ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2015; 1(12): 302-305
www.allresearchjournal.com
Received: 01-09-2015
Accepted: 02-10-2015

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Obstetric profile of women of reproductive age group women: A community based cross sectional study

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Abstract
Background: India was the first country in the world to launch a National Family Planning Programme in 1952. It was purely a demographic programme with the sole objective of reducing the birth rate to stabilize the population. As per 2011 census population growth rate is 17.7%. Thus even after 63 years of programme & many more new advances & updates in programme, India could not reach its target of at least 60% of couple protection rate. Obstetric profile gives us idea of overall obstetric care as well as perinatal care, which can help in planning, management and evaluation of mother and child health.
Methods: A cross sectional, community based observational study was conducted among 450 reproductive age group women was to find out their obstetric profile status.
Results: Mean age of women at 1st conception was 17.21 years 33.5% women had birth order 3 and more. 32.7% women had birth order ≥3, suggesting that 13.8% had birth order of 3, 10.7% had birth of 4, 5.3% had birth of 5, & 2.95% had birth of 6. 21.8% women had termination of pregnancy once while during their reproductive life span. About forty five percent of women had not desired conception during their reproductive life span.
Conclusion: The age at first conception decides overall health of reproductive age group. Not only health but prevalent social factors, social status of the women, availability of health care services, community participation, health seeking behaviour.

Keywords: Reproductive age group, Obstetric Profile, WHO

Introduction
India, with 1.21 billion people is the second most populous country in the world. According to the Census of 2001- 2011, India's population has grown at 17.7 per cent, an increase of 181.96 million since 2001. India represents almost 17.31% of the world's population, which means one out of six people on this planet live in India. Currently, there are about 51 births in India in a minute [1].

Deep-rooted customs, traditions and socio-cultural beliefs favour large family size in many parts of the country and impede the process of change which would accelerate the willing adoption of the small family norm. Socio-economic factors such as female literacy, age at marriage of girls, status of women, strong son preference and status of employment of women have a crucial bearing on the fertility behaviour of the people [2].

This will definitely put an enormous pressure on the natural resources of the country and also cause unlimited urbanization, unemployment, overcrowding, ill health, environmental pollution etc. The solution of this rapidly increasing population is Family planning in order to achieve economic and social development.[3] Sociologists and economists have shown that it will be difficult to raise the living standards of the people while population growth continues unchecked [3].

India was the first country in the world to launch a National Family Planning Programme in 1952. It was purely a demographic programme with the sole objective of reducing the birth rate to stabilize the population [4].

Obstetric profile includes no. of conceptions, no. of children, no. of abortions, no. of still births. From these data we can indirectly find out the birth rate, pregnancy wastage and the obstetrical care. It can be indirect indicator of perinatal care. There is dearth of data about obstetric profile and the available data are hospital based. Community based data can give

the real scenario. Keeping in view the above stated problems, there is a need of conducting studies which can assess the obstetric profile.

Objectives: The primary objective of the present study was to explore the obstetric profile of reproductive age group women of rural area of study district.

Materials & Methods

Study area and population

The present assessment employed quantitative research methodology in rural areas of study district.

Type of study

A cross sectional study.

Period of study

1 year (July 2013- June 2014)

Sample size

Sample size of this study was decided on the basis of World Bank data of Adolescent fertility rate. According to World Bank data (2013), pregnancy rate was 28 per 1000 women i.e. 2.8%.

As per WHO practical manual on sample size determination in health studies by Lwanga and Lemeshow [5].

$N = Z\alpha_{PQ}/l^2$

Where,

$Z\alpha$ =1.96 at 5% significance level

N= required sample size

P=proportion or prevalence of interest

Q=100-p

L=allowable error, absolute error 5%

P is taken as 2.8%, so as q=97.2%. If l=2%,

Then, sample size would be,

$N = (1.96)^2 *2.8*97.2/2x2 = 261.38$

Non-response rate/loss of sample = 10% of sample size, total sample size came out to 287.38 study subjects. The sampling technique being used in present study was Cluster sampling, thus taking 1.5 design effect, the sample size computed to 431, which was rounded to 450 study subjects.

