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Original Article

Factors influencing antenatal care utilization in a village of guntur district, andhra pradesh

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ABSTRACT

AIMS: 1. To study the possible socio- demographic factors contributing to women obtaining antenatal care services. 2. To study the role of these factors in influencing the antenatal care utilisation. METHODS: Cross sectional observational study was conducted on 140 postnatal mothers residing in Nadendla village of Guntur district, Andhra Pradesh. The data was collected using a pre-tested semi- structured schedule. RESULTS About 46% (65) of the women were illiterates. Majority (63.6%) of the women work in paddy fields as Agricultural Labourers, the remaining (36.4%) are housewives. 51.4% of the mothers were living in nuclear families. 63% women conceived by 19 years of age. All the respondents utilized antenatal services either government or private or both. 73% utilized government services exclusively, being provided by accredited social health activists and female health workers.62% of mothers had 3 or more antenatal visits. Except for one, none of the women were paid home visits by the health staff. 66.7% mothers were satisfied with the behaviour of the health staff at the Primary Health centres (PHC). Cleanliness at the PHC needs improvement and more than 70% mothers were satisfied with the information provided for care during pregnancy. CONCLUSION Literacy rates among females need to be improved in the villages. When women are educated, the whole family is educated. All the women are utilizing antenatal care services, but home visits by the health staff during antenatal period should be done routinely. The staff at the Primary Health Centres should be periodically sensitized about the importance of antenatal care

1. Introduction

Antenatal care is the care of women during pregnancy. Antenatal care (ANC) constitutes screening for health by skilled providers to detect complications related to pregnancy, providing therapeutic interventions known to be effective; and educating pregnant women about planning for safe birth, emergencies during pregnancy and raises their awareness about the need for care during delivery. The primary aim of antenatal care is to achieve at the end of pregnancy a healthy mother and a healthy baby. Ideally this care should begin soon after conception and continue throughout pregnancy [1].

Most of the studies on pregnancy outcomes in India are hospital based and do not reflect the true picture of the situation in the rural community.

In rural settings of India, uptake of antenatal care is far from universal even in settings where they are widely available. Thus, it requires monitoring and identifying specific needs at field level for timely corrective actions. Antenatal care utilization is a concept of expressing the extent of interaction between the care providers and the people for whom it is intended [2].

India presents a unique case in terms of the sheer size of its population characterized by heterogeneity in respect of economical, social, cultural and geographic conditions which influence health seeking behaviour and access to health care. India being a developing country, with a high prevalence of infectious and other diseases which effect the health status of a female more during the time of pregnancy [3].

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Maternal and Child Health services in rural areas, where more than 72% of India's population live, are provided by the Community Health Centres, Primary Health Centers, Sub centres. The Primary Health Centres form the backbone of rural health set up. At the village level, health care is primarily provided by Multipurpose Health Workers (Female), Trained Dais, and Accredited Social Health Activists [4].

The present study tries to find out various factors determining the ante natal care utilization in the rural areas.

Aims and Objectives

1. To study the possible socio- demographic factors contributing to women obtaining antenatal care services.

2. To study the role of these factors in influencing the antenatal care utilisation.

2. Materials and Methods

The present study is a cross sectional observational study done in Nadendla village of Guntur district of Andhra Pradesh. The study village was selected randomly from a total of 74 Primary Health Centre villages in Guntur district

The data regarding the number of Eligible Couples and the antenatal cases registered with the MPHW (Female) in the PHC village during the preceding year of the study were taken into consideration.

Duration of study: 4 months. Data collection was done in the months of June and July 2012.

Sample size: All the mothers who delivered during the past 1 year preceding the study became the study subjects. 140 women delivered which thus became the sample size of the present study.

Inclusion criteria: All the mothers who delivered during the past one year and are residents of the village.

Exclusion criteria: Those mothers who would not like to participate, visitors, non- residents of the village, were excluded from the study.

Study Tool: Interview Technique.

A house-to-house visit was made and all the mothers were administered a pre- tested structured schedule, after obtaining an Informed Consent from them.

Statistical analysis:

The data was analysed using statistical software – EPI-INFO and Microsoft Excel. The various tests of significance relevant to data obtained were applied. The data was summarized and presented in the form of tables and graphs.

Observations and Results

The present study was conducted in Nadendla Primary Health Centre village of Guntur district of Andhra Pradesh during the months of May and June 2010. The data regarding the population and the number of eligible couples was gathered from the Guntur District Medical and Health Office. The PHC catered to a population of 84,748. It has 19 sub-centres. The population of Nadendla Village was 8,235. The total number of eligible couples in the village was found out to be 1986. 144 mothers delivered during the preceding one year of the study. 4 mothers did not participate in the study . Here are the various observations made from the study.

