



## Socio-demographic Profile and Reproductive Health Status of Slum Women of Bhilai, Chhattisgarh

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### KEYWORDS

Developing, India,  
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### ABSTRACT

*A slum is a residential area with substandard housing that is poorly serviced and/or overcrowded, and therefore unhealthy, unsafe, and socially undesirable. The aim of the present study is to explore the socio-demographic and reproductive health status of slum dwelling women of Bhilai, Chhattisgarh. A cross-sectional study was carried out to collect data of 388 ever married slum dwelling women of Bhilai city of Chhattisgarh, India. The age ranges from 18 to 45 years. Two slums; Tankimaroda or Maroda tank” and Ruabandha were selected. Purposive stratified sampling method has been adopted to collect the data. Miscarriage was high among studied women. Still birth showed increasing trend with increased age of pregnancy. Percentage of abortion was also high (10.05 %). Majority (97.42 %) of the women are not aware about their proper hygiene. There were significant age-group differences ( $p=0.007$ ) in the delivery type of the studied women. Education has significant impact on monthly income (0.05); age-at-first birth (0.01); place of delivery (0.01); age at menarche ( $p=0.01$ ); first marriage age ( $p=0.01$ ) and first conception age ( $p=0.01$ ). The present study helps researchers to design their future research in other slums, that will help policy makers and planners to develop plan accordingly, for overall betterment of the State and nation.*

### Introduction

A slum is a residential area with substandard housing that is poorly serviced and/or overcrowded, and therefore unhealthy, unsafe, and socially undesirable (Harris 2009). Slums grow because people are attracted from the countryside by the opportunities for work afforded by major cities. These workers have insufficient resources to live in the city itself, so they settle on the urban periphery, often in dilapidated and unhealthy conditions. Cities and their wider urban settlements in developing economies are among the most unequal in the world in terms of income, health and well-being (UN-Habitat 2008a).

Gender inequalities in slums have a cyclical effect. Women and girls are often denied formal education, which also affects their children's health, development and skills. Women in many informal settlements spend several hours each day collecting water from a remote source, time which could be invested in building capabilities through education and training (UN-Habitat 2008b). The formation of slums is closely associated with rural-urban migration. People have migrated there from mostly rural areas. Low incomes in rural areas, river erosion of agricultural land, and job opportunities in the city are the main factors behind the migration (Crank and Jacoby 2014). With the rise of migrants in slum and squatter districts who often settle in cheap, substandard housing, a rise in urban

concentrations of poverty and inequality is predicted and will likely exceed the 32% of the world's urban population (924 million people in 2001) that lives in slums on extremely low incomes (Smith 2000; UN-Habitat 2009).

For the first time since independence, the absolute increase in population is greater in urban areas than in rural areas. The rural–urban distribution is 68.84% and 31.16% respectively. The level of urbanization increased from 27.81% in the 2001 Census to 31.16% in the 2011 Census, while the proportion of rural population declined from 72.19% to 68.84%. The slowing down of the overall growth rate of the population is due to the sharp decline in the growth rate in rural areas, while the growth rate in urban areas remains almost the same (Census 2011).

The slum population was reported from 31 states/union territories in India. Four states/union territories namely, Manipur, Dadra and Nagar Haveli, Daman & Diu and Lakshadweep did not report any slum population in their cities/towns. 2613 towns reported slum population out of 4041 statutory towns. In 2001, 42.6 million populations were lived in slums in India which increased to 65.5 million by 2011. This constituted 17.4% of the urban population of the States/Union Territories in 2011 (Kumar 2011). Slums have risen dramatically since 1947. There were mainly two reasons for slum development. One is the partition of India and the other one is the Industrial revolution after the independence. Before 1950 slums were predominantly found around mills, factories etc. They were mostly inhabited by industrial workers in one room tenements (Bandhopadhyay and Agrawal 2013). Recently, Indian towns/cities have witnessed a significant increase in their development activities in the form of renewed urban planning and construction, establishment of industries and trade, expansion in transport and communication system, availability of their infrastructure facilities in the post-independence era (Kumar 2015). The condition of the slums in India human well-being is broadly conceived to include not only consumption of goods and services, but also the accessibility of the basic necessities for a productive and socially meaningful life to all sections of the population (Tiwari and Das 2018).

In view of the above background, the purpose of the present study intends to understand the socio-demographic and reproductive health status of womens of the slums of Tankimaroda or “Maroda tank and Ruabandha” of Bhilai city located in Durg district of Chhattisgarh.

