A COMPARATIVE STUDY ON MATERNAL CARE PRACTICES IN TRIBAL AREA AND URBAN SLUMS
Kolli Sree Karuna Murthy 1, B. Kalyan Chakravarthy 2, Bhaskari Kolli 3

ABSTRACT: INTRODUCTION: Mothers and children constitute the major proportion of our population. At the same time these two groups are very vulnerable and require special attention in health care. 1 In spite of progress in health care delivery, there are variations in utilization of the health services in urban slums, rural and tribal areas. Therefore in this context, an attempt was made to compare the health care practices of mothers in tribal area and urban slums. MATERIAL AND METHODS: The study is a community based cross sectional study conducted among mothers with living infants residing in tribal area and urban slums. After the survey and collection, from 606 mothers, comprising 305 from tribal area and 301 from urban slums through self administered questionnaire which covered socio-demographic profile, antenatal care, postnatal care and family planning methods, the data was analyzed using SPSS, 12. RESULTS AND CONCLUSION: In urban slums 42% of women are approaching private practitioners for antenatal care whereas 87% of tribal women are depending on government health centers for antenatal care. With regards to intranatal care, 70% of women in tribal areas delivered at their homes where as 80% of deliveries in urban slums were also home deliveries. Spacing is less than a year in 61% of tribal and 37% of urban population. The antenatal care is being provided mainly by private institutions and government hospitals in urban areas. In tribal areas women are approaching health centers for antenatal care. Most of the deliveries in the study population are home deliveries. Utilization of family planning services is very low in both the groups.

KEYWORDS: Tribal area, urban slum, antenatal care, intranatal care, postnatal care.
Facilities and expenditure of the budget in urban and rural areas are not proportional to the size of the population living in these areas. The huge discrepancy seen in health research between the magnitude of disease burden and allocation of research funding has been expressed as the 10/90 gap. This situation is common in most of the countries including India.  

Traditionally in India the prevailing LAY HEALTH CULTURE considers pregnancy, as a natural state of being for a woman rather than a condition requiring medical attention and care, affecting postnatal care and has presumably substantial effects on utilization of maternal health services in all regions of the country, where poverty and illiteracy are widespread. With the result women often don't avail the preventive and curative services intended to safeguard their own health and wellbeing. Above all, remarkably low birth rate was observed in tribal areas of this district, which seemed to be low compared to urban slums and other areas. Therefore in this context, an attempt was made to study the health care practices of mothers in tribal area and urban slums of East Godavari district of Andhra Pradesh.

MATERIALS AND METHODS: The field area for the purpose of the study is the urban slums of Kakinada municipality and tribal belt (Residing in 7 Mandals of east Godavari district) with about one lakh population in each area. It is the biggest district of Andhra Pradesh and one of the biggest in India in terms of geographical area and population. A community based cross sectional study was designed with Mothers having living infants in these areas as the study population. The birth rate of east Godavari was taken into account to determine the sample size. With an expected birth rate of 15 per 1000 population, in the tribal area of the district, it is estimated that about 1500 mothers with living infants will be present in one lakh tribal population spread over seven Mandals of the E. G. District. Out of these 1500 mothers, 20% mothers were taken as study sample. Similarly an equal size of 300 mothers was included in the about 1 lakh population, spread in five wards in urban slums of Kakinada municipality. The first house was selected at random and house to house survey was done till the required sample size was reached.

An attempt was made to compare the service utility, acceptance of family planning measures and other demographic profiles, in the study. The information was collected with a pre tested semi structured questionnaire. Statistical analysis was carried out using statistical tests with SPSS 12 statistical software package.

RESULTS: In the study 305 women belonged to tribal area and 301 from urban slums. Majority of the study population (60%) were in the age group of 18-24 years. One hundred and ninety six (65%) of tribal women and two hundred and forty seven (82%) of urban slum women were illiterate. Majority of the women in the study population were below the poverty line (BPL).

The mean age at marriage in tribal area is 16.5 years and in urban area 15.8 years. Two hundred and two (67%) of the tribal women and two hundred and twenty four (74%) from urban slums were married before the legal age of marriage.

One hundred and eight tribal women (36%) and one hundred and seventy three (57%) of women from urban slums have had their first pregnancy before 18 years of age. The antenatal care in being provided mainly by private institutions and government hospitals in urban areas, 41.5% and 39% respectively. In tribal areas 87% of women were approaching health centers for antenatal care. Most of the deliveries in the study population are home deliveries. 74.5% in tribal and 80% in urban slums population. Majority of the deliveries (65%) are conducted by untrained persons in tribal areas.
The practice of giving pre-lacteal feeds is more prevalent in urban slums (68%). Majority of tribal women (66%) are breast feeding their babies within 4 hours of delivery. Utilization of family planning services is very low in both the groups. Spacing is less than a year in 61.3% tribal and 38% of urban population. Only 5% of women in both urban and tribal areas had desired birth interval of 3 years and more.¹

**DISCUSSION:** In the present 95% of families are below poverty line which is similar to findings by khan etal,⁷ while Agarwal etal,⁸ reported that 75% were belonging to below poverty line.

