

A STUDY ON THE AWARENESS OF ANTE NATAL CHECKUPS IN THE COASTAL VILLAGES OF AGASTEESWARAM BLOCK, KANNIYAKUMARI DISTRICT

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Abstract

Ante-natal care (ANC) services indirectly save the lives of mothers and babies by promoting and establishing good health before child birth and the early post-natal period. Various ante natal services are provided for the pregnant women. The pregnant women in the coastal villages of Agasteeswaram block were not aware of taking the prescribed treatment, especially the ante natal checkups, and medicine properly. As a result, these women suffered from the medical causes such as haemorrhage mainly postpartum, sepsis because of infection during pregnancy, labour and postpartum period, unsafe abortion, hypertensive disorders, obstructed labour, anaemia and malaria, social causes like marriage and child birth at a very young age, less spacing between births and low level of educational attainment among women especially in the coastal villages and weaker sections of the society and health related causes such as low status, emotional and physical abuse and malnutrition and high unmet need of contraceptives and less awareness in the coastal villages of Agasteeswaram block in Kanniyakumari district. Pregnant women should register early within first trimester. By early registration we can identify the high risk cases and to prevent them. In the coastal villages, majority (51.25 per cent) of the respondents received ante natal checkups between 9 and 12 times. Out of the 80 respondents, 68.75 per cent had undergone ante natal checkups in government PHCs because of their economic backwardness and the intension of getting the government assistance of Rs. 4000. Majority of the respondents had taken the prescribed checkups in the fourth, seventh and ninth month. The fourth month is a crucial month in which the ante natal expenditure is found higher. In the ante natal checkups regarding blood pressure, urine and ultra sound scan, all the respondents have not responded to undergo the checkups. This may create severe problems to those who have not undergone the ante natal checkups. Majority of the respondents took checkups in the government PHCs due to their economic backwardness and long distance of the Private Hospitals from their residences. On par with the Private Hospitals, the nearby PHCs should be well equipped with modern instruments with advanced technology to reduce the medical expenses regarding the ante natal checkups.

IndexTerms: Ante natal checkups, Demographic features, Awareness

Introduction

Ante-natal care (ANC) services indirectly save the lives of mothers and babies by promoting and establishing good health before child birth and the early post-natal period. It often presents the first contact opportunities for a pregnant woman to connect with health services, thus offering an entry point for integrated care, promoting healthy home practices, influencing care-seeking behaviours and linking women with pregnancy complications to a referral system; thus impacting positively on maternal and fetal health.¹

Studies in developing countries have shown that the use of health-care services is related to the availability, quality and cost of services, as well as to the social structure, health beliefs and personal characteristics of the users.² In order to increase the uptake of ante natal services in a community, we need to understand the factors that underlie the decision of a pregnant woman to utilize the services, so also in the case of the coastal villages of Agasteeswaram block in Kanniyakumari district. Various ante natal services are provided for the pregnant women. The utilisation of these services is discussed below in detail. For this, data and information were collected with the aid of structured interview schedule. On the basis of the results, one can understand the extent of utilisation of the ante natal services in the study area.

Problem Focus

The pregnant women in the coastal villages of Agasteeswaram block were not aware of taking the prescribed treatment, especially the ante natal checkups, and medicine properly. As a result, these women suffered from the medical causes such as haemorrhage mainly postpartum, sepsis because of infection during pregnancy, labour and postpartum period, unsafe abortion, hypertensive disorders, obstructed labour, anaemia and malaria, social causes like marriage and child birth at a very young age, less spacing between births and low level of educational attainment among women especially in the coastal villages and weaker sections of the society and health related causes such as low status, emotional and physical abuse and malnutrition and high unmet need of contraceptives and less awareness. In addition, children suffered from problems like peri natal condition, respiratory infection and diarrhoea diseases. The core of the problem of the study is to find ways and means to reduce the maternal mortality rate to zero from 0.27. If zero mortality rate is achieved, Agasteeswaram block would become a 'model block' by which other blocks in Kanniyakumari district and other districts of Tamil Nadu would follow to reduce the mortality rate to the desirable extent.