## **Material and Methods**

As per the objectives of the study, the present study is cross sectional in nature. Durg and Bhilai nagar are twin cities of Chhattisgarh. Durg district is an adjoining district of Raipur which is state's capital. Tankimaroda is a slum of Bhilai city, with a population of 9929 (2131 households). There are 3 ICDS centres, one primary school, one high school and one higher secondary school. There are 7 ASHA workers. Similarly, Ruabandha Slum is a notified slum of Bhilai city, with a population of 9527 (2221 households) (Municipal Corporation 2013). There are 02 ICDS centres, one primary school and one middle school. There are 11 Asha workers.

Ethical approval was obtained from the DRC (Departmental Research Committee) of the Department of Anthropology and Tribal Development. Written consent was also obtained from block and local authority before the commencement of the study. Verbal permission was also informed and consent from the participants and their in-laws were taken before study. And it has been said to the subjects, that at any time during data collection, subjects were allowed to freely withdraw them from

the study. The investigators had no conflict of interests to declare.

A total of 388 women were considered for the study, the age ranges from 18 to 45 years. The age is divided into 05 age-groups i.e., 18-23; 24-29; 30-35; 36-41 and 42-45. Socio-demographic data like education, occupation, monthly income, age, sex, and reproductive health data like miscarriage, stillbirth, fertility/abortion, hygienic practices, delivery type, place of deliver and education were collected from the studied women. All the data were collected through door to door visit and took the help of anganwadi centres (Integrated Child Development Scheme) using a structured questionnaire. The respective age of women has been recorded from Aadhar Card provided by the Government of India. During fieldwork, all the concerned persons of the household and studied women were informed about our motive, and verbal consent was obtained from them. Data were collected by the trained research scholar (B).

Descriptive statistics were used to analyze socio-demographics and reproductive data. The age-group differences in the mean values of all the discrete variables were compared using chi-square and the statistically significant relation between socio-demographic variable and reproductive characters were shown by correlation statistics. The statistically significant value was considered at  $P < 0.05$ . All statistical analyses were done using the Statistical Packages for Social Sciences- 21 (IBM SPSS Statistics, IBM Corp. Released 2012, IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp).

## Results

Table 1. Age-group wise distribution of occupation among the studied women

Age-group (Years)	N (%)	Occupation					Total N (%)	Chi-square
		House wife	Wage labour	Govt. Job	Private job	Others		
		N (%)	N (%)	N (%)	N (%)	N (%)		
18-23	54 (13.9)	50(12.89)	0 (0.00)	0 (0.00)	2 (0.52)	2 (0.52)	54 (13.92)	X <sup>2</sup> =42.98; df =16; p =0.001
24-29	112 (28.9)	81 (20.88)	3 (0.77)	0 (0.00)	14 (3.61)	14 (3.61)	112 (28.87)	
30-35	92 (23.7)	58 (14.95)	11 (2.84)	2 (0.52)	6 (1.55)	15 (3.87)	92 (23.71)	
36-41	94 (24.2)	51 (13.14)	14 (3.61)	0 (0.00)	11 (2.84)	18 (4.64)	94 (24.23)	
42-45	36 (9.3)	23 (5.93)	3 (0.77)	0 (0.00)	2 (0.52)	8 (2.06)	36 (9.28)	
Total	388 (100)	263 (67.78)	31 (7.99)	2 (0.52)	35 (9.02)	57 (14.69)	388 (100)	

\*others – Business, Self Employed

Table 1 shows the age-group wise distribution and frequency of the studied women. Here the highest frequency of women were observed at the age-group of 24 to 29 years that is (28.9%) followed by 36 to 41 years (24.2 %); 30 to 35 years (23.7 %); 18 to 23 years (13.9 %) and similarly lowest frequency were observed at the age-group of 42-45 years, that is (9.3%) respectively. Similarly, Table I also shows the age-group wise distribution of occupation among the studied women. Out of the 388 studied women 263 (67.78%) them were belongs to the house wife category and the highest frequency is observed at the age-group of 24-29 years i.e., 20.88 % and similarly least frequency in occupation status were observed for the women in Government jobs that is 0.52 %. There were significant age-group differences ( $X^2=42.984$ ;  $df = 16$ ;  $p =0.000$ ) in the occupational status of the studied women.

