothers;*
  - (e) To ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic*

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<sup>25</sup> Ibid., Article 1.

<sup>26</sup> Ibid., Article 6.

<sup>27</sup> United Nations General Assembly, *Universal Declaration of Human Rights*, Article 3.

<sup>28</sup> United Nations General Assembly, *Convention on the Rights of the Child*, Article 24.

*knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation and the prevention of accidents ...*<sup>29</sup>

This article includes the CRC's only mention of mothers and maternal health, and is therefore significant to note. This mention is based specifically around pregnancy and child-bearing, acknowledging the importance of maternal health in subsequent child health. However, there is no mention of the rights of women, or even specific rights to be guaranteed to female children (such as feminine hygiene accessibility and education) in this document. The Preamble of the CRC states:

*Convinced that the family, as the fundamental group of society and the natural environment for the growth and well-being of all its members and particularly children, should be afforded the necessary protection and assistance so that it can fully assume its responsibilities within the community.*<sup>30</sup>

Children have been predominantly left out of this discourse, as they are considered to be reliant on their families or caregivers, which in some ways undermines the sense of agency endowed upon children in Article 12.<sup>31</sup> While this clause acknowledges the crucial importance of home and family units in the survival and development of children, it does not address any recommendations or responsibilities that pertain to the home sphere, especially gendered considerations. This omission represents another manifestation of the debate on the State's presence in the private sphere: there is a widely held notion that parents are responsible for making decisions in the home, making state intervention in private homes, whether through direct involvement or national legislation, a controversial issue.

Adding to the body of international legislation on children's rights, the UN held the World Summit for Children in 1990, adopting the World Declaration on the Survival, Protection

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<sup>29</sup> Ibid., Article 24.

<sup>30</sup> Ibid., Preamble.

<sup>31</sup> Peleg, 157.

and Development of Children (WDSPDC) and a Plan of Action for implementing the Declaration in the 1990s.<sup>32</sup> The WDSPDC demonstrates a greater acknowledgment of the impact of gender dynamics on child development, stating that, “Strengthening the role of women in general and ensuring their equal rights will be to the advantage of the world’s children. Girls must be given equal treatment and opportunities from the very beginning,”<sup>33</sup> adding that, “We will work to strengthen the role and status of women. We will promote responsible planning of family size, child spacing, breastfeeding and safe motherhood.”<sup>34</sup> The WDSPDC specifies that the status of women is to be enhanced through equal access to education, nutrition, and economic development.<sup>35</sup> Crucially, the WDSPDC also links women’s health to children’s health, writing that:

*Maternal health, nutrition and education are important for the survival and well-being of women in their own right and are key determinants of the health and well-being of the child in early infancy. The causes of the high rates of infant mortality, especially neonatal mortality, are linked to untimely pregnancies, low birth weight and pm-term births, unsafe delivery, neonatal tetanus, high fertility rates, etc. These are also major risk factors for maternal mortality claiming the lives of 500,000 young women each year and resulting in ill-health and suffering for many millions more. To redress this tragedy, special attention should be given to health, nutrition and education of women.*<sup>36</sup>

The health connection here is an important one, linking the survival and development of children with that of their mothers. However, it does not go beyond the period of “early infancy” into the full survival and development of children. Furthermore, the WDSPDC is a rather aspirational and informal document, without any concrete implementation. Research on the implementation

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<sup>32</sup> “World Summit for Children, 29-30 September 1990, New York, United States.”

<sup>33</sup> United Nations General Assembly, *World Declaration on the Survival, Protection and Development of Children*, ii.

<sup>34</sup> *Ibid.*, ii.

<sup>35</sup> *Ibid.*, 11.

<sup>36</sup> *Ibid.*, 12

and effects of international children's rights law has found different levels of efficacy. Boyle & Kim, for example, found in 2009 that "child rights treaties did indirectly improve outcomes for children by encouraging CRINGO activism," where CRINGO refers to child rights international non-governmental organizations.<sup>37</sup>

Analyzing the legislation on children's rights, it is notable that the right to survival and development has been interpreted extensively. One such interpretation is the 'capability approach,' wherein the agency of the people in question is highlighted, comprehending development as "a process that facilitates people's ability to live lives that are worth living," according to Peleg.<sup>38</sup> With respect to children, Peleg argues that their agency must be highlighted, pushing for a view that incorporates their capabilities.<sup>39</sup> Research shows that enhancing other rights of children, notably the rights to education, health, and nondiscrimination, lead to the advancement of their development.<sup>40</sup> Empowering children in this capacity, while acknowledging the role of parents, can serve as a means to indirectly promote children's empowerment in and out of the home sphere, potentially addressing the challenges posed by the inability to effectively enforce human rights in the private sphere.

### **C. Linking Women & Children's Rights**

The discussed approach to children's rights, though acknowledging interdependence amongst different rights, does not directly examine how the rights of children might be dependent on the rights of other vulnerable groups, namely women. The link between women and children in human rights narratives has been a subject of some debate, especially in the

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<sup>37</sup> Boyle & Kim, 483.

<sup>38</sup> Peleg, 156.

<sup>39</sup> *Ibid.*, 161-162.

<sup>40</sup> *Ibid.*, 184-185.



context of conflict; some argue that the framing of civilian “women and children” as a unit essentializes gender roles in a way that shows men as those taking part in violent fighting and women and children as helpless civilians.<sup>41</sup> While it is undoubtedly true that conflicts tend to be fought between warring parties typically or largely composed of male-identifying individuals, there remains a debate on the implications of grouping women and children as a unified group. According to Carpenter, this framing has significant strategic benefits: “Given pre-existing cultural assumptions about the innocence and vulnerability of women and/with children, and the continued value of invoking such ideas in order to successfully frame an issue in international society, the use of this language and imagery arguably makes strategic sense.”<sup>42</sup> She adds, however, that such simplifications do not leave room for contexts where roles, specifically gendered ones, may be subverted. Beyond the context of armed conflict, however, the link between women’s rights and children’s rights has not been discussed extensively, perhaps because of fears of falling into historical gendered and essentialist tropes that confine women to the home sphere and child raising.<sup>43</sup> Therefore, as previously outlined, the fields of women’s rights and children’s rights have developed largely independently, though theories on how to examine the connection between the two without diminishing the importance of the rights of each group individually have been developed more recently. Evans, for example, traces commonalities between women’s rights and children’s rights as outlined in the CEDAW and CRC, respectively, arguing that this overlap must be better understood and bridged.<sup>44</sup> She suggests two ways to conceptualize this relationship: the first is that women’s development as women can be supported by highlighting their roles as mothers, through methods such as

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<sup>41</sup> Carpenter, 295.

<sup>42</sup> *Ibid.*, 327.

<sup>43</sup> Evans, 11.

<sup>44</sup> *Ibid.*, 14.

education and financial incentives; while the second approach discusses how children's development can be enhanced by emphasizing the multiple roles that women hold outside of being mothers, including health, education, and employment.<sup>45</sup>

The aim here is not to pigeonhole women who are mothers into their roles exclusively as mothers, but rather to understand the multiple ways and directions in which women's rights and children's rights are related. Specifically, the overall well-being of mothers evidently helps to enhance their roles as parents, while stressing the importance of their roles as parents can, in turn, lead to greater education and employment opportunities due to the acknowledged necessity for such things to provide proper care for children. This link, therefore, though in need of much greater research and theorizing, suggests an approach through which women's rights and children's rights can be synergetic.

## **II. Domestic Indian Law & Discourse**

In addition to international law, India has implemented a number of national legislations that pertain to women's rights, and domestic violence in particular. In India, domestic violence was recognized as a criminal offense in 1983 under Indian Penal Code 498-A.<sup>46</sup> The 2005 Protection of Women from Domestic Violence Act (PWDVA) then enacted civil protections to victims of domestic violence, coming into effect in 2006. The PWDVA includes violence in all forms, including physical, emotional, verbal, sexual, and economic violence, both if actually enacted or communicated as a threat.<sup>47</sup> Specifically, Point 3 in Chapter II of the PWDVA states that:

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<sup>45</sup> Ibid., 14.

<sup>46</sup> IIPS and ICF, NFHS 2019-21, 639.

<sup>47</sup> Ibid., 639.

