wjpmr, 2022, 8(6), 153-157

SJIF Impact Factor: 5.922

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Review Article

ISSN 2455-3301

WJPMR

INCREASING THE MARRIAGE AGE OF GIRLS FROM 18 TO 21: EFFECTS ON HEALTH AND NUTRITION, MATERNAL MORTALITYAND EDUCATION

Shraddha Bhatt*, Astu Rohra, Vijay Anand Singh, Harsh Randhawa, Nandita Christy, Shewta Patel, Aruna Pandya and Kirtan Parmar

Department of Statistics, St. Xavier's College, Ahmedabad, P.B. No. 4168, Navrangpura, Ahmedabad(Gujarat), 380009.

***Corresponding Author: Shraddha Bhatt**

Department of Statistics, St. Xavier's College, Ahmedabad, P.B. No. 4168, Navrangpura, Ahmedabad(Gujarat), 380009.

Article Received on 14/04/2022 **Article Revised on 03/05/2022** **Article Accepted on 24/05/2022**

ABSTRACT

Marriage brings with itself several adult responsibilities and understanding of its consequences, therefore setting a minimum age gives a legal guarantee that these responsibilities are not forced upon somebody who is not prepared for it. Social scientists have contended that early marriage restrains women from attaining their rightful education, accessing employment, and training opportunities, developing social relationships with peers, and participating in civic life. Since, 18 years of age is still a transition towards adulthood and not a state of complete adulthood, it becomes necessary to set an appropriate minimum age of marriage. Through our study we aimed to investigate the relation between increasing the marriage age of women from 18 to 21 years and variousfactors which include health, nutrition status, education, childbearing, and maternal mortality. It is observed that younger mothers are at higher risk of maternal mortality. Also, younger maternal age is associated with giving birth to low birth-weight child. Poor nutrition in young mothers can lead to nutrition deprived children and its health consequences can extend up to adulthood. Therefore, increasing the marriage age will prevent women from becoming mother at a younger age and will allow them to reach a better state of health in order to give birth to a healthy child. Possible effects of raising the marriage age includes decrease in MMR, increase in literacy rate and labour force which needs to be ascertained through research.

KEYWORDS: Marriage Age, Maternal mortality, Child marriage, Health, Nutrition, Literacy rate.

INTRODUCTION

The "correct" age of marriage of women has always been a topic of discussion for decades in the Indian society. The age of marriage was addressed for the first time through the Child Marriage Restraint Act of 1929, also known as the Sarda Act, which finalised the minimum marriageable age for girls at 14 years and for boys at 18 years. In 1949, an amendment was made to this law which increased the legal age of marriage of girls from 14 to 15 years.[1]

In 1978, another amendment was introduced which raised the minimum age of marriage to 18 years for girls and 21 years for boys. Later, the Prohibition of Child Marriage Act, 2006 ('PCMA) was enacted and the minimum marriageable age limits were revised to 18 years for girls and 21 years for boys.[3]

Finally in December 2021, the bill on Prohibition of Child Marriage (Amendment) Act, 2021 was introduced in Lok Sabha for raising the age of marriage of women from 18 years to 21 years.[4]

Although marriages for girls under 18 are currently illegal, child marriages still pose a major challenge in the country — as many as one quarter of women ages 20 to 24 were married before they turned 18, according to the National Family Health Survey, 2019-21.[5]

In 2010, 158 countries reported that 18 years was the minimum legal age for marriage for women without parental consent or approval by a pertinent authority. However, in 146 countries state or customary law allows girls younger than 18 to marry with the consent of parents or other authorities. In 52 countries, girls under the age of 15 can marrywith parental consent. In contrast, 18 is the legal age for marriage without consent among males in 180 countries. Additionally, in 105 countries, boys can marry with the consent of a parent or a pertinent authority, and in 23 countries, boys under age 15 can marry with parental consent.[6]

