Role of gender characteristics in adolescent pregnancy among married adolescent residing in urban slums

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ABSTRACT

Objective: To study the role of gender characteristics in adolescent pregnancy among married adolescents living in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC). **Material and Methods:** This was a retrospective study with descriptive study design with cluster sampling and probability sampling, setting in PCMC urban slums. **Results:** On bivariate analysis, the proportion of adolescent married girls was significantly more as compared to primigravida women (2.4% vs. 40.0%, $P < 0.0001$). More than three-forth (78.8%) of the study sample were in the age group of 20–24 years, two-thirds (33.5%) had attained education up to middle-level (5th–7th Std.) and were of general caste (34.1%), followed by SC/STs (28.8%) and OBCs (28.2%). The mean age of adolescent married girl at the time marriage was significantly less (17 years vs. 19 years, $P < 0.0001$) than primigravida woman. The decision about the marriage was mostly taken by the "father." More than half of the adolescent married girls (54.1%) married to relatives from their extended families which were less in primigravida women (48.2%). In adolescent married girls, more than three-fourths (52.6% vs. 77.1%) had no idea of pregnancy and near to one-fourth (23.7% vs. 11.4%) among primigravida reported to conceive in the 1st year itself since mother-in-law wanted it. Decision makers about family size showed no significant difference between the study and control group. **Conclusion:** The univariate logistic regression modeling of lack of awareness about spacing method suggests that lack of awareness about spacing method was associated with women with younger age. The interplay between gender and adolescent pregnancy highlights the importance of incorporating gender characteristics in the social determinant of health.

Keywords: Adolescent, urban slums, gender characteristics, social health

Introduction

Demographically adolescent is a homogenous group, but socially adolescents are not same everywhere. They are socialized and nurtured differently in different society. Most of the societies link the biological maturation of adolescents with the onset of puberty. Giddens explains gender socialization as a more focused form of socialization and further adds how children of different sexes are socialized into gender roles.[1] Studies show youth are sexually active outside marriage in some parts of the world as a result of migration, peer pressure, media, etc. The interval between childhood and parenthood may be relatively prolonged in developed nations, but in developing country like India, the interval may be less. Hence, adolescent health is of great interest not only to Public Health Specialist but also to a social scientist.

Adolescent or teenage pregnancies, encompassing conceptions by girls aged 19 or younger, are a worldwide phenomenon. Adolescent pregnant girls are at higher risk of maternal deaths as compared to women who are in the 20s and 30s age bracket. "Globally, about one-third of woman aged 20–24 were child brides (UNICEF, 2015)." All these manifestation points to the social construction of adolescent and their adolescence, wherein Gender plays a significant role. Gender is socially constructed roles and responsibilities that women carry at home. The gender norms differentiate in defining masculinity and feminine identity in society. Gender relations of power constitute the root cause of gender inequality are among the most influential determinants of health.[2] Gender is embedded in the social relationships in the form of power, social control, and access to resources, which is defined by class, caste, religion, region, kinship, and other parameters. Gender bias and the process of socialization are closely linked, and gender bias is found in the socialization of girl child in slums.[3] In India, women become a mother too soon and have too many children within a short span and leading to health morbidities. "Many feminist literatures have recognized marriage as a key institutional site for the production and reproduction of gender

hierarchies," but a little is known about the process through which this relationship operates.[4] Marriage is a universal truth and necessity intertwined with kinship, caste and locality and fertility asserts her position in the family. Legal age has been fixed for marriage by the government, but an alarming 30.2% of all married women or 10.3 crore girls were married before they had turned 18, as per 2011 census data released (compared to 43.5% in 2001 census data). Women are typically married young, between 16 and 20, and are generally illiterate or have less than a primary school education.[5] Adolescent pregnancy still remains a quest for study as child marriage remains a common practice in India and pregnancy under the umbrella of family system with approval of the society is still prevalent. Young maternal age may result in consequences and risks of pregnancy, not only to the newborn but also to the mother's health.[6] Studies have related adolescent pregnancy to low socioeconomic status, lack of awareness, inadequate contraception as well as sufficient prenatal care.[7] Women's position in-house and society are more precarious, as in traditional or modern society she is bound within the clutches of patriarchy, age-old customs, and conventions.