Study population

The study group comprised of 450 women of reproductive age group of rural areas of study district.

Ethical clearance: The study protocol was reviewed and approved by the institutional ethical committee of the institution. Prior written informed consent was taken after fully explaining the purpose of the study.

Inclusion criteria

Ever Married, Reproductive age group women (15-49 years),
Willing to participate
Not Pregnant Presently

Exclusion criteria

Unmarried women
Not willing to participate

Sampling technique

Study subjects were selected by multistage sampling. Out of the total 7 blocks in the district, 3 blocks were selected randomly. Five Primary Health Centres were selected from each of the blocks by simple random sampling. From each PHC, three sub centres were selected by simple random sampling method. So total 45 sub centres were selected from 3 blocks. Sub centre was taken as natural cluster. Thus total 45 clusters were selected. From the one geographically identified point, one direction was chosen randomly and from each cluster 10 women were selected and interviewed till the desired number was achieved in each cluster. So total 450 women were recruited from rural area.

Method of study

Data were collected in a pre-designed and pre-tested Proforma by interviewing woman. The study was carried out by undertaking house to house visits of the area of each cluster. Proforma consisted sociodemographic profile & obstetric profile. The deficiency & the misbelieves were corrected by means of one to one health education.

Data entry and analysis

The data entry was done in Microsoft Office Excel 2007. Analysis was done using Epi info and Microsoft office Excel 2007 & SPSS.

Results & Discussion

Table 1: Distribution of women according to their age at 1st conception

Age Group	No. Of women	Percentage (%)
<18 Years	108	24%
18-20 Years	126	28%
≥21 Years	216	48%
Total	450	100%

Mean age of women at 1st conception was 17.21 years.

In present study, more than 50% women conceived before the ideal age for conception i.e. 24% women had conceived before age 18 years, 28% women had conceived in 18-20 years age where as only 48% women conceived after age of 21 years.

Safe age group for child bearing is between 21-30 years. Chances of complications and thus maternal morbidities are higher before 21 years. Chances of complications and thus maternal morbidities are higher before 20 years [6].

The risk of maternal mortality is highest for adolescent girls under 15 years old and complications in pregnancy and childbirth are the leading cause of death among adolescent girls in developing countries [7, 8]

20% of these girls married under the age of 15 are already mothers. Occurrence of High maternal mortality among adolescent mothers [9].

Table 2: Distribution of women according to their parity

Parity	No. (Frequency)	Percentage (%)
0	83	18.4%
1	65	14.4%
2	151	33.6%
3	62	13.8%
4	51	11.3%
5	23	5.1%
6	14	3.1%
7	1	0.2%
Total	450	100%

In present study, 14.4% were primi para, 33.6% were Para II, 13.8% women were Para III, 11.3% women were Para IV, & 5.1%, 3.1% & 0.2% women were Para V, VI, and VII respectively. 33.5% women had birth order 3 and more.

According to DLHS-3 (2007-2008) of Jamnagar district shows that 26.3% women having more than 3 birth orders [10]. According to DLHRS-1 (2011), 20.9% women had birth order 3 and more in this district.(DLRHS-1, 2011)While observations of Kabakyenga JK in Uganda (2012) [11] and Hailu M in Ethiopia (2011) on parity of women revealed a very high percentage of women belonging to parity more than 2 were 67.4% & 59.7% respectively [12]

Table 3: Distribution of women according to their No. Of Live Children

Live Children	No. (Frequency)	Percentage (%)
0	85	18.9%
1	65	14.4%
2	153	34%
3	62	13.8%
4	48	10.7%
5	24	5.3%
6	13	2.9%
Total	450	100%

Only 66.4% women had birth order ≤2, 32.7% women had birth order ≥3, suggesting that 13.8% had birth order of 3, 10.7% had birth of 4, 5.3% had birth of 5, & 2.95% had birth of 6.

