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ANTENATAL CARE – A STEP TOWARDS SAFE MOTHERHOOD

Gynaecology

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ABSTRACT

Background: Efficient antenatal care is preventive medicine at its best

Aim: To access the role of proper and regular antenatal care in ANC received patients versus non ANC (antenatal care) received patients.

Method: Prospective observational study of women who delivered in zanana hospital Udaipur from Jan 2017 to Dec 2017 and divided into major group according to their ANC. All cases were studied to note the nature of antenatal care and its effect on maternal and perinatal loss.

Result : Most of the booked ANC cases were from urban areas (60%) having better education and socio –economic status having 88% babies born at term with 90 % babies weighing 2.5 kg or more. Perinatal mortality was about 7 times higher in unbooked cases.

Conclusion: By improving the health of mother and child we contribute to the health of the general population, there is need for enhancing community awareness about the importance of antenatal care, most of the perinatal mortality is preventable by proper ANC.

KEYWORDS

Antenatal care, Perinatal, Mortality.

Introduction: Antenatal care is a preventive branch of obstetrics. Its aim is not only to preserve the physiological aspect of pregnancy but also for a better outcome of a healthy baby who can handle all the hazards of the environment.

India is committed to reducing maternal mortality ratio is less than 100% 100,000 live births by the year 2010.

Effective antenatal cure would prevent or to detect at the earliest the medical and obstetrical complications, anemia, hypertension, diabetes, heart disease, T.B. , nephritis and obstetrical-pre-eclampsia, malpresentation, multiple pregnancy, disproportion, placenta previa, and thus, screening risk cases with their effective rectification.(1)

Annually 5 lakh people died globally as result of pregnancy and childbirth (2)

Goal 5 (a) of the millennium development goals aim to improve maternal health with the target of reducing the maternal mortality ratio MMR by 75 % between 1990-2015(3)

The best thing that antenatal care could accomplish is to influence women to have an institutional delivery with a trained attendant at birth.

In INDIA, MMR has declined from 212 in 2007-2009 to 178 in 2010-2012 (4)

GOI has launched JSSK on 1st June 2011 with an aim to reduce MMR and IMR under this scheme pregnant; women are entitled to free drug and consumables, free diagnostic test, free blood, free diet, and free transportation from home to institution and back to home. (5)(13)
After JSSK scheme institutional deliveries increased by 20.32% and registered deliveries by 20.7% (6)

Utilization of material services in rural areas is mainly driven by socioeconomic factors, standard of living and education and less by physical access and availability of healthcare and family welfare services.

The traditional approach was replaced by focused antenatal care a by WHO in 2002 (7)

Objectives: The objective of this study is to analyze the various factors which contribute in non-attendance of antenatal clinics in emergency cases and to study the foeto-maternal outcome in antenatal care received patient versus with non-antenatal care received. To study the socio economic causes for not receiving antenatal care

Material and Method: The present study was conducted in Department of Obstetrics and Gynaecology, Pannadhai Mahila Chikitsalya, Udaipur from January 2017 to dec 2017. In all 1000 patients booked and unbooked were studied who were delivered in Zanana Hospital.

Group 1 - Booked cases with ANC card of hospital or some other hospital (500).

Group 2 – Unbooked cases who did not attend ANC clinic anywhere and delivered in hospital (500).

The type of booking were as Douglas classification 1980,

Adequate (A): Clinic attendance starting in the first three months of pregnancy.

Fairly adequate (B): Clinic attendance starting in the second three month pregnancy.

Inadequate (C): Attendance only in the last three months of pregnancy.

All the patients were questioned about their residence, type of antenatal booking, about their socio-economic status, educational status of the mother. Condition of mother and baby was noted throughout hospital stay and at the time of discharge. Patient were interrogated to find out reason for not attending ANC centre acc, they were group into

(A) Patient having no knowledge about ANC
(B) Patient living in areas where there is non availability of ANC service
(C) Patient were not able to come because of non-accessibility to ANC.
(D) Working women who could attend the ANC center.
(E) Patient were not able to attend the ANC clinic because of social hurdles.