Effect on Maternal Mortality

Maternal mortality is a major issue of concern that arises out of early marriages of women.Early marriage negatively affects the health of mother as well as

theinfant. Many older studies have found a higher maternal mortality ratio in mothers under the age of 20 years as the motheris not mature enough mentally as well physically which in turn affects the child, leading to higher infant mortality as well as maternal mortality.[7] The data on maternal deaths shows that maximum proportion of the maternal deaths occur in the lower bracket. India's maternal mortality ratio has improved to 113 in 2016-18 from 122 in 2015-17 and 130 in 2014-2016, however it is still far below the UNs SDG target of 70 per 1,00,000 live births.[8]

As per the latest World Bank data for Maternal Mortality Ratio (defined as deaths to mothers during pregnancy, childbirth or in the 42 days following delivery from pregnancy or childbirth-related causes, per 1,000 births), the average maternal mortality of countries with 18 years as legal age of marriage (129 deaths per 100000 live births) is higher than average maternal mortality of countries with 21 as the legal age (124 deaths per 100000 live births). We believe that India's MMR too can reduce significantly from 113 (2018) after the legal marriage age is increased to 21.[9]

Studies have shown that 20 – 24-year-old mothers are at the lowest risk of maternal mortality.[11],[12] Among adolescents, the risks are higher for younger women, particularly those under age 16 years.[13],[14] Young mothers are particularly vulnerable to pregnancy related morbidity such as death from eclampsia.[15] The fact that adolescent mothers are less likely to be educated, wealthy, urban dwellers means that they are less likely to access the ante-natal care which can help them negotiate a safe path through pregnancy and childbirth.

It has been found thatbio-demographic and social environmental factors are main drivers of excess mortality among young mothers, it is a matter of research to ascertain whether raising the marriage age of women from 18 to 21 can influence these factors and hence reduce the MMR.

Also, it is estimated at the global level that girls aged 15–19 years are twice as likely to die from childbirth as are women in their 20s, whereas girls younger than age 15 face a risk that is five times higher.[10]

Table 1: Age Distribution of Maternal Death and Age specific fertility Rate, India, 2016-18.

Age Group	Maternal Deaths	Age Specific Fertility Rate
15-19	5%	12.2
20-24	33%	122.9
25-29	32%	146.4
30-34	17%	94.7
35-39	7%	36.9
40-44	4%	12.7
45-49	1%	4.4

$$Age\ Specific\ Fertility\ rate = \frac{No\ of\ Live\ Births}{Total\ Female\ Population} \times 1000$$

$$Maternal\ Mortality\ ratio = \frac{Number\ of\ Maternal\ Deaths}{Number\ of\ Live\ Births} \times 100000$$

Relation between marriage age and education

Education plays a vital role in determining the median marriage age in India. According to NFHS 4, women having 12 or more years of schooling marry much later than other women. The median age at first marriage for women aged 25-49 increases from 17.2 years for women with no schooling to 22.7 years for women with 12 or more years of schooling.[16]

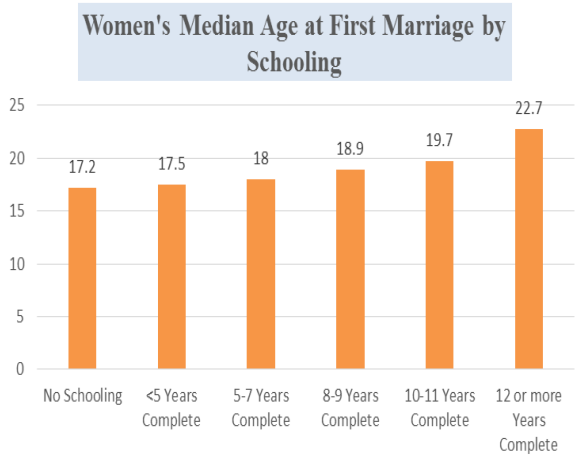

Fig. 1: Women's Median Age at First Marriage by Schooling.