I. SOCIO- DEMOGRAPHIC PROFILE:

1. HUSBAND (Table 1)

1.1 Occupation of the husband: Majority (65%) of the respondents' husbands work as agricultural labourers, 24.3% as non- agricultural labourers.

1.2 Education of the husband: About 48% of the husbands were illiterates. 20% had completed college education.

2. ANTENATAL MOTHER (Table 2)

About 77% (108) of the respondents were less than 24 years old.

2.1 Education of the women: About 46% (65) of the women were illiterates. Only about 3% of the respondents had completed graduation.

2.2 Occupation of the antenatal women: Majority (63.6%) of the women work in paddy fields as Agricultural Labourers, the remaining (36.4%) are housewives. No other types of occupation were found among the respondents.

Table 1. Socio- Demographic profile of the husbands (n=140)

	FREQUENCY	PER CENT
OCCUPATION (n=140)		
AGRICULTURAL LABOURER	91	65%
NON- AGRICULTURAL LABOURER	34	24.3%
PETTY BUSINESS	12	8.6%
SALARIED	1	0.7%
OTHERS	2	1.4%
EDUCATION (n=140)		
ILLITERATE	67	47.9%
PRIMARY SCHOOL	13	9.3%
MIDDLE SCHOOL	10	7.1%
SECONDARY SCHOOL	12	8.6%
INTERMEDIATE	10	7.1%
DEGREE & ABOVE	28	20.0%

Table 2. Socio-Demographic profile of the mothers (n=140)

	FREQUENCY	PER CENT
AGE GROUPING OFANTENATAL MOTHERS		
≤19 years	18	12.9%
>19-24 years	90	64.3%
>24-29 years	32	22.9%
EDUCATIONAL STATUS		
ILLITERATE	65	46.4%
PRIMARY SCHOOL	30	21.4%
MIDDLE SCHOOL	23	16.4%
SECONDARY SCHOOL	6	4.3%
INTERMEDIATE	12	8.6%
DEGREE & ABOVE	4	2.9%
OCCUPATION		
AGRICULTURAL LABOURER	89	63.6%
HOUSE-WIFE	51	36.4%
TYPE OF FAMILY		
NUCLEAR	72	51.4%
JOINT	22	15.7%
THREE GENERATION	46	32.9%
MONTHLY PER CAPITA INCOME		
≤Rs.500	61	43.6%
Rs. 501- 1000	68	48.6%
≥Rs. 1001	11	7.9%
RELIGION		
HINDU	118	84.9%
CHRISTIAN	15	10.8%
MUSLIM	6	4.3%

Table 3. Antenatal History (n=140)

	FREQUENCY	PERCENT
AGE AT MARRIAGE (IN YEARS)		
≤18	85	60.7%
>18 -23	55	39.3%
AGE AT CONCEPTION (IN YEARS)		
≤19	88	62.9%
>19-24	51	36.4%
>24-29	1	0.7%
PARITY		
ZERO	38	27.1%
ONE	50	35.7%
TWO	50	35.7%
THREE	2	1.4%

Table 4. Utilisation of Antenatal Care Services (n=140)

ANTENATAL CARE UTILIZATION	FREQUENCY	PER CENT
SOURCES OF ANTENATAL CARE		
GOVERNMENT ONLY	102	72.8%
PRIVATE ONLY	11	7.9%
BOTH	27	19.3%
NUMBER OF ANTENATAL VISITS		
1	9	6.4%
2	44	31.4%
3	50	35.7%
≥4	37	26.5%
HOME VISITS BY HEALTH PERSONNEL		
AT LEAST ONE VISIT	1	0.7%
NONE	128	91.4%
NOT APPLICABLE	11	7.9%
ANTENATAL CARD AVAILABILITY		
YES	123	87.9%
NO	17	12.1%

Table 5. Antenatal care services at the PHC

	FREQUENCY	PERCENT
AWARENESS ABOUT ANTENATAL CARE SERVICES (n=140)		
WORD BY MOUTH	137	97.9%
NEWSPAPERS	2	1.4%
TELEVISION	1	0.7%
QUALITY OF CARE (n=129)		
SATISFACTORY	98	75.9%
BAD	31	24.1%
BEHAVIOUR OF THE HEALTH PERSONNEL (n=129)		
COURTEOUS	97	75.2%
NOT COURTEOUS	32	24.8%
WAITING TIME AT THE PHC (n=129)		
LESS THAN 1 HOUR	86	66.7%
MORE THAN 1 HOUR	43	33.3%
CLEANLINESS AT THE PHC (n=129)		
GOOD/ SATISFACTORY	88	68.2%
BAD	41	31.8%
PRIVACY DURING EXAMINATION (n=129)		
YES	96	74.4%
NO	33	25.6%
INFORMATION ABOUT CARE DURING PREGNANCY (n=129)		
ADEQUATE	92	71.3%
INADEQUATE	37	28.7%

3. FAMILY

Majority of the respondents (51.4%) were living in Nuclear families, about 33% in three generation families and the rest (15.7%) in Joint families (Table 2)

4. INCOME:

Most of the families (92.1%) are earning a per capita income of less than Rs. 1000 per month. Only 11 families (7.9%) are earning a per capita income of more than Rs. 1000 per month (Table 2).

