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Access to Antenatal Care: A Sociological Analysis of Availability and Utilisation at Pangappara PHC

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Abstract
Antenatal care is the care for pregnant females in the months and weeks before the birth of their babies. The main aim of this care is to discover the problems and prevent complications before childbirth. The present study analysed the quality and facilities offered for antenatal women at Pangappara Primary Health Centre, Thiruvananthapuram District. Data was collected from respondents using a structured questionnaire and direct interview method. The study's objectives are to evaluate the facilities, quality of receiving services and advice on antenatal care from PHC. The result shows that the majority of the women belong to the age group between 20 to 25, their highest educational qualification is 10th, annual income is from 100000 to 150000. Most pregnant women are from the nuclear family, live in semi-urban areas, and have visited PHC once. Through this form of preventive health care, women can learn from skilled health personnel about healthy behaviours during pregnancy, better understand warning signs during pregnancy and childbirth, and receive social, emotional and psychological support at this critical time. Through antenatal care, pregnant women can also access micronutrient supplementation, treatment for hypertension to prevent eclampsia and immunisation against tetanus. Antenatal care can also provide HIV testing and medications to prevent mother-to-child transmission of HIV. In areas where malaria is endemic, health personnel can provide pregnant women with medications and insecticide-treated mosquito nets to help prevent this debilitating and sometimes deadly disease.

Keywords: Antenatal care, Facilities, Quality, PHC, pregnancy, childbirth, social-emotional, etc.

1. INTRODUCTION

India has substantially reduced maternal mortality by initiating a national health mission. Antenatal care is a public health tool that promotes the reduction of maternal mortality rates. Antenatal care is provided through subcentres, private health centres, community health centres, government hospitals, private hospitals, and nursing homes. To improve the efficiency and effectiveness of PHC in quality improvement, we are finding gaps in the present system and correcting the identified deficiencies. Quality of care is now increasingly recognised as a critical element in the provision of health care. Quality of antenatal care is the cornerstone of improving maternal health. Antenatal care aims to discover the dysfunction, systematic examination, and counselling during pregnancy. This includes

monitoring the mother's health, such as the health of the foetus, detecting risk factors and advising the mother on how to look after her health and her baby. The care starts from the beginning of pregnancy and ends at delivery. Antenatal care consists of factors such as general and obstetrical history tracking and examination and giving proper advice to pregnant women. Even prenatal visits can help your doctor screen your pregnancy and recognise any problems or complications before they become serious. Primary Health Centre is not a new idea in India. It is a cornerstone of rural health services. The Bhore Committee, in 1946, gave the concept of PHC as a primary health unit for the rural population to prevent and promote health care. The study aims to identify the qualities and services provided for antenatal care to pregnant women in Pangapara PHC in Thiruvananthapuram district.

2. REVIEW OF LITERATURE

Chowdari R et al. (2021) focused on females who were delivered in a tertiary care teaching hospital in Kaliyani for three months between 15 and 30 years of age. Proper ANC is the way to reduce maternal mortality and avoid complications. Antenatal services include the registration of pregnancy, number of visits, immunization, and essential pregnancy investigation. To improve maternal health services in rural parts of the country, the government upgraded the quality and accessibility of antenatal care services and public health awareness, especially in remote areas.

Mundodan Ali (2017) this study explains the quality of antenatal care at various levels in the public health sector of the Kozhikode district of Kerala to find out the perception of antenatal women regarding the antenatal care provided. The antenatal care process was unacceptable and needed upgrading in all areas at all levels.

Jaiswal's (2022) study was based on 605 pregnant women recorded in PHC for antenatal care in the Harhua block of Varanasi district to discover awareness among pregnant women and its association with socio-demographic variables. Improving awareness of ANC among pregnant women will enable them to detect high-risk pregnancies at the right time. This will help pregnant women have a healthy delivery.

