



Age at Marriage and Its Relationship with Fertility Patterns among Women in Urban Slums of Lucknow

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<https://doi.org/10.53926/YNJR/0017>

<https://ynjr.in/>

Abstract

Introduction: In urban slums, where a large population of poor and uneducated adolescent girls resides, the issue of early marriage is more acute when compared with data for a similar age group from urban non-slum areas. Despite legal provisions against child marriage, the problem persists, particularly in economically disadvantaged areas. Many studies have shown a negative relationship between age at marriage and fertility. Age at marriage is an important demographic variable, influencing fertility. Since most birth take place within marriage in many traditional societies. It seems quite reasonable to assume that age of marriage is likely to affect the number of children women eventually bears. Thus, considering age at first marriage as the prime determinant of fertility in the context of Uttar Pradesh, an attempt will be made in the study to identify the important socio-economic and demographic factor influencing the female's age at first marriage and the impact of age at first marriage on fertility in selected slums of Lucknow. **Materials & Methods:** A descriptive survey approach was adopted to collect data from a sample of 100 married women residing in urban slums through convenience sampling. The study analyzed demographic variables such as age, education, occupation, income, religion, and family type in relation to the age of marriage. The impact of early marriage on fertility indicators, including the number of pregnancies, living children, abortions, and stillbirths, was also examined. **Results:** The study found that the average marriage age in urban slums of Lucknow falls within the range of 18.5 to 21.5 years. Demographic variables such as education, occupation, income, and family type were not significantly associated with the age of marriage, while religion showed a significant association. Furthermore, the study revealed that early marriage did not have a substantial impact on fertility indicators, as there was no significant correlation between age at marriage and the number of pregnancies, living children, abortions, or stillbirths. **Conclusion:** Early marriage remains a pressing concern in urban slums, with implications for women's fertility. While demographic factors did not significantly influence age at marriage, the impact on fertility indicators was minimal. Public awareness and education are vital in addressing this issue.

Keywords: Marriage Age; Early Marriage; Women; Fertility Indicators; Urban Slum

INTRODUCTION

In urban slums, where a large population of poor and uneducated adolescent girls resides, the issue of early marriage is more acute when compared with data for a similar age group from urban non-slum areas. Pervasive violence, extreme poverty and absence of basic services in urban slums contribute to early child marriage [1,2,3]. Child marriage among girls is most common in South Asia and sub-Saharan Africa, with Bangladesh having the highest rate of marriage involving girls under age 15. Eighty-one percent of girls from households with the lowest income marry before age 18, as compared with 56 percent from households with the highest income [4].

It is assumed that longer the duration of reproductive span higher in the number of children. Many studies have shown a negative relationship between age at marriage and fertility [5]. Age at marriage is an important demographic variable, influencing fertility. Since most birth take place within marriage in many traditional societies [4].

It seems quite reasonable to assume that age of marriage is likely to affect the number of children women eventually bears. According to the National Family Health Survey-5 (2019–21), 16% of women aged 20–24 years in Uttar Pradesh were married before the legal age of 18 years, the median age

at first marriage among women aged 20–49 years was 19.1 years [6]. Marriage at low ages has severe social, psychological, and health consequences for both immature women and their offspring. Child marriage is an abuse of girl's human rights, because it terminates their education when they marry early, prevents them from enjoying optimal health and reduces their quality of life [4].

Additionally, women's opportunities for education and employment are often constrained by limited freedom of movement, domestic responsibilities, early childbearing soon after marriage, childcare duties, and prevailing social norms, all of which collectively hinder their ability to pursue personal and professional development. Early marriage is a barrier to individual and social development. Previous research pointed out of variety of social, families, health and financial outcomes that are strongly correlated with early adolescent marriage and low education. So, postponement of the first marriage has been outlined as one of the main determinants of declining fertility [5]. While India has a successful history in reducing its fertility, the rate is so far high with respect to its population. The prevalence of early marriage and early motherhood is still more frequent throughout the country. Women from slum areas were more likely to marry before the legal age of marriage and also had number of children born to them.

Uttar Pradesh traditionally had higher fertility compared to other States in India. The current fertility level in Uttar Pradesh is 2.4 children per women NFHS-5 (2020-21) [6,7]. Thus, considering age at first marriage as the prime determinant of fertility in the context of Uttar Pradesh, an attempt will be made in the study to identify the important socio-economic and demographic factor influencing the female's age at first marriage and the impact of age at first marriage on fertility in selected slums of Lucknow.

MATERIALS AND METHODS

The present study adopted a descriptive research approach using a descriptive survey design to explore marriage age and its relationship with fertility patterns among women residing in urban slums of Lucknow. The research was carried out in the selected slum areas in Lucknow, Uttar Pradesh. The target population consisted of women living in slum communities, while the accessible population included married women residing in selected slum areas of Lucknow. A total of 100 participants were included in the study. The samples were selected using a non-probability convenience sampling technique, considering the accessibility of participants during the data collection period.

