

# The Effect of Unintended Pregnancies on Parents and Children: A Study in the Indian Context

Aditya Vyas

The New Tulip International School

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## Abstract

*This research paper aims to find out the social, economic and demographic factors that affect the incidence of unintended pregnancies among women in the Indian state of Gujarat. It also examines the effects of unintended pregnancies on the health of the parents, the health of the child and on the rearing and development of the child. The study began with an in-depth literature review about unintended pregnancies and its effects on parental health and the health and development of the child, based on existing research world-wide and in India.*

*Considering the stigma associated with unintended pregnancies, a survey of doctors and social workers who work with pregnant women having unintended pregnancies was deemed the most suitable for collection of data. The scope of the study was limited to the state of Gujarat. The sample size for the survey was 50. The research instrument for the surveys was a structured questionnaire with close-ended questions that was administered electronically to doctors and social workers in Gujarat. The sampling method used was cluster sampling, where clusters of doctors and social workers were approached based on permission received by the researcher from hospital administrators and NGOs.*

*The findings show that some of the major factors that affect the incidence of unintended pregnancies are socio-economic factors (family income, number of existing children and home ownership), education (of parents and grandparents), previous medical history of the mother (abortions and stillbirths), availability of childcare help and location (urban or rural).*

*According to the respondents, the highest effect of unintended pregnancy was on the mother's health during pregnancy followed by mothers feeling stressed or overwhelmed during pregnancy. Low weight after birth and poor child health were found to be the most likely effects of unintended pregnancy on the child. The most likely effect of unintended pregnancy on the child's rearing and development was lack of the mother's confidence in child rearing and low involvement of father in child rearing.*

**Keywords:** *unintended pregnancies, India, parental health, child health, child development*

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## I. Introduction

Unintended pregnancies occur when the pregnancies are either mistimed (the woman wanted to be pregnant at a different point in time) or undesired (the woman did not want to be pregnant) (Metcalf et al, 2016). We find that 213 million pregnancies occurred in 2012, up slightly from 211 million in 2008. The global pregnancy rate decreased only slightly from 2008 to 2012, after declining substantially between 1995 and 2008. Eighty-five million pregnancies, representing 40 percent of all pregnancies, were unintended in 2012. Of these, 50 percent ended in abortion, 13 percent ended in miscarriage, and 38 percent resulted in an unplanned birth. The unintended pregnancy rate continued to decline in Africa and in the Latin America and Caribbean region (Sedgh et al, 2006). According to the Indian National Family Health Survey 2005-06, about 21 percent of recent births in India were unintended and approximately 10 percent of them were not wanted at all (Singh et al, 2012).

A few studies have documented that unintended births are associated with a high risk of impaired child health and lower cognitive skills and educational attainment (Crissey et al, 2005). Negative health statuses have ranged from infant health problems and infant mortality to maternal depression, low self-esteem, problematic parent child relationships, and even child abuse. Unintended pregnancies and unplanned births can have serious health, economic, and social consequences for women and their families

Furthermore, although research is limited by a number of methodological limitations and studies find mixed results with varying strengths of associations, unintended pregnancy has been associated with a wide range of negative outcomes for the child and family including maternal and infant health, socioeconomic status, education, and relationship factors in developing countries, including India. A methodological challenge in investigating the association between unintended births and poor child development is that the mothers who report unintended births may be selective on a whole set of characteristics that are associated with poor child

outcome. Therefore, this study aims to explore the effect of unintended pregnancies on parental and child health in India, specifically in the state of Gujarat.

In my country, women usually do not open up about their pregnancies being unwanted as a result of the religious and social stigmas. They consider having a child being a gift of God and thus do not feel comfortable disclosing whether the child is wanted or not. Hence, this study attempts to study these effects by seeking opinions from doctors and social workers who work with women having unintended pregnancies.

More specifically, the study addresses the following research questions:

*RQ1: What are the social, economic and demographic factors that affect the incidence of unintended pregnancies among women in the Indian state of Gujarat?*

*RQ2: What are the effects of unintended pregnancies on the health of the parents, specifically the mother?*

*RQ3: What are the effects of unintended pregnancies on the health of the child?*

*RQ4: What are the effects of unintended pregnancies on the rearing and development of the child?*

The paper is organized as follows. The next section deals with an in-depth literature review about unintended pregnancies and its effects on parental health and the health and development of the child, based on existing research world-wide and in India. The next section discusses the research methodology adopted. This is followed by the findings of the survey conducted among doctors and social workers in the Indian state of Gujarat. The conclusions from the findings are presented next. Finally, the discussion section provides the practical implications of the study, limitations and further scope for research.