Mansur A et.al (2014) finding this study shows that the quality of ANC service delivery in Upazila PHC of Bangladesh is reasonably satisfactory. Some areas of SOP on ANC are not covered, and some are not considered significant. The number of Doctors and Nurses is also very satisfactory. Nevertheless, a more significant number of physicians is needed for the average level of care and services.

Viswanathan G. et al. (2022) this study focused on the innovation of PHC to promote maternal health in Tamil Nadu. The initiative's impact on the state's maternal health is analysed by factors such as trends in maternal mortality ratio and financial burden due to delivery in public and private facilities. In rural and urban areas, maternal health status has improved. However, all districts suffer from a lack of basic health infrastructure. The state has sustained its efforts to improve maternal health by constantly monitoring the existing programs for pregnant women to be accessible, affordable, and of the highest quality.

3. Research Methodology

Objectives

1. To study the Socioeconomic characteristics of the respondents in the study area.
2. To assess the Primary Health Care services used by the respondents in the study area.

Hypotheses of the study

1. There is no significant relation between age and the number of times visited PHC in a month

2. There is no significant relation between place of stay and number of times visited PHC in a month
3. There is no significant relation between the number of times visited and facilities at ANC room.
4. There is no significant relation between the number of times visited and the availability of health workers at PHC
5. There is no relationship between Hepatitis B and Urinal test for bacterial infection.

Methodology for the study

Tools for the study

Data was collected from respondents using a structured questionnaire and direct interview method.

Sample size

The research was conducted among antenatal women who had visited the Pangapparra Public Health Centre in Thiruvananthapuram District. The Samples for this study were collected from 100 respondents to assess the facilities, quality and services provided at PHC.

4. RESULTS AND DISCUSSIONS

Table no. 1 Frequency-wise Distribution of Respondents

Variables	Frequency	Per cent
AGE		
Below 20	36	36.0
20 to 25	38	38.0
25 to 30	9	9.0
30 to 35	6	6.0
Above 35	11	11.0
Total	100	100.0
EDUCATIONAL QUALIFICATION		
Illiterate	22	22.0
10 th	49	49.0
Plus two	10	10.0
Graduate	13	13.0
PG and above	6	6.0
Total	100	100.0
ANNUAL INCOME		
Less than 100000	33	33.0
100000 – 150000	35	35.0
150000 – 200000	12	12.0
Above 200000	20	20.0
Total	100	100.0
TYPE OF FAMILY		
Joint	33	33.0

Nuclear	67	67.0
Total	100	100.0
PLACE OF STAY		
Rural	29	29.0
Semi-Urban	50	50.0
Urban	21	21.0
Total	100	100.0
NO OF TIMES VISITED IN PHC		
One time	29	29.0
Two time	25	25.0
Three times	16	16.0
Four times	18	18.0
More than four times	12	12.0
Total	100	100.0

Source: Computed

The above table shows that the highest age group that visited PHC was between 20 and 25 (38%) and below 20 (36%), and the lowest age group that visited PHC was 30 to 35 (6%). The highest educational qualification of respondents is 10^{th} (49%), and the lowest PG and above (6%). The annual income of the respondents is from 100000 to 150000 (35%), less than 100000 (33%) and the lowest income of the respondents from 150000 to 200000 (12%). Types of joint family are (33%) and nuclear family are (67%). Most respondents belong to semi-urban (50%) and least to urban (21%). Number of times the respondents visited PHC for one time is (29%), two times visited is (25%) and the least number of times visited is four times (12%).

HYPOTHESIS TESTING

Hypothesis 1

H_0:- There is no significant relation between age and the number of times visited PHC in a month

H_1:- There is a significant relation between age and the number of times visited PHC in a month

CHI-SQUARE TESTS			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	42.812[a]	16	.000
Likelihood Ratio	44.830	16	.000
Linear-by-Linear Association	4.237	1	.040
N of Valid Cases	100		
a. 17 cells (68.0%) have an expected count of less than 5. The minimum expected count is .72.			

