

ASSESSMENT OF ANTENATAL CHECK-UPS AND QUALITY OF ANTENATAL SERVICES IN PRIMARY HEALTH CENTRES IN 5 VILLAGES OF NORTH KARNATAKA.

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ABSTRACT

Background- Globally, maternal death accounted to be approximately 99% deaths in developing regions. India is amongst the top five countries in terms of absolute numbers of maternal deaths. The antenatal care is the crucial factor for safe motherhood. It can detect and prevent early pregnancy related complication hence can prevent maternal death. The national guidelines has proposed a minimum of four ante-natal check-ups including tetanus toxoid (TT) vaccination, detection of and management of infectious and identification of warning signs during pregnancy in accordance with WHO recommendation. In Gadag District 82.6% Mothers who had at least 4 antenatal care visits. 81.8% Mothers whose last birth was protected against neonatal tetanus. Gadag is backward District in Karnataka, the quality of antenatal care is not of great standard and also utilization of antenatal services is not reached 100%.Therefore the study was taken to assess the situation. Hence this study aims to assess the antenatal care practices among pregnant women in 5 village of Gadag District, Karnataka.

Objectives-

1. To assess the utilization of Antenatal check-ups and quality health care services in the PHCs of 5 villages Gadag District, Karnataka.

Methodology-

A cross sectional study design was used to collect the quantitative data using pre- test questionnaires. Sampling size used was 105 post-natal mothers using random cluster sampling from each village. This study was proposed in 5 villages of gadag district of karnatak state which

are adopted by the ksrdrpr university. The study subjects included were post –natal mothers who had delivered in the month from 1st January to 30th June of 2019. The study was started from early month of July to end of September of 2019.

Results-Majority of women had registered their antenatal check-ups in government hospitals. All most all women received 4 antenatal check-ups during their pregnancy along with the 100% Immunization coverage.

All participants observed were examined by the Doctor at the PHCs. All of the participants had received the Fundal examination, IFA tablets, full doses TT vaccination and Received counseling from Doctors. The quality of the services at the PHCs was good.

Conclusion-The study showed that utilization of antenatal care is much higher in the present study as compared to other available literature for the entire country. In all the 3 PHCs the the quality of the services was god and satisfied by the pregnant mothers. The same efforts to be continue for the coverage of Ante-natal health care services in the rural areas.

Key words- Antenatal care; PNC Care; Quality services; Immunization, PHC: Karnataka

INTRODUCTION

The annual number of maternal deaths was estimated 303,000 in 2015. Globally, maternal death accounted to be approximately 99% deaths in developing regions(1). India is amongst the top five countries in terms of absolute numbers of maternal deaths(2). In Gadag District 82.6% Mothers who had at least 4 antenatal care visits. 81.8% Mothers whose last birth was protected against neonatal tetanus(3).

The antenatal care is the crucial factor for safe motherhood. It can detect and prevent early pregnancy related complication hence can prevent maternal death(4). The detection of high-risk pregnancies through the analysis of socioeconomic, medical and obstetrical factors represents a key element of ANC(5). Women rarely perceive childbearing as problematic and therefore do not seek care. This affects the utilization of ANC services in regions of the country where poverty and illiteracy are wide spread(6). A family centered approach encourages family participation. The family in its individual, earliest origin began as a reproductive or biological association but later on it became the source of support to the individual in every walk of life. Similarly family support reduces the stress of pregnant mother also(7).

The national guidelines for antenatal care include history taking, screening for maternal illnesses such as hypertensive disorders and anemia, screening, prevention and management of infectious diseases, provision of prophylactic medication and essential health education(8).The habit of Utilization of ANC services during pregnancy will lead to further utilization of other maternal services like institutional delivery and seeking assistance for complications during delivery and postnatal period(9).