The sample selection criteria were clearly defined. Married women living in the selected slum areas of Lucknow were included in the study. For data collection, a structured questionnaire developed by the researchers was utilized. The instrument was divided into two sections. Section A collected information related to the demographic characteristics of the respondents, including age, educational status, occupation, monthly income, religion, and type of family. Section B comprised six multiple-choice questions designed to assess variables related to marriage age and fertility patterns among the participants. These questions covered aspects such as age at marriage, age at first childbirth, number of pregnancies, number of living children, number of abortions, and number of stillbirths.

Ethical principles were strictly maintained throughout the research process. Prior permission to conduct the study was obtained from the concerned institutional authorities. Participants were provided with clear information about the purpose and nature of the study, and informed consent was obtained before data collection. Measures were taken to ensure the privacy, confidentiality, and anonymity of the respondents, and the study was conducted with honesty, impartiality, and scientific integrity.

The data collection process was carried out by the research team after obtaining the necessary permissions. Data were collected during the period from 3 July 2022 to 13 July 2022. During visits to the selected slum areas, the investigators identified married women who met the inclusion criteria. After explaining the objectives of the study, written informed consent was obtained from those who agreed to participate.

The required information was then gathered through face-to-face interviews using the structured questionnaire, and responses were recorded accordingly while ensuring confidentiality. The collected data were systematically

organized and analysed using both descriptive and inferential statistical methods. Frequency and percentage distributions were applied to describe the demographic characteristics of the respondents. The median was calculated to determine the typical age at marriage among the participants. Furthermore, the Chi-square test was employed to examine the association between age at marriage and selected demographic variables, as well as to assess the relationship between age at marriage and fertility-related indicators.

RESULTS

Findings on demographic variables of women participants residing in selected urban slums of Lucknow: The findings related to the age distribution of women participants show that out of the total sample of 100 respondents, 42 (42%) belonged to the age group of 20–25 years, which represents the largest proportion of the study population. This was followed by 31 (31%) participants in the age group of 26–35 years. A smaller proportion of respondents, 16 (16%), were in the 36–40 years age group, while 11 (11%) of the participants were between 40–45 years.

Based on educational status, the results show that out of the 100 participants, 49 (49%) had no formal education, 35 (35%) had completed primary education, and 16 (16%) had completed high school education or above. With regard to occupational status, the results reveal that 33 (33%) participants were self-employed, 49 (49%) were daily wage earners, and 18 (18%) were unemployed. Regarding monthly income, 30 (30%) participants had a monthly income between ₹1000–2000, 37 (37%) earned between ₹2001–4000, 27 (27%) earned between ₹4001–6000, and 6 (6%) had a monthly income above ₹6000. In relation to religion, out of the 100 participants, the majority were Hindus (46%), followed by Muslims (34%), while 20% belonged to other religions. With respect to type of family, 39 (39%) participants were living in joint families, whereas 61 (61%) belonged to nuclear families.

Findings on marriage age of women residing in selected slum areas of Lucknow: Table 1 reveals that out 100 participants 44 of them got married below the age of 18 years, 24 of them got married in between the age group of 19 – 22 years, 21 of them got married in between 23 – 25 years of age and marriage age of rest of them were at 26 years and above. The mean age at marriage was 21.1 years, while the median class of marriage age was 18.5–22.5 years.

Findings on association between marriage age and selected demographic variables among women residing in selected slum areas of Lucknow: Table 2 shows the association between age at marriage and selected demographic variables among women residing in selected slum areas of Lucknow. The findings indicate that educational status, monthly income, and type of family did not show a statistically significant association with age at marriage at the 0.05 level of significance. However, occupational status and religion showed a statistically significant association with age at marriage, indicating that these factors may influence the age at which women enter into marriage in the studied population.

Table 1: Percentage, frequency, mean and mode distribution of marriage age of women residing in selected slum areas of Lucknow

(n=100)

Age Group	Frequency (f)	Percentage (%)	Mean \bar{X}	Median Class (M)
15-18 Years	44	44	21.05	18.5 – 22.5
19-22 Years	24	24		
23-25 Years	21	21		
26 Years and more	11	11		

Table 2: Association between marriage age and selected demographic variables among women residing in selected slum areas of Lucknow.