The probability value of Chi-square is less than 0.05. Hence, the null hypothesis was rejected. So, a strong relationship exists between age and no time visited PHC in a month.

Hypothesis 2

H_0:- There is no significant relation between the place of stay and the number of times visited PHC in a month

H_1:- There is a significant relation between place of stay and number of times visited PHC in a month

CHI-SQUARE TESTS			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	37.408[a]	8	.000
Likelihood Ratio	42.136	8	.000
Linear-by-Linear Association	2.285	1	.131
N of Valid Cases	100		
a. 5 cells (33.3%) have an expected count of less than 5. The minimum expected count is 2.52.			

The Chi-Square probability value is less than 0.05, so the null hypothesis is rejected. Hence there is a strong relationship between the place of stay and the number of times visited PHC in a month.

Hypothesis 3

H_0:- There is no significant relation between the number of times visited and facilities at ANC room

H_1:- There is a significant relation between the number of times visited and facilities at ANC room

ANOVA					
Availability of Health workers					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32.551	4	8.138	7.494	.000
Within Groups	103.159	95	1.086		
Total	135.710	99			

The ANOVA test shows that the probability value is less than 5% significance level. Hence, the null hypothesis is rejected. So, there is a strong relationship between the number of times visited and the facilities at the ANC room.

Hypothesis 4

H_0:- There is no significant relation between the number of times visited and the availability of health workers at PHC

H_1:- There is a significant relation between the number of times visited and the availability of health workers at PHC

ANOVA					
Availability of Health workers					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.008	4	1.752	1.293	.278
Within Groups	128.702	95	1.355		
Total	135.710	99			

The ANOVA test shows that the probability value exceeds the 5% significance level (0.278). Hence, the null hypothesis is not rejected. So, there is no relationship between the number of times visited and the availability of health workers at PHC.

Hypothesis 5

H_0:- There is no relationship between Hepatitis B and Urinal test for bacterial infection

H_1:- There is relationship between Hepatitis B and Urinal test for bacterial infection

CORRELATIONS			
		Hepatitis B	Urinal test for bacterial infection
Hepatitis B	Pearson Correlation	1	.457**
	Sig. (2-tailed)		.000
	N	100	100
Urinal test for bacterial infection	Pearson Correlation	.457**	1
	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

The Correlation value shows that the probability value is less than 5% significance level. Henceforth, the null hypothesis is rejected, so there is a strong correlation between Hepatitis B and the Urinal test for bacterial infection.

5. Findings of the Study

According to the above data, the age group that visited PHC the most was between 20 and 25, followed by those under 20, while the age group that visited PHC the least was 30 to 35. The respondents' most excellent level of education is a 10th greater, and the lowest level is PG and beyond. The respondents' yearly income ranges from 100,000 to 150,000, under 100,000, and from 150,000 to 200,000, and most of the respondents are from nuclear families. Many responders are semi-urban, while the least number are urban. 29% of the respondents attended PHC once, 25% visited twice, and the lowest number of visits was none. The Chi-Square value shows a substantial association between age, place of stay and the

number of times PHC is visited in a month. The ANOVA test reveals a significant relationship between the frequency of visits and the amenities in the ANC room. However, the ANOVA test is insignificant in terms of the number of times visited and the availability of health workers at PHC. The Correlation value indicates a substantial link between Hepatitis B and the Urinal test for bacterial infection.

6. Conclusion

The quality and service of PHC were satisfactory, but improvements were needed in all aspects. Half the pregnant women go to the first ANC at the right time. Social factors include lack of awareness, lack of functional types of equipment, availability of staff needing more medication, etc. Most of the antenatal women came to avail only of immunisation facilities. Care providers should counsel pregnant women on increasing the frequency of care visits. Therefore, this study emphasises conducting health awareness campaigns, improving quality and services, organising counselling and health educational programmes in rural areas, and strengthening health services. Improving awareness, quality, and services among pregnant women will enable them to detect high-risk pregnancies at the right time, which will also help increase the chances of a healthy delivery.

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