5. RELIGION: Most (85%) of the antenatal mothers were Hindus, 10.8% were Christians and 4.3% were Muslims (Table 2).

I.ANTENATAL HISTORY (Table 3)

1. Age at marriage: Majority of respondents (nearly 61%) got married before they have completed 18 years of age.

2. Age at Conception: 63% of the women conceived by the age of 19 years. Almost all the women conceived by their 24th year of life.

3. Parity: 27% of the antenatal mothers were primipara. More than 70% of the mothers had at least one child.

I. ANTENATAL CARE UTILISATION (Table 4)

1. All (n=140) the respondents have utilized antenatal care services at least once, either Government or Private or both.

2. Source of Antenatal Care Services: 73% mothers utilized government services only whereas 8% sought private services only, the remaining 19% preferred both of them.

3. Place of Antenatal Care Services: All (n= 140) antenatal women received antenatal care services from the same village (Nadendla) either Private or Government.

4. Health Care Provider: Accredited Social Health Activists and the Female Health Workers provided services to the antenatal mothers.

5. Antenatal Visits: The study could not find a mother without a single antenatal visit. Only 6% of the mothers had paid a single visit during their antenatal period. About 62% of the mothers had 3 or more than three antenatal visits.

6. Home visits: Except for 1 antenatal mother, none of the women were paid a single home visit by the Health Worker or ASHA.

7. Availability of antenatal card: About 88% of the mothers were in possession of Antenatal Card with them at the time of the interview. All the mothers were asked about the antenatal card irrespective of the source of antenatal care services, government or private.

I. ANTENATAL CARE SERVICES (Table 5)

1. Almost all (98%) of the mothers came to know about the availability of antenatal care services, both government as well as private, through the word by mouth.

2. **Grading the Quality of Care:** Majority (76%) of the mothers were satisfied with the quality of Antenatal care Services being provided by the Primary health centre, Nadendla.

3. ACCESSIBILITY TO PHC:

Distance to the health centre from home: All the respondents (n=140) opined that the Primary Health Centre was within walkable distance. Local transport in the form of Auto-rickshaws and cycle-rickshaws are available to the Primary health Centre. None of the mothers expressed any difficulty whatsoever in visiting the Primary Health centre.

4. ANY PROBLEMS FACED AT HEALTH CENTRE

a. Behaviour of the Health Personnel: About three quarters of the mothers opined that the Health Personnel are courteous towards them.

b. Waiting time at the PHC: Majority (66.7%) of the mothers expressed that they were seen by the health personnel immediately or within 1 hour whenever they visited the Primary Health Centre. The rest of them (33.3%) said that they had to wait a while, more than an hour sometimes to get the services.

c. Cleanliness at the PHC: About one third of the respondents observed that cleanliness at the health centre needs improvement, but the majority (68.2%) is of the opinion that the PHC is well maintained.

d. Privacy during Examination: Three fourths of the mothers (96) expressed satisfaction with privacy was maintained during clinical examination by the health personnel.

e. Information about Care during Pregnancy: More than 70% of the mothers were completely satisfied with the information provided by the Health provider about care during pregnancy.

Discussion

1. SOCIO-DEMOGRAPHIC PROFILE:

HUSBAND: Nearly half (48%) of the Husbands of the antenatal mothers were illiterate.

ANTENATAL MOTHERS-

EDUCATION- 46% of the mothers were illiterates, 42% had any type of school education. Only 11.5% of the mothers had any college education. This shows that most of the women discontinue education at school level only.

OCCUPATION: Most of the women (64%) work as agricultural labourers in paddy fields which poses a physical strain on the health of the mother, which is detrimental to the outcome of pregnancy.

FAMILY: Since most (51%) of the women are living in nuclear families it would be difficult for them to take care of themselves as well as the other family members. Women living in Joint or Three Generation families have the added advantage of parents taking care of the family members during the antenatal period.

RELIGION: Majority of the families about 85%, believe in Hinduism

INCOME: Nearly 44% of the families earn a per capita monthly income of less than Rs.500.

Ahmed MS, et al, in their study on Socio economic status done in rural Bangladesh in 2001 overrides age and gender in determining health seeking behaviour. A household's poverty status emerged as a major determinant of health-seeking behaviour. The chances that individuals from poor households would seek treatment from unqualified allopathic practitioners was more compared to the qualified allopathic practitioners, level of education and poverty emerged as the two most significant determinants of health seeking behaviour[5].