*Table 2. Age group wise distribution of miscarriage, birth/still birth and abortion status among the studied women*

Miscarriage 18-23 N (%)	Age group (Years)						Chi-Square
	24-29	30-35	36-41	42-45	Total		
	N (%)	N (%)	N (%)	N (%)	N (%)		
No conceive	17 (4.38)	18 (4.64)	25(6.44)	18(4.64)	7(1.80)	85 (21.91)	X <sup>2</sup> =9.911; df =8; p=0.271
Yes	7 (1.80)	23 (5.93)	20(5.15)	16(4.12)	5(1.29)	71 (18.30)	
No	30 (7.73)	71 (18.30)	47(12.11)	60(15.46)	24(6.19)	232 (59.79)	
Total	54 (13.92)	112 (28.87)	92(23.71)	94(24.23)	36(9.28)	388 (100)	
Birth Status/ Still Birth							
No Birth	26 (6.70)	42 (10.82)	50 (12.89)	44 (11.34)	16 (4.12)	178 (45.87)	X <sup>2</sup> =17.153; df =8; p =0.29
Yes	3 (0.77)	4 (1.03)	5 (1.29)	13 (3.35)	3 (0.77)	28 (7.21)	
No	25 (6.44)	66 (17.01)	37 (9.54)	37 (9.54)	17 (4.38)	182 (46.90)	
Total	54 (13.92)	112 (28.87)	92 (23.71)	94 (24.23)	36 (9.28)	388 (100)	
Abortion							
No Conceive	17 (4.38)	18 (4.63)	25 (6.44)	18 (4.63)	7 (1.80)	85 (21.91)	X <sup>2</sup> =9.051; df =8; p=0.338
Yes	4 (1.03)	13 (3.35)	10 (2.58)	7 (1.80)	5 (1.29)	39 (10.05)	
No	33 (8.51)	81 (20.88)	57 (14.69)	69 (17.78)	24 (6.19)	264 (68.04)	
Total	54 (13.92)	112 (28.87)	92 (23.71)	94 (24.23)	36 (9.28)	388 (100)	

Table 2 presents the age-group wise distribution of miscarriage among the studied women. Out of 388 studied women high percentage 18.30 % of women have miscarriage, in which the highest frequency is observed at the age-group of 24-29 years i.e., 5.93% and the lowest percentage 1.2 % of miscarriage is observed for the age-group 42-45 years. There were no significant age-group differences with respect to miscarriage among the studied women. It also depicts the age group wise distribution of birth and still birth status among the studied women. It has been clear that out of 388 studied women the percentage of still birth increase with the increased age of pregnancy. The table shows that at the age –group of 36-41 years, the highest percentage of still birth (3.35%) has been observed and the chances of still birth is least at the early adulthood 18-23 years (0.77%) than any other age group. There were no significant age-group differences with respect to birth among the studied women. Table 2 also shows the abortion status of studied women. It has been clear that 10.05 % women had gone for abortion in their reproductive age among the studied subjects. At the age group of 24 to 29 years, maximum of the women go for abortion as per the data available. There were no significant age-group differences with respect to abortion among the studied women.

*Table 3. Age-group wise distribution of hygienic practices among the studied women*

Hygienic Practices	Age group (Years)						Chi-Square
	18-23	24-29	30-35	36-41	42-45	Total	
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
Yes	3 (0.77)	3 (0.77)	4 (1.03)	0 (0)	0 (0)	10 (2.58)	X <sup>2</sup> =6.500; df =4; p=0.165
No	51 (13.14)	109 (28.09)	88 (22.68)	94 (24.23)	36 (9.28)	378 (97.42)	
Total	54 (13.92)	112 (28.87)	92 (23.71)	94 (24.23)	36 (9.28)	388 (100)	

Table 3 presents the age-group wise hygienic practices practised by the studied women. It has been clear from this table that majority of the women (97.42 %) are not aware about their hygiene. Only 2.58 % of them practiced regular hygiene. This is one of the major reasons behind

the reproductive tract infection (RTI), urinary tract infection and other infectious disease around reproductive organs. It has also been clear that the late adults (42 to 45 years) who were at the shore of menopause and the women belonged to the early adulthood (18 to 23 years) are least concern for their hygienic practice as compared to their age group women.

Table 4. Distribution of delivery type age-group wise among studied women

Delivery type	Age group (Years)					Total	Chi-square
	18-23	24-29	30-35	36-41	42-45		
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
No delivery	5 (1.29)	10 (2.58)	11 (2.84)	14 (3.61)	6 (1.55)	46 (11.86)	X <sup>2</sup> =13.97; df =4; p=0.007
Normal delivery	28 (7.22)	65 (16.75)	73 (18.81)	79 (20.36)	30 (7.33)	275 (70.88)	
Caesarean delivery	9 (2.32)	29 (7.47)	15 (3.87)	9 (2.32)	5 (1.29)	67 (17.27)	
Total	37 (9.53)	94 (24.23)	88 (22.68)	88 (22.68)	35 (9.02)	388 (100)	

Table 4 shows the distribution of delivery type age-group wise. It has shown that the prevalence of normal delivery (70.88 %) is very high as compared to caesarean delivery (17.27 %). It is very good sign that the rate of normal delivery is high i.e., the health status of studied women is good. But, still the prevalence of caesarean delivery is high. The women belonged to age-group of 24-29 years have the highest frequency (7.47 %) as compared to other age-groups for caesarean delivery and the lowest frequency found at the age-group of 42 to 45 years (1.29 %). There were significant age-group differences (X<sup>2</sup>=13.97; df = 4; p =0.007) in the delivery type of the studied women.

