

ASSESSMENT OF THE AVAILABILITY AND UTILIZATION OF ANTENATAL CARE (ANC) SERVICES FOR PREGNANT WOMEN AT PRIMARY HEALTHCARE (PHC) FACILITIES IN AN URBAN AREA OF PAKISTAN

Muhammad Furqan Ullah Babar¹, Safina Tanveer, Abid Ullah¹, Laila Noor¹, Rukhsaar Khan¹, Haiqa Ayaz¹, Muhammad Inzamamul Haq¹, Ibtisam Ali¹, Muhammad Armaghan¹, Hasnain Hamid¹, Bareera Jabeen¹, Ambreen Afridi²

¹Student of year-4 MBBS, Khyber Medical College, Peshawar

²Assistant Professor of Community Medicine, Khyber Girls Medical College, Peshawar

ABSTRACT

Objective: To assess the availability and utilization of antenatal care (ANC) services for pregnant women at primary healthcare (PHC) facilities in an urban area of Pakistan

Materials and Methods: It was a descriptive cross-sectional study conducted in Peshawar from November 2019 to April 2020. Data was collected from six PHC facilities with a sample size of 249 pregnant females selected through a convenient non-probability sampling technique. Data were recorded on a structured questionnaire having a closed-ended question and was analyzed using SPSS-23.

Results: The equipment required for antenatal checkups i.e BP apparatus, weighing machine, tetanus toxoid (TT) vaccination was available in 6/6 PHCs, urine strips in 4/6, Hemoglobin meter in 3/6, supply of basic medicines, and ultrasound facility in 5/6 PHC facilities.

Weight of 35.7% of pregnant ladies while the BP of 77.1% of pregnant females were checked. Folic acid supplements were prescribed to 74.7% of the pregnant ladies in the 1st trimester, out of which only 64.3% took them regularly. Vitamin D and calcium supplements were prescribed to 46.6% of the cases in the 2nd trimester out of which only 43% took them regularly. TT vaccination was received by 80.3% of the cases. Blood Sugar levels of 33.3% of the cases and blood Hb levels of 52.2% were checked. Anemia was assessed in 48.2% of the cases. 43.4% of anemic cases were treated. Ultrasound was prescribed to 54.7% of the cases. Eighty-one percent of the pregnant women were enrolled and visited PHCs regularly while 89.2% of the pregnant ladies confirmed the availability of doctors. Eighty-three percent of the cases were satisfied by the ANC services of PHC facilities.

Conclusion: The essential equipment for the provision of ANC services was available in almost all the six PHC facilities of Peshawar. Antenatal care services being provided to pregnant women in PHC facilities of Peshawar were found satisfactory. More than 80% of pregnant women are satisfied with the ANC services they receive.

KEYWORDS: ANC services, BHUs, Khyber Pakhtunkhwa, Pakistan

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INTRODUCTION

Antenatal care (ANC) is a vital part of pregnancy-related health care services and includes history taking, checking for sicknesses like hypertensive disorders and anemia, screening, interference, and management

of infectious diseases, provision of preventive medicines, and important health education. ¹ The methods of care during gestation consist of a group of easy leaflets that present the World Health Organization (WHO) valuable guidance on the delivery of maternal and infant care in health facilities, ranging from the primary level of care. For optimum health outcomes, comprehensive ANC ought to contain every component.^{2,3}

The Islamic Republic of Pakistan has the world's sixth-largest population and has the best maternal mortality quantitative relation in South Asia (348 per a hundred thousand live births). This compares poorly with neighboring countries wherever maternal deaths shrank since 1990. A situational analysis unconcealed that solely six-

Correspondence

Dr. Ambreen Afridi

Assistant professor of Community Medicine,
Khyber Girls Medical College, Peshawar

Email: amberafridi786@gmail.com

Cell: +92 344 -9107047

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ty-five percent of pregnant girls get routine ANC, nearly forty-eight percent of deliveries occur without the help of skilled care suppliers.⁴ Determinants of poor quality of ANC are poorly understood and stay restricted to lack of (human) resources and poor medical examiner information⁵. Low uptake of antenatal care is a crucial determinant of the high maternal death rate in developing countries⁶.

This study aims to assess the availability of equipment for the provision of ANC Services at PHC facilities and ANC Services provided to and availed by pregnant women. This study is an attempt to not only inspect the quality of ANC services being provided to the rural population of Peshawar but also to highlight the overall gaps in the health system of Peshawar to bridge them through appropriate intervention.