(n=100)

S. No	Demographic Variables	15–18 Years	19–22 Years	23–25 Years	≥26 Years	χ^2 Value	df	Critical Value (0.05)	Remarks
1	Educational Status					10.92	6	12.59	Not Significant
	No Formal Education	26	12	8	3				
	Primary Education	16	6	8	5				
	Secondary Education & Above	2	6	5	3				
2	Occupational Status					15.06	6	12.59	Significant
	Self-employed	13	8	8	4				
	Daily Wagers	28	11	6	4				
	Unemployed	3	5	7	3				
3	Monthly Income					7.34	9	16.92	Not Significant
	₹1000–2000	12	8	7	3				
	₹2001–4000	21	9	5	3				
	₹4001–6000	9	6	9	4				
	> ₹6000	2	1	0	1				
4	Religion					19.78	6	12.59	Significant
	Hindu	20	10	12	4				
	Muslim	17	9	7	1				
	Others	7	5	2	6				
5	Type of Family					2.21	3	7.81	Not Significant
	Joint Family	17	9	7	6				
	Nuclear Family	27	15	14	5				

Findings on association between marriage age and its impact on the reproductive History Variables and fertility rate among women in selected slum areas of Lucknow

Table 3 presents the association between age at marriage and selected reproductive history variables among women residing in selected slum areas of Lucknow. The relationship between age at marriage and fertility-related indicators was analysed using the Chi-square test. The results indicate that no statistically significant association was observed between age

at marriage and the number of pregnancies ($\chi^2 = 13.29$, $df = 9$), number of living children ($\chi^2 = 8.80$, $df = 9$), number of abortions ($\chi^2 = 16.40$, $df = 12$), or number of stillbirths ($\chi^2 = 9.51$, $df = 12$) at the 0.05 level of significance, as the calculated chi-square values were lower than the respective critical values. These findings suggest that variations in the age at marriage among the respondents did not show a significant influence on the fertility-related outcomes considered in the present study.

Table 3: Association between marriage age and its impact on the reproductive history variables and fertility rate among women in selected slum areas of Lucknow. (n=100)

Variables	15–18 Years	19–22 Years	23–25 Years	≥26 Years	χ^2 Value	df	Critical Value (0.05)	Remarks
Number of Pregnancies								
0	12	10	6	4	13.29	9	16.92	Not Significant
1–2	19	8	7	3				
3–4	12	4	6	0				
≥4	1	2	2	3				
Number of Living Children								
0	13	9	9	2	8.80	9	16.92	Not Significant
1–2	15	8	5	2				
3–4	8	7	4	3				
≥4	9	1	2	3				
Number of Abortions								
0	21	9	7	7	16.40	12	21.03	Not Significant
1	13	6	2	1				
2	2	2	4	0				
3	2	5	5	1				
≥4	6	3	2	2				
Number of Stillbirths								
0	22	13	7	5	9.51	12	21.03	Not Significant
1	11	6	6	2				
2	4	0	1	2				
3	2	2	3	0				
≥4	5	5	3	1				

DISCUSSION

Analysis of the collected data revealed that out of 100 participants, 44 of them got married below the age of 18 years, 24 of them got married between the age group of 19–22 years, 21 of them got married between 23–25 years of age, and the marriage age of the remaining participants was 26 years and above. The mean age at marriage was 21.1 years, while the median class of marriage age was 18.5–22.5 years. These findings indicate that a considerable proportion of women in the selected slum areas entered marriage at a relatively young age, particularly before or around the legally recommended minimum age of marriage. Early marriage remains a common social practice in many economically disadvantaged communities, especially in urban slum settings where educational opportunities and social awareness may be limited. The distribution of marriage age in the present study also reflects prevailing socio-cultural practices and family expectations that influence the timing of marriage among women in such communities.

A previous study conducted with the objective of exploring fertility behaviour and contraceptive use in urban slums of Gorakhpur district, Uttar Pradesh, revealed that the mean age at marriage among women was 18.2 years [8]. Similar findings were reported in NFHS-5 (2019–21) data, which states that the median age at first marriage for women aged 20–49 slightly increased from 19 years in 2015–16 to 19.2 years in 2019–21, while the national average age at marriage for women is 18.8

years [9]. These findings suggest a gradual shift towards delayed marriage in recent years, which may be attributed to increasing awareness regarding the legal age of marriage, improved access to education for women, and various government initiatives aimed at preventing child marriage. However, despite these improvements, early marriage still persists in certain socio-economically disadvantaged populations, particularly among women residing in urban slums and rural areas.

Analysis of the collected data further revealed that demographic variables such as educational status, monthly income, and type of family did not show any significant association with the age at marriage of women. However, a significant association was observed between occupational status, religion and the age at which women were getting married in the selected slum areas. This indicates that cultural and religious beliefs may play a role in influencing marriage practices within the community. Religious traditions, family customs, and community norms often shape social expectations regarding the appropriate age for marriage. Therefore, variations in marriage age among different religious groups may reflect differences in cultural practices, social values, and levels of awareness related to women’s education and empowerment.