Modified BG prasad scale (proposed updating for January 2017).

Socioeconomic class	Per capita monthly income	
	In 1961	In 2017 ((January 2017 CPI))
Upper class	≥ 100	≥6254
Upper middle class	50-99	3127-6253
Middle class	30-49	1876-3126
Lowe middle class	15-29	938-1875
Lower class	<15	<938

SES classification according to BG Prasad scale 2017 done.

RESULT: Most of the booked cases were from urban areas (63.2%) as compared to 36.02% of cases from rural areas 70% of emergency cases of unbooked were from rural areas.(graph 1). 11.4% in urban compared to 0.4% among rural patients in booked cases have adequate booking (graph2) . Majority of booked cases were in between age

group 21-30 years (77%) (graph 3). 78% of the socio-economic class 1 mothers receive adequate antenatal care as against nil in the class 4th and 5th (graph 4). 80% literate mothers were adequately booked, whereas 5.8% in emergency group (table1)

In booked cases77.6% patients (HB level was > 11 gms) were not anemic, while in unbooked 66.2% have mild anemia, 17.2% have moderate anemia & 2.2% severe anemia(table2) 82.4% booked cases were delivered normal as compared to 86% in unbooked cases LSCS were 12% in booked and 9% in unbooked (Graph -5)

Caesarean section and forceps deliveries were slightly higher in booked cases due to liberal attitude, small family norm and their awareness.

92% of booked case delivered full term where as 63% of emergency group (graph 5) 90% babies weight 2.5 kg or more in booked cases and 60.8 % in unbooked babies group(table 3) .

Still birthrate was 0.99% in booked case and 13.9% (Graph 6) perinatal mortality rate was 24 and 180 per 1000 birth in booked and ungrouped (table 4).

Out of 1000 cases maximum percentage of women i.e. 35.9% failed to have antenatal care adequately mainly due to social hurdles. (Graph 7) 20.1% of women are working women.

23% do not have the knowledge of antenatal care.
6.8% failure due to non- availability
8.3% failure due to non -accessibility

DISCUSSION –Most of the booked cases were from urban areas (63%) and having better education and socio-economic status. Because of easily accessibility to the hospital hence number of patients availing adequate and fairly adequate antenatal care was more in the urban patients. Socio economic status of the patients has its influence antenatal care because of high literacy, increased awareness, increased per capita income and easily accessibility

KAP study found that almost all the variables such as age , education, occupation parity type of family and socio economic status had a significant association with awareness about ANC(8)

The higher percentage of illiterate women in emergency group probably accounted for their unawareness and ignorance towards antenatal care

A Agrawal et al in this study in 2007 found that ANC received was significantly lower among illiterate women (9)
Though anemia is prevalent in booked cases, but severity of the same is much less.

Priyanka et al. study shows that severe anaemia 125 (36.5 %) out of 342 severe anaemic patient were not registered (10)

Caesarean section and forceps deliveries were slightly higher in booked cases due to liberal attitude, small family norm

In Tuldhar et al study the overall cesarean section was 17.4% the rate seems to be higher among the women with ANC this could be due to fact that all cases of elective CS planned only in booked rate of cases) (11)

There is two times higher rate of premature babies in unbooked case baby weight is also influenced by type of antenatal care

Taludhar study the proportion of low birth weight and preterm babies was higher in women with inadequate or no ANC (11)

Perinatal mortality was about 7 times higher in unbooked cases Tulqdhar (study found at the perinatal mortality rate was similar in no ANC and inadequate ANC group it was 16 times higher than that in the with more than 4 visit) (11)

The lack of appreciation of available antenatal facilities was foundmore in lower socio-economic classes, who were reluctant to attend the antenatal clinic regularly.