MATERIALS AND METHODS

It was a descriptive cross-sectional study conducted in PHC facilities of Peshawar from November 2019 to April 2020. Data was collected from six PHC facilities after the approval of the synopsis by the Institutional Research and Ethical Review Board (IREB) of Khyber Medical College Peshawar. A total of 249 pregnant females were part of the study. A convenient nonprobability sampling technique was used. The pregnant ladies at the PHC facilities but unwilling to give interviews were excluded from the study. Informed consent was taken from the participants for the interview.

Data were recorded on a structured questionnaire which was divided into two sections. One section was dedicated to determining the availability of essential equipment i-e Blood Pressure (BP) apparatus, a weighing machine. Tetanus Toxoid (TT) vaccination, urine strips for confirming pregnancy, Hemoglobinometer for diagnosing anemia, supply of medicines to treat anemia, and ultrasound facility PHC facilities of Peshawar.

The other section was meant to assess pregnant women's satisfaction regarding ANC services. The second section included questions about the behavior of the provider, ANC examination, and the overall perception of satisfaction with the services provided. Data were analyzed using SPSS version 20 for windows. All the data was presented in the form of tables and graphs.

RESULTS

The availability of essential equipment required for antenatal checkups included BP apparatus, a weighing machine. TT vaccination, urine strips, Hb meter, supply of medicines to treat anemia, and ultrasound facility in all the 6 PHCs facilities of Peshawar. For results, see Figure 1.

Pregnant women enrolled and who visited the PHC facilities regularly were 80.7%. However, 19.3% came for the first time (Fig 2). The weight of only 35.7% of pregnant ladies was checked. The blood pressure of 77.1% of pregnant females was checked. Folic acid supplements were prescribed to 74.7% of the expectant mothers in the 1st trimester out of which only 64.3% took these supplements regularly. Vitamin D and calcium supplements were prescribed to 46.6% of the cases in the second trimester out of which only 43% took these supplements regularly. 80.3% of the cases received TT vaccination (Table 1). Blood Sugar levels of 33.3% of the cases were checked. Blood hemoglobin levels of 52.2% were checked. Anemia assessment was done in 48.2% of the cases. 43.4% of anemic cases were treated. 60.6% of the ladies were scanned in the 1st and 2nd trimesters while 41.8% of the females were scanned in their third trimester. 89.2% of the pregnant ladies confirmed the availability of doctors. 83.5% of the cases were satisfied by the ANC services of PHC facilities.

DISCUSSION

Antenatal care is a very important component of mother healthcare services. It allows pregnant women and their families to learn about the dangers associated with pregnancy. The equipment required for antenatal checkups was available in 5/6 PHC facilities which are somewhat satisfactory. Research on the assessment of antenatal care was conducted in Punjab in 2015 wherein the results show deficiencies in health facilities in Punjab as reported by the Technical Resource Facility. However, only about half of BHUs (237 out of 493) were equipped with more than 75% of the necessary supplies and 33% had more than 75% of the required drugs. According to the study conducted in Bangladesh in 2014, out of the 13 centers, only 3 (23.1%) have sufficient instruments to render ANC services⁷.

The study about assessment of antenatal care in

Table 1: Doses Of Tetanus Toxoid Vaccines received by the pregnant females

Doses of Tetanus Toxoid received during pregnancy	Frequency	Percent	Cumulative Percent
1	69	27.7	27.7
2	96	38.6	66.3
3	30	12.0	78.3
4	12	4.8	83.1
0	49	16.9	100.0
Total	249	100.0	

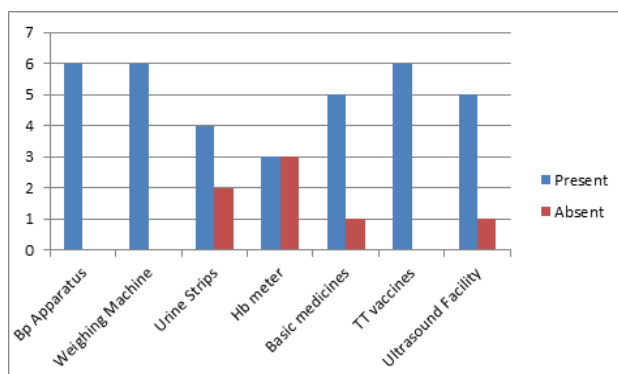


Fig 1: Availability of Equipment for Antenatal Care at Primary Healthcare Facilities of Peshawar.