*3. Definition of domestic violence.—For the purposes of this Act, any act, omission or commission or conduct of the respondent shall constitute domestic violence in case it—*

*(a) harms or injures or endangers the health, safety, life, limb or well-being, whether mental or physical, of the aggrieved person or tends to do so and includes causing physical abuse, sexual abuse, verbal and emotional abuse and economic abuse; or*

*(b) harasses, harms, injures or endangers the aggrieved person with a view to coerce her or any other person related to her to meet any unlawful demand for any dowry or other property or valuable security; or*

*(c) has the effect of threatening the aggrieved person or any person related to her by any conduct mentioned in clause (a) or clause (b); or*

*(d) otherwise injures or causes harm, whether physical or mental, to the aggrieved person.<sup>48</sup>*

This definition encompasses a range of forms of domestic violence, closely aligned with the UN definition. In this legislation, the “aggrieved person” is defined as: “any woman who is, or has been, in a domestic relationship with the respondent and who alleges to have been subjected to any act of domestic violence by the respondent.”<sup>49</sup>

Within the stipulations of the PWDVA are the requirements of appointing protection officers and assistance of victims, stressing cooperation with non-governmental organizations.<sup>50</sup>

Therefore, while a number of international and national laws prohibit discrimination and domestic violence against women, the issue remains pervasive, especially given the nature of this human rights violation, which is typically contained to the walls of a household and therefore not able to be uncovered by law enforcement without reporting, often from the victims themselves.

Moreover, the Constitution of India (updated as of May 2022), includes provisions specifically addressing women and children, respectively. Specifically, the Constitution

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<sup>48</sup> Government of India, *Protection of Women from Domestic Violence Act*, Chapter ii.

<sup>49</sup> *Ibid.*, Chapter 1.

<sup>50</sup> IIPS and ICF, NFHS 2019-21, 639.

stipulates equal rights for women, equal pay, and equal representation.<sup>51</sup> However, in the 400-page document, the word “women” is only used a total of 20 times, and there is no mention of violence against women, domestic or otherwise. The Constitution simply notes that there is a fundamental duty “to renounce practices derogatory to the dignity of women,” but does not specify which practices are protected against.<sup>52</sup> As for children, the Constitution protects against child labor (especially in factories)<sup>53</sup>, and guarantees the right to state-funded education for all children ages 6-14.<sup>54</sup> It adds that “children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment,”<sup>55</sup> along with a stipulation that “the State shall endeavour to provide early childhood care and education for all children until they complete the age of six years.”<sup>56</sup> These clauses show the presence of children’s rights in India’s Constitution, yet their wording is largely aspirational and vague, and therefore does not explicitly commit the State to any concrete actions or programs.

### **III. Domestic Violence & Child Mortality in India**

Discrimination against women in India, like around the globe, takes various forms, but domestic violence has become a distinct area of study in itself. Studies show that women in India experience discrimination and forms of violence even before birth, through the abortion of female fetuses, granting of less food to female babies and children in comparison to their male counterparts, significantly lower education rates amongst women, and a lower mean age at

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<sup>51</sup> Government of India, *Constitution of India*, 21.

<sup>52</sup> *Ibid.*, 25.

<sup>53</sup> *Ibid.*, 14.

<sup>54</sup> *Ibid.*, 11.

<sup>55</sup> *Ibid.*, 22.

<sup>56</sup> *Ibid.*, 23.

marriage for women than men.<sup>57</sup> Specifically, research found 13.5 million missing female births in India between 1987 and 2016, driven by sex-selective abortions of female fetuses.<sup>58</sup> Furthermore, the number of missing births increased over this period.<sup>59</sup> There also exist practices such as “dowry deaths,” or “bride burning” which can happen when a bride’s family is unable to meet the demands of the husband and/or his family for additional money or property.<sup>60</sup> Despite the 1961 Dowry Prohibition Act, this practice persists in some parts of the country.<sup>61</sup> The practice of *sati*, though rarer, also still occurs, wherein widows are burned or buried alive along with their deceased husbands.<sup>62</sup> The *Sati* (Prevention) Act was passed in 1987, though this remains a contested issue since some argue the practice is part of freedom of religion.<sup>63</sup> Physical and sexual abuse, including rape and battery, also persist as forms of violence against women, both at home and by state authorities, notably in police custody.<sup>64</sup>

Within this context, domestic violence specifically, as defined by the PWDA, remains particularly pervasive. While there have been a number of studies on the matter, most pertain to older national samples, or specific regional contexts. Despite these statistical limitations, these studies offer important insights and methodological direction. For example, Kimuna et al find in “Domestic Violence in India: Insights From the 2005-2006 National Family Health Survey,” that violence against women is more pervasive in areas and circumstances where gender role conditioning is more traditional and strongly transmitted. Specifically, they write that:

*Although policies have been created to curb such violence, women in India still conform to the adapted cultural expectation of society and the family. Prescribed*

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<sup>57</sup> Jaising 51-52.

<sup>58</sup> Saikia et al., 813.

<sup>59</sup> Ibid., 813.

<sup>60</sup> Jaising, 53.

<sup>61</sup> Ibid., 53.

<sup>62</sup> Ibid. 55.

<sup>63</sup> Ibid., 55.

<sup>64</sup> Ibid., 52-54.

*gender roles place a heavy burden on these women. Social norms related to marriage dictate various circumstances in a married woman's life. The patriarchal notions of male superiority and power and their socialization to accept the husband as head of the household seem to condition women to accept violence in their lives and relationships.*<sup>65</sup>

They focus on analyzing the conditions correlated with higher occurrences of domestic violence, based on stated information from the 2005-06 NFHS survey. These factors include household size, where women in smaller families have a higher chance of experiencing violence; household wealth was negatively associated with domestic violence, meaning women from poorer families were more likely to face violence; and in terms of religion, Muslim women were most likely to experience violence, followed by Hindu women, with Christian women being the least likely.<sup>66</sup> Furthermore, location played a significant role: 33.4% of surveyed rural residents reported experiencing domestic violence and 9.7% experienced sexual violence, compared with 27.5% of surveyed urban residents who experienced domestic violence and 6.6% experienced sexual violence.<sup>67</sup> While this study does not discuss the relation to children's health, these identified factors provide an important foundation to understanding domestic violence in India and the differences across the country's population, although the present study does not focus on circumstantial factors per se. Kimuna et al argue for further legal measures to protect women, along with reformation of traditional gender roles as ways to address domestic violence.

Similarly, Vihan undertakes a targeted legal analysis in "The Protection of Women from Domestic Violence in India: In Context of Domestic Violence Act 2005," where she analyzes the PWDVA specifically. The PWDVA marks the chronological starting point for the present study because it is the foremost piece of legislation on gender-based domestic violence in India, and

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<sup>65</sup> Kimuna et al., 802.

<sup>66</sup> Ibid., 794.

<sup>67</sup> Ibid., 786.

was also implemented in the first year for which meaningful data on domestic violence was collected by NFHS, through thorough implementation of the DHS domestic violence module. Vihan centrally discusses the features of domestic violence, along with the aims of the PWDVA. She discusses that the PWDVA was the first piece of Indian legislation to extend the definition of domestic violence to include sexual, verbal, and economic violence.<sup>68</sup> Furthermore, the PWDVA makes it illegal for women who report domestic violence to be driven out of their homes, which is typically a great deterrent and reason for women to not report experiences of domestic violence.<sup>69</sup> The article does not provide much information on the effects of the PWDVA and, admittedly, there has not been much literature on the effects of the Act overall, given the difficulty of determining whether trends in domestic violence are due to legal actions, changes in cultural attitudes, norms, or a myriad of other factors, many of which were outlined by Kimuna et al.

One paper that attempts to analyze the effects of the PWDVA is “The Implementation of Domestic Violence Act in India: A State-Level Analysis” by Das and Lakshmana. They argue that the PWDVA has largely failed to reach its stated goal due to an inconsistency of budget allocations across states, delays in implementing orders, and a lack of clear responsibilities for the PWDVA’s enforcers.<sup>70</sup> They conclude that a key issue is a lack of legal awareness: both women and the appropriate group of law enforcers (police, courts, etc.) are not aware or educated enough about the stipulations of the PWDVA. Coupled with inadequate budget allocation, this creates a situation where cases brought forward about domestic violence are not handled in a timely or effective manner. As evidence for this failure, Dandona et al found that the rate of

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<sup>68</sup> Vihan, 57.

<sup>69</sup> Ibid., 57.