Objectives of the Study

The objectives of the study are:

1. to analyse the demographic features of the respondents and
2. to highlight on the awareness of ante natal checkups undergone by the respondents in the study areas.

Methodology

Agasteeswaram block possesses four coastal villages namely Arockiapuaram, Kanniyakumari, Kovalam and Keela Manakudi. From each village 20 pregnant women were randomly selected with the aid of the register maintained in the respective Primary Health Centre (PHC). Those who have registered in the PHCs were considered as the sample population from which 80 sample respondents (20x4=80) were selected. Primary data were collected from the respondents by employing a carefully prepared structured interview schedule. In addition to the conventional tools like simple average and percentage, one special tool like Chi-square test, using SPSS version 20, was applied to determine the association between the ante natal checkups and the level of education of the respondents. The period of study pertains to one calendar year from January to December 2018.

Results and Discussion

Demographic Features

Demographic features like age, religion, education level and housing condition are discussed with the aid of the data found Table 1.

Table 1 Demographic features of the pregnant women at the aggregate level

Demographic variables	Particulars	Frequencies
Age (Years)	25 and less	2 (02.50)
	26 – 32	27 (33.75)
	33 – 39	41 (51.25)
	40 - 46	9 (11.25)
	47 and above	1 (01.25)
	Total	80 (100.00)
Religion	Hindu	3 (03.75)
	Christian	77 (96.25)
	Total	80 (100.00)
Education status	Primary	5 (06.25)
	Secondary	18 (22.50)
	High School	54 (67.50)
	Hr. Secondary	3 (03.75)
	Total	80 (100.00)
Housing condition	Kutcha	2 (02.50)
	Asbestos	8 (10.00)
	Tiled	24 (30.00)
	Terraced	46 (57.50)
	Total	80 (100.00)

Source: Primary data

Note: Figures in parentheses are percentages

Table I furnishes that, at the aggregate level, 41 (51.25 per cent) women were under the middle age ranging from 33 to 39 years. Christian women outnumbered the Hind women. With respect to education status, higher number of 54 (67.50 per cent) women had crossed High School level of education. Terraced houses were popular in the study area where 46 (57.50 per cent) women resided at.

Period of Registration

Pregnant women should register early within first trimester. By early registration we can identify the high risk cases and to prevent them. A potential beneficiary of cash incentives was required to undergo early registration of pregnancy with at least three ante natal checkups. Period of registrations of the respondents is assessed with the help of the figures given in Table 2.

Table 2 shows the period of registration of the respondents. Period of registration was classified into three categories, that is, first trimester, second trimester and third trimester. Of the 80 respondents, 67 (83.75 per cent) had registered in the first trimester due to the intension of getting government assistance of Rs. 4,000 and large number of respondents was under first pregnancy and 12 (15.00 per cent) registered in the second trimester. Only one (1.25 per cent) respondent had registered in the

Table 2 The period of registrations among the respondents

Trimester	No. of respondents	Percentage
First	67	83.75
Second	12	15.00
Third	1	01.25
Total	80	100.00

Source: Primary data

third trimester because this respondent was affected by mental distress and they did not know about the importance of pregnancy. It is important to note that majority (83.75 per cent) of the respondents had registered in the first trimester.

Number of Ante Natal Checkups

The number of ante natal checkups is important for the health of the mother and the outcome of the pregnancy. The World Health Organization (WHO) recommends that all pregnant women should have at least four ante natal care assessments by or under the supervision of a skilled attendant. These assessments should be made at regular intervals throughout pregnancy. The number of ante natal checkups taken by the respondents is stated in Table 3.

Table 3 Number of ante natal checkups by the respondents

Checkups	No. of respondents	Percentage
3-6	6	07.50
6-9	29	36.25
9-12	41	51.25
12-15	4	05.00
Total	80	100.00

Source: Primary data.