## **II. Literature Review**

### **Effect on Parental Health**

Postpartum depression (PPD) is a condition to which women are particularly vulnerable during childbearing years (Bohra et al., 2015), with studies showing it to be between 15% and 57% in low- and middle-income countries (Fisher et al., 2013).

PPD has potentially serious consequences for the mother and the infant as it is associated with a decrease in the time a mother spends with her infant; missed paediatric appointments; higher levels of disruptive behavior among children; and insecure attachment between the mother and the child (Bagner, Pettit, Lewinsohn, & Seeley, 2010; Bauer, Ofner, Pottenger, Carroll, & Downs, 2017; Stein et al., 1991).

One of the drivers of PPD is women's birth intention. The association between unintended births and postpartum depression is really complex, and various researchers have studied the effect of unintended births on mental health of parents, especially the mother.

Mothers having an unintended birth may experience poor quality relationship with their husbands/partners and may receive lower level of social support as compared to those who have intended birth (Wellings et al., 2013). Having an unintended pregnancy has been found to also hinder mother-child relationships, as the additional burden created by an unplanned birth may breed feelings of resentment and anger (Mercer, 2006). The maternal depression following an unintended birth is one of the most important reasons for a mother's inability to show sensitivity and responsiveness to her child (Mercer, 2006).

Research shows that women experiencing unplanned pregnancies are more likely to display self-blame, negative feelings toward the baby, and higher perceptions of stress (Bouchard, 2005; Hilliard et al., 1982; Orr & Miller, 1997). Similarly, an unplanned birth has been linked to higher maternal depressive symptoms (Bouchard, 2005; Orr & Miller, 1997), which lead to several negative outcomes for children and parent-child relationships, such as decreased cognitive and social-emotional development in children over the preschool years (Feldman & Eidelman, 2009) and low-quality mother-child bonding (Moehler et al., 2006).

Horowitz & Goodman (2004) demonstrated a significant positive association between family-related stress and depressive symptoms among women experiencing unplanned pregnancies. They also found that the severity of depressive symptoms increased in the 2 years after childbirth.

Studies have also shown that women experiencing a pregnancy that is neither intended nor wanted (an estimated 14% of all unintended pregnancies), are at the greatest risk for psychological distress (Brown & Eisenberg, 1995; Orr & Miller, 1997)

The negative effect of unintended pregnancies on mental health extends to fathers as well. Clinton and Kelber (1993) found that the fathers in their study reported feeling more powerless and stressed when pregnancies were unintended than when they were intended, even two months after the birth. Chan (2019) also finds that intimate partner violence and the related fear during pregnancy could be a risk factor of maternal PPD, but it would be reduced with increased levels of emotional support provided by fathers.

Several studies from the developed world have reported positive association between unintended birth and PPD (Abbasi, Chuang, Dagher, Zhu, & Kjerulff, 2013; Brito, Alves, Ludermir, & Araújo, 2015; Gauthreaux et al., 2017; Mercier, Garrett, Thorp, & Siega-Riz, 2013).

The risk of PPD was found to vary greatly by birth intention with it being higher among mothers with unintended births. Among mothers who had an unintended birth, 44% in Ethiopia, 39% in India, 35% in Peru,

and 24% in Vietnam suffered from PPD. In comparison, out of mothers with an intended birth, 26% in Ethiopia, 30% in India, 26% in Peru, and 21% in Vietnam suffered from PPD. In pooled data, 36% of recent mothers with an unintended birth suffered from PPD compared with only 26% of the mothers with an intended birth (Upadhyay, Singh & Singh, 2017)

Kerie, Menberu and Niguse (2018) found in a study conducted in Ethiopia that mothers having unintended birth were 4.49 times more likely to experience PPD compared with mothers having intended birth.

In Hong Kong, Chan (2019) show that unintended pregnancy is the major risk factor that increases the PPD risk among mothers by almost two times assessed 4 weeks postpartum. .

A similar study in Bangladesh found that the likelihood of maternal prenatal depressive symptoms was 60% and 26% higher among women reporting unwanted or mistimed pregnancies, respectively (Surkan et al, 2008). Additionally, during the postpartum period, having an unwanted pregnancy was associated with 32% higher risk of maternal depressive symptoms.