Objective

The objective of the study was to study the role of gender characteristics in adolescent pregnancy among married adolescents living in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC).

Materials and Methods

For the study purpose, the setting taken was urban slums of PCMC. PCMC in the past two decades grew at an annual average rate of over 7% while the national average was 2.1% and the state average of about 3.3%. Migration accounts for the increase in population in PCMC. There are 71 slums of which 37 are declared and 34 none declared. The quantitative data reported in this paper adopted descriptive study design. Both quantitative and qualitative research methods were used. The sample included preferably lactating mothers within the age group of 15–24 years with (one/two living) child on or below 2 years. Three stage cluster random sampling with probability proportional to size was used. In the cluster random sampling slums from 4 administrative zone selected out of which 26 slums (36%) as per the consent and inclusion/exclusion criteria finally 18 slums/Chawls were selected for study during 2013–15. All the Anganwadi's of the visited slum was marked, and lactating mothers were listed falling in the age group of 15–24. In the third stage, 200 lactating women/special case women were selected randomly falling in the age group 15–24 years from the figures given below. 170 cases were finally enrolled for the quantitative study and 32 key informants for a qualitative study. Probability sampling method used margin of error of 5%, i.e., 0.05, level of significance with $\alpha = 0.05$, $Z_{1-\alpha/2} = 1.96$, design effect for cluster sampling, i.e., D = 1.5 and response rate of 80%: $n = \{D^*[(Z^2_{1-\alpha/2})^*p^*(1-p)]/d^2\}/R$. Identification of primigravida women with first pregnancy was difficult to trace for retrospective study. Structured interview schedule helped in face to face interview, observation and inspecting the medical record were ever available with the recall of data. Key informants data were collected using Interview Guide who

were the "stakeholders of the community" of an urban slum. Ethical clearance was taken before the study with a pilot study. Data were analyzed in SPSS version 21.0 codified and analyzed systematically first univariate analysis to decipher variables and its general outlook, bivariate and multivariate analysis to see an association between predictor variables and the outcome variable.

Result

Socioeconomic demographic detail shows 21.2% adolescent respondents and 78.8% primigravida women (20–24) with median age 21 years (I.Q.R: 2 years). On bivariate analysis, the proportion of adolescent married girls was significantly more as compared to primigravida women (2.4% vs. 40.0%, $P < 0.0001$). Age-specific head of the family was seen in the study area enjoying an authoritative lead in the power structure. More than three-forth (78.8%) of the study sample were in the age group of 20–24 years, two-thirds (33.5%) had attained education up to middle-level (5th–7th Std.) and were of general caste (34.1%), followed by SC/STs (28.8%) and OBCs (28.2%). Most of the study participants were homemaker (66.5%) and construction laborer (17.1%) and living in nuclear (49.4%) and joint (46.5%) families. More than three-forth (77.6%) of the participants were from Maharashtra and of "Hindu" religion (76.5%). The median duration of stay in Pune city was 5 years (18 years), and the reason for internal migration was marriage (38.2%) and parents' migration for job/work (38.8%). Majority of the dominant personnel in family belong to age group 20–31 (45.88%) mostly husbands in nuclear family followed by 37.82% above 50 years, i.e., they are either mother-in-law or father-in-law in most of the cases. The percentage of education of other family members shows primary level (8.13%), middle education (25.60%), secondary (28.31%), higher education (11.75%), and graduate/professional (3.31%). The monthly income of family shows (35%) <7000 and (42.35%) Rs. 7001–9000 and rest had higher income with average family size 4.12. Most of the members were engaged in unskilled and semiskilled work. No significant association was found between joint and nuclear family among respondent.

The bivariate analysis cross-tabulates the sample characteristics of the respondents with the variable of interest - age at first pregnancy; which is further used to define the control and study groups for analysis. The control group is defined as group of the respondents, who were between the age of 20 and 24 years at the first pregnancy and referred as "Primigravida women;" whereas, the study group was defined as the groups of respondents, who were between the age of 15 and 19 years at the first pregnancy and referred as "adolescent married girls."