Apart from the social benefits, the increase in marriage age will lead to enormous economic benefits for females and empower them further. This is clear from the data which shows that in the states where mean marriage age is more than national average, the percentage of females doing graduation and above are almost 5 percentage points higher than the states where mean marriage age is less than the national average. Also, the working age population increases with high marriage age.

Table 2: State-wise Female Graduate and Working Age Population						
States	Mean Age of Marriage	Sex Ratio (female per 1000 male)	% Of females in the age group 15-49 which is Graduate and above		% Of females in the working age group 15-59 years	
			Level (%)	Average	Level (%)	Average
J&K	25.6	927	8.7		70.4	
Punjab	23.8	890	11.4		69.7	
Delhi	23.7	844	21.6		69.5	
Himachal Pradesh	23.6	930	15.8		67.9	
Jharkhand	23.4	923	5.8		64.4	
Kerala	23.2	957	21.8	13.2	66.5	68
Tamil Nadu	23.2	908	17.3		69	
Gujarat	22.6	866	8.7		66.6	
Karnataka	22.6	924	11.1		68.8	
Maharashtra	22.6	880	12.8		67.3	
Haryana	22.4	843	10.2		67.4	
India	22.3	899	9.8		66.3	
Uttar Pradesh	22.3	880	8.7		64.5	
Uttarakhand	22.3	840	15.9		62.8	
Andhra Pradesh	22.1	920	7.9		71.1	
Assam	22.1	925	3.6		66.6	
Chhattisgarh	22	958	7.8		64.5	
Odisha	21.9	933	7.2	8.3	66.8	65.8
Telangana	21.9	901	12.5		71.4	
Bihar	21.7	895	4		60.2	
Rajasthan	21.7	871	10		64	
Madhya Pradesh	21.4	925	6.9		63.1	
West Bengal	20.9	941	6.4		68.9	

Effect on Health and Nutrition

In many Indian households' women are expected to bear a child as soon as possible after marriage in order to secure themselves in the marital home, and early marriage, correspondingly, translates into childbearing in childhood for many.

Studies conducted in many countries including India, state that adolescent mothers as compared to adult mothers were more prone to preterm delivery and there are high chances of their infants to be of low birth weight as observed from a case-control study of adolescent (16 years) and adult (>16years) women delivering in hospitals where it was reported that adolescent mothers were 2.7 times more likely to have delivered low birth weight babies.[17]

Adolescents undergo rapid growth and development, and nutritional vulnerability among this age group is oftenoverlooked. Women faces increased chances of nutritional risk due to physiological conditions such as pregnancy and lactation due to depletion of fat stores and micronutrients. With commencement of menstruation adolescent girls become exposed to the risk of developing anaemia and other adverse consequences associated with it. Undernutrition, anaemia, and poor childbearing practices in adolescent girls will increase their susceptibility to infections, leaving them with fewer reserves to recover from illness, and contributing to the morbidity and undernutrition in the infants. Inadequate of nutrients during pregnancy and prior to it, cause a further deficiency of maternal nutritional reserves, resulting in a deprived nutritional status of women.

In India, one third of adolescent girls marrying and giving birth <18 years were categorized as "thin" [body mass index (BMI) of <18.5] and 58% had severe to mild anaemia. Overall, girls married under-age was twice as likely to be undernourished as those married at age 25 years or above.[18]

Healthy individuals gain, an estimated 50% of adult weight and more than 15% of adult heightbetween the years of 10–19 years. By beginning their reproductive careers during this critical period of physical growth, before biological maturity, undernourished adolescents are likely to attain a shorter adult stature than expected, and hence an increased risk of health complications.[19]

Children also face the health consequences of maternal under-age marriage. They are more likely to begin poor start in life and experience other social and health penalties due to poor maternal nutritional status.

In comparison with mother aged 20-24 years, younger maternal age at first birth (≤19 years) had a 20–30% increased risk of low-birth-weight (LBW) and pre-term birth, a 30–40% increased risk of stunting (low height-for-age) of children at 2 years, and failure of children to complete secondary schooling, this analyses was

obtained from the Consortium for Health Orientated Research in Transitioning Societies study in Brazil, Guatemala, India, the Philippines, and South Africaof over 19,000 mother–child dyads.[20]

There is also an increased risk of offspring morbidity as younger mothers produce lower volumes of breast milk and colostrum, which containsantibodies crucial for building infant immunity.