Note: Average number of checkups: $8.19 \approx 8$

It is noticed from Table 3 that, out of 80 respondents, 6 (7.50 per cent) received ante natal checkups for 3-6 times, 29 (36.25 per cent) received the checkups by 6-9 times, 41 (51.25 per cent) received the checkups by 9-12 times and the rest 4 (4.5 per cent) of them received the ante natal checkups between 12 and 15 times due to more complications realized by these respondents. The average number of ante natal checkups of the respondents worked out to be 8 times. It is found that, majority (51.25 per cent) of the respondents received ante natal checkups between 9 and 12 times.

Place of Ante Natal Checkups

The places of ante natal checkups are government institutions such as Primary Health Centres (PHCs), Health Sub Centres (HSCs) and Private Hospitals (PHs). The places of ante natal checkups done by the respondents are discussed with the aid of data given in Table 4.

Table 4 The places of ante natal checkups made by the respondents

Place	No. of respondents	Percentage
PHCs	55	68.75
HSCs	2	02.50
PHs	23	28.75
Total	80	100.00

Source: Primary data

The data given in Table 4 shows that 55 (68.75 per cent) respondents received ante natal checkups from the PHCs, 23 (28.75 per cent) respondents received ante natal checkups from the Private Hospitals, and the rest 2 (2.50 per cent) respondents received ante natal checkups from the Health Sub Centres. Out of the 80 respondents, 68.75 per cent had undergone ante natal checkups in government PHCs because of their economic backwardness and the intension of getting the government assistance of Rs. 4000.

Ante Natal Checkups in Government Institutions

The major ante natal checkups done in government PHCs are blood checkup, urine checkup and ultrasound scan. The ante natal checkups done by the respondents in the government institutions are portrayed in Table 5.

Table 5 Ante Natal checkups taken by the respondents in government institutions

Period (in month)	Blood checkup		Urine checkup		Ultrasound scan	
	Taken	Not taken	Taken	Not taken	Taken	Not taken
4 th	54 (94.74)	3 (05.26)	56 (98.25)	1 (01.75)	46 (80.70)	11 (19.30)
7 th	47 (82.46)	10 (17.54)	50 (87.72)	7 (12.28)	39 (68.42)	18 (31.58)
9 th	36 (63.16)	21 (36.84)	38 (66.67)	19 (33.33)	29 (50.88)	28 (49.12)

Source: Primary data.

Note: Figures in brackets indicate the percentages

The data given in Table 5 show that, out of the 80 respondents, 57 respondents consulted government PHCs and 23 respondents consulted private hospitals. During the fourth month, of the 57 respondents, 54 (94.74 per cent) respondents had taken blood checkup and three (5.26 per cent) respondents had not taken, 56 (98.25 per cent) had taken urine checkup and one (1.75 per cent) had not taken. Ultrasound scan checkup was taken by 46 (80.70 per cent) respondents and not taken by 11 (19.30 per cent) respondents. During the seventh month, 47 (82.46 per cent) respondents had taken blood checkup and 10 (17.54 per cent) respondents had not taken, 50 (87.72 per cent) respondents had taken urine checkup and seven

(12.28 per cent) respondents had not taken and 39 (68.42 per cent) respondents had taken ultrasound scan checkup and 18 (31.58 per cent) respondents had not taken this checkup. During the ninth month, 36 (63.16 per cent) respondents done blood checkup and 21 (36.84 per cent) respondents had not taken, 38 (66.67 per cent) respondents had taken urine checkup and 19 (33.33 per cent) respondents had not taken and 29 (50.88 per cent) respondents had taken ultrasound scan and 28 (49.50 per cent) respondents had not taken. It is concluded that, majority of the respondents had taken the prescribed checkups in the fourth, seventh and ninth month.

Expenditures during Ante Natal Period in Private Hospitals

Ante natal period has revealed the prominent role of expenditure as a determinant of the utilization of ante natal services available in private hospitals. Medical services are charged differently for different types of services. The user fee consists of consultation fees alone or a consolidated amount comprising consultation fee, expenditures on blood checkup, urine checkup, ultrasound scan, medicines and transportation. The pattern of expenditures during ante natal period for the 192 (out of 400 respondents) who had taken the checkups in the private hospitals is detailed in Table 6.