This finding is consistent with the NFHS-5 (2020–21) data, which indicates that the age at marriage among women in India

varies across religious groups. When analysed from the perspective of religion, the data show that women belonging to the Jain community tend to marry later in life, with a median age of 22.7 years. Christians have a median marriage age of 21.7 years, while the median age at marriage among Hindus, Muslims, and Sikhs is reported to be 18.7, 18.7, and 21.2 years respectively [10,11]. These differences highlight the influence of socio-cultural traditions and educational attainment within different religious communities. Such variations also reflect the broader socio-economic context, including access to education, employment opportunities, and exposure to health awareness programs that can influence decisions regarding the timing of marriage.

The relationship between age at marriage and fertility-related indicators among women residing in selected slum areas of Lucknow was analysed using the Chi-square test. The results indicated that age at marriage did not have a statistically significant association with the number of pregnancies, number of living children, number of abortions, and number of stillbirths ($p > 0.05$). This suggests that differences in marriage age among the study population did not significantly affect the fertility outcomes considered in the present study. The findings imply that factors other than the age at marriage may have a greater influence on reproductive outcomes in this population. Elements such as awareness regarding family planning methods, access to maternal health services, and socio-economic conditions may play a more important role in shaping fertility patterns among women living in urban slum communities.

A study conducted with the objective of revealing inequity in maternal and reproductive health services reported that slum communities had higher coverage of maternal health services compared to rural communities. In addition, slum populations were found to have lower fertility rates and higher contraceptive use compared to rural populations [12]. These findings suggest that the urban slum population, despite living in economically disadvantaged conditions, may benefit from relatively better accessibility to healthcare facilities located within urban areas. Availability of government health programs, outreach services, and community health workers in urban areas may contribute to improved maternal and reproductive health service utilization among women residing in slums.

The increased accessibility to health services among slum populations, higher coverage of maternal and child health services, greater contraceptive use, relatively improved socio-economic conditions, and better educational opportunities among slum dwellers in recent years may explain the absence of a significant association between marriage age and fertility rate among women in the selected slum areas of Lucknow. Government initiatives focusing on maternal health, family planning, and reproductive health education may also have contributed to improving awareness among women regarding birth spacing and contraceptive methods. As a result, fertility behaviour in these communities may increasingly depend on health awareness and service utilization rather than solely on the age at which women enter marriage.

Implications of the study

The findings of the study have implications for Nursing Education, Nursing Practice, Nursing Research and Nursing administration.

Nursing Education

The curriculum must emphasis on the ill effects of early marriage on fertility indicators among women. The curriculum must emphasise the importance of creating awareness among the public regarding the ill effects of early marriage on fertility indicators among women. Nurses should have the knowledge and skill in preparation of educational material for both literate and illiterate people in the society regarding the influence of demographic variables on age of marriage.

Nursing Practice

Community health nurses can organize mass education campaigns to create awareness regarding early marriage. Nurses can provide counselling to the parents regarding the importance of preventing early marriage.

Nursing Administration

Community health nurses can organize an awareness programme by involving local NGO'S / self-help groups regarding early marriage and its problems. Nurse administrators have more responsibility as supervisors on creating awareness among adolescent girls regarding problems of early marriage by facilitating free distribution of pamphlets, booklet, handouts, posters and showing documentary films to community peoples.

Nursing Research

This study can be effectively utilized by the emerging researchers for their reference purpose. This study can be a baseline for further studies to build upon.

Limitations of the Study

The present study had certain limitations that should be considered while interpreting the findings. The study included a relatively small sample of 100 participants selected from selected slum areas of Lucknow. A larger sample size could have provided more representative results and increased the generalizability of the findings to a wider population. Due to the limited number of participants, the results may reflect only the characteristics and experiences of the selected group of women rather than the entire population of women residing in urban slums. The data collection period for the study was relatively short. The limited time available for conducting the survey restricted the researchers from covering a larger geographical area and including more participants. A longer data collection period might have allowed the researchers to obtain more comprehensive information and verify responses more carefully, which could have enhanced the reliability and depth of the findings. Overall, these limitations may have influenced the scope and generalizability of the study results. Future studies may consider a larger sample size and extended data collection period to obtain more robust and representative findings.

Recommendations

A survey study can be conducted to identify prevalence of early marriage with special emphasis on different religions. Similar studies can be replicated on a large sample there by findings can be generalized by a large population.

CONCLUSION

Overall, the findings of the study highlight that although early marriage continues to exist among women in urban slum settings, its direct influence on fertility outcomes appears to be limited in the present context. Improved access to health services, expanding educational opportunities, and growing awareness regarding reproductive health may be contributing to changes in fertility behaviour among women in these communities. The study emphasizes the need for continued

health education, community awareness programmes, and supportive social policies to further delay the age at marriage and promote better reproductive health outcomes among women living in urban slum populations.

SOURCE OF FUNDING

The authors declare that no funding was received for this study.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ACKNOWLEDGEMENT

The authors declare that there are no acknowledgements for this study.

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