### **Effect on Child Development**

There is substantial existing research on the consequences of pregnancy intention on child outcomes such as development, health, school performance, social skills, parental interactions, and activity (Hummer et al. 2004; Joyce et al. 2000; Baydar 1995; David et al. 1988; David 1986; David & Matejcek 1981; Dytrych et al. 1975). Children of unintended conceptions are at greater risk for numerous developmental and health consequences (IOM, 1995). Unintended pregnancy has been associated with lower-quality parental behaviors and outcomes in the pre-natal phase, including late access to prenatal care (Hulsey, Laken, Miller, & Ager, 2000; Joyce, Kaestner, & Korenman, 2000; Kost, Landry, & Darroch, 1998), and delays in ceasing tobacco and alcohol use (Green-Raleigh, Lawrence, Chen, Devine, & Prue, 2005; Joyce et al., 2000; Kost et al., 1998). Additionally, unintended pregnancies result in higher rates of underweight and premature infants (IOM, 1995; Kost et al., 1998).

Apart from purely physical outcomes, there are severe mental health and parenting outcomes too. Research shows that parents' feelings about their children, even before birth, influence the quality of later parenting (Fonagy, Steele, & Steele, 1991; Weiss, 1974). Children from unintended pregnancies are more likely to have difficulties in social, interpersonal, mental health, and occupational areas that persist into adulthood, including involvement in criminal activity (Dagg, 1991; David, 2011).

Pregnancy intention may affect parents' attitudes and behaviours toward their children, which eventually may lead to adverse impacts on child development (Bahk et al. 2015). For example, a woman with an unintended pregnancy is more likely to smoke and consume alcohol and less likely to receive antenatal care and consume iron and folic acid tablets during pregnancy (Han, Nava-Ocampo, and Koren 2005; Dott et al. 2010; McCrory and McNally 2013). Such behavior increases the risk of preterm birth, low birthweight, infant mortality, and a smaller allocation of the goods and services required for healthy child development (Brown and Eisenberg 1995).

Some of the most significant effects of unintended pregnancies on children are as below:

#### *Effect on Healthcare*

Women who have an unintended pregnancy are more likely to receive inadequate prenatal care and to smoke and drink during pregnancy, factors that contribute to greater risk of delivering a premature or low-birth-weight infant (Cheng et al., 2009; Shah et al., 2011)

Numerous studies in the United States and Europe have concluded that children who are born from unintended pregnancies are less likely to be breastfed or are more likely to be breastfed for a shorter duration, compared with children whose birth was intended (Matějček et al. 1978; Kost et al. 1998; Joyce et al. 2000; Korenman et al. 2002; Taylor and Cabral 2002).

However, in the context of developed countries, no association was found between pregnancy intention and well-baby care, child immunization, or curative care in the United States and Europe (Matějček et al. 1978; Marsiglio and Mott 1988; Rosenzweig and Wolpin 1993; Kost et al. 1998; Hulsey et al. 2000).

However, the results for developing countries show stark differences in the association between pregnancy intention and healthcare available to the child.

Marston and Cleland (2003) found significantly higher risks of incomplete child vaccination by one year of age for mistimed births in Egypt and for unwanted births in Kenya and Peru. Studies in India also revealed that unwanted births were more likely to be accompanied with inadequate prenatal care for mothers and inadequate childhood vaccinations for resultant newborns. (Singh A. et al., 2012) Eggleston (2000) also found lower utilization of recommended prenatal care and childhood vaccinations for unwanted children compared to children that were wanted

Studies also showed children of unwanted births as being more likely to die during the neonatal period and during infancy. An Indian study revealed that unwanted pregnancy was strongly associated with neonatal, post neonatal and early childhood mortality (Doskoch, 2012)

The effects of pregnancy intention on child mortality, especially for female offspring is more strongly seen in societies characterized by a strong preference for sons. A higher-than-average female mortality during early childhood is seen in a number of South Asian countries (D'Souza and Chen 1980; Dyson and Moore 1983; Koenig and D'Souza 1986). However, an Indian study showed that the sex of the new-born was not associated with mortality outcomes. (Singh A. et al., 2017)

#### *Stunted Development*

Stunted children are associated with weaker immune system, higher risk of developing diarrheal disease, acute respiratory infection, delay in motor skills, cognitive, and social development during childhood (Etiler et al., 2002; Moschovis et al., 2015) and more likely to suffer from high blood pressure, obesity, diabetes and heart disease during adulthood (Barker et al., 1986; DeBoer et al., 2012). Stunting is also a matter of concern as it passes from one generation to another (Ramakrishnan et al. (1999)).

