**RESEARCH ARTICLE** 

# A DESCRIPTIVE STUDY OF THE SOCIO-DEMOGRAPHIC DETERMINANTS INFLUENCING ADOLESCENT PREGNANCY IN SHIMOGA TOWN. KARNATAKA

#### Aniruddh K Menon, Praveen Kumar N, MV Sagar

Department of Community Medicine, Shivamogga Institute of Medical Sciences, Shimoga, Karnataka, India

Correspondence to: Aniruddh K Menon (aniruddhkrishna@outlook.com)

DOI: 10.5455/ijmsph.2014.210220143 **Received Date: 06.02.2014 Accepted Date: 21.04.2014** 

#### **ABSTRACT**

Background: Young age at pregnancy carries significant risk for the mother and baby, adding to the burden of maternal and child mortality.

Aims & Objective: (1) To study the socio-demographic factors influencing adolescent pregnancy; (2) To take an account of the awareness among women about the right age for child-bearing.

Materials and Methods: A hospital-based study was undertaken during September to December 2013 among mothers attending the antenatal clinic, in Mc Gann Hospital, Shimoga. The study group comprised of 214 mothers aged 15-18 years. Data was collected about the socio-demographic variables, tabulated on Microsoft Excel spreadsheet and analysed using EpiInfo application.

Results: All women were married. The mean age at marriage was 17.4 years, and mean interval between marriage and conception was 1 year. All were primigravids. 185 (86%) women were 18 years old and 29 (14%) were 17 years old. 15 (7%) women were married at 16 years, 92 (43%) at 17 years and 107 (50%) at 18 years. Non-consanguineous marriages were 122 (57%), while 92 (43%) were consanguineous. 172 (80%) women were Hindu, 34 (16%) were Muslim and 8 (4%) were Christian. 107 (51%) women belonged to socio-economic Class V, 22 (10%) to Class IV, and 37 (18%), 24 (11%) and 21 (10%) to classes III, II and I respectively. 75 (35%) women discontinued education after 10th standard and 100 (47%) before 10th standard. 39 (18%) studied up to the Pre-University course. Reasons cited were marriage by 41 (19%), poverty by 62 (29%) and 111 (52%) for disinterest. Among the husbands, 4 (2%) had never been to a school, 131 (61%) studied up to 9th standard, 60 (28%) quit after 10th standard and 19 (9%) studied beyond 10th standard, which included 4 graduates. 77 (36%) women were of first birth order of their mothers, while 80 (37%) of birth order 2. Anemia was detected in 128 (60%), 7 had bronchial asthma and 3 had congenital cardiac valve diseases. 17-19 years was the common age at pregnancy in the community and families of 188 (88%) women. 26 (12%) women said that the common age at first pregnancy was above 20 years in their community. 60 (28%) were forced into wedlock. 17 (8%) admitted were facing domestic pressure. 167 (78%) preferred to have the first child delivered before 19 years, 26 (12%) said after 20 years of age and 21 (10%) after 22 years. 126 (59%) women said early pregnancy is good, 56 (26%) took the opposite stand and 31 (15%) women were indifferent. 205 (96%) women were aware about contraception, but practice was zero. None had received sex education.

Conclusion: Observations throw light on the fact that knowledge about the risks involved in adolescent pregnancy is lacking among the adolescent mothers. Contraception is not being practised. Also, the average educated and adequately aware women, were falling preys to poverty, traditions and domestic pressure, when it came to deciding the right age for child-bearing.

Key Words: Pregnancy in Adolescence; Teen Pregnancy; Socio-Demographic Factors

## Introduction

Adolescence is the age of growth for the body and mind. The age of 12-20 years is meant for education and undertaking efforts at attaining life's goals. Adolescence or teenage is never the age to bear children and raise a family. While governments in various countries have legalized marriage and set the legal age to tie the knot, the age for pregnancy is too far from legalization. India has drawn inspiration from the British legislation on 16 years as the legal age for consented sex.[1] However, the concepts of marriage, sex, childbearing and family hold different meanings in the East and West worlds, which, although subtle, would result in large confusions, if ignored. The health issues in rural India are already aplenty, amidst which, certain problems are fed and nurtured by cultural and traditional practices. These issues that arise from a