<sup>70</sup> Das & Lakshmana, 1.

reported cases of domestic violence under the PWDVA was a mere 0.0283%, representing a 0.0098% increase from 2001, though enormous variations occurred at the state-level.<sup>71</sup>

According to the Indian National Crime Records Bureau, the mean number of people arrested and convicted for these crimes actually decreased: of the reported cases, only 6.8% completed trials, and offenders were convicted in 15.5% of cases in 2018.<sup>72</sup> Similarly, Abeyratne and Jain argue in “Domestic Violence Legislation in India: The Pitfalls of a Human Rights Approach to Gender Equality” that simply instituting new laws—as was done in the PWDVA—is insufficient to enact real change. Adding to Das and Lakshmana, they state that education about domestic violence should not only address women and law enforcement, but wider Indian society:

*This requires educational programs targeted not only at law enforcement officials, but also at the general public, and particularly children. It is only when the Indian public recognizes domestic violence (and the under-enforcement of laws meant to stop it) as a serious threat to women’s rights (and human rights) that domestic violence can be eradicated.*<sup>73</sup>

This public recognition of domestic violence as an enormous threat and violator of women’s rights might be enhanced with a greater awareness of the lasting impact of this violence. That is, in addition to treating gender-based domestic violence as an enormous issue in itself, the importance of eradicating this phenomenon is further emphasized when we also consider the implications it has on future generations, namely children of women who suffer domestic abuse.

Cowling et al lay out a number of SDH in “Social determinants of health in India: progress and inequities across states.” This article also uses NFHS data, and points to education, poverty, and living conditions as SDH, but makes no reference to domestic violence against

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<sup>71</sup> Dandona et al., 1.

<sup>72</sup> Ibid., 1.

<sup>73</sup> Abeyratne & Jain, 378.



mothers or other family members (though this is an important environmental factor).<sup>74</sup> Some other papers, however, do make this connection. For example, addressing the economic dimension of domestic violence, “Women’s Inheritance Rights and Child Health Outcomes in India” by Ajefu et al finds empirical evidence to support the argument that an improvement and protection of women’s inheritance rights improves children’s outcomes. They write that:

*This paper demonstrated that an improvement in women’s inheritance rights has sustained long-term impacts and positive implications in terms of child nutritional health outcomes. Specifically, we find that a legal change in women’s inheritance rights reduces the likelihood of a child being underweight, stunted, or wasted. Our results reveal that children whose mothers were exposed to the Amendment were 1.7 and 2 percentage points less likely to be stunted and wasted.*<sup>75</sup>

In this case, a legal change is shown to succeed in empowering women, thus improving children’s indicators. For their study, they used a mathematical model using binary variables, and this mathematical relationship used to relate two variables of interest inspired the use of the Kaplan-Meier Survival Curve used in the present study, which will be discussed in further detail in the **Methods** section of this paper.

Another insightful study is by Sabri et al, entitled “Impact of Domestic Violence on Maternal and Child Health and Well- Being in Rural India.” This study is one of the most recent and up-to-date papers on the connection between domestic violence and children’s health, though it focuses specifically on rural India, which data from NFHS surveys consistently show has a higher frequency of domestic violence than urban India, as demonstrated by Kimuna et al. Sabri et al conclude that:

*The impact of DV on women was identified in multiple adverse outcomes such as poor physical health, miscarriages, abortions, and multiple pregnancies due to forced childbearing and preference for a male child. The impact on born children*

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<sup>74</sup> Cowling et al., 10-11.

<sup>75</sup> Ajefu et al., 763.

*was identified in areas such as lack of care, abuse, and neglect. Barriers to the utilization of care included factors such as restricted access to care by husbands and in-laws.<sup>76</sup>*

Here, there is a demonstrated relationship between domestic violence and child health through the connecting link of parental behavior of the children in question, as opposed to net health indicators themselves. The scope of this study is limited, utilizing 32 interviews for the study. While the subject matter and results of this study are hugely pertinent to the present research, it cannot be claimed to apply to the country as a whole, or even generalized to rural India for that matter.

A more data-driven approach can be found in “Domestic Violence and Chronic Malnutrition among Women and Children in India” by Ackerson and Subramanian. They utilized the 1998-99 NFHS, which included 92,447 households at the time, and is considered to be nationally representative.<sup>77</sup> They looked at domestic violence and its connection to the following outcomes: underweight and anemia for women, and anemia, low height for age (stunting), low weight for height (wasting), low weight for age (underweight), and low body mass index for age for children.<sup>78</sup> They used both unadjusted and adjusted models (to account for various demographic differences and factors), but found that:

*Although adjusting for demographic characteristics reduced the strength of the associations between maternal report of multiple instances of domestic violence in the previous year and all anthropometric measures of malnutrition among children, the relation remained marked for wasting, stunting, severely underweight for age, low body mass index for age, and severely low body mass index for age.<sup>79</sup>*

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<sup>76</sup> Sabri et al., 1.

<sup>77</sup> Ackerson & Subramanian, 1189.

<sup>78</sup> Ibid., 1189.

<sup>79</sup> Ibid., 1192.

Therefore, this study supports the hypothesis of the present research, which hypothesizes that domestic violence against women, for a myriad of potential reasons, negatively impacts children's health indicators. However, this study utilizes data from the 1990s, which is not only outdated at this point, but also uses less meaningful data on domestic violence, given that the DHS domestic violence module had not yet been implemented in India's NFHS surveys.

The paper that most inspired the methods for the present research is "Effects of Domestic Violence on Perinatal and Early-Childhood Mortality: Evidence From North India" by Ahmed et al. While this paper only pertains to India's northern state of Uttar Pradesh between 1995-96, its methods were used as a template for the present research. Specifically, they utilized the Kaplan-Meier Survival Curve to examine "differentials in child survival probabilities by maternal exposure to domestic violence," comparing these two curves with both Wilcoxon signed rank and log-rank tests.<sup>80</sup> The curve produced shows a statistically significant difference in survival probabilities between children whose mothers did experience domestic violence and those who did not:

*Overall, the survival probabilities for infants were significantly lower among women who experienced domestic violence (Wilcoxon  $\chi^2 = 4.72$ ;  $P = .030$ ). Table 1 shows specific infant and early-childhood mortality rates by exposure to violence. The most pronounced differentials in mortality rates were during the earliest period of life.<sup>81</sup>*

The methods used in this research proved nodal for my research, which I followed to reach one of my three key findings, which are outlined and analyzed in the **Findings** section.

This survey of literature shows that, while there does exist a small sample of research on the link between domestic violence and children's health indicators (child mortality, specifically)

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<sup>80</sup> Ahmed et al., 1424.

<sup>81</sup> Ibid., 1425.

in India, it tends to be outdated, or limited to one period of survey or one specific region/type of region in India. As such, I hope to fill this gap by looking at this relationship at a national level and across a longer period of time, between 2005 and 2021.

## Chapter 3: Methods

### I. Data Collection

Data for this research was obtained from India's National Family Health Survey (NFHS) program, which is a large-scale, multi-round survey conducted in a nationally representative sample of households across every state in India.<sup>82</sup> The Ministry of Health and Family Welfare (MOHFW) of the government of India assigned the International Institute for Population Sciences (IIPS) in Mumbai as the agency responsible for supplying technical guidance and coordination for NFHS surveys, in collaboration with field agencies for implementation.<sup>83</sup> Five NFHS surveys have been conducted thus far, in 1992-93, 1998-99, 2005-06, 2015-16, and 2019-21.<sup>84</sup> The Demographic and Health Surveys (DHS) Program of the United States Agency for International Development (USAID) has provided technical assistance for all the surveys, namely through the integration of a standardized survey method that it utilized around the world.<sup>85</sup> The DHS Program has supported surveys of varying time intervals for over 30 years, administering 320 household and facility-based surveys in 90 countries across Africa, Asia, Latin America/Caribbean and Eastern Europe.<sup>86</sup> The DHS Program houses the national surveys on their database, providing access to NFHS data in report and raw data formats to researchers who submit a brief outline of their project, which DHS evaluates to determine whether clearance can and should be provided. Access to the DHS database for the present study was obtained on

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<sup>82</sup> IIPS and ICF, NFHS 2019-21, 1.

<sup>83</sup> *Ibid.*, 1.

<sup>84</sup> *Ibid.*, 1, 1.

<sup>85</sup> *Ibid.*, 1.

<sup>86</sup> "The Demographic and Health Surveys Program."

January 16, 2024. Specifically, access was obtained to NFHS surveys for the all years: 1992-93, 1998-99, 2005-06, 2015-16, 2019-21.