Table 5. Correlation of education with occupation, monthly income, hygienic practice, age-at-first birth, place of delivery and abortion among the studied women

Correlates/ Variables	Education	Occupation	Monthly income	Hygienic practice	Age-at-first birth	Place of delivery	Abortion
Education	1	0.024	0.504*	-0.088	0.368**	0.469**	-0.217**
Occupation		1	-0.131	0.019	-0.026	-0.061	-0.002
Monthly income			1	. <sup>a</sup>	0.064	0.407	-0.299
Hygienic practice				1	-0.050	-0.089	-0.015
Age-at-first birth					1	0.418**	-0.163**
Place of delivery						1	-0.106
Abortion							1

\*. Correlation is significant at the 0.05 level (2-tailed). \*\*. Correlation is significant at the 0.01 level (2-tailed). a. Cannot be computed because at least one of the variables is constant.

Table 5 shows the association of education with occupation, monthly income, hygienic practice, age-at-first birth, place of delivery and abortion among the studied slum women. It has been clear from the table that education has greater positive significant impact on monthly income (0.05); age-at-first birth (0.01); Place of delivery (0.01) and it has negative significant relation with abortion (0.01).

Table 6. Correlation of education with Menarche age, First Marriage age, First Conception age and Pill Use among the studied women

Variables	Education	Menarche age	First Marriage age	First Conception age	Pill Use
Education	1	0.263**	0.577**	0.399**	-0.081
Menarche age		1	0.081	0.104*	-0.041
Education	1	0.263***	0.577**	0.399**	-0.081

Variables	Education	Menarche age	First Marriage age	First Conception age	Pill Use
Menarche age		1	0.081	0.104*	-0.041
First Marriage age			1	0.706**	-0.055
First Conception age				1	-0.062
Pill Use					1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 6 shows the association of education with Menarche age, First Marriage age, First Conception age and Pill Use among the studied slum women. It has been clear from the table that education has greater positive significant impact on Menarche age ( $p=0.01$ ), First Marriage age ( $p=0.01$ ), first Conception age ( $p=0.01$  except for pill use. Thus it has been clear that educated women experienced early menarche than less educated women. Similarly, the age at first marriage and age at first conception has been also earlier than less educated mother among the studied slum women and it has negative significant relation with abortion (0.01).

## Discussion

Developing countries like India presently suffer to the enormous growth of urbanization and the urbanized area similarly carried the problem of slum. Presently, Indian population is 1/6th of the world population. Accelerating urbanization is forcefully effecting the transformation of Indian society. Nearly 21.68% of the urban population lives in slum. Rapid growth of industrialization creates enormous employment opportunity. It attracted the lower income peoples and the unskilled labors from the rural area (Das et al. 2012). Considering today's poor urban environmental quality in India, the majority of families affected by urban development projects are located in slum areas which are under consideration for resettlement and/ or rehabilitation (Bandhopadhyay and Agrawal 2013).

Slum women have various deficiencies, they are anemic. Malnutrition and nutritional anemia are the major health problems of slum women (Hassan and Shukla 2013). In this study we have presented, described and correlate different socio-economic variables with reproductive status of the studied slums women of Bhilai, Chhattisgarh. These issues of women are yet to be holistically redressed from both a research and an implementation viewpoint. Not only that, most of the health surveys mainly focused to reduce or eradicate child and women health issues like National Family Health Survey (NFHS), United Nations Development Program (UNDP) etc. Therefore, it is hoped that the data presented here not only will provide valuable insight for future research but also will help inform governments, NGOs and the public and private agencies at large towards improving our understanding of slums to reduce their problems related to socio-demographic and reproductive health.

## Conclusion

Thus, the present study revealed that the Slum women of Tankimaroda or Maroda tank" and Ruabandha of Bhilai, Chhattisgarh experienced a very high percentage of miscarriage and still birth among the studied slum women. One of the major drawbacks of the studied women is that they are not at all concerned for their hygiene, which leads to so many infectious diseases. Education of the women played vital role in shaping socio-demographic and reproductive health of the studied women. However, we can say that the women of the studied slums have are in the worst conditions as to their access to socio-demographic and reproductive health perspectives.

Similar data of various slums in same States and different States of our country should be collected and analyzed so as to get a better understanding of the burden of health issues and their causatives will be clearer and slum specific planning will be developed by the concerns as and when required. Because it is well known that endemic disease is more common in the slums than in the rural and urban cities.

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