Illiteracy rate in the present study sample of both areas, is higher than (50%) reported by Khan etal in their rural areas and urban area study of Agarwal etal.

The present study had similar findings with regards to age at marriage conducted by Taneza DK etal,⁹ and Sunder Lal etal.¹⁰ Our study finding of mean age at marriage in females, was found to be 16.2 years, which is lower than the national average i.e 19.3 years (SRS,¹¹).

About (7.6%) of pregnant women were teenagers in Aggarwal study, which is lower than the present study but in contrast is almost similar to that of Neela etal,¹² (35%). Teenage pregnancy was a common problem in Talwar,¹³ study in urban slum (42%) which is slightly higher than the present study.

Forty percent of women had their first pregnancy before 20 years of age in urban slums of Delhi as per Taneza etal, which is low compared to the present study. The early child birth finding occurring in first pregnancy in the present study is higher as compared to that of Ranjan Das etal,¹⁴ (25%) occurring is less than 18 years of age.

The findings with regards to mothers availing antenatal care services in urban areas (86%) is similar to studies conducted by Agarwal and Kannan etal.¹⁵ The observation made out in tribal areas of present study (94%) is higher than the observation made by Nath etal,¹⁶ (25%) and Neela etal. Similar findings were found by Padam Singh etal in tribal areas.

**CONCLUSION:** The study reveals poor utilization of maternal and family welfare services by the women of reproductive age group. Though the services are available within their reach, they are not able to utilize the services provided by the government both in tribal and urban areas. The social and economic backwardness of these women are the main hindrances in not accepting the health services provided by the government.

**REFERENCES:**

1. W. H. O (1996) The World Health Report. Report of Directory journal.
2. WHO(2001) –The World Health Organization Project RCH module 2001; 1-10.
3. International Institute of population Sciences, Bombay; India; Introductory report-National Family Health Survey -1992-93.
4. WHO (2001) –Global Forum for health research -2001: 1-10.
5. International Institute of Population Sciences Mumbai, India. Promoting Institutional Deliveries in Rural India: The Role of Antenatal Care Services. NFHS Subject Reports; December, 2001: 2-5.
6. Chattargee, M. 19909. Indian Women: Their Health and Economic Productivity. Report No. 109, World Bank Discussion Papers Washington, D. C: World Bank.
7. Khan Z, KhanMA: A study of the impact of health care in maternal and child health in rural area. Indian Journal of Community Medicine 1987; 12(2): 32-40.
8. Agarwall, O. P. Rajesh Kumar, Anita Gupta and Tiwari, R. S. Utilization of antenatal care services in peri-urban of East Delhi. Indian Journal of Community Medicine 1997; 22(1): 29-32.
9. Thaneja, DK, Yogesh Bansal, Malti Mahra. Status of reproductive and child health in Delhi. Indian Journal of Community Medicine 2000; 25(4): 188-194.
10. Sunderal, A turning point in National Family Welfare Programme moving towards target free reproductive and child health approach moving towards free reproductive and child health approach. Indian Journal of Community Medicine, 1997; 22(2): 43-46.
11. Sunderal, Mothers perceptions and ambitions about their daughters in rural area. Indian Journal of Community Medicine 1997; 22(1): 22-28.
12. Neela J, Ramalakshmi B. A: Primary Health care related awareness and practices of rural pregnant women. Indian Journal of Community Medicine 1992; 17(1): 21-25.
13. Talwar R: A study of the health profile of adolescent girls in an urban slum, M. D. Thesis, Deptt. of preventive and Social Medicine, 1997.
14. Ranjan Das, Ali Amir, Paprinath: Utilization and coverage of services by women of Jawan Block in Aligarh; Indian Journal of Community Medicine 2001; 24(2): 94-100.
15. Agarwal OP, Kannan AT, Indayan A: Profile of antenatal care among pregnant women in Nand Nagri –a resettlement colony in East Delhi. Gems International Journal of Clinical Research 1991 3, 4 & 1: 125-127.
16. Nath M, Shaikh N, Bhosale N: Medico Social Profile of rural pregnancies. Indian Journal of Community Medicine 1986; 2(4).