The World Health Organization (WHO) recommendation of a minimum of four visits for low-risk pregnancies with targeted interventions in each visit, referred to as Focused ANC (FANC). FANC was meant to increase attention to the quality of ANC with emphasis on individual health education and counseling(8).However, in a recently published document, WHO now recommends a minimum of eight visits to improve neonatal outcomes and to provide a more positive and women-centered experience(10).Ministry of Health &Family Welfare Government of India has not yet included this recommendation. My assessment follows the existing National guidelines of ANC.

On registration in health centre's, the Tayi card will be provided. This card is the principal record of the pregnancy and is filled in whenever the woman goes for an ANC visit. After the first visit, the woman is considered to be booked for subsequent ANC visits to identify the complications like preterm delivery and manage these complications in timely manner (33).

Women are supposed to be educated and counseled regarding pregnancy-related danger signs during these visits, and that a delivery plan will be created so that readiness for emergency can be better assured(12). Nearly 64% of women who did not utilize antenatal services consider it unnecessary, reflecting both the traditional notion that child bearing is not an event worthy of medical attention(14).

Most maternal and newborn deaths and pregnancy-related complications can be prevented, detected and managed if pregnant women receive quality maternal healthcare services from a skilled health worker(17).

MATERIALS AND METHODS

Study setting and design

A community based cross-sectional study was conducted at the rural areas of Gadag Taluk. Hulakoti, Binkadakatti, Kurthkoti, Nagavi and Kalasapur these five villages were selected for random cluster sampling technique and data was obtained pre-tested semi-structured questionnaire. The period of data collection was 3 months period.

Participants

In each village women who had delivered in the month of 1st January to 30th June of 2019 were selected based on the random cluster method, in each cluster 7 post- natal mothers were selected. The data was collected between the 1st July to 14th August of 2019.

Variables

Dependent variable - ANC registration and Coverage, Family support, Quality of care.

Independent variable - Age, gender, occupation, level of education and marital status.

Data sources

The primary data was collected by administering questionnaires, Socio-demographic details, participants response for the ANC coverage, Registration, Immunization, ANC services, fear about ante-natal check-up, wanted pregnancy.

Quality services were collected in the Primary Health Centres by observing during the examination of the ante-natal check-ups.

Study size

The sampling method was based on early 90s ICMR guidelines, which recommends 7 beneficiaries in each cluster and minimum of 13 cluster . For convenience we have taken a total 15 clusters for the study. Written informed consent was obtained from all study participants before enrollment into the study. The total population of these 5 villages is 47140 and having 29 wards. The Cluster interval was $3142(47140/15)$. With the help of currency, the random number

was selected that is 1774. This was the 1st cluster of Binkadakatti village. For 2nd cluster, added cluster interval to the Random number. Subsequent cluster were identified by adding CI to the previous cumulative total. This way, selected the 15 clusters for the study in the 5 villages. In each cluster the house hold is selected by using Random number. From that cluster each house hold is surveyed until get the 7 beneficiaries with the help of the tally sheet.

Statistical methods

Data was entered in to the excel sheet and analyzed using SPSS v20, results were expressed in the frequency and percentage.

Ethical Clearance

Ethical clearance was obtained from the Institutional Ethics committee of Karnataka State Rural Development and Panchayat Raj University, Gadag.

RESULTS

Table no.1 Socio-demographic characteristics of woman(n=105)

Variables	Frequency (%)
Age(years)	
18-25	80(76.19%)
25-35	25(23.80%)
Education	
Illiterate	3(0.02%)
Literate	4(0.038%)
Primay	54(51.42%)
Secondary	14(13.33%)
Higher secondary	12(11.42%)
Graduates	17(16.19%)
Occupation Type	

of family	
Housewife	94(89.52%)
Working	11(10.47%)
Religion	
Hindu	91(86.6%)
Muslim	14(13.33%)
Socio-economic status	
Upper class	86(81.90%)
Upper middle	16(15.23%)
Lower middle	3(2.85%)
Type of family	
Joint	73(69.52%)
Nuclear	32(30.47%)
Parity	
One	45(42.85%)
>One	60(57.14%)

Socio-demographic details

The study included total of 105 postnatal mothers. Most of the participants were in the age group of 18-25years. Majority of the participants had finished primary school followed by graduates and secondary school. All most all participants were house wives. Majority of the families are from upper class families. Most of the participants are belongs to Joint family. More than half of the women having the more than one parity.

