Original Research Paper

Volume-7 | Issue-11 | November-2017 | ISSN - 2249-555X | IF : 4.894 | IC Value : 79.96

Community Medicine

A STUDY ON THE UTILIZATION OF ANTENATAL CARE SERVICES IN URBAN SLUMS OF GUWAHATI (METRO) CITY, ASSAM

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ABSTRACT

Introduction- The first step towards ensuring the health of mother and baby are the Antenatal Care Services. However, utilization of Antenatal care services, an essential component of safe motherhood varies widely throughout our country. People of slums of Guwahati city are still living in poor conditions away from health facilities and underutilization of health care services including Antenatal Care services. Therefore the present study is undertaken to assess the utilization of antenatal care services in slum areas of Guwahati (Metro) city of Assam.

Materials and methods- The present cross sectional study was carried out from January, 2017 to June, 2017 in different slums of greater Guwahati city of Kamrup (M) district of Assam. A total of 483 mothers were selected for the study. A predesigned and pretested semi structured schedule was used to interview the mothers.

Results- Majority of the respondents (66.6%) got registered for ANC within 3 months of pregnancy. About 65% of the respondents had 4 or more antenatal visits, about 82.4% took IFA tablet/syrup for 100 or more days and about 92.7% took 2 doses of Tetanus toxoid injections. About 75.3% of the respondents delivered in Govt. facilities. However, home delivery was also seen in about 5.1% of the respondents.

Conclusion- Many people in the slums are still unaware regarding the benefits of Antenatal care services. Good political will, mainstreaming the slum population with the general population and improvement of their socio-economic condition is need of the hour.

KEYWORDS : Antenatal care, ANC Registration, IFA Tablet/Syrup, Tetanus Toxoid Injection.

Introduction

The first step towards ensuring the health of mother and baby are the Antenatal Care Services. The primary aim of antenatal care is to achieve at the end of a pregnancy a healthy mother and a healthy baby. The World Health Organization (WHO) recommends a minimum of four antenatal visits, comprising interventions such as Tetanus Toxoid (TT) vaccination, screening and treatment for infections, and identification of warning signs during pregnancy.[1,2] However, utilization of Antenatal care services, an essential component of safe motherhood varies widely throughout our country. Under-utilization of Antenatal Care services is especially seen in the population living in the slums of India. The public sector urban health delivery system, especially for the poor, has so far been sporadic, far from adequate and limited in its reach due to factors like cost, timings, distance, attitude of health providers, social exclusion of slums, hidden slum pockets, weak social fabric, lack of coordination among various stakeholders, neglected political consciousness.[3,4]

Guwahati, the gateway of North east India, has about 90 notified slums. People of these slums are living in poor conditions away from health facilities and underutilization of health care services including Antenatal Care services. Pregnant women of these slums are still suffering from many preventable health problems along with poor delivery outcome contributing to high maternal mortality and infant mortality. Therefore the present study is undertaken to assess the utilization of antenatal care services in slum areas of Guwahati (Metro) city of Assam.

Materials and methods-

The present cross sectional study was carried out for a period of 6 months from January, 2017 to June, 2017 in different slums of greater Guwahati city of Kamrup (M) district of Assam. Initiation of the study was done in slum areas near Urban Health Center, Ulubari, Guwahati. The Urban Health Center, Ulubari is a field practice area under Department of Community Medicine, Gauhati Medical college, Guwahati. Then the study was extended to other slum areas.

Using the prevalence of mothers who had full antenatal care (at least four antenatal visits, at least one Tetanus Toxoid (TT) injection and Iron Folic Acid Tablets or syrup taken for 100 or more days in Urban areas of Assam as 30.4% [5], absolute error as 6%, with 95% Confidence Interval, the sample size was calculated as 235 on the basis of the formula

$$n = \frac{4pq}{l^2}$$

Cluster sampling has been applied as the design of sampling, hence with a design effect of 2, the sample size has been calculated as 470.

As per Guwahati Municipal Corporation, Government of Assam, there are total 90 notified slums in Guwahati city. The 90 slums were taken as primary sampling unit in the study under cluster methodology. Out of total 90 clusters, 25 % i.e. 23 clusters were selected by using Probability Proportionate to Size (PPS) method. From each of 23 clusters, list of mothers who delivered within last 1 year was procured from the Link Worker and from each list 21 mothers were taken into consideration for study. **Thus, a total of 483 mothers were selected for the study.** Mothers residing in the slums for at least 6 months prior to last delivery and consenting to the interview were included. Privacy and confidentiality of personal information is maintained in every step of the study and results are presented in aggregate form without individual identification. Assamese and Hindi languages were used to obtain the information. A predesigned and pretested semi structured schedule was used to interview the mothers. The findings of the study were tabulated and presented as percentage.

Results-

Table 1 shows distribution of the respondents according to their socio-economic characteristics, where 79.5% of the mothers are in the age group of 20-30 years. Majority of the mothers are educated up to primary standard (84%). About 81.1% of them are from nuclear family.