Marston and Cleland (2003) found that stunting was 15 percent more likely for children born as a result of unwanted pregnancies in Peru but significantly less likely for children born as a result of both mistimed and unwanted births in Egypt. A Bolivian study also found that children aged 12–35 months who were considered to be either mistimed or unwanted were approximately 30 percent more likely to be stunted, compared with wanted children (Shapiro-Mendoza et al. 2005).

Upadhyay and Srivastava (2016) found in a study of rural India that the proportion of stunting was higher in children whose mothers had unintended pregnancy than those who had intended pregnancy. Another Indian study by Doskoch (2012) found similarly that children from unwanted pregnancies were more likely to be stunted than those from wanted pregnancies.

#### *Child Abuse*

Several studies in developed countries studies show a positive association between unintended pregnancy and child abuse (Hunter et al. 1978; Zuravin 1987 and 1991; Sidebotham et al. 2003; Goto et al. 2005 and 2006)

Zuravin (1991) found that unplanned childbearing was associated with greater risk of child abuse. Drawing upon both mother and father reports, unintended pregnancy was also found to be a predictor of increased levels of psychological aggression, physical aggression, and neglect (Guterman, 2015)

When mothers indicated unintended pregnancy, they were more likely to respond with psychological aggression. By contrast, when fathers indicated unintended pregnancy, they were more likely to respond with physical aggression. Children indicated as unintended by their fathers may be at higher risk for physical abuse. (Guterman, 2015)

#### *Cognitive Development*

A few studies have documented that unintended births are associated with a high risk of impaired child health and lower cognitive skills and educational attainment (Baydar 1995; Crissey 2005).

Singh et al (2012) demonstrate that children who were reported as unintended at birth were statistically more likely to have lower HAZ, PPVT, and EGRA scores compared with children who were reported as intended.

PSM results showed that unintended births were statistically more likely to have lower MAT scores compared with intended births (Singh et al.). These findings are also reflected in numerous earlier studies (Myhrman 1988; Baydar 1995; Carson et al. 2011; Singh et al. 2012).

#### *Relationship with Father*

Research shows that unintended pregnancy is associated with greater depressive symptoms in the father (Santelli et al., 2009; Stykes, 2019), and less supportive behaviours to the mother during pregnancy (Shah et al., 2011).

Combs et al. (2020) suggest that fathers' pregnancy intentions were not associated with activities that indicate basic involvement, such as caregiving for their children and residency, but with activities that indicate quality of engagement, or the extent to which fathers engaged in enriching parenting practices like play and reading to their child.

### **III. Research Methodology**

As mentioned earlier, this study addresses the following research questions:

*RQ1: What are the social, economic and demographic factors that affect the incidence of unintended pregnancies among women in the Indian state of Gujarat?*

*RQ2: What are the effects of unintended pregnancies on the health of the parents, specifically the mother?*

*RQ3: What are the effects of unintended pregnancies on the health of the child?*

*RQ4: What are the effects of unintended pregnancies on the rearing and development of the child?*

Considering the stigma associated with unintended pregnancies, a survey of doctors and social workers who work with pregnant women having unintended pregnancies was deemed the most suitable for collection of data. The scope of the study was limited to the state of Gujarat. The sample size for the survey was 50. The research instrument for the surveys was a structured questionnaire with close-ended questions that was administered electronically to doctors and social workers in Gujarat. The sampling method used was cluster sampling, where clusters of doctors and social workers were approached based on permission received by the researcher from hospital administrators and NGOs.