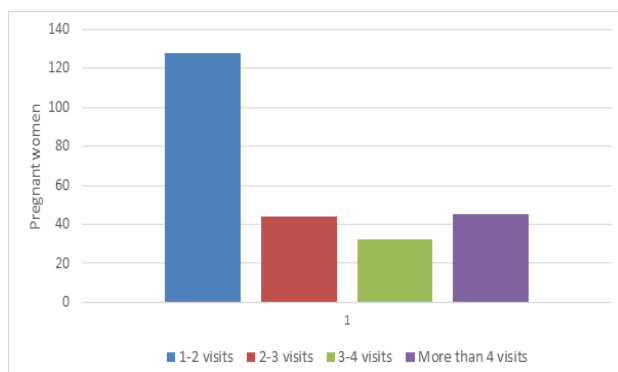


Fig 2: Number of Antenatal Visits by the Pregnant Female Population

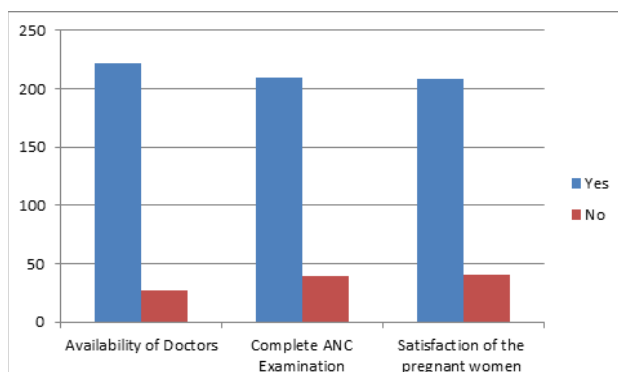


Fig 3: Satisfaction of pregnant women by ANC services

Punjab revealed that overall 51.6% of the expected pregnancies first time reported for the ANC and out of those 33% didn't return for follow-up⁸. Whereas in our study we found out that 80.7% of the pregnant ladies got enrolled for ANC in their nearby BHUs and out of those 32% did not return for follow-up. According to WHO, only 16% of pregnant women attended the recommended 4 antenatal visits and only 60% attended at least 1 visit in Afghanistan⁹. According to a study in Sindh, Women who received one or more ANC were approximately 83.5%. Only 57.3% of them made the recommended four or more visits¹⁰. According to a study on prenatal care in Brazil in 2006, it was

found that 80.9% of antenatal care coverage with six appointments¹¹. Revisit/follow-up data indicates of our study revealed that 51.4% of the females paid 1 visit while 48.7% revisited the BHU for follow up which means that a majority of the pregnant women completed two visits.

In our study, we saw that 83.5% of the pregnant females claimed that they were satisfied with the services that they received in BHUs for a safe pregnancy experience. According to a study conducted in Hyderabad, Sindh 50% of the women were satisfied with the antenatal services, 86.2% were displeased with the fact that they had to wait for more than two hours for their checkup¹². A study in Karachi was conducted in which out of 295 women interviewed, 152 women (51%) availed ANC services while 143 (49%) didn't receive it¹³. The reasons identified for satisfaction among pregnant women in PHCs were less waiting time, adequate medicine supply, and complete tetanus vaccination. It is evident from a study conducted in Oman that short waiting times and positive behavior providers were the most satisfying aspects of the services.

There are several PHC centers in Peshawar but we chose only 6 out of them because of the following limitations:

The limited financial resources funds led us to choose a small sample size of 249 only.

The shortage of time compelled us to choose the PHC facilities of the areas nearest to our location through a convenient nonprobability sampling technique that in cases can result in decreased external validity.

We have chosen only a few qualitative variables among many to assess antenatal care services at PHC facilities of Peshawar because of the limited time and difficulty in finding the study units during our visits.

CONCLUSION

The essential equipment for the provision of ANC services was available in almost all the six PHC facilities of Peshawar. Antenatal care services being provided to pregnant women in PHC facilities of Peshawar were found satisfactory. More than 80% of pregnant women are satisfied by the ANC services they receive.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

- Babar MF:** Concept, planning, study design, study conduction, critical review, analysis, manuscript writing.
- Tanveer S:** Critical review, discussion, interpretation, manuscript writing, study conduction.
- Noor L :** Analysis, critical review, study conduction.
- Khan R :** Critical Review, study conduction, interpretation.
- Armaghan M:** Study design, study conduction.
- Hamid H:** Study design, study conduction.
- Jabeen B:** Critical review, discussion.
- Ayaz H:** Planning, Study conduction, analysis
- Haq MI:** Study design, study conduction.
- Ali I:** Study conduction, critical review.
- Ullah A:** Critical review, facilitation of expenses.
- Noor A:** Concept, planning, study design,
- Afridi A:** Concept, planning, study design, supervision.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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