Table .2 Utilization of antenatal services by women

Antenatal variables	Frequency (%)
Source of Registration	
Government	64(60.95%)
Private	26(24.76%)
Both	15(14.28%)
No. Antenatal Check-ups	
<4 check-ups	3 (2.85%)
>4 check-ups	102(97.14%)
TT Immunization	
Immunized	105(100%)
Health problems during pregnancy	
Fever	12(11.42%)
Abdominal pain	4(3.80%)
Back pain	12(11.42%)
Diabetes mellitus	1(0.95%)
Hypertension	3(2.85%)
None	68(64.76%)
Other	4(3.80%)
Examination done by	
Doctor	101(96.19%)
Nurse	4(3.80%)
ANC Service Satisfaction	

Yes	104(99.04%)
No	1(0.95%)

Utilization of antenatal services by women

Most of the women had registered their antenatal check-ups in government 64(60.95%) set-up and some of them had registered in both 15(14.28%) set-up. Highest 102(97.14%) of the women had taken 4 antenatal check-ups . All of the women included in the study have immunized with full doses of TT vaccination. Majority of the women were healthy during their antenatal period. Most of the women are examined by Doctors. All most all women satisfied with the Ante-natal care services they received. Majority of the women are healthy during their antenatal period.

Table. 3 Antenatal services received by women during antenatal check-up

Services	Woman Frequency (%)
Counseling	105(100%)
IFA received	101(96.19%)
TT inj. received	105(100%)

Immunization Coverage

All the participants included in the study were received 100% TT Vaccination and counseling from the health workers about their pregnancy. All most all participants received IFA supplementations till the period of delivery.

Table 4: Family support for pregnancy and ANC Check-up

Variable	Pregnancy	ANC-check-up
Self-decision	5(4.76%)	0
Husband & wife decision	22(20.95%)	32(30.47%)
All family members	78(74.28%)	73(69.2%)

Family support for pregnancy and ANC Check-up

Majority of the beneficiaries had family members support for conceive(pregnancy). More than half of the family support for the attending the Antenatal check-ups.

Table 5: Test received by women during each trimester

Test	1 st visit	2 nd visit	3 rd visit
General examination	13(12.38%)	10(9.52%)	8(7.61%)
Blood pressure	12(11.42%)	8(7.61%)	6(5.71%)
Fundal examination	-	6(5.71%)	1(0.95%)
Urine examination	5(4.76%)	7(6.66%)	3(2.85%)
Hb test	5(4.76%)	6(5.71%)	3(2.85%)
All	75(71.42%)	68(64.76%)	91(86.66%)

Table 6: Quality of ANC services received by pregnant women (n-50)

Variables	Frequency (%)
Examined by Doctor	50(100%)
History of the patient	50(100%)
Weight measurement	28(56%)
Fundal examination	50(100%)
BP measurement	25(50%)
Urine examination	10(20%)
Hb estimation	18(36%)
IFA tablet given	50(100%)
TT injection	50(100%)
Counseling	50(100%)

Tests and Quality of ANC services received by pregnant women

All participants observed were examined by the Doctor. All the participants had received the Fundal examination, IFA tablets, full doses TT vaccination and Received counseling from Doctors. And Most of the participants received the Hemoglobin estimation and Urine examination. (table 5& 6)