Marriage and gender characteristics

Table 1 the proportion of getting married below 18 years was significantly more among adolescent married girls (14.1% vs. 62.4%, $P < 0.0001$) than primigravida women; which are replicated in the mean age at marriage and was below the legal age of marriage. The mean age of adolescent married girl at the time marriage was significantly less (17 years vs. 19 years, $P < 0.0001$) than primigravida woman. In addition, the reason for early marriage among the study group was the economic problems/poverty. The proportion of respondents stating

Table 1: Marriage and gender characteristics by age at first pregnancy (study/control group) n=170

Marriage and gender characteristics	n (%)		P (Chi-square test)
	Control group (primigravida women: 20–24 years), n=85	Study group (adolescent married girl: 15–19 years), n=85	
Age at marriage of the respondent			
<18 years	12 (14.1)	53 (62.4)	P<0.0001
18 and above years	73 (85.9)	32 (38.2)	
Mean age at marriage (SD)	85 (19.3) [±1.6]	85 (16.7) [±1.5]	P<0.0001
Husbands' age at marriage			
<21 years	9 (10.6)	22 (25.9)	0.025
21–25 years	57 (67.1)	51 (60.0)	
25+years	19 (22.4)	12 (14.1)	
Mean age of husband at marriage (SD)	85 (23.7) [± 2.6]	85 (22.4) [±4.0]	0.01
Husband relative (in case of marriage)	41 (48.2)	46 (54.1)	0.443
Aware about the legal age of marriage (n=116)	72 (98.6)	41 (95.3)	0.282
Person who took the decision of marriage			
Father	43 (50.6)	42 (49.4)	0.768
Elder male family member	18 (21.2)	15 (17.6)	
Mother	11 (12.9)	10 (11.8)	
Others	13 (15.3)	18 (21.2)	
Studying when got married	25 (29.4)	31 (36.5)	0.328
Reasons for leaving school/college			
Marriage	17 (20.0)	25 (29.4)	0.155
Distance of school	22 (25.9)	23 (27.1)	0.862
Non-availability of transport facility	6 (7.1)	2 (2.4)	0.147
Parents not interested in study	29 (34.1)	27 (31.8)	0.744
Elders objected	5 (5.9)	3 (3.5)	0.469
All the above	4 (4.7)	1 (1.2)	0.173
Others	10 (11.8)	7 (8.2)	0.443
Personal perception/reason for getting married by the parents			
Both parents working so it is not safe to keep girls alone at home	7 (8.2)	17 (20.0)	0.004
Urban place is not safe for grown-up girls	11 (12.9)	11 (12.9)	
Scared that I will elope	4 (4.7)	3 (3.5)	
Economic problem/poverty	21 (24.7)	34 (40.0)	
Others	42 (49.4)	20 (23.5)	
Educated by anyone about menses/menstrual hygiene	60 (70.6)	44 (51.8)	0.017
Persons educated about the menses/menstrual hygiene			
Teacher	18 (30.0)	7 (15.9)	0.07
Mother	29 (48.3)	24 (54.5)	
Friends	10 (16.7)	5 (11.4)	
Others (relative/doctor/NGO/Anganwadi/grandparents)	3 (5.0)	8 (18.2)	
Educated by anyone about sex education	29 (34.1)	15 (17.6)	0.014
Persons educated about the sex education (n=44)			
Teacher	8 (27.6)	3 (20.0)	0.426
Mother	5 (17.2)	5 (33.3)	
Friends	11 (11.0)	3 (20.0)	
Other	5 (5.0)	4 (26.6)	

(Contd...)