The data is available both as written reports and as physical, numerical, coded data. A combination of the two formats was used in this study, since some questions were easily answered by information compiled in written reports, while others required numerical analysis. After analyzing all of the reports initially, I found that the 1992-93 and 1998-99 surveys did not contain questions about domestic violence, and therefore did not analyze these surveys as part of my project. As such, data reported here was mostly obtained from the surveys from 2005-06, 2015-16, 2019-21. It is important to note that the DHS module (implemented by NFHS) only collects domestic violence data that pertains to physical forms of violence, which include physical and sexual violence.<sup>87</sup> This is a notable feature of this data and subsequent research since, as previously discussed, domestic violence is defined internationally and nationally in India to include non-physical forms of violence, including verbal, psychological, emotional, and economic abuse. This omission is due to the developing nature of the DHS domestic violence module, especially as it is implemented in India. Moreover, the decision was made to include domestic violence committed by anyone in the standardized DHS questionnaire, not just partner-inflicted violence. This means that women who answered “yes” to domestic violence questions may have experienced violence from their partners or spouses, but also from other family members, such as siblings, parents, grandparents, or in-laws.<sup>88</sup> The data used, therefore, pertains to women who experienced a form of physical and/or sexual domestic abuse by anyone in their home, whether a spouse, family members, or friend.

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<sup>87</sup> World Health Organization, “Violence Against Women Prevalence, Estimates,” 13-14.

<sup>88</sup> “Domestic Violence Module: Demographic and Health Surveys Methodology,” 4-7.

## **II. Analytical Activities**

Examining the written reports, I collected data about the prevalence of domestic violence and child mortality rates over the years studied, in order to engage in a historical comparison and trend analysis. After obtaining information from written reports about domestic violence trends and child mortality trends, respectively, I decided to take a more numbers-driven approach to try to understand the relationship between the two data sets, since statistical consolidation and manipulation were necessary to uncover any correlations. Therefore, I first downloaded data from the DHS database with the extension “.dta” and uploaded it into the statistical analysis software Stata. To consolidate the data from thousands of variables into concrete tables, I located pre-existing code written by other users on GitHub, which is a platform that allows developers to share their code publicly. This code runs as “.do” files, which, once exported into Stata and pointed to use the correct data files, takes the raw data, and transforms it into Excel sheets. The data is essentially an enumerated, coded version of the verbal responses to survey questions. The main reason for running this code was to have a reliable, repeatable way to transform raw data into variables of interest, to analyze these variables, and to create tables and charts, simplifying and enhancing interpretation. I ran this code on the datasets for domestic violence and child mortality for 2005-06, 2015-16, and 2019-21, which produced a number of tables showing responses and trends for both sets.

The next step was to try to combine the two datasets somehow to see if there was any statistically significant correlation. Luckily, NFHS codes its responses with matching variables per household, so the responses for domestic violence questions from one household would be categorized with the same variable as the questions about child mortality from the same household. An established test to show the connection between a given variable and survival

chances is the Kaplan-Meier Survival Estimator. This estimator is considered to be one of the best ways to measure surviving populations as functions of time, and is defined as the “probability of surviving in a given length of time while considering time in many small intervals.”<sup>89</sup> The Kaplan-Meier function essentially calculates survival probability over time. Using Stata, I separated out the women who reported having children as the group for this calculation, which I then separated into those who answered affirmatively to domestic violence questions and those who did not, all based on variable labeling in Stata. That is, I inputted code on domestic violence into existing code on child mortality (all obtained from NFHS data on the DHS website), and flagged mothers who answered “yes” to physical and sexual domestic violence questions(s). This therefore created two groups, and thus two Kaplan-Meier Survival Curves, where I calculated the survival probabilities for the children in each group independently. Survival probability is the “probability of surviving in a given length of time while considering time in many small intervals.”<sup>90</sup> This is calculated by taking the surviving population at a given point in time as a fraction of the total population at the start of that period, repeated over consistent intervals of time. Using Excel, I created plots for two sets against each other: one for child mortality rates of children with mothers who *did not* report experiencing domestic violence, and one for those of mothers who *did* report experiencing domestic violence.<sup>91</sup> I then ran a Wilcoxon signed rank test to determine if there is a statistical significance in the differences of average survival probabilities between these two groups.

This test was conducted as follows: the point is to compare between two groups of women, those who did and did not report experiences of domestic violence, to see the difference

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<sup>89</sup> Goel et al.

<sup>90</sup> Ibid.

<sup>91</sup> See figures produced in “Findings” Section.



in average survival probabilities of their children. There is a mathematical formula for this test, but Stata, the software used for this study, is able to run the formula itself, using the command “signrank var1=var2,” where *var1* is women who did not report domestic violence, and *var2* is women who did. Both groups were drawn from the same dependent population of women who had children, from the NFHS survey data. In a mathematical sense, we use a p-value, which is the probability of obtaining the observed results, assuming the null hypothesis is true. In our case, the null hypothesis is that the average survival probabilities of the children of the two groups of women are the same. The lower the p-value, the greater the statistical significance of the observed difference. A p-value of 0.05 or lower is considered statistically significant, since it means that the opposite of the null hypothesis is true and therefore significant.

### **III. Limitations**

A number of limitations exist in this study. First of all, there is a lack of data on domestic violence before 2005-06, which makes it difficult to gauge the frequency and types of domestic violence before the 2005 Protection of Women from Domestic Violence Act as a means of comparison and evaluation of its effects.<sup>92</sup>

Additionally, conditions for questioning and self-reporting on domestic violence vary, and their impact on responses are unknown. For example, if a man or other family member was present while a woman was being questioned, it is possible she responded negatively to domestic violence questions, when in reality she may have experienced some form of domestic violence. But again, these scenarios are unknown and merely speculative.

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<sup>92</sup> IIPS and ICF, NFHS 2005-06.

The sample size in all of these surveys, while large, by no means includes of the entire population of the Republic of India, due to time constraints, as well as highly significant regional differences, geographic location, development, wealth, and so on. That being said, the NFHS sample design is rigorous and statistically supported as large and diverse enough to represent country-wide trends.

## Chapter 4: Findings

Three distinct yet crucially related key findings emerged from this study, which will be explored below. To summarize, the key findings of these studies are as follows: 1) Domestic violence rates in India have decreased from 2005 to 2021; 2) Mortality rates from neonatal until under-five have decreased from 2005 to 2021; 3) A statistically significant difference was found between survival probabilities of children of mothers who experienced domestic violence and children of mothers who did not.

### I. Domestic Violence Trends & Analysis

The prevalence of domestic violence in India has decreased over the period of research. In self-reporting by women aged 15-49, domestic violence decreased from 33.5% in 2005-06, to 29.5% in 2015-16, to 28.7% in 2019-21.<sup>93</sup><sup>94</sup><sup>95</sup> This is out of a total of 124,385 women surveyed in 2005-06; 699,686 in 2015-16; and 724,115 in 2019-21.<sup>96</sup><sup>97</sup><sup>98</sup>

Table 1: Domestic Violence Rates, 2005-06 – 2019-21

	<u>2005-06</u> <sup>99</sup>	<u>2015-16</u> <sup>100</sup>	<u>2019-21</u> <sup>101</sup>
<u>Domestic Violence Rate</u>	33.5%	29.5%	28.7%

<sup>93</sup> IIPS and ICF, NFHS 2005-06, 498.

<sup>94</sup> IIPS and ICF, NFHS 2015-16, 575.

<sup>95</sup> IIPS and ICF, NFHS 2019-21, 651.

<sup>96</sup> IIPS and ICF, NFHS 2005-06, 498.

<sup>97</sup> IIPS and ICF, NFHS 2015-16, 575.

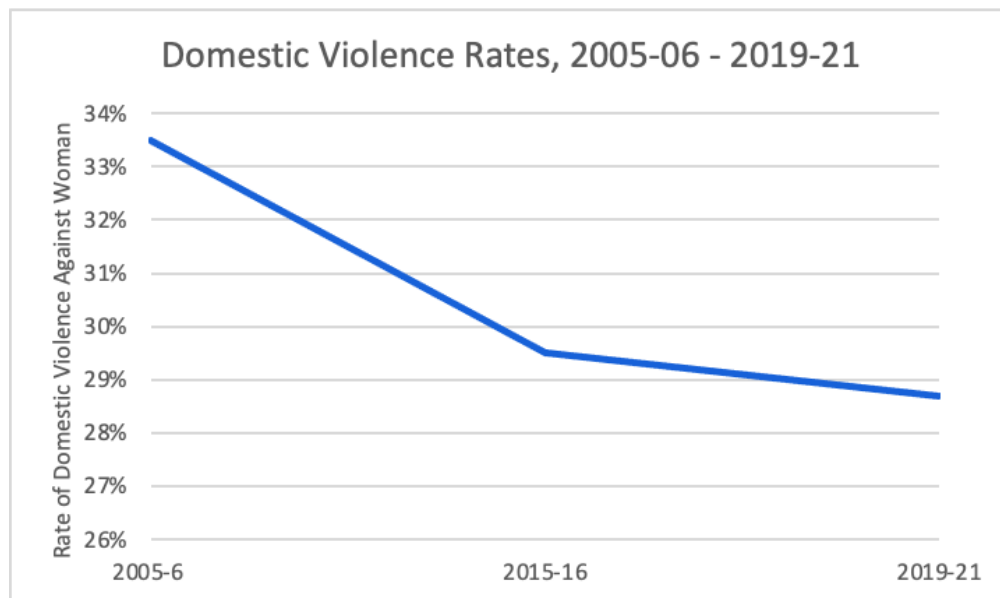
<sup>98</sup> IIPS and ICF, NFHS 2019-21, 651.