2. ANTENATAL HISTORY:

Nearly two thirds of the women are getting married before they are 18 years old. Nearly two thirds are conceiving by the time they attain 19 years or so.

Early marriages and teenage pregnancies were found to be common in rural communities.

ANTENATAL CARE UTILISATION:

The present study could not find a woman without utilizing any antenatal care services. The women had utilized Antenatal Care services either from the Government or Private sources. Only those families (8%) with higher per capita monthly income more than Rs.1000 had gone for Private Services only. The rest of the mothers sought care from the Government authorities at one time or the other. This shows that higher the income, greater will be the chances of the families seeking treatment from Private sector.

Ghosh, BN and Mukherjee, AB in their study on health services coverage of a primary health centre in West Bengal in 1989 found out that people with higher income utilized the PHC services least. Income seems to have significantly influenced the utilization of health services [6].

Kapil U, Bharel SM, Sood AK. in their study on utilization of health care services by mothers in an urban slum community of Delhi in the year 1989 found that only 118 (55.38%) mothers utilized services from MCH centres while rest availed from RMPs (registered medical practitioners)[7].

Rajaratnam J, et al, in study on the morbidity pattern, health care utilization and per capita health expenditure done on rural population of Arcot district of Tamilnadu, in 1991 revealed that more than half of the households (59%) preferred to go to private practitioners (registered, non-registered or indigenous) and only 28% used the services provided by a voluntary agency serving the block and 25% used the government service (primary, secondary and tertiary) [8].

Ranjan D, et al, in a study on the utilization and coverage of services by women of Jawan block in Aligarh found out that lack of knowledge (11.4%), obstacles (36.4%) and socio-cultural taboos (52.3%) to be the reasons for non-availing of ANC services[9].

ANTENATAL VISITS: About 62% of the mothers had completed at least 3 antenatal visits.

But almost none of them had been paid a domiciliary visit by the health personnel which were found out to be the key finding of the study.

3. ANTENATAL CARE SERVICES:

Word by mouth was the means by which women came to know about the availability of antenatal care services. About three quarters of the women were satisfied with the quality of antenatal care services provided by the Primary Health Centre, Nadendla. About 24% are not satisfied with their services. Distance to the PHC from their house was not a deterrent in seeking care as the PHC is well located in the village, Nadendla.

About one quarter of the respondents did not like the attitude of the health personnel towards them. Waiting time at the PHC was not a factor in not seeking care as most of the mothers were immediately attended to. Nearly one third of the mothers were not satisfied with the maintenance of cleanliness at the PHC. Nearly one fourth of the mothers were not satisfied with regard to privacy during clinical examination by the health personnel.

Kapil U, Bharel SM, Sood AK. in their study on utilization of health care services by mothers in an urban slum community of Delhi in the year 1989 found that only 118 (55.38%) mothers utilized services from MCH centres while rest availed from RMPs (registered medical practitioners). The reasons for non-utilization of centres were (1) prolonged waiting time (42.25%) (2) Heavy load of work at home (23.35%) and (3) long distance (15.49%). About 3% mothers did not utilize centre services as timings were not suited [7].

Kapil U, in his study on the utilization of health care facilities by "at risk" children in year 1989, revealed that prolonged waiting time (37%), non-availability of drugs (16%), unsatisfactory hospital treatment (14%) and unpleasant behaviour of the hospital staff (12.03%) were the major factors that prevented them seeking government health care facilities. The other factors were unable to go to hospital due to heavy load of work (9.25%), costly prescriptions by doctors (7.40%) and unsuitable hospital timings (5.55%) [10].

National Population Policy -2000 document states that the low status of women in the society coupled with their low literacy rates prevents women from seeking the ante natal services even if services are available [11].

The utilization of reproductive health services in turn depends upon availability and accessibility of these services and socio-demographic, communication factors and quality of care provided to women [12]. The National Family Health Survey -2 data shows that 66 percent of the ever-married women in India utilized antenatal care services [13] and the utilisation substantially increased to 77 per cent in NFHS-3[4].

SUMMARY

About 46% of the antenatal mothers and 48% of their husbands were found to be illiterates. Most of them, both men and women worked as agricultural labourers for a livelihood. Nuclear type of families was found to be common in Nadendla village. Family income seems to play a key role in seeking Health Care Services from the private sector. Early marriages and teenage pregnancies are common in the village.

62% of the mothers had at least 3 antenatal visits. But domiciliary visits by the health workers during the antenatal period were not done.

About three fourths of the respondents were satisfied with the attitude of the health staff, cleanliness of the Primary Health centre, and privacy during clinical examination. The respondents (72%) were satisfied with the information and advice given by the health staff at the PHC about care to be taken during pregnancy.

The objectives of the present study to find out the socio-demographic factors contributing to women obtaining the antenatal care services and their role in influencing antenatal care utilisation have been fulfilled.

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