DISCUSSION

Utilization of antenatal services by women

In our study was conducted to assess the utilization pattern of antenatal services among pregnant women and the quality of antenatal services available in the Health centres in a rural field practice area. In this study 64(60.95%) women received antenatal services in government set-ups and 97.14% of antenatal mothers utilized 4 antenatal chek-ups. A similar study conducted in Manglore District in 2016 found that 87.7% women received antenatal services in private sector and 90% of women had their 4 antenatal check-ups(9). A study was conducted by in Shivarjpur block of district kanpur in Uttar pradesh (2013) found that 91.9% coverage of antenatal care which was based on receiving at least one antenatal check-up(2). A study was conducted in Shindolli village Belgaum, in (2009) found that only 39 (30.00%) women had done registration in first trimester and 74 (56.93%) in 2nd trimester. In 3rd trimester 64(51.61%) of pregnant women had made ≥ 3 antenatal visits, but still 10 (8.06%) had no visits even in later stages of pregnancy(14).

Immunization Coverage

In this study participants were received 100% TT Vaccination and counseling from the Doctors/health workers about their pregnancy. 101(96.19%) participants received IFA supplementations till the period of delivery. A study conducted in Jaipur in 2018, found that 98.19% of were immunized with adequate dose of tetanus toxoid and 30.6% had consumed 100 or more than 100 IFA tablets.47.7% women had received four or more antenatal visits, 98.19%of were immunized with adequate dose of tetanus toxoid(4). A study was conducted in 2016 by Mamata Sherpa Awasthi et al found that, 68.3% of the mothers had consumed Iron/Folates within 45days after delivery. 70.0% of respondents had received TT Vaccines during their last pregnancy(1). A study was conducted by Darshan Bhagwan et al in Manipal (2016), found that Around 95% of the study subjects had consumed more than 100 Iron and Folic Acid tablets(9).

Family support for pregnancy and ANC Check-up

Majority of the beneficiaries had family members support for conceive (pregnancy). Even nearly same percentage of family support for the attending the Antenatal check-ups. A

similar study was conducted by Nohara M, et al in 2009, found that Family support was shown to be a strong correlate for the Quality Of Life of Pregnant Women After Birth. Providing family support could improve mothers child care, health conditions, and Quality Of Life(22). A study was conducted by Muhammad Anwar et al in 2019, found that there is a significant relationship between family support and the quality of life of pregnant women. They explained that Family as a source of love, recognition, appreciation, and primary source of support(17). A study was conducted by Jodibala Haobijam et al in 2010 in Ludhiana Punjab, found that high level of family support was available to mothers for emotionally and financially(7). A study was conducted by Poonam Kushwaha et al in 2016 in J N Medical collage, Aligarh, India. They found that full utilization of ANC services was 59%, main reasons for inadequate (partial/no) utilization of ANC services were financial constrains (34.14%) and lack of awareness (30.48%)(31).

Quality of ANC services received by pregnant women

In the observational study total 50 pregnant mothers were observed during ante-natal check-up. All participants observed were examined by the Doctor. Only 28(56%) participants Weight were checked. Only 25(50%) participants Blood Pressure was measured. 10(20%) participants were tested with urine examination. 18(36%) participants were done with Hb estimation. All of the participants had received the Fundal examination, IFA tablets, full doses TT vaccination and Received counseling from Doctors. (23). A study was conducted by Andrea Solnes Miltenburg et al(2017) Findings indicate variable performance of routine ANC services, partly explained by insufficient resources. Poor performance was also observed for appropriate history taking, attention for client's wellbeing, basic physical examination and adequate counseling and education(8). A study was conducted by Andrea B Pembe et al in 2010, Result was that One hundred and eighty five (42%) clients were not informed of any pregnancy danger signs. Nurse auxiliaries were three times more likely to inform a client of a danger sign than registered/enrolled nurses(12). A Study was conducted by Neeraj Agarwal et al (2011) found that 53.2% of which received antenatal care by a Doctor and 46.8% by a health worker. The measuring of blood pressure was significantly higher by the doctor than the health workers who recorded weight more significantly(23).

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