<sup>99</sup> IIPS and ICF, NFHS 2005-06, 498.

<sup>100</sup> IIPS and ICF, NFHS 2015-16, 575.

<sup>101</sup> IIPS and ICF, NFHS 2019-21, 651.

Figure 1: Domestic Violence Rates, 2005-06 – 2019-21



2005 marks the year in which the PWDVA was enacted, though it is difficult to accurately measure its effects, given the lack of meaningful data on domestic violence in India prior to the 2005-06 survey. However, although this research pertains to the reports from 2005-21, the 1998-99 National Family Health Survey states that 21% of surveyed women reported experiencing domestic violence.<sup>102</sup> The 1992-93 survey does not contain any questions pertaining to domestic violence at all, due to the slowly emerging nature of awareness on these issues, and the gradual process of implementing changes in NFHS questions. If we include the data from 1998-99, there appears to be quite a drastic 12.5% increase in domestic violence between 1998-99 and 2005-06, which contradicts the generally decreasing function. However, it is crucial to note that any data collected prior to 2005-06 employed the “single-question

<sup>102</sup> IIPS and ICF, NFHS 1998-99, 77.

threshold approach,” where a respondent is only asked follow up questions if she responds “yes” to the initial question of whether she has experienced physical violence; women who respond “no” are not asked any further questions, such as why they answered negatively.<sup>103</sup> As such, women only have one opportunity to disclose an occurrence of violence. This method can lead to unrepresentative results, especially given that the 1998-99 survey reports that 56% of women agreed with at least one reason justifying a husband beating his wife.<sup>104</sup> As a result, this method demonstrates how India did not implement the full DHS domestic violence module at this time, as identified by a 2004 report on DHS surveys on domestic violence.<sup>105</sup> Therefore, it is appropriate to evaluate trends in domestic violence across the period where the same module was used, even if it still has limitations. Within the period between 2005 and 2021, there has indeed been a decrease in self-reported incidents of domestic violence against women, as collected and reported by NFHS.

There are a number of important factors that may have contributed to this trend. First of all, it is important to note the drastically smaller decrease between 2015-16 and 2019-21, as compared with the decrease from 2005-06 to 2015-16. Among other factors, a well-researched reason for this lesser decrease was the COVID-19 pandemic. The *American Journal of Emergency Medicine* estimated that domestic violence cases increased by 25%-33% globally due to the pandemic.<sup>106</sup> The nature of home-bound isolation that was emblematic of this pandemic did protect women from experiencing violence outside of the home, but increased susceptibility to domestic violence due to confinement to the home.<sup>107</sup> Much data to support this conclusion

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<sup>103</sup> Kishor & Johnson, 5.

<sup>104</sup> IIPS and ICF, NFHS 1998-99, 75.

<sup>105</sup> Kishor & Johnson.

<sup>106</sup> Mineo.

<sup>107</sup> Maji et al.

was drawn from newspaper reports of domestic violence, isolating a number of key factors including unemployment, physical confinement, increased alcohol consumption, and change in routine.<sup>108</sup> The UN has called this the “Shadow Pandemic,” drawing attention to domestic violence as a widespread consequence of the pandemic.<sup>109</sup>

Despite these staggering effects, however, we can still observe how domestic violence against women has been decreasing in India, though the reasons for this are less clear. Although some of the studies mentioned previously argue that the 2005 PWDVA largely failed, it is possible that its existence as a penal law created a deterring factor against domestic violence. Furthermore, greater women’s empowerment and economic development—supported by enhanced data collection by local agencies like NFHS and international ones like DHS—could explain the decrease. Specifically, the female literacy rate has consistently increased: census data shows that female literacy rates rose from 39.29% in 1991 to 65.46% in 2011.<sup>110</sup> However, women’s economic empowerment has not seen an improvement: despite India being the world’s fifth-largest economy, only 24% of women are part of the workforce as of 2022, compared with an all-time peak of 31% in 2000.<sup>111</sup> The ensuing lack of financial independence for many Indian women might therefore be a reason why the decrease in domestic violence has *not* decreased at a desirable rate. This is in addition to stigma around domestic violence, and a largely normative acceptance of it.<sup>112</sup> Koenig et al write that:

*Several normative pathways have been proposed through which the observed contextual-level factors might influence the risks of domestic violence, most notably through the fostering of norms that condone men’s sense of entitlement and ownership of women, support the use of violence in conflict resolution, and condone the physical punishment of women. More in-depth research is clearly*

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<sup>108</sup> Krishnakumar & Verma.

<sup>109</sup> UN Women, “Measuring the Shadow Pandemic: Violence Against Women During COVID-19.”

<sup>110</sup> Singh.

<sup>111</sup> Li & Agarwal.

<sup>112</sup> Koenig et al.

*needed on the specific pathways through which contextual norms and violence levels place women at elevated risks of domestic violence.*<sup>113</sup>

This therefore demonstrates a confluence of societal factors that impact attitudes on women’s rights, and women’s abilities to fully realize those rights.

## **II. Child Mortality Trends & Analysis**

Child mortality rates in India have decreased over the period of research. These rates are calculated separately as neonatal mortality, post-neonatal mortality, infant mortality, child mortality, and under-five mortality, respectively. All of these statistics are calculated per 1,000 live births, which have been represented as percentages. These rates are measured 0-4 years before each survey’s year, so as to evaluate children up until the age of 5.

Table 2: Neonatal, Post-neonatal, Infant, Child, Under-five Mortality Rates, 2005-06 - 2019-21

<u>Mortality Rate:</u>	<u>2005-06</u> <sup>114</sup>	<u>2015-16</u> <sup>115</sup>	<u>2019-21</u> <sup>116</sup>
Neonatal	3.9%	2.95%	2.49%
Post-neonatal	1.8%	1.13%	1.03%
Infant	5.7%	4.07%	3.52%
Child	1.84%	0.94%	0.69%
Under-five	7.43%	4.97%	4.19%

<sup>113</sup> Ibid., 137.

<sup>114</sup> IIPS and ICF, NFHS 2005-06, 180.

<sup>115</sup> IIPS and ICF, NFHS 2015-16, 190.

<sup>116</sup> IIPS and ICF, NFHS 2019-21, 247.

Figure 2: Neonatal, Post-neonatal, Infant, Child, Under-five Mortality Rates, 2005-06 - 2019-21

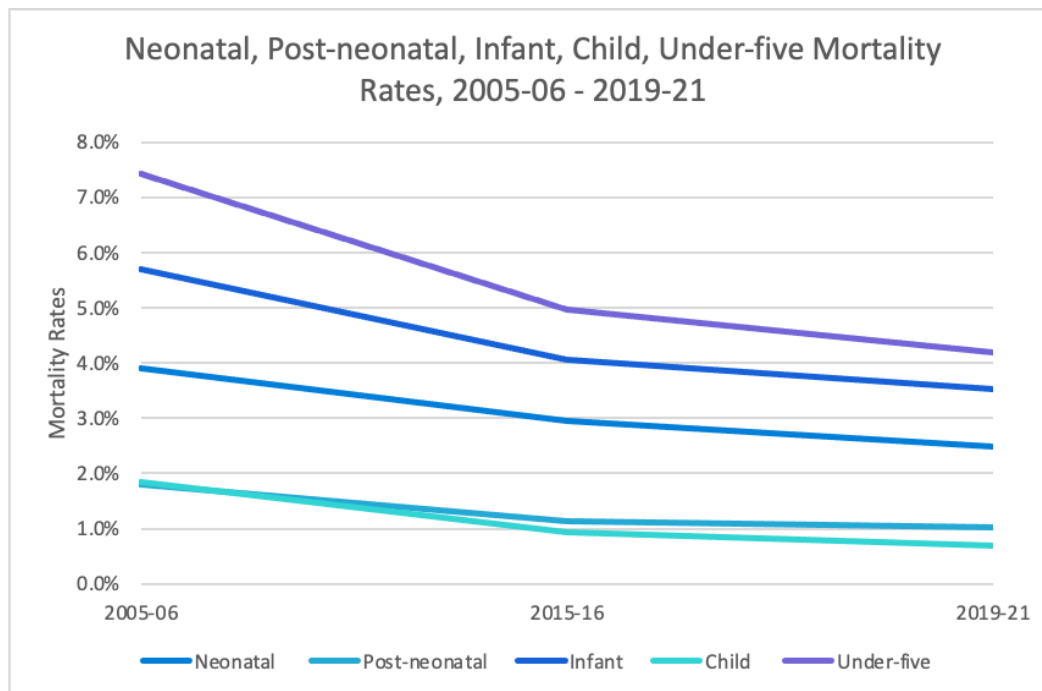


Figure 2 shows a steady decline in all measures of infant and child mortality, up until and including the under-5 category. Unlike with domestic violence, there does also exist data on child mortality from previous surveys conducted throughout the 1990s. Specifically, the 2005-06 NFHS reports that infant mortality in 1991-95 (10-14 years before the survey) was 7.7%, which was higher than the rate at 0-4 years before the survey (shown in Table 2 and Figure 2), thus supporting the declining trend.<sup>117</sup>