#### IV. Results

*Table 1: Descriptive Statistics of Factors Influencing Unintended Pregnancies*

Sr. No.	Particulars		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Marital status of mother	Frequency	1.0	20.0	0.0	61.0	43.0
		Percentage	0.8	16.0	0.0	48.8	34.4
2	Parents married to each other	Frequency	4.0	26.0	0.0	67.0	27.0
		Percent	3.2	21.0	0.0	54.0	21.8
3	Education Level of Parents	Frequency	4.0	12.0	0.0	48.0	61.0
		Percent	3.2	9.6	0.0	38.4	48.8
4	Education Level of Grandparents	Frequency	8.0	34.0	0.0	71.0	12.0
		Percent	6.4	27.2	0.0	56.8	9.6
5	Employment Status of Both Parents	Frequency	1.0	18.0	0.0	58.0	48.0
		Percent	0.8	14.4	0.0	46.4	38.4
6	Employment Status of mother	Frequency	1.0	23.0	0.0	63.0	38.0
		Percent	0.8	18.4	0.0	50.4	30.4
7	Family Income	Frequency	1.0	23.0	0.0	71.0	30.0
		Percent	0.8	18.4	0.0	56.8	24.0
8	Race/Religion	Frequency	4.0	42.0	0.0	50.0	26.0
		Percent	3.3	34.4	0.0	41.0	21.3
9	Number of Members in Family	Frequency	0.0	38.0	0.0	66.0	20.0
		Percent	0.0	30.6	0.0	53.2	16.1
10	Number of Existing Children of Parents	Frequency	1.0	30.0	0.0	71.0	23.0
		Percent	0.8	24.0	0.0	56.8	18.4
11	Whether parents own a house or not	Frequency	3.0	43.0	0.0	62.0	17.0
		Percent	2.4	34.4	0.0	49.6	13.6
12	Sex of existing child/children	Frequency	3.0	33.0	0.0	53.0	36.0
		Percent	2.4	26.4	0.0	42.4	28.8
13	Place of residence (urban or rural)	Frequency	2.0	19.0	0.0	73.0	32.0
		Percent	1.6	15.1	0.0	57.9	25.4
14	Availability of additional help for child rearing (babysitter/nanny)	Frequency	2.0	57.0	0.0	54.0	13.0
		Percent	1.6	45.2	0.0	42.9	10.3
15	Involvement of grandparents of any other blood relative	Frequency	1.0	39.0	0.0	70.0	16.0
		Percent	0.8	31.0	0.0	55.6	12.7
16	Previous abortions of mother	Frequency	2.0	34.0	0.0	71.0	18.0
		Percent	1.6	27.2	0.0	56.8	14.4
17	Previous miscarriages or stillbirth	Frequency	2.0	29.0	0.0	73.0	21.0
		Percent	1.6	23.2	0.0	58.4	16.8
18	Alcohol addiction of either parents	Frequency	5.0	23.0	0.0	79.0	19.0
		Percent	4.0	18.3	0.0	62.7	15.1



The highest level of agreement was for Education Level of Parents, Employment status of both parents, and Marital Status of mother being factors that influence unintended pregnancies. On the other hand, the lowest percentage of respondents considered Availability of additional help for child rearing (babysitter/nanny), Involvement of grandparents of any other blood relative, Number of Members in Family, and Race/Religion to be influencers for unintended pregnancies.

The findings of this paper regarding financial situation of the family affecting unintended pregnancies is supported by earlier research that individuals with lower incomes are more likely to report an unintended pregnancy (Henshaw, 1998). Hellerstedt et al (1998) also found a link to mother's employment status as they demonstrated that employed mothers have lower levels of pregnancy unwantedness.

A number of other socio-economic, demographic and residence related variables have also been shown to have the significant effect on childhood stunting. Accordingly, sex of the child, parent's education, employment status of the mother, household size, wealth index, religion, and place of residence (rural or urban), previous abortions, previous miscarriages or stillbirths, availability of additional help (nanny or babysitter), involvement of grandparents or blood relatives, and education level of the grandparents were included.

*Table 2: Effects of Unintended Pregnancies on Mothers' Health*

Particulars	Mean Rating	Rank
Mother's health during pregnancy	4.16	1
Feeling of being stressed or overwhelmed after childbirth	3.94	2
Feeling of being stressed or overwhelmed during pregnancy	3.89	3
Miscarriage or still birth	3.85	4
Difficulty in labour	3.77	5
Alcohol/Substance abuse during pregnancy	3.62	6
Smoking during pregnancy	3.42	7

The mean ratings show that the highest effect of unintended pregnancy was on 'mother's health during pregnancy' followed by 'feeling stressed or overwhelmed during pregnancy'. Alcohol/substance abuse and smoking during pregnancy were rated as being the least common effects of unintended pregnancies.