Table 1: *(Continued)*

Marriage and gender characteristics	n (%)		P (Chi-square test)
	Control group (primigravida women: 20–24 years), n=85	Study group (adolescent married girl: 15–19 years), n=85	
Education includes family planning methods	21 (24.7)	14 (16.5)	0.237
Want to conceive in the 1st year itself			
Yes	30 (35.3)	31 (36.5)	0.157
Can plan to wait	16 (18.8)	12 (14.1)	
Others	38 (44.7)	35 (41.2)	
No answer	1 (1.2)	7 (8.2)	
Want to conceive in the 1st year itself - others category (n=75)			
Mother-in-law wanted	9 (23.7)	4 (11.4)	0.09
No idea of pregnancy	20 (52.6)	27 (77.1)	
As I was studying/husband wanted/Gods' gift/NA	9 (23.7)	4 (11.5)	
Preference to have a boy or girl			
Male child	27 (31.8)	23 (27.1)	0.029
Female child	21 (24.7)	19 (22.4)	
Healthy baby	25 (29.4)	14 (16.5)	
No preference	8 (9.4)	17 (20.0)	
Others	4 (4.7)	12 (14.1)	
Knowledge about the determination of sex of the child/baby			
Father	60 (70.6)	29 (34.2)	P<0.0001
God/both	25 (29.4)	56 (65.9)	
Decision about the size of the family			
Mother-in-law	34 (40.0)	28 (32.9)	0.339
Father-in-law	8 (9.4)	7 (8.2)	0.787
Husband	53 (62.4)	50 (58.8)	0.638
Herself	9 (10.6)	7 (8.2)	0.599

SD: Standard deviation

the personal reason as "economic problems/poverty" were more among adolescent married girls (24.7% vs. 40.0%, $P = 0.004$) than primigravida women. The decision about the marriage was mostly taken by the "father" and proportion of decision maker as a "father" was approximately similar in both the groups (control group - 50.6%, study group - 49.4%). More than one-third (36.5%) of adolescent married girls were studying when got married as compared the primigravida women (29.4%); which are reflected in the reasons for leaving school/college. The proportion of leaving school/college due to marriage was more among study group (20.0% vs. 29.4%, $P = 0.328$) than the control group. Subsequently, the proportion of husbands married below the legal age of marriage, i.e., below 21 years was more among adolescent married girls (10.6% vs. 25.9%, $P = 0.025$) than their counterparts with a mean age at marriage of 22 years versus 24 years ($P = 0.01$). In addition, more than half of the adolescent married girls (54.1%) married to relatives from their extended families; which was less in primigravida women (48.2%).

The proportion of adolescent married girls educated about menses/menstrual hygiene was significantly less (70.6 vs. 51.8%, $P = 0.017$) than their counterparts. Surprisingly, "mothers" were the person

to educate about menses among adolescent married girls (54.5% vs. 48.3%) and teachers (30.0% vs. 15.9%) and friends (16.7% vs. 11.4%) were the persons to educate about menstrual hygiene among primigravida women. Likewise, the proportion of adolescent married girls educated about the sex education was significantly less (34.1% vs. 17.6%, $P = 0.014$) than primigravida women. In this case, mothers (17.2% vs. 33.3%), friends (11.0% vs. 20.0%), and others (5.0% vs. 26.0%) were source of information for sex education among adolescent married girls and teacher (27.6% vs. 20.0%) were the primary source about the sex education among primigravida women. Almost in both the groups, respondents wanted to conceive in the 1st year itself (35.3% vs. 36.5%). Among adolescent married girls, more than three-fourths (52.6% vs. 77.1%) had no idea of pregnancy and near to one-fourth (23.7% vs. 11.4%) among primigravida reported to conceive in the 1st year itself since mother-in-law wanted it. The preference to have a boy or girl was significantly associated with age at first pregnancy, i.e., study/control group ($P = 0.029$); which indicates that the more proportion of no preference (9.4% vs. 20.0%) and less proportion of healthy baby (29.4% vs. 16.5%) was observed among adolescent married girls compared to their counterparts. Among primigravida women, "father" (69.4% vs.