complex blend of religious sentiments, culture and faith, and socio-economic conditions, pose a Goliath image before the community health professional to address. It requires coordinated efforts from the executive, judiciary and legislative domains to tackle such problems. 18 years as the legal age for marriage for women is a welcome move.[2] But, that legislation does not address the crucial health risk of a married female getting pregnant before she reaches 20.[3] While in the developed world, where women conceive without a legal husband, and where legal abortion is a minor procedure at the obstetrician's clinic, India has women marrying soon after menarche, childbearing starting in late adolescence and illegal abortions are still a menace.[4] States of Bihar, Uttar Pradesh, Jharkhand, West Bengal, Madhya Pradesh and Karnataka have more than 50% of mothers in the 15-19 year bracket.[5] While increasing attention is being paid to the health issues of

adolescents, very little is being done for addressing the socio-economic and cultural factors that determine the pregnancy outcome of these teenage mothers. Present study was undertaken in the Shimoga district of Karnataka with the objectives of studying the socio-demographic factors that have a bearing on early childbearing, and to assess the awareness among teenage mothers about the right age for childbearing and contraceptive practices.

## **Materials and Methods**

The study was conducted in the obstetrics out-patient department of Mc Gann Hospital (Shivamogga District Hospital), Shimoga District. Ethical clearance was obtained from the Institutional Ethics Committee. 214 pregnant women, aged 15-18 years, who were registered for antenatal consultation at Mc Gann Hospital in Shimoga Town, were interviewed using a pretested and semistructured questionnaire. Data pertaining to sociodemographic variables was collected after obtaining their consent for participation. Women who refused to participate were excluded. Available medical records were looked into, for obtaining information about any health problems during the pregnancy. The study was descriptive with respect to the variables analysed.

Data collected was tabulated on Microsoft Excel software and analysed using EpiInfo application. Data from NFHS 3 findings was employed to calculate the sample size. Among Indian women aged 15-19 years, 16% have already begun childbearing.<sup>[6]</sup> Accordingly, assigning an allowable error of 5%, the sample size for the study was arrived at 214. The results were analysed by calculation of mean and percentages of the variables employed.

## Results

The socio-demographic characteristics of the adolescent pregnant mothers are described here (table 1). All women in the study were married. The mean age at marriage was 17.4 years, and mean interval between marriage and conception was 1 year. All the mothers were primigravids. 185 (86%) women were 18 years old and 29 (14%) were 17 years old among the study subjects. Women who were married at 16 years were 15 (7%), 92 women (43%) were married at 17 years and 107 (50%) were married at 18 years. In other words, 50% of the mothers in the study were married before the legal age. Non-consanguineous marriages were 122 (57%), while 92 (43%) were consanguineous.

172 (80%) women were Hindu, 34 (16%) were Muslim and 8 (4%) were Christian. Data on socio-economic status of the pregnant adolescent mothers showed 107 (51%) belonging to Class V, 22 (10%) belonging to Class IV, and 37 (18%), 24 (11%) and 21 (10%) belonging to classes III, II and I respectively. Modified B.G.Prasad's scale for the year 2013 was used for above categorization. Study showed predominance of the condition in the lower socioeconomic families.

75 (35%) women in the study discontinued education after 10th standard. 100 (47%) had to discontinue education before 10th standard. 39 (18%) women had education up to the Pre-University course. 41 (19%) women cited marriage as the reason for discontinuation of education, poverty forced 62 (29%) women to opt out of education and the remaining 111 (52%) gave up education for sheer lack of interest. Data was also collected to find out the education level of the husbands. It was found from the study that 4 (2%) had never been to a school, 131 (61%) men had education only up to 9th standard, 60 (28%) quit after 10th standard and only 19 (9%) studied beyond the level of 10th standard, which included 4 graduates.

Among the women studied, 77 (36%) were the eldest children of their mothers, while 80 (37%) were the eldest daughters, i.e. of birth orders 1 and 2 respectively. Analysis of the available medical records showed that anemia was detected in 128 (60%) women, while 7 women were suffering from bronchial asthma and 3 were diagnosed with congenital cardiac valve diseases.

17-19 years was the common age at pregnancy in the community and families of 188 (88%) women. Only 26 (12%) women said that the common age at first pregnancy was above 20 years in their community (fig. 3). Women who were forced into wedlock were 60 (28%). 17 (8%) women admitted to have been facing pressure from the inlaws about matters connected to childbearing (table 2). When asked about what the mothers thought was the right age for childbearing, 167 (78%) preferred to have the first child delivered before 19 years, implying that they desired to get pregnant at 18, and only 26 (12%) said first pregnancy should be after 20 years of age. 21 (10%) women preferred first child after 22 years.