*Table 3: Effects of Unintended Pregnancies on The Child's Health*

Particulars	Means	Rank
Low weight after birth	3.85	1
Poor child health compared to others	3.79	2
Consistent visits to paediatrician after birth	3.66	3
Premature birth	3.64	4
Child born with life-threatening disease	3.48	5

The respondents rated 'low weight after birth' as the most likely effect unintended pregnancy on the child, followed by 'poor child health compared to others'. The effect of 'child born with life-threatening diseases' was considered least likely.

Pregnancy intention may be associated with infant and child health for several reasons. Women with unintended pregnancies may fail to engage in healthy behaviours, such as obtaining prenatal care, because of delay in recognizing the conception or denial that it has occurred. Parental disagreements over the desirability of the pregnancy could exacerbate or mediate such consequences. For example, a father who wanted the pregnancy could motivate a mother who did not to seek timely prenatal care, whereas if neither partner intended to conceive, the mother's motivation to get proper care may remain low (Brown & Eisenberg, 1995).

*Table 4: Effects of Unintended Pregnancies on The Child's Rearing and Development*

Particulars	Means	Rank
Mother's confidence in child rearing	4.03	1
Father's involvement in child rearing	3.98	2
Proper availability of food and other necessities to the child	3.87	3
Mother giving enough attention to child	3.76	4
Father being supportive of the child	3.76	4
Father's verbal/emotional abuse of child	3.61	5
Mother's verbal/emotional abuse of child	3.55	6
Father's physical abuse of child	3.48	7
Mother's physical abuse of child	3.45	8

The responses show that the most likely effect of unintended pregnancy on the child's rearing and development was 'Mother's confidence in child rearing' followed by 'Father's involvement in child rearing'. The respondents did not consider father's and mother's physical abuse of the child to be a very likely effect of unintended pregnancy.

## V. Discussion

The findings of this research study indicate that some of the major factors affecting the incidence of unintended pregnancies are socio-economic factors (family income, number of existing children and home ownership), education (of parents and grandparents), previous medical history of the mother (abortions and stillbirths), availability of childcare help and location (urban or rural).

According to the respondents of this study, the highest effect of unintended pregnancy was on the mother's health during pregnancy followed by mothers feeling stressed or overwhelmed during pregnancy. Low weight after birth and poor child health were found to be the most likely effects of unintended pregnancy on the child. The most likely effect of unintended pregnancy on the child's rearing and development was lack of the mother's confidence in child rearing and low involvement of father in child rearing.

### *Limitations*

The study has some limitations. The sample size is small, and the results may not be generalized to a larger population. Additionally, the respondents were from the state of Gujarat in India, and their views may not be the same as those of doctors and social workers in other Indian cities. There may be a bias related to the sampling method. The sample was non-random and focused on those doctors and social workers who were known to work with women having unintended pregnancies. It is possible that these respondents would be more academic in their answers related to unintended pregnancies as compared to the women who experience such pregnancies.

### *Scope for Future Research*

Future research could compare the factors considered to be contributing to unintended pregnancies and its effects on parental and child health in cities to those in rural areas. It would also be interesting to carry out a similar study across various states in India.

### *Implications*

The findings of this study make several contributions to the existing literature on awareness about unintended pregnancies. First, it offers insight into the perceived effects of unintended pregnancies on Indian women, addressing the dearth of such studies in the existing literature. Secondly, this study attempts to find out the effect of various factors on the incidence of attitudes of unintended pregnancies among Indian women.

In terms of practical implications, the findings of this study can help doctors and social workers understand the importance of creating awareness about unintended pregnancies. This is especially important for India which has a large population that is either uneducated or has lower levels of education. This study shows certain factors to be driving unintended pregnancies. Women with such risk factors can be identified and awareness about contraception and other means of planning pregnancies can be created among them using educational programs and tools.

## VI. Conclusion

This quantitative study investigates the social, economic and demographic factors that affect the incidence of unintended pregnancies among women in the Indian state of Gujarat. It also examines the effects of unintended pregnancies on the health of the parents, the health of the child and on the rearing and development of the child. It finds socio-economic factors (family income, number of existing children and home ownership), education (of parents and grandparents), previous medical history of the mother (abortions and stillbirths), availability of childcare help and location (urban or rural) to be some of the major factors that affect the incidence of unintended pregnancies and also identifies the key effects of unintended pregnancies on the health of the parent and the child.

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