In 2010, a study by the Million Death Study Collaborators (Bassani et al) examined the causes of death of children in 2005, a year during which 2.3 million children ages 5 and under died in India.<sup>118</sup> Using national projections, they found that prematurity and low birthweight,

<sup>117</sup> IIPS and ICF, NFHS 2005-06, 179.

<sup>118</sup> Bassani et al.



neonatal infections, and birth asphyxia and birth trauma caused 78% of all neonatal deaths.<sup>119</sup> Meanwhile, 50% of all deaths at 1-59 months were caused by pneumonia and diarrheal diseases.<sup>120</sup>

Not unlike the trend of domestic violence represented in Figure 1, the trends for mortality rates for children aged 1-59 months shows a decrease across the period of study, but a notably smaller decrease from 2015-16 to 2019-21 in comparison to from 2005-06 to 2015-16, likely also due to the COVID-19 pandemic, among other potential factors.

A number of factors may have contributed to this trend, including an increase in public health initiatives and greater education for mothers. Specifically, a number of initiatives and interventions have been implemented and scaled to target and lessen the frequency of child mortality. Alderman et al (2019) cite skilled birth attendance and adequate birthing facilities for immediate neonatal care; familial food security, adequate nutrition, and healthy maternal anthropometric measurements as factors associated with lower child mortality rates.<sup>121</sup> It is notable, then, that the health of the mother, along with adequate conditions for birth and child upbringing, are among the key factors impacting child mortality.

### **III. Correlation Between Domestic Violence Against Women and Child Mortality Rates:**

#### **Data & Analysis**

As discussed in the **Methods** section, the Kaplan-Meier Survival Curve was used on NFHS data from 2005-06, 2015-15, and 2019-21. In all three years, a statistically significant gap

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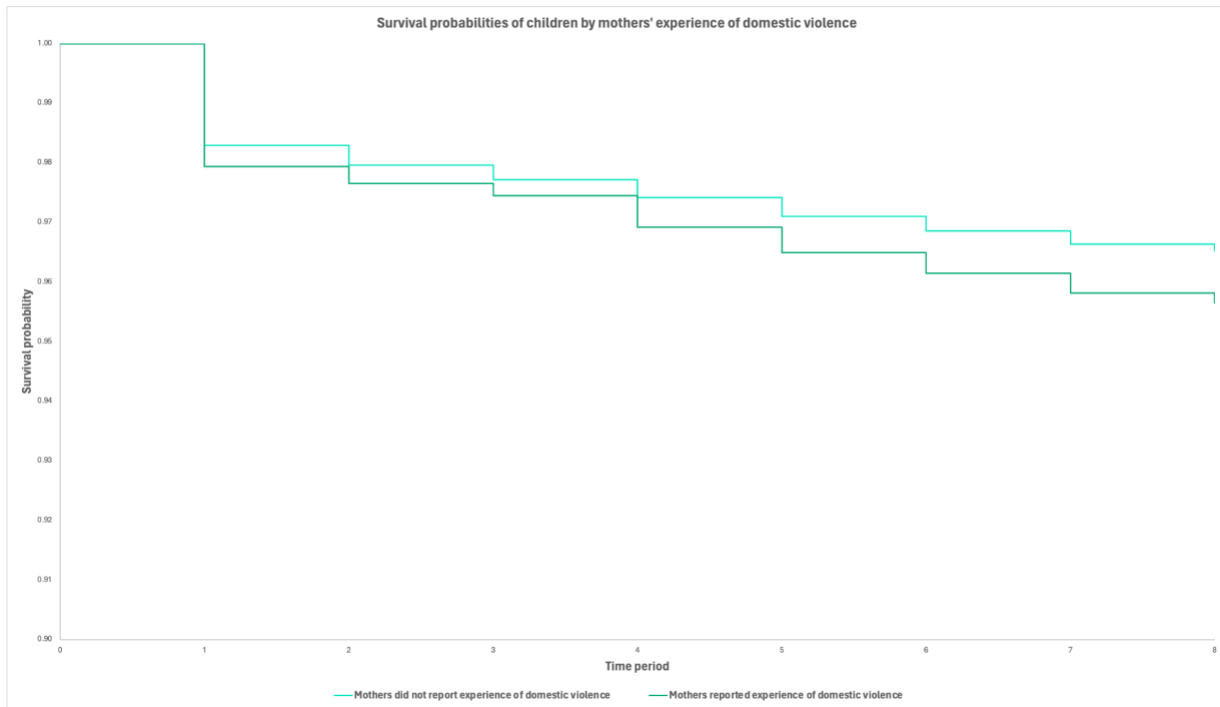
<sup>119</sup> Ibid.

<sup>120</sup> Ibid.

<sup>121</sup> Alderman et al.

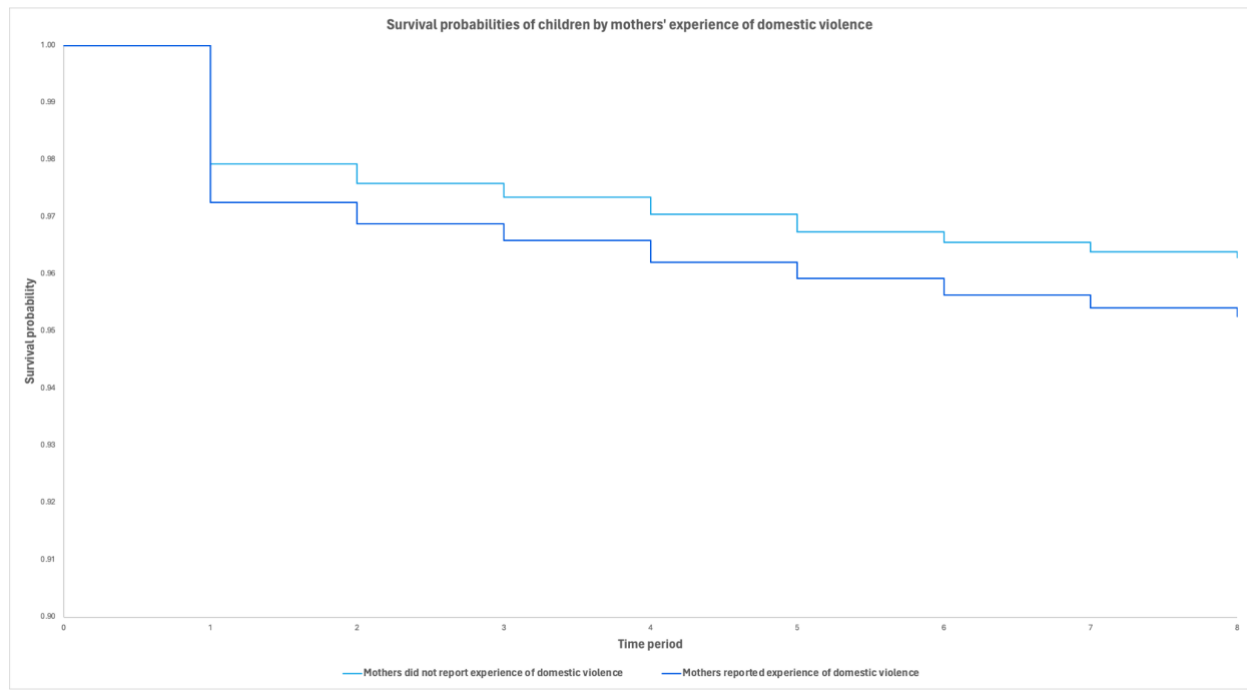
was found between the survival probability of babies and children whose mothers *did* or *did not* experience domestic violence. Figure 3 shows this relationship for the 2005-06 data.