WHO has issued a new series of recommendation to improve quality of ANC to reduce the risk of stillbirths and pregnancy experience throughout pregnancy, all women should have 8 contacts with a health provider (12)

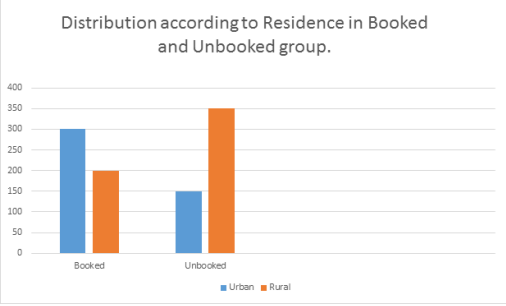
Conclusion: Promotion of maternal and child health has been one of the most important component of the family welfare programme. It is also of the GOI and the National Population Policy 2020.

This entails putting in place strategies and interventions which would accelerate the rate of decline of maternal mortality.

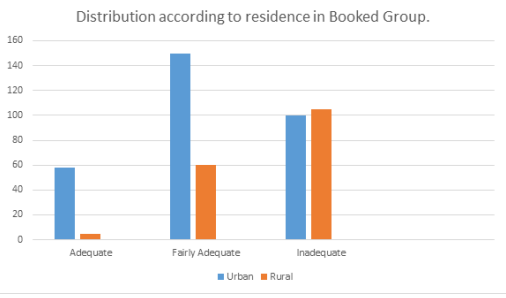
Government policies like ASHA, JSSK is helping to achieve the goal of 100% institutional deliveries and reducing MMR AND IMR.

As obstetrician we not only need technical competence to provide AMC but will also have to address some of the major social barriers for accusing care.

Graph 1:

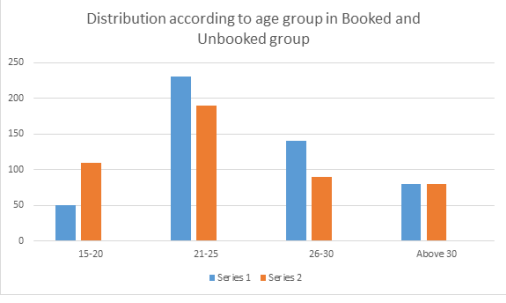


Graph 2:

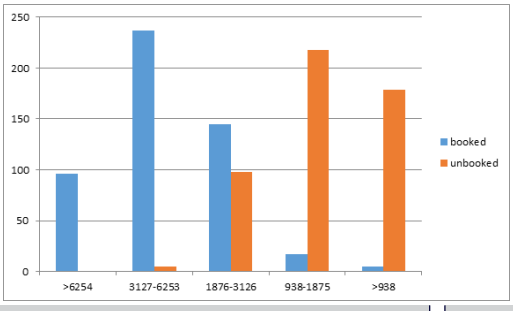


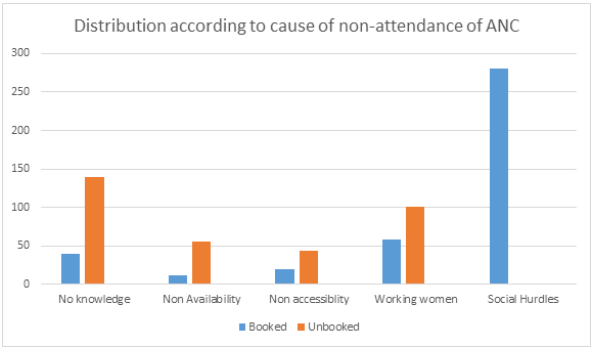
Booked Group

Graph 3: Age Group



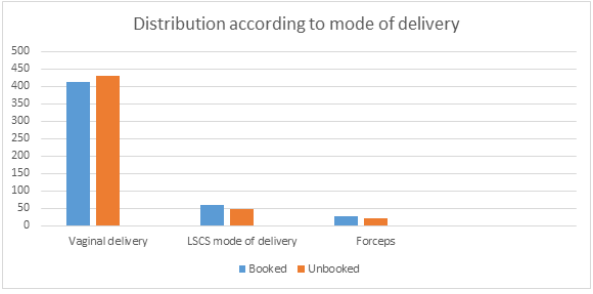
Graph 4 Distribution acc. To socio – economic status of patient:





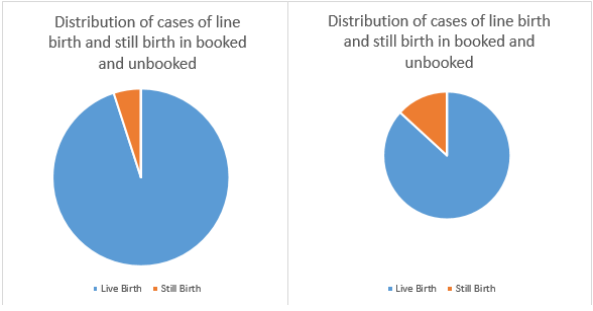
Causes of failure

Graph 5:



Mode of delivery

Graph 6 (pie chart):



Graph 7

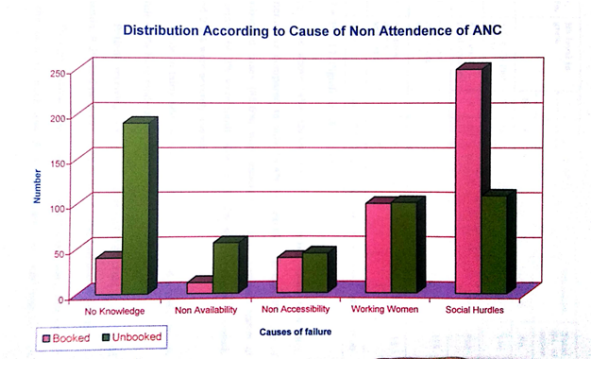


TABLE 1 Educational status of the mother in booked and unbooked group Significant

S. NO	Education Status	Booked		Unbooked	
		No	%	No	%
1	Illiterate	52	10.0	408	81.6
2	Primary	43	806	63	12.6
3	Middle	73	14.6	29	5.8
4	Higher secondary	157	31.9	-	-
5	Graduate and Post -Graduate	175	35.0	-	-
Total		500	100	500	100

$x^2 = 630.27$; Significant less {$P < 0.05$}

Table - 2

DISTRIBUTION OF CASES ACCORDING TO ANEMIA IN BOOKED AND UNBOOKED GROUPS

S. No.	Hb level in gm%	Booked						Unbooked		Total No. of cases
		A		B		C				
		No.	%	No.	%	No.	%	No.	%	No.
1.	>10 gm% (not anemic)	55	93.2	166	4.7	151	69.0	72	14.4	444
2.	8-10 gm% (mild anemic)	4	6.7	45	20.0	48	21.9	331	66.2	428
3.	6-8 gm% (moderate anemic)	--	--	11	4.9	18	8.2	86	17.2	115
4.	> 6 gm% (severe anemic)	--	--	--	--	2	0.9	11	2.2	13
	Total	59	5.9	222	22.2	219	21.9	500	50	1000

$\chi^2 = 365.12$; Significant ($P < 0.05$)

Table 3

DISTRIBUTION OF CASES ACCORDING TO GESTATIONAL AGE OF THE BABIES IN BOOKED AND UNBOOKED CASES

S. No.	Gestational age in weeks	Booked						Unbooked		Total No. of cases
		A		B		C				
		No.	%	No.	%	No.	%	No.	%	No.
1.	≥ 37	54	92.0	200	90.0	172	78.5	319	63.8	745
2.	32 – 37	5	8.4	20	9.0	38	17.3	100	20.0	163
3.	< 32	--	--	2	1.0	9	4.0	81	16.2	92
	Total	59	2.9	222	22.2	219	21.9	500	50.0	1000

$\chi^2 = 77.03$; Significant ($P < 0.05$)

Table 4 Perinatal mortality in booked and unbooked

	Booked	Unbooked
1. Still birth	5	66
2. Early neonatal birth	7	24
3. Total perinatal deaths	12	90
4. Total birth	500	500
5. Perinatal mortality rate per 1000 birth	20	180

- **Compliance with ethical standards.**

1. **Conflict of interest:** The authors declare that they have no conflicts of interest.
2. **Ethical approval:** The following study has been approved by PDMC ethics committee, RNT. Medical College, Udaipur.

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