(RESEARCH ARTICLE)

A study to assess the knowledge and utilization regarding services available in the primary health Centre among women residing in a selected rural community area, Udupi

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Abstract

The study assessed the knowledge and utilization of primary health centre services among 100 women in a rural Udupi community using descriptive research designs and a structured self-administered knowledge questionnaire. The tool's reliability and validity were tested with nursing and medicine experts. The collected data was analyzed using descriptive and inferential statistics. The study found that 84% of women had poor knowledge scores about primary health centre services, with a mean of 17.62. 100% utilized these services and practiced a balanced diet to prevent nutritional disorders. Factors like number of children had no significant association with knowledge scores, indicating partial acceptance of hypothesis H1. The study found that most women lack knowledge about primary health center services, but use them and consume balanced diets to prevent nutritional disorders.

Keywords: Knowledge; Utilization; Services available in the primary health centre; Women; Community area

1. Introduction

The rapidly growing population had been a major concern for health planners and administrators in India since independence. Poor health status of women and children in terms of high mortality and morbidity was also another priority in this country. Health facilities like hospitals and health centers were established for providing maternal and child health (MCH) care through antenatal, intranatal and postnatal services. India agreed to the decision taken during the conference to adopt the Reproductive health approach to the population issues. Thus, the government of India launched the Reproductive and child health (RCH) in October 1997 including several other services available to the women's of different age group to reduce mortality and morbidity rate 1. The rapidly growing population had been a major concern for health planners and administrators in India since independence. Poor health status of women and children in terms of high mortality and morbidity was also another priority in this country. Health facilities like hospitals and health centers were established for providing maternal and child health (MCH) care through antenatal, intranatal and postnatal services. India agreed to the decision taken during the conference to adopt the Reproductive health approach to the population issues. Thus, the government of India launched the Reproductive and child health (RCH) in October 1997 including several other services available to the women's of different age group to reduce mortality and morbidity rate 2. According to an article in Deccan Chronical, 2019, one woman dies every 7 minutes in India due to pregnancy related complications and almost 45% of births taking place at homes without assistance from trained attendants. India has one of the worst statistics in the world as far as maternal mortality goes. Even Bangladesh and Srilanka have lower maternal mortality ratios than India, according to UNICEF3. WHO is committed to achieve the millennium development goal-5 of reducing maternal deaths to three quarters, between 1990 – 2015. Even then there are many reasons why women do not receive need before, during and after child birth. In some remote areas there may

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be no availability of professional care or the care may not be good. In other cases the women may lack access to health facilities, because no transportation available or because they cannot afford to pay the costs of the transport or servicer user-fees. Also cultural beliefs or a women's low status in society can prevent a pregnant from getting the care she need. To improve maternal health, gaps in the capacity and quality systems and barriers to access health services must be identified and tackled at community4. While an annual decline of 5.5% in MMR between 1990 – 2015 is required to achieve the millennium development goal- 5, figures released show an annual decline of less than 1%5. Women's health is important during all phases of their lives from childhood to adulthood6. Women need not die in childbirth. We must give a young woman the information and to control her reproductive health, help her through a pregnancy and care for her and her newborn. The vast majority of maternal deaths could be prevented if women had access to family planning services, skilled care during pregnancy, child birth and the first month after delivery, post abortion care services and where permissible, safe abortion services7.

Objectives

- To assess the knowledge regarding services available in the PHC among women residing in the selected rural community area, Udupi.
- To assess the level of utilization of services available in the PHC among women residing in the selected rural community area, Udupi.
- To find out the association between knowledge scores regarding services available in the PHC among women and selected demographic variables.

1.1. Assumptions

The study assumes that women,

- Are the mothers utilizing health services available in PHC.
- Will have some knowledge regarding services available in PHC.

1.2. Delimitations

The study will be delimited to the women who,

- Are mothers and within the reproductive age group 21-40 years.
- Can read and write Kannada or English.

1.3. Hypotheses

H1: There will be a significant association between the knowledge and utilization of available services in PHC among women and selected demographic variables.

2. Methodology

2.1. Research approach

The research approach adopted for this study is descriptive survey approach to assess the knowledge and utilization regarding services available in the primary health centre among women residing in a selected rural community area, Udupi.

2.2. Research design

The research design is the backbone or the structure of the study. The design used for this study is descriptive design.

2.3. Variables in the study

- Research variables: In this study research variable is knowledge regarding utilization and services available in the PHC among women residing in the selected rural community area, Udupi.
- Demographic variables: In this study demographic variables include age, education, religion, family income, occupation, occupation of the husband, number of children, previous knowledge and source of information.