Table 6 Month wise average expenditure per woman during ante natal period in Private Hospitals

Order of checkup	Checkups			Doctor fee	Expenditure		Grand total
	Blood	Urine	Ultra sound scan		Medicine	Transportation	
First	-	-	-	300	810	640	1750
Second	-	-	-	480	1050	860	2390
Third	775	135	790	540	2650	910	5800
Fourth	6360	395	4970	630	5820	890	19065
Fifth	480	250	2560	640	750	900	5580
Sixth	275	210	1945	670	2590	950	6640
Seventh	1060	295	2130	700	3360	980	8525
Eighth	285	200	1600	690	2640	1010	6425
Ninth	1010	240	1280	700	3590	960	7780
Total	10245	1725	15275	5350	23260	8100	63955
Average	1464	246	2182	594	2584	900	7970

Source: Primary data.

As noted in Table 6, at the aggregate level, highest amount of expenditure ` 19,065 is found in the fourth month, followed by ` 8,525 found in the seventh month and ` 7,780 in the ninth month. These amounts are found higher than the amounts found in the remaining months because these three months are the months of prescription in which the pregnant women ought to undergo all the checkups and especially in the fourth month different types of costly blood checkup are done. It is observed that the fourth month is a crucial month in which the ante natal expenditure is higher.

Association between ante natal checkups and education level of the respondents

Ante natal checkups are made either in the government hospitals or in the private hospitals. The number of respondents who had delivered in government and private hospitals is portrayed in Table 7.

Table 7 Ante natal checkups and education level of the respondents

Education	Ante natal checkups		Total
	Government hospital	Private hospital	
Primary	2 (02.50)	3 (03.75)	5 (06.25)
Secondary	11 (13.75)	8 (10.00)	19 (23.75)
High school	39 (48.75)	10 (12.50)	49 (61.25)
Higher secondary school	5 (06.25)	2 (02.50)	7 (08.75)
Total	57 (71.25)	23 (28.75)	80 (100.00)

Source: Primary data.

Note: Figures in parentheses are percentages to total.

Table 7 reveals that, out of the 80 respondents, 57 (71.25 per cent) have taken ante natal checkups in PHCs and the remaining 23 (28.75 per cent) in Private Hospitals. Higher number of 49 (61.25 per cent) had crossed High School level of education, followed by 19 (23.75 per cent) Secondary School level of education, seven (8.75 per cent) had Higher Secondary School level and the remaining five (6.25 per cent) Primary level of education. It is inferred that, out of the 80 respondents, 39 (48.75 per cent) took ante natal checkups in PHCs and 10 (12.50 per cent) in private hospitals. The researcher felt it essential to assess the association between ante natal checkups and education of the respondents. For this, a null hypothesis is framed and the significance of the association between the two variables is tested with the aid of chi-square test.

H_0 : There is no association between ante natal checkups and education of the respondents

Table 8 Chi square test for the significance of association between antenatal checkups and education of the respondents

Calculated value of χ^2	Table value of χ^2	Degrees of freedom	Level of significance
6.43	7.815	3	5%

Table 8 shows that the calculated value of chi square (6.43) is less than the table value (7.815) with 3 degrees of freedom at 5 per cent level of statistical significance. Therefore, the null hypothesis is accepted and it is inferred that there is no association between ante natal checkups and education of the respondents and the respondents are free from preferring either PHCs or Private Hospitals.

Conclusion and Suggestions

In the ante natal checkups regarding blood pressure, urine and ultra sound scan, all the respondents have not responded to undergo the checkups. This may create severe problems to those who have not undergone the ante natal checkups. Majority of the respondents took checkups in the government PHCs due to their economic backwardness and long distance of the Private Hospitals

from their residences. On par with the Private Hospitals, the nearby PHCs should be well equipped with modern instruments with advanced technology to reduce the medical expenses regarding the ante natal checkups.

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