Table 2 shows distribution of the respondents according to their parity and registration for ANC. About 48% of the mothers are primipara. Health personnels are the major source of advice for ANC registration (76.2%). Majority of the respondents (66.6%) are registered for ANC within 3 months of pregnancy. About 22.3% of the respondents are

unaware regarding the importance, which is the main reason of their late ANC registration.

Table 3 shows that about 65% of the respondents have 4 or more antenatal visits, about 82.4% took IFA tablet/syrup for 100 or more days and about 92.7% took 2 doses of Tetanus toxoid injections.

Table 4 shows 75.3% of the respondents delivered in Govt. facilities. However, home delivery is also seen in about 5.1% of the respondents.

Table 5 shows association of educational status and number of antenatal visits. P value is found to be significantly associated.

Table 1: Distribution of respondents according to their socio-demographic characteristics:

Variables		Number	Percentage
Age of mothers	<20 years	57	11.8
	20-30 years	384	79.5
	>30 years	42	8.6
Religion	Hindu	234	48.4
	Muslim	249	51.5
Educational status	Illiterate	61	12.6
	Primary	406	84
	Secondary	16	3.3
Type of family	Nuclear	392	81.1
	Joint	91	18.8

Table 2: Distribution of respondents according to their parity and registration for ANC

Variables		Number	Percentage
Parity	1	232	48
	2	166	34.3
	3	85	17.6
Source of advice for ANC Registration*	Health personnel	368	76.2
	Family members and neighbours	173	35.8
	Media exposure	98	20.3
	Did not heard about ANC registration	10	2.1
Month of registration	<3 months	322	66.6
	3-6 months	131	27.1
	>6 months	22	4.5
	Not registered	8	1.6
Reasons for late and no ANC registration* (n=161)	Unaware of importance	108	22.3
	Unaware of ANC clinic	96	19.8

*multiple response

Table 3: Distribution of respondents according to utilization of ANC services

Variables		Number	Percentage
Number of antenatal visits	1	24	4.9
	2	54	11.1
	3	81	16.7
	4 or more	314	65
	No Antenatal visit	10	2.1
Iron & Folic Acid tablet/syrup taken	<100 days	69	14.3
	100 days or more	398	82.4
	Not taken	16	3.3
Tetanus Toxoid injection	2 doses	448	92.7
	1 dose	25	5.1
	Not taken	10	2.1

Table 4: Distribution of respondents according to place and type of delivery

Place and type of delivery	Normal	Assisted Delivery	Caesarean Section	Total Number (%)
Govt. Hospital	255	31	78	364 (75.3%)
Private Hospital	47	18	29	94 (19.4%)
Home Delivery	25	0	0	25 (5.1%)
Total	327(67.7%)	49 (10.1%)	107 (22.1%)	483 (100%)

Table 5: Distribution of respondent according to educational status and number of Antenatal visits

Education and No. of ANC visits	1 visit	2 visits	3 visits	4 or more visits	No visit	Total Number(%)	Df=8 P value <0.0001
illiterate	19	8	23	11	8	69 (14.3)	
Primary	4	42	50	300	1	397(82.2)	
Secondary	1	4	8	3	1	17 (3.5)	
Total	24	54	81	314	10	483 (100)	

Discussion-

In our study, it is found that majority of the mothers belong to the age group of 20-30 years (79.5%). The finding is similar to the study done by Arslan Neyaz et al[6] in 2015 in Aligarh (71.1%) and Dr. T Srigouri et al[7] in Kurnool city in 2011-12 (78.54%).

Time of registration is a major determinant in evaluation of utilization of antenatal care services. In our study, we have found that most of the registration (66.6%) is done within 3 months of pregnancy. This is almost similar to the study done by Mukesh Shukla et al[8] in 2015 in slums of Lucknow (63.5%).

Majority of the mothers (65%) have more than 3 antenatal visits. This is far less than the results of the study done by Dr. T Srigouri et al[7] in Kurnool city in 2011-12, where about 93.3% of the mothers have more than three antenatal visits.

In our study, it is found that majority of the mothers have received Iron and Folic acid for 100 or more days (82.4%) and 2 doses of TT injection (92.7%) which is far better than the results of the study done by Nidhi Sharma et al in slums of Amritsar city[9] in 2016 where it is found to be 21.7% and 65.5% respectively.

About 75.3% of the mothers have delivered in Government hospitals which is at par with the study done by Arslan Neyaz et al[6] in 2015 in slums of Aligarh (72.4%). However, it is more than the findings (53.91%) in the study by Suresh K Mangulikar et al[10] in Solapur in 2015.

Conclusion-

Lack of knowledge and poor socio-economic conditions are still very much prevalent in the people residing in the slums. Many people in the slums are still unaware regarding the benefits of Antenatal care services. Despite different maternal and child health programmes, antenatal care services are under utilized by the people of the slums. Home delivery is also a matter of concern. Good political will, mainstreaming the slum population with the general population and improvement of their socio-economic condition is need of the hour. The Government and Non Government voluntary agencies should come forward to combat these problems.

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