When asked about their concepts about early childbearing, 126 (59%) women said it is good, as it evades them from the "curiosity of neighbours to know the reason behind not having conceived more than a year after marriage", 56 (26%) took the opposite stand, saying it is bad, that it is dangerous for the baby and the mother, while 31 (15%) women were indifferent towards the age at first pregnancy.

It was found out from the study that while 205 (96%) women were aware about some or the other contraceptive practices, none of them had put any of the method into practice (table 2). Also, none of the women in the study said they had received any sort of sexual health education from any source whatsoever.

Table-1: Socio-demographic characteristics of adolescent pregnant Adolescent Pregnant Socio-Demographic Characteristics Mothers (N = 214)Frequency Percentage 17 29 14% 185 (years) 18 86% 16 15 7% Age at marriage 17 92 43% 107 50% (years) 18 92 43% Consanguineous Consanguinity 122 57% Non-consanguineous 172 Hindu 80% Religion Muslim 34 16% Christian 8 4% 21 10% Socio-II 24 11% 37 economic III 18% 22 class IV 10% V 107 51% 5th-9th 100 47% Education 10th 75 35% of the woman PUC 39 18% Illiterate 4 2% 5th-9th 131 61% Education  $10^{th}$ 60 28% of the husband **PUC** 15 9% Graduate 4 2% 77 36% 2 80 37% Birth-order 3 42 20% 4 12 6% 5,6 3 1% 128 Anemia 60% Health 7 3% Bronchial asthma problems Cardiac disorders 3 1% Childbearing age <19 years 188 88% 12% in the community 26 >20 years 17-19 years 167 78% Right age for 20-22 years 26 12% childbearing >22 years 21 10% 9 Awareness about Unaware 4% contraceptive practices 205 96% Aware

Table-2: Data on forced marriages, family pressure, adoption of contraceptive practices, sex education and concept of early childbearing

		Adolescent Pregnant	
Variable		Mothers (N = 214)	
		Frequency	Percentage
Forced	Yes	60	28%
marriage	No	154	72%
Family	Yes	17	8%
pressure	No	197	92%
Practised	Yes	0	0%
contraception	No	214	100%
Sex	Yes	0	0%
education	No	214	100%
Early childbearing	Good, evades "social stigma"	126	59%
	Bad, affects general health	56	28%
	Indifferent	31	14%
·		·	·

# **Discussion**

The study has brought to light certain facts that can be well-asserted. Most of the findings are consistent with several other studies carried out in different states of India and the South-East Asian countries.[7-11] Traditional practices and living conditions turn out to be the major determining factors. Adolescent pregnancy predominates among women of lower socio-economic classes. Age at marriage determines the age at pregnancy, and prevailing socio-cultural trends do not favour delaying the marriage of the girl after attaining menarche, as is evident from majority of women saying less than 19 years is a common age at first pregnancy in their community. Each religion has its own cultural practices and beliefs pertaining to marriage and childbearing. It was found that while many women were losing interest in continuing school studies, poverty has forced some to discontinue studies. The very issue of marriage prevented many women from continuing education.

Traditional practices in family and community play a significant role, as is evident from this study that in many families, daughters of higher birth order were married early. Several women were forced into marriage and many were facing domestic pressure.

There is lack of clarity among the women about the ideal age for conception. Majority of the subjects expressed their preferences to get pregnant by 18 years of age, foreseeing family completion by 20 years. This does not seem to be a striking fact taking into account of the tender age at which they marry. While almost all women were aware about contraceptive practices, none of them could opt for any particular method. Here again, cultural practices have a prominent bearing. Quoting in their own words, "curiosity of neighbours to know the reason behind not having conceived more than a year after marriage" shows why women refrain from practising contraception after marriage.

None of the women in the study have had exposure to sex education. Even among the women who had studied up to the 10th standard, sex education was not imparted in the schools. While the current Indian scenario is one filled with controversies for making sex education compulsory in schools, parents can always partake the responsibility of generating awareness in children about pregnancy and childbearing.