According to DLHS-3 (2007-2008) of Jamnagar district shows that 26.3% women having more than 3 birth orders.(DLHS, 2007-2008)

Thus in present study 32.7% women had birth order more than three, which was somewhat higher than the district level health survey of study district.

Table 4: Distribution of women according to their Termination of Pregnancy

Abortion	No. (Frequency)	Percentage (%)
0	352	78.2%
1	46	10.2%
2	36	8%
3	12	2.7%
4	1	0.2%
5	3	0.7%
Total	450	100%

78.2% women had not any termination of pregnancy, but 21.8% women had termination of pregnancy once while during their reproductive life span. 8% women had two times termination, 2.7% women had three times termination, 0.2% women had four times termination & 0.7% women had five times termination.

History of abortion suggests the possibility of women not seeking ANC and not prepared for birth adequately, which could be the reason of morbidity in their future. It also suggested that unmet need of contraceptives was highly prevalent.

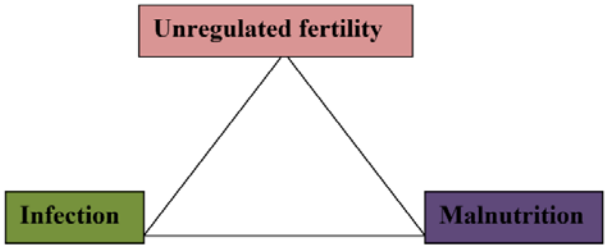
Table 5: Distribution of women according to whether the conception was desired

Conception	No. Of women	Conception Desired
1st	379	184 (48.54%)
2nd	324	149 (45.99%)
3rd	195	70 (35.90%)
4th	146	33 (22.60%)
5th	49	16 (32.65%)
6th	28	7 (25%)

About forty five percent of women had not desired conception during their reproductive life span. Among 450 participants 71 had not conceived till, so they were excluded from these results. When enquired about the desire their Of their respective conception, the results were as follows: less than half of the i.e. 48.54% women had desire to have had 1st conception, which gradually decreased as the numbers of conception increased, 45.99% during 2nd conception, 35.90% during 3rd conception, 22.60% during 4th conception, 32.65% during 5th conception & 25% during 6th conception.

This also suggests that there was no plan or preparation of decision about no. of children and time in relation to birth. This indirectly suggests poor birth preparedness by the couple.

Currently the main health problems affecting the health of the mother and the child in India, as in other developing countries, revolve round the triad of malnutrition, infection and the consequences of unregulated fertility [13].



90.8% of young married women reported no use of a contraceptive prior to having their first child. 23.9% reported having a child within the first year of marriage. 17.3% reported having three or more children over the course of the marriage. 23% reported a rapid repeat childbirth, and 15.2% reported an unwanted pregnancy. 15.3% reported a pregnancy termination (stillbirths, miscarriages or abortions) [14].

Conclusion: Mean age of women at 1st conception was 17.21 years. In present study, 14.4% were primi para, 33.6% were Para II, 13.8% women were Para III, 11.3% women were Para IV, & 5.1%, 3.1% & 0.2% women were Para V, VI, and VII respectively. 33.5% women had birth order 3 and more. 32.7% women had birth order ≥3, suggesting that 13.8% had birth order of 3, 10.7% had birth of 4, 5.3% had birth of 5, & 2.95% had birth of 6. 21.8% women had termination of pregnancy once while during their reproductive life span. History of abortion suggests the possibility of women not seeking ANC and not prepared for birth adequately, which could be the reason of morbidity in their future. It also suggested that unmet need of contraceptives was highly prevalent. About forty five percent of women had not desired conception during their reproductive life span. This also suggests that there was no plan or preparation of decision about no. of children and time in relation to birth. This indirectly suggests poor birth preparedness by the couple.

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