31.8%, *P* < 0.0001) was reported as a person to determine the sex of child; whereas, among adolescent married girl, "God" (29.4% vs. 63.5%, *P* < 0.0001) was reported as a person to decide the sex of child. The proportion of wanting "one" boy-child (control group − 62.4%; study group − 64.7%) was approximately similar, and for girl-child, it was more among adolescent married girl (56.5% vs. 64.7%) than their counterpart. When asked about the decision maker about the family size, there was no significant difference in the proportion of persons deciding the family size (mother-in-law: 40.0% vs. 32.9%, *P* = 0.339; father-in-law: 9.4% vs. 8.2%, *P* = 0.787; husband: 62.4% vs. 58.8%, *P* = 0.638; and her-self: 10.6% vs. 8.2%, *P* = 0.599).

The univariate logistic regression modeling of lack of awareness about spacing method/contraceptive suggests that lack of awareness about spacing method was associated with women with younger age (44.4% vs. 25.4%, odds ratio [OR] = 2.35, 95% confidence interval [CI]: 1.10–5.05; *P* = 0.028), educational attainment up to primary education (46.9% vs. 17.9%, OR = 4.06, 95% CI: 1.23–13.35; *P* = 0.021), occupation as self-employment (10.0% vs. 62.1%, OR = 0.07, 95% CI: 0.008–0.61; *P* = 0.016), early age at marriage (i.e., at age of 17 years or less) (38.5% vs. 23.8%, OR = 2.00, 95% CI: 1.02–3.91, *P* = 0.043), not educated about sex education (34.9% vs. 13.6%, OR = 3.40, 95% CI: 1.33–8.66; *P* = 0.01), and pregnancy at adolescent age (43.5% vs. 15.3%, OR = 4.27, 95% CI: 2.06–8.86; *P* < 0.0001). The multivariate logistic regression modeling of lack of awareness about spacing method predicts that women with middle-level education (31.6% vs. 17.9%, adjusted OR (aOR) = 3.97; 95% CI: 1.26–12.51, *P* = 0.019) and pregnancy at adolescent age (aOR = 6.56, 95% CI: 2.73–15.74; *P* < 0.0001) were more likely to unaware about the spacing methods as compared to their counterparts/reference population.

Discussion

Gender roles are conceived, enacted and learned within the complex of relationships.[8] In a patriarchal society, gender percolates in all sphere of life leading to the subordinate position of women and restricted reproductive rights. Marriage is considered the only socially sanctioned for sexual union between a man and women in Indian society, and hence, it is related to age patterns of fertility in a population. As a fact due to early marriage, young women are sexually active by the time they are 18 and almost one in five by the time they are 15.[9] The younger the age at which a girl is married, the longer is the span of her married life with her husband and therefore the longer her reproductive span. However, Puberty is a common yardstick to marry the girl irrespective of the community whether rural or urban. In this study, 97.4% of the respondents were aware of the legal age at marriage. A majority nearly 50% got married between 16 and 18, showing the marriage of adolescent girls below their legal age is still prevalent in India.[10] Age of the husband of the respondent at marriage is worth noting, 5 cases of marriage below 18, more than 30 cases between 19 and 20 years.[11] The proportion of women married below 18 years was significantly associated, i.e., more among adolescent married girls (14.1% vs. 62.4%, *P* < 0.001) than primigravida women. The median age of marriage of respondent is 3 years less than primigravida women (19.3 vs. 16.7, *P* < 0.0001) in this study. In a similar study median age at East Delhi Slum was 2 years

less than adult primigravida.[12] In the case of husband's median age, it was 1 year lesser among the primigravida and adolescent (23.7 vs. 22.4, *P* < 0.0001). This shows age as a determinant factor and gender implication playing a significant role in pregnancy of adolescent.

Marriage and decision-making

Many feminist kinds of literature have recognized marriage very important site for the production and reproduction of gender differences. The other reason is sexuality and virginity are the concerns of parents and sexuality of a girl is perceived as a family honor. The study points half of the decision was taken by father (37.6%) and other by male relatives such as an uncle, elder brother, and mother's natal relatives.[13] and still proves marriage decisions remain in the preview of the family.[4] The father's authority is higher in the family, which brings out women played a passive role in family and decision-making[14] in the same line that early marriage is not just poverty but patriarchal values and institutes influence this pattern.