Figure 3: Kaplan-Meier Survival Curve, 2005-06



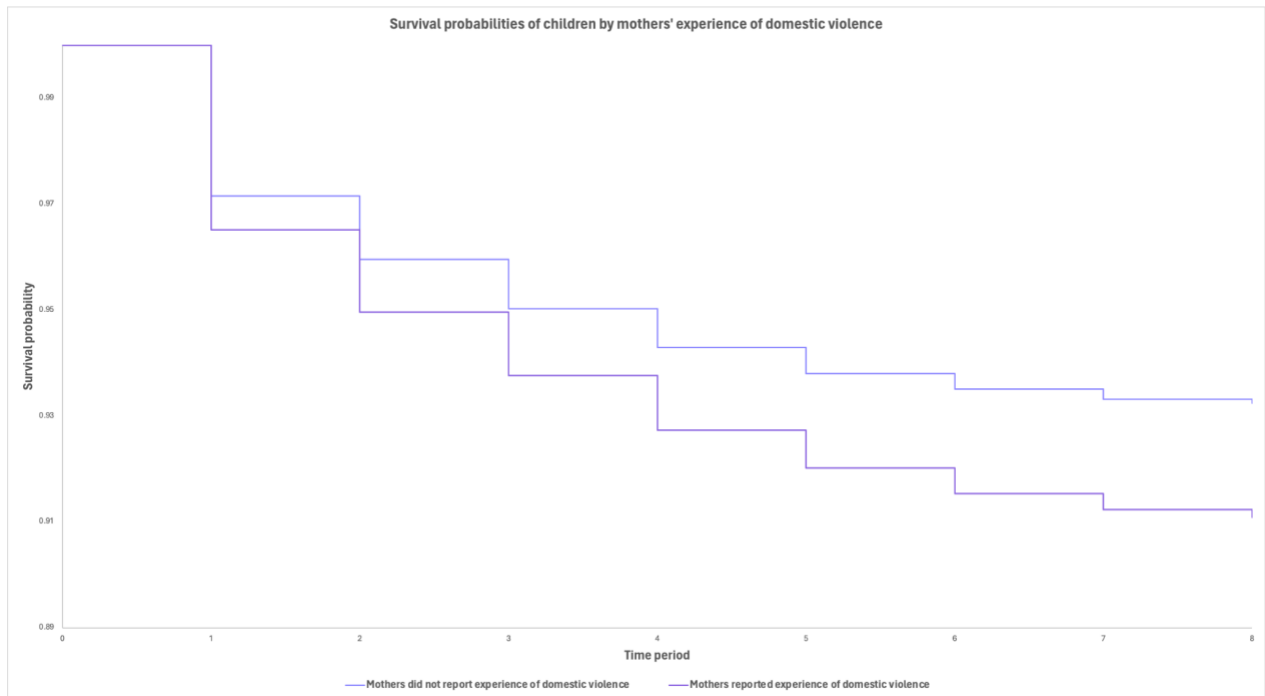
This figure exhibits three important features. The first is that survival probability for children in both groups decreases as a function of time (age from 0 to 5 years), with the biggest drop in survival probability occurring closer to birth, and as the children get older this decrease slows down. This indicates that the months immediately after birth are especially critical for survival, and also suggests that other endangering factors are present throughout this period. The second insight is that children with mothers who did not experience domestic violence have a higher survival probability than children whose mothers did experience domestic violence. Finally, this gap appears to increase as a function of time, between ages 0 to 5 years.

Figure 4: Kaplan-Meier Survival Curve, 2015-16



As in 2005-06, the 2015-16 data demonstrates a decreasing survival chance as a function of age, with the initial, largest drop in survival probability occurring immediately after birth, and slowing down as a function of age (though still decreasing). These curves also show a gap between survival chances of children whose mothers did and did not experience domestic violence, with children of mothers who did not experience domestic violence maintaining a higher survival probability than children of mothers who did experience domestic violence. This gap also exhibits a slight expansion as a function of age.

Figure 5: Kaplan-Meier Survival Curve, 2019-21



The calculation using data for 2019-21 exhibits the same trends as the two previous surveys. It shows a clear decrease in survival probability with age, with the first and largest drop occurring right after birth. It also exhibits the same clear gap between survival probabilities of children whose mothers did and did not experience domestic violence, and a widening of this gap as a function of age.

In all of these cases, a Wilcoxon signed rank test was performed to determine if there was a statistically significant difference between the probabilities of child survival across the two groups: mothers who did not experience domestic violence, and mothers who did experience domestic violence. The test revealed that there was a statistically significant difference in mean probability of survival ( $z = 2.611$ ,  $p = 0.0078$ ). These results indicate that under-5 survival probabilities were significantly lower for children of mothers who experienced domestic violence in comparison to those of mothers who did not experience domestic violence. Due to

this significance, findings for all three time periods support a correlation between domestic violence and lower child survival probabilities.

It is also notable that the z and p values remained consistent across all three time periods. That is, the difference in the mean survival probabilities between children of mothers who did experience domestic violence and those who did not has remained consistent, despite decreases in the prevalence of both domestic violence and child mortality rates. This consistency might add support to the strength of the correlation between these two crucial human rights issues.

The previously mentioned study by Ahmed et al, although limited in its sample size, reported a two-fold higher risk for both perinatal and neonatal mortality among mothers who experienced domestic violence while pregnant.<sup>122</sup> Violence against pregnant women can have a direct impact on the health of fetuses, yet the correlation between overall lifetime violence against women (not necessarily while pregnant) and higher child mortality is less easily explained. Furthermore, none of this data can be interpreted as indicating causality – i.e., that domestic violence against women *causes* lower survival probability in children – yet still supports a correlation.

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<sup>122</sup> Ahmed et al.

## Chapter 5: Conclusion & Discussion

These findings are significant to consider in the discussion of the intersection of women's rights and children's rights, as conceptualized in a human rights framework. The gradual decreases in both domestic violence and child mortality rates in India are promising, but there is a large consensus that not enough is being done to address the underlying societal factors of these issues, including gender and wealth inequalities. Intuitively, we can infer that domestic violence against women is harmful to children, given that violence against mothers creates an unsafe environment and a weakened caregiver, while violence against women has also been found to occur concurrently with violence against children in various cases.<sup>123</sup> However, it is notable that this intuitive connection is supported statistically in the three produced Kaplan-Meier Survival estimations, as it integrates important data and traces the relationship over multiple years. The demonstrated statistically significant difference in mean survival rates between children whose mothers experienced domestic violence and children whose mothers did not experience domestic violence supports a notable correlation between domestic violence against women and the survival probability of their children, whether in the present or in the future. Although causality cannot be argued from these findings, the strong correlation between these two human rights issues is key to understanding the multifaceted implications of violence against women.

This relationship, then, is not being discussed to minimize the severity of violence against women as a crime in itself. Rather, it serves to identify and analyze the added implications of such violence. Such an approach is not meant to simply group women and children into a single

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<sup>123</sup> Pearson et al.

category, but rather to understand how the livelihoods of these groups are related, while keeping in mind other intersectional differences and inequalities such as socioeconomic status, rural versus urban location, and so on. In order to better understand this relationship, there is a need for greater specificity in data collection and survey questions, such as those designed by the DHS Program. Specifically, it is crucial to better understand the particular instances of domestic violence, whether they occur during pregnancy (and if so when in the pregnancy), and exactly how repeated and frequent experiences of domestic violence are in the lives of the women providing testimonies. Answers to these questions might better help identify if there is a medical relationship between domestic violence and child mortality, in addition to the various societal factors at play. Such enhanced research must, of course, be done with utmost care and empathy, as well as cultural awareness. Areas for further research, for example, include the effects that witnessing domestic violence against mothers can have on children, and the relationship between violence against women and violence against children in the home. Specifically, the United Nations International Children's Emergency Fund (UNICEF) reports that, worldwide, 1 in 4 children (176 million) under the age of 5 live with a mother who is a recent victim of intimate partner violence (domestic violence committed exclusively by a partner).<sup>124</sup> UNICEF reports that children who witness violence at home or live with mothers who are victims of domestic violence are at a higher risk of experiencing abuse at home, can be more likely to exhibit aggressive behavior towards siblings or peers, and can be more likely to carry violence into adulthood (as victims and/or perpetrators).<sup>125</sup> They add that such witnessing can impact children's attitudes about the accepted, normative use of violence, adding another underlying

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<sup>124</sup> United Nations Children's Fund, "A Familiar Face: Violence in the Lives of Children and Adolescents," 7.

<sup>125</sup> *Ibid.*, 21.

reason to the cyclical nature of domestic violence.<sup>126</sup> However, much greater research still needs to be done to fully understand the depths and specifics of this relationship.