In the study, we also identified 5 predictors of childhood under-nutrition which were found to have association with maternal under-age marriage. These include short maternal stature, lack of maternal education, low household wealth, poor dietary diversity, and maternal underweight.[21]

Therefore, early childbirth can lead to under-nutrition in children which is also associated with poorer brain, cognitive and emotional development, and capabilities. These factors have enduring physical and mental health and human capital consequences in adulthood.

CONCLUSION

Increasing the minimum marriage age of women from 18 to 21 can lead to an increase of nutritional status of women as well as the child and an access to safer pregnancies and a decrease in maternal as well as infant health morbidities arising out of early childbirth.

Raising the minimum marriage age will probably reduce the MMR and also increase the literacy rate of India by more women undertaking higher education, this will lead to them gaining employment and hence contribute to increase labour force. In-depth research is required to ascertain these conclusions.

REFERENCES

1. Child Marriage Restraint Act - Wikipedia, https://en.wikipedia.org/wiki/Child_Marriage_Restraint_Act.
2. Minimum Age of Marriage for Girls (drishtiias.com), https://www.drishtiias.com/pdf/1597658036-minimum-age-of-marriage-for-girls.pdf.
3. Raising Legal Marriage Age for Women is Not the Silver Bullet for India's Child Marriage Problem (news18.com), https://www.news18.com/news/opinion/raising-legal-marriage-age-for-women-not-the-silver-bullet-for-child-marriage-problem-4580036.html.
4. Year End Review-2021: Ministry of Women and Child Development ,https://pib.gov.in/PressReleasePage.aspx?PRID=1785589#:~:text=The key initiatives%2Fachievements of,18 years to 21 years.
5. India Could Raise Marriage Age for Women from 18 to 21 (voanews.com), https://www.voanews.com/a/india-could-raise-marriage-age-for-women-from-18-to-21-/6364862.html
6. Marriageable age - Wikipedia, https://en.wikipedia.org/wiki/Marriageable_age.
7. Marphatia AA, Ambale GS and Reid AM (2017) Women's Marriage Age Matters for Public Health: A Review of the Broader Health and Social Implications in South Asia. Front. Public Health, 5: 269. doi: 10.3389/fpubh.2017.00269.
8. MMR Bulletin 2016-18.pdf (censusindia.gov.in)
9. 1793f5eb-5225-62f4-74ec-9e97775dd8cc (sbi.co.in)
10. Andrea Nove, Zoë Matthews, Sarah Neal, Alma Virginia Camacho. Maternal mortality in adolescents compared with women of other ages: evidence from 144 countries. The Lancet Global Health, 2014; 2(3): e155-e164, ISSN 2214-109X, https://doi.org/10.1016/S2214-109X(13)70179-7.
11. Ann K Blanc. Excess risk of maternal mortality in adolescent mothers, 2014 DOI:https://doi.org/10.1016/S2214-109X(14)70028-2.
12. Andrea Nove, Zoë Matthews, Sarah Neal, Alma Virginia Camacho. Maternal mortality in adolescents compared with women of other ages: evidence from 144 countries, Lancet Glob Health, 2014; 2: e155–164, http://dx.doi.org/10.1016/S2214-109X(13)70179-7.
13. Ganchimeg, T, Ota, E, Morisaki, N, Laopaiboon, M, Lumbiganon, P, Zhang, J, Yamdamsuren, B, Temmerman, M, Say, L, Tunçalp, Ö, Vogel, JP, Souza, JP, Mori, R, on behalf of the WHO Multicountry Survey on Maternal Newborn Health Research Network. Pregnancy and childbirth outcomes among adolescent mothers: a World Health Organization multicountry study. *BJOG*, 2014; 121(Suppl. 1): 40– 48.
14. Agustin Conde-Agudelo, MD, MPHJosé M. Belizán, MD, PhD Cristina Lammers, MD, MPH. Maternal-perinatal morbidity and mortality associated with adolescent pregnancy in Latin America: Cross-sectional study, DOI:https://doi.org/10.1016/j.ajog.2004.10.593.
15. Neal, S., Mahendra, S., Bose, K. *et al.* The causes of maternal mortality in adolescents in low and middle income countries: a systematic review of the literature. *BMC Pregnancy Childbirth* 16, 352 (2016). https://doi.org/10.1186/s12884-016-1120-8.
16. NATIONAL FAMILY HEALTH SURVEY (NFHS-4), https://dhsprogram.com/pubs/pdf/FR339/FR339.pdf
17. K.G. Santhya, Early marriage and sexual and reproductive health vulnerabilities of young women: a synthesis of recent evidence from developing countries.
18. Goli, S., Rammohan, A. & Singh, D. The Effect of Early Marriages and Early Childbearing on Women's Nutritional Status in India. *Matern Child Health J.*, 2015; 19: 1864–1880. https://doi.org/10.1007/s10995-015-1700-7