## **Conclusion**

Adolescent pregnancy is a matter of concern not just for

the mother and the child, but for the nation as a whole, as it has significant bearing on the crisis of population explosion, and carries unfavourable socioeconomic and educational consequences. As the cultural practices are far too deep-rooted and gigantic to address, measures can be taken to discourage early marriages through enhanced family welfare services. Quality of education in high schools should be improved so as to inspire and motivate girls towards attainment of higher education. Drop-out rates should be bare minimum and efforts should be taken towards keeping the academic and competitive interest alive in the female child. Meanwhile, parents should encourage holistic development of their daughter, and not send her in marriage even before she has stepped out of the school gates. This is possible with improvement of the financial condition, thereby mitigating the dangerous notion that their unmarried daughter is a burden on the family. Educating the girl child is of magnanimous vitality in preventing teenage pregnancies. There is a need to address the society at large, rather than targeting families or groups. Sex education in high schools should be redefined into holistic reproductive and family health education that would impart value-based knowledge to the students about procreation and population. Awareness about contraception should be improved among the adolescents, and married couples should be encouraged to practice the methods of contraception through reinforced information, education and communication campaigns. These measures, with stricter enforcement of the legislation concerning legal age for marriage, especially in rural areas, would certainly prove fruitful towards attaining the goal of a healthy generation of children from healthy and responsible mothers.

#### **ACKNOWLEDGEMENT**

The authors are grateful to Dr. Prashanth HL, Associate Professor, Department of Community Medicine at Shivamogga Institute of Medical Sciences for providing valuable support for carrying out the study; Dr. Raghavendra Koppad, Dr. Madhusudana, Dr. Santosh Kumar and Dr. Chandrashekar, Assistant Professors, Department of Community Medicine at Shivamogga

Institute of Medical Sciences for their valuable inputs and Dr. Vijaykumar Mane, Dr. Mallappa O., Dr. suggestions: Omprakash Ambure and Dr. Rajashree Kotabal, Postgraduate students, Department of Community Medicine at Shivamogga Institute of Medical Sciences for their support; Doctors and Nursing Staff of the Department of Obstetrics and Gynecology at Shivamogga Institute of Medical Sciences for their helpful cooperation and support.

## References

- Dhawan H. Govt fixes age of consent at 16 in new anti-rape law. The Times of India [Internet]. 2013 Mar 14 [cited 2013 Nov 21]. Available from: URL:
- http://articles.timesofindia.indiatimes.com/2013-03-14/india/37712854\_1\_sexual-offences-bailable-offence-gom
- Times-view. Court's order on child marriage must be commended. The Times of India [Internet]. 2013 Nov 3 [cited 2013 Nov 30]. Available from: URL:
- http://articles.timesofindia.indiatimes.com/2013-11-03/timesview/43628250\_1\_child-marriage-impractical-idea-order
- Lahangir S. Married at 14, mothers at 15. Press Institute of India [Internet]. 2013 Dec [cited 2013 Dec 26]. Available from: URL:
- http://pressinstitute.in/married-at-14-mothers-at-15/
- Ali SI. Unsafe abortions a cause of concern for health department. The Times of India [Internet]. 2014 Jan 11 [cited 2014 Jan 16]. Available from: URL:
- http://articles.timesofindia.indiatimes.com/2014-01-11/jaipur/46089767\_1\_safe-abortions-maternal-deaths-mtp-act
- Government of India. District Level Household and Facility Survey 2007-08. Ministry of Health and Family Welfare. Chapter 2, table 2.7, p. 17.
- Government of India. National Family Health Survey (NFHS-3) Key Findings. 2005-06. Ministry of Health and Family Welfare. p. 196.
- 11. Thekkekara T, Veenu J. Factors associated with teenage pregnancy. Indian J Community Med 2006; 31:82-3.
- 12. Parasuramulu BG, Shakila N, Masthi RNR. A study on teenage pregnant mothers attending primary health centres of Kempegowda Institute of Medical Sciences, Bangalore. Indian J Public Health 2010;54:205-8.
- 13. Banerjee B, Pandey GK, Dutt D, Sengupta B, Mondal M, Deb S. Teenage pregnancy: a socially inflicted health hazard. Indian I Community Med 2009;34:227-31.
- 14. Raj AD, Rabi B, Amudha P, van Teijlingen ER, Glyn C. Factors associated with teenage pregnancy in South Asia: a systematic review. Health Sci J 2010;4:3-14.
- 15. Chahande MS, Jadhao AR, Wadhwa SK, Ughade S. Study of some epidemiological factors in teenage pregnancy: a hospital-based casecomparison study. Indian J Community Medicine 2002;27:106-8.

Cite this article as: Menon AK, Kumar PN, Sagar MV. A descriptive study of the socio-demographic determinants influencing adolescent pregnancy in Shimoga Town, Karnataka. Int J Med Sci Public Health 2014;3:552-555.

Source of Support: Nil

Conflict of interest: None declared