| Age Yrs. | Tribal Number | Tribal % | Urban Slum Number | Urban Slum % | Total Number | Total % |
|----------|---------------|----------|-------------------|--------------|--------------|---------|
| <15      | 3             | 1.1      | 4                 | 1.3          | 7            | 1.2     |
| 16-17    | 26            | 8.5      | 16                | 5.3          | 42           | 6.9     |
| 18-20    | 109           | 35.7     | 103               | 34.2         | 212          | 35      |
| 21-24    | 95            | 31.1     | 73                | 24.3         | 168          | 27.7    |
| >25      | 72            | 23.6     | 105               | 34.9         | 177          | 29.2    |
| Total    | 305           | 100      | 301               | 100          | 606          | 100     |

Table 1: Age Wise Distribution of the Study Population

| Age at Marriage | Tribal Number | Tribal % | Urban Slum Number | Urban Slum % | Total Number | Total % |
|-----------------|---------------|----------|-------------------|--------------|--------------|---------|
| <15             | 89            | 29.2     | 140               | 46.5         | 229          | 37.7    |
| 16-17           | 113           | 37       | 84                | 27.9         | 197          | 32.5    |
| 18-20           | 88            | 28.8     | 70                | 23.3         | 158          | 26.1    |
| 21-24           | 9             | 3        | 6                 | 2            | 15           | 2.5     |
| >25             | 6             | 2        | 1                 | 0.3          | 7            | 1.2     |
| Total           | 305           | 100      | 301               | 100          | 606          | 100     |

Table 2: Age at Marriage of Study Population
Table 3: Age at First Pregnancy of Study Population

| Age at Pregnancy | Tribal | Urban Slum | Total |
|------------------|--------|------------|-------|
|                  | Number | %          | Number | %      | Number | %      |
| <15              | 37     | 12.1       | 65     | 21.6   | 102    | 16.8   |
| 16-17            | 71     | 23.3       | 108    | 35.9   | 179    | 29.5   |
| 18-20            | 142    | 46.6       | 115    | 38.2   | 257    | 42.5   |
| 21-24            | 44     | 14.4       | 7      | 2.3    | 51     | 8.4    |
| >25              | 11     | 3.6        | 6      | 2      | 17     | 2.8    |
| Total            | 305    | 100        | 301    | 100    | 606    | 100    |

Mean =17.8 years   Tribal=18.3   Urban=17.8

Table 4: Age at first pregnancy vs Education of Population

| Age at pregnancy | Illiterate | Primary | Up Prim | Secondary | Total |
|------------------|------------|---------|---------|-----------|-------|
|                  | Num        | %       | Num     | %         | Num   | %     |
| <15              | 79         | 17.8    | 14      | 14.1      | 4     | 10    | 5     | 20.8 | 102    | 16.8 |
| 16-17            | 121        | 27.4    | 40      | 40.4      | 12    | 30    | 6     | 25   | 179    | 29.5 |
| 18-20            | 201        | 45.4    | 33      | 33.4      | 18    | 45    | 5     | 20.8 | 257    | 42.4 |
| 21-24            | 29         | 6.5     | 10      | 10.1      | 4     | 10    | 8     | 33.4 | 51     | 8.5  |
| >25              | 13         | 2.9     | 2       | 2         | 2     | 5     | 0     | 0    | 17     | 2.8  |
| Total            | 443        | 100     | 99      | 100       | 40    | 100   | 24    | 100  | 606    | 100  |

Chi square value=34.74   df=12   p=0.0001

Table 5: Source of Antenatal of Study Population

| Source      | Tribal |          | Urban Slum |          | Total |
|-------------|--------|----------|------------|----------|-------|
|             | Number | %        | Number     | %        | Number | %     |
| GGH         | 2      | 0.7      | 117        | 38.9     | 119    | 19.7  |
| PHC         | 266    | 87.1     | 17         | 5.6      | 283    | 46.7  |
| Private     | 17     | 5.6      | 125        | 41.5     | 142    | 23.4  |
| No care     | 20     | 6.6      | 42         | 14       | 62     | 10.2  |
| Total       | 305    | 100      | 301        | 100      | 606    | 100   |

Table 6: Spacing Between Current and Previous Pregnancy of Study Population

| Spacing Months | Tribal |          | Urban Slum |          | Total |
|----------------|--------|----------|------------|----------|-------|
|                | Number | %        | Number     | %        | Number | %     |
| 12             | 187    | 61.3     | 112        | 37.2     | 299    | 49.3  |
| 13-24          | 74     | 24.3     | 115        | 38.2     | 189    | 31.2  |
| 25-36          | 35     | 11.5     | 60         | 19.9     | 95     | 15.7  |
| >36            | 9      | 3        | 14         | 4.7      | 23     | 3.8   |
| Total          | 305    | 100      | 301        | 100      | 606    | 100   |
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