19. Spear, Bonnie A., Adolescent growth and development Caroline H D Fall, Harshpal Singh Sachdev, Clive Osmond, Maria Clara Restrepo-Mendez, Cesar Victora, Reynaldo Martorell, Aryeh D Stein, Shikha Sinha, Nikhil Tandon, Linda Adair, Isabelita Bas, Shane Norris, Linda M Richter, and the COHORTS investigators, Association between maternal age at childbirth and child and adult outcomes in the off spring: a prospective study in five low-income and middle-income countries (COHORTS collaboration), Lancet Glob Health, 2015; 3: e366–77. http://dx.doi.org/10.1016/ S2214-109X(15)00038-8.
20. Prof Maureen M Black, Prof Susan P Walker, Lia C H Fernald, Christopher T Andersen, MS Ann M DiGirolamo, Chunling Lu, et al. Early childhood development coming of age: science through the life course. DOI:https://doi.org/10.1016/S0140-6736(16)31389-7.
21. https://censusindia.gov.in/Vital_Statistics/SRS_Report_2018/SRS_Statistical_Report_2018.pdf
22. Raj, A., Salazar, M., Jackson, E.C. *et al.* Students and brides: a qualitative analysis of the relationship between girls' education and early marriage in Ethiopia and India. *BMC Public Health*, 2019; 19: 19. https://doi.org/10.1186/s12889-018-6340-6.
23. Goli, Srinivas & Anurammohan, & Singh, Deepti. (2015). The Effect of Early Marriages and Early Childbearing on Women's Nutritional Status in India. Maternal and Child Health Journal. 19. 10.1007/s10995-015-1700-7.
24. Goldie SJ, Sweet S, Carvalho N, Natchu UCM, Hu D (2010) Alternative Strategies to Reduce Maternal Mortality in India: A Cost-Effectiveness Analysis. PLoS Med, 7(4): e1000264. doi:10.1371/journal.pmed.1000264.
25. 70 per cent of surveyed students favour 21 as age of marriage, https://economictimes.indiatimes.com/news/india/70-of-surveyed-students-favour-21-as-age-of-marriage/articleshow/88401484.cms
26. Minimum legal age of marriage for women being raised to 21 years pros and cons,https://www.theleaflet.in/minimum-legal-age-of-marriage-for-women-being-raised-to-21-years-pros-and-cons/
27. Raising Legal Marriage Age for Women is Not the Silver Bullet for India's Child Marriage Problem, https://www.news18.com/news/opinion/raising-legal-marriage-age-for-women-not-the-silver-bullet-for-child-marriage-problem-4580036.html.
28. Quixplained: Why Centre wants to raise marriage age of women,https://indianexpress.com/article/explained/quixplained-raise-marriage-age-of-women-7694084/.