Role of gender perspective in education

Almost one-third of the respondents got married when they were studying as compared to primigravida women. This study also goes by the documented fact that earlier age at sexual intercourse for women than men is a consequence of the fact that in Maharashtra, first intercourse largely occurs within the marriage and women marry at a younger age than men (NFHS-3). The other reason for dropping out of school in the study was disinterest of parents, urban slum as a safe place for grown-up girls was given more weight age while adolescent married girls feel when both the parents are working so leaving them alone is not safe. The urban slum is regarded unsafe for girls who have attained puberty as "sexuality and virginity" given importance by various researchers.

Kinship and marriage

There is also evidence that the kinship system is changing, adapting itself to the newer demands. As the participants mostly stayed in in-laws house, so respondents natal and her husband's linkages were traced. The quests for "a best suitor" by parents lead to "relatives" (51.2%) and second to same caste and kinship and only a few cases open marriages. Qualitative analysis of key informants and respondents show endogamous marriages, wherein women remain in contact with the natal home and another social network so she gets longtime kinship affection and ties between two families and based on the above study there will be less restriction on the married women for the utilization of healthcare services and maternity care[15] which supports this study also.

Knowledge of sexual and reproductive health

All the slums under study were within the city limits with an accessible network of schools, Anganwadi, Private hospital, PCMC dispensaries, PCMC hospitals, and other means of communication. Knowledge about Sexual and Reproductive health shows participants still rely on informants from domestic domains like a mother even staying amidst all these communication sources. Awareness of sex education was limited to only to one-fourth of respondents. Mother as the

educator, the response of adolescent married girl, was twice more than primigravida women while adult women rely more on teachers and friends. Source of primary information could be significantly associated with marriage age and education on menstrual hygiene ($P < 0.017$) and sex education ($P < 0.14$) showing adolescent married girls are more vulnerable than adult women.

Conception and preference of male child

Tradition still looms in the attitude and culture practices, only 35.9%, 16.5% primigravida, and adolescent married girls responded progressively to planning. Three-fourths of adolescent married girls had no preconception idea about pregnancy. In this study, power discourse is given as others take "decision" regarding first pregnancy mostly, i.e., other than self. 4% more primigravida women compared to adolescent mothers are ready to wait regarding first pregnancy. There was no significant association between age and early conception but prefer to have a boy or girl was associated with first pregnancy ($P = 0.029$). The study also brings out another feature, more adult women compared to adolescent mothers (9.4% vs. 20.0%) opined for no preference of sex during childbirth while the more healthy baby is preferred among adult women (29.4% vs. 16.5%) adolescent mothers.

Knowledge about sex determination

The determinant for the sex of the child is correctly stated by 50% of respondents. While ambiguity still prevails among 49.5% with answers like God, female (mother) and both regarding determinant of sex. The study stated "father" as a determinant of sex by Primigravida women (69.4% vs. 31.8%, $P < 0.0001$), whereas God as a determinant of the sex of the child among adolescent married girls (29.4% vs. 63.5%, $P < 0.0001$). This clearly demarks the poor knowledge and education regarding sex education among younger women. Most of them opined for preference of son, which aligns with India's patrilineal and patriarchal family system.

Reproductive autonomy

Decision makers about family size showed no significant difference between the study and control group. The decision lies more on husband and mother-in-law among both the groups. The self-autonomy and decision-making among respondent were found slightly higher among primigravida women compared to adolescent married girls (10.6% vs. 8.2%). Female autonomy is important in the context of adolescent women because younger women often lack negotiating skills within the family for health care as well as there is a lack of availability and accessibility to health facilities.[16]

Conclusion

Patriarchal control and lack of reproductive autonomy make the adolescent bodies targets of reproduction. Reproductive freedom is bound by the control over the female bodies and their sexuality. In a society like India which is predominantly patriarchal and patrilineal, men are superior so women even though engaged in productive work remain inclined to men for the decision which is found in the case

of marriages, selection of a mate, deciding family size, selection of appropriate time for marriage and using a contraceptive. The interplay between gender and adolescent pregnancy highlights the importance of incorporating gender characteristics in the social determinant of health.

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