As far as the path forward, there are several ways in which a human rights-centered approach can be utilized. Looking back at Evans' analysis of the complementary rights of women and children, we can examine overlapping rights relating to maternal and child health, family planning, child rearing, the roles of both parents, the role of traditional culture, and education of women and children, to name a few.<sup>127</sup> By understanding the interconnectedness of the human rights of various groups, specifically women and children, there is opportunity to extend the understanding of individual rights into a greater understanding of societal relations. Human rights, as they are legally framed, largely address the rights of individuals to be protected from and supported by state actors in various manners. In contrast, there exists a discourse on "group rights," based on the idea that certain rights are better understood and protected if conceptualized as being possessed by a larger group, rather than an individual.<sup>128</sup> These rights typically include the right to self-determination, peaceful assembly, and religion.<sup>129</sup> My findings do not lead me to suggest a group rights approach to women and children's rights, but this paradigm does prove insightful. While the right of women, as individuals, to be protected against domestic violence, along with the right of children, as individuals, to be granted the rights to life, health, survival, and development, must all be upheld for the sake of the rights of the individuals in question, the compounding effects that these rights have on each other cannot be dismissed. That is, there is a reason why international treaties—namely the CEDAW and CRC—have been created specifically to address the rights and needs of vulnerable groups. Therefore, there can be

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<sup>126</sup> Ibid., 21.

<sup>127</sup> Evans, 9-12.

<sup>128</sup> Jones.

<sup>129</sup> Ibid.



a doubly empowering and multiplicative effect when the rights and needs of these groups are taken into consideration collectively as well as separately. My findings suggest that the link between women and children's rights, at least with regards to domestic violence and child mortality rates, is significant and persistent over time, and must therefore be addressed.

In terms of specific programs and policies, whether state-sponsored or grassroots, there are a number of initiatives which can be considered to have had an impact on women's rights and children's rights. Specifically, although its effects are difficult to measure, the 2005 PWDVA did coincide with the first NFHS that collected meaningful data on domestic violence in India (2005-06), as it actually implemented the DHS domestic violence module, as previously discussed. The consistent decrease in domestic violence rates in India since then also suggests that the new legislation, shifts in social attitudes, or some combination of both may have impacted the issue. The dynamic between legislation and cultural shifts is a complex one, and it is perhaps futile to try to pinpoint which one led to the other. The bottom line, however, is that the improvements with regards to domestic violence in India, both in terms of the rates of violence and the existence of actual legislation, must be acknowledged. Of course, the rates remain high, and it is evident that the existing legislation has not shifted societal attitudes about women to the extent that it had perhaps intended.

Beyond government-led initiatives, there exist a variety of community-based, women-led initiatives across India that respond to domestic violence. For example, Bhatla and Rajan examine five women-led responses to domestic violence in three Indian states: one in West Bengal, two in Gujarat, and two in Uttar Pradesh.<sup>130</sup> They found that, "Community responses to

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<sup>130</sup> Bhatla & Rajan, 1659.

violence can open democratic forms of dispute resolution and to operationalise an objective process through a feminist perspective, incorporating a strong element of preventive justice.”<sup>131</sup>

These initiatives are all led by village women’s collectives, *sanghas*, the formation of which Bhatla and Rajan credit to the MS programme for women’s education launched by the Indian government in 1989, to promote collective reflection and action at the village level.<sup>132</sup> Centered around feminist and democratic ideals, these communities “create a forum where large numbers of stakeholders gather to air private grievances and engage in spirited argument.”<sup>133</sup> Bhatla and Rajan add that:

*The process relies on the community's right to enter the sphere of private family matters in order to restore collective peace, and accept its responsibility in a public shaming of the guilty party. The forums operate under the assumption that community pressure can indeed act as an effective deterrent to further violence if the process strives not only to restore peace, but also to oppose values and customs that harm women.*<sup>134</sup>

This forum, they found, resulted in more than half of afflicted women reporting that domestic violence against them had stopped completely, while others reported reductions, and almost all women reported a boost in confidence.<sup>135</sup> A few key takeaways emerge from these case studies. The first is the crucial role of education and rights literacy in these processes: Bhatla and Rajan rightly identify the government-led MS programme as being foundational in equipping the women of these communities with knowledge of their rights and a sense of empowerment to unite and create forums that center their needs. This further highlights the interdependence of

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<sup>131</sup> Ibid. 1658.

<sup>132</sup> Ibid., 1659.

<sup>133</sup> Ibid., 1664.

<sup>134</sup> Ibid., 1664.

<sup>135</sup> Ibid., 1663.

various women's rights, demonstrating how improvements in women's right to education can contribute to decreases in domestic violence.

This initiative also shows the importance of local partnerships and cultural sensitivity in human rights processes. It is notable, as previously stated, that USAID's DHS Program intentionally supports the work of local agencies like NFHS in India, thereby helping to promote human rights research without necessarily imposing foreign methods and ideals. It is crucial that such an approach be widely adopted and strengthened in human rights initiatives globally.

Another key insight is the blurring of public and private spheres, wherein members of the studied village communities seem to have the ability to enter the home sphere of their neighbors to condemn behaviors like violence against women. Indeed, the issue of domestic violence is particularly challenging to deal with from a legal perspective because, as mentioned, the state does not have jurisdiction to intervene in the private/home sphere, due to the human right to privacy. Specifically, Article 12 of the UDHR states that, "No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks."<sup>136</sup> In India, the right to privacy was upheld by the Supreme Court in the 1957 case *Gobind v. State of M.P.*, stating that, while the term 'privacy' is absent from the Constitution, it is protected under Article 21, which refers to the right to "protection of life and personal liberty," stating that: "No person shall be deprived of his life or personal liberty except according to procedure established by law."<sup>137</sup><sup>138</sup> Under this article, therefore, the state, or any other external power, are prohibited from encroaching on the private sphere of individuals' lives, except when

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<sup>136</sup> United Nations General Assembly, *Universal Declaration of Human Rights*, Article 12.

<sup>137</sup> "The Right to Privacy in the Supreme Court of India."

<sup>138</sup> *Constitution of India*, Article 21, 11.

legally justified. In the case of domestic violence, because state involvement and criminal charges are hugely dependent on victim testimonies—which occur rather infrequently due to the normative perception of violence against women—such involvement is rather rare. This is not to suggest that the Indian government should encroach on citizens’ privacy in violation of their rights, but rather to suggest that the challenging nature of human rights abuses in the private sphere calls for the integration of innovative, indirect approaches to tackle these issues. The permeable barrier between the private and public sphere shows that community initiatives, especially pertaining to human rights-centered education and empowerment, can find their way into manifestations of behavioral shifts between individuals and within homes.

With regards to children’s rights and mortality rates, it is clear that women’s rights, specifically freedom from domestic violence, is not a sole factor, and it cannot be argued, based on the findings of this paper, that a reduction in domestic violence against women will necessarily decrease infant and child mortality rates. However, it is imperative to take whatever action possible in this situation if it poses an opportunity to increase and enhance the survival and development of children. Tackling domestic violence against women, therefore, is not only crucial as a project in itself, but also as a means to protect and enhance the rights of future generations. The Integrated Child Development Services (ICDS) represents a government program within India’s Ministry of Women and Child Development that acknowledges this connection.<sup>139</sup> Studies by the ICDS show that discriminatory practices against women, namely female infanticide and feticide, low female literacy rates, and lower nutrition heavily impact child development in a myriad of ways, as Rao states:

*It appears that an inter sectoral and integrated approach to early childhood services, community participation, and women's empowerment are crucial to the success of child development programs for children from socially disadvantaged*

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<sup>139</sup> “Integrated Child Development Services (ICDS) Scheme.”

*backgrounds, and the ICDS has a significant role in improving children's rights to survival and development.*<sup>140</sup>

While domestic violence is not mentioned specifically in this study, it can be viewed within the framework of women's empowerment.

The findings of this study have been analyzed and interpreted in a manner that garners support for an interdisciplinary human rights-based approach to women and children's rights, based on previous research showing the impact of women's empowerment on child development, specifically addressing matters of domestic violence against women and child mortality rates in India. Such an approach offers an opportunity to use the available human rights paradigm to strengthen the rights of women and children not as one, but as individual spheres with a meaningful, acknowledged overlap. This paper seeks to contribute to this overlapping space, in hopes of promoting further study and inquiry into the ways in which women's rights and children's rights are connected and the reasons for this connection, as well as developing and implementing effective strategies to strengthen the status of women and children's rights in India and around the world.

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<sup>140</sup> Rao, 29.

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