2.4. Research settings

Setting refers to the area where the study is conducted. The study was conducted in Hirebettu, Ward no. 2,3, 4 & 5, Udupi.

The selection of area was done on the basis of

- Geographical proximity
- Feasibility of conducting study
- Availability of sample

2.5. Sampling technique

According to Perten, "An optimum sample in survey is one which fulfills the requirements of efficiency, representativeness, reliability and flexibility".

The sample of the present study comprised of 100 women. The samples were selected by non-probability, purposive sampling technique to assess the knowledge of women on utilization and services available in the PHC in selected rural community area of Udupi district.

2.6. Data collection tool Development of the tool

A tool is a method, technique, instrument, device or a form designed to guide the observations, to collect, assess or record and measure the collected data in a systematic and uniform manner. Tool is selected appropriately in a given situation, depending on the research approach, sample size, laid down criteria, etc. The investigator developed structured knowledge questionnaire and checklist on utilization of services for assessing the knowledge of women regarding utilization and services available in the PHC.

2.7. Reliability of the tool

Reliability of research instrument is defined as the extent to which the instrument yields the same results on respected measures. It is then concerned with accuracy, consistency, precision, stability and homogeneity. The final tool is tested for reliability. The structured knowledge questionnaire and utilization checklist was administered to 10 women at Primary Health Centre, Hirebettu, Ward no. 1, Udupi. The reliability of the tool was found out by testing the stability by using test-retest method and internal consistency assessed by using split half technique and spearman Brown Prophecy formula. The stability of the tool is found to be 0.85 which indicate the tool is stable.

2.8. Process of data collection

Data was collected from 1/3/23 to 15/3/23 after obtaining permission from the authority of Medical Health Officer, Primary Health Centre, Hirebettu, Ward no. 2,3,4 & 5, Udupi. Subjects were chosen by purposive sampling technique. The researcher introduced self to the subjects and purpose of the study was explained. She obtained written consent from those who were willing to participate in the study. Instructions were given and the tool was administered. Data collection was conducted on 1/3/23 at 9.00 am onwards. Time to conduct was about 35 mts. The respondents were thanked at the end of the data collection.

2.9. Method of data analysis

The investigator will analyze the data obtained by using descriptive and inferential statistics. The plan of data analysis as follows:

- Organize the data in a master sheet /computer.
- Descriptive statistics: mean, mode, median standard deviation, frequency percentage will be used to describe the data.
- Interferential statistics: "Chi square" test is to determine the association between knowledge scores and selected demographic variables

3. Results

- Section I

This section deals with the demographic characteristics of the sample.

- Section II

This section deals with the knowledge scores of the women

- o Part A: Overall knowledge scores of the women.
- o Part B: Area wise knowledge scores of the women.
- Section III

This section deals with the findings related to utilization of services available in the PHC among women.

- Section IV

This section deals with the findings related to association between knowledge scores of the women with selected demographic variables of the study.

3.1. Section I

3.1.1. Demographic characteristics of the women

Distribution of frequency and percentage of women based on their demographic characteristics N=100

- o In relation to age, majority of the subject 28 (28%) were of age group 31-35 years, followed by 25 (25%) were of age group 21-25 years, 21 (21%) were age group of 26-30 years, 19 (19%) were age group of 36-40 years and 7(7%) were 41-45 years.
- o In relation to educational status, majority 56 (56%) of were in the category of PUC, 17 (17%) were high school, 11 (11%) were primary and professional and remaining 5 (5%) were no formal education.
- o In relation to religion, majority 73 (73%) of the subjects were Hindu, 15 (15%) were Muslim and 12 (12%) were Christian.
- o In relation to monthly family income, majority 63 (63%) of the subjects were having income of below Rs, 20,000, 19 (19%) were having Rs. 40,001-60,000/-, 13 (13%) were
- o Having Rs. 20,001-40,000 and 5 (5%) were having above Rs. 60,001.
- o In regarding with occupation, majority 58 (58%) of the samples were housewife, 18 (18%) were private and 12 (12 %) were self-employed and government employee.
- o In regarding with occupation of husband, majority 53 (53%) of the samples were government employee, 28 (28%) were private employee and remaining 19 (19%) were Self-employed.
- o In regarding with number of children, majority 58 (58%) of the samples were having two children, 25 (25%) were having one child, 11 (11%) were three children and 6 (6%) were four and above.
- o In relation to previous knowledge, majority 85 (85%) of the samples were having knowledge and 15 (15%) were not having any previous knowledge.
- o In regarding with source of information, majority 65 (65%) of the samples got information through health care personnel, 15 (15%) responded none, 10 (10%) from family/ relatives, 6(6%) from friends/ neighbours, and remaining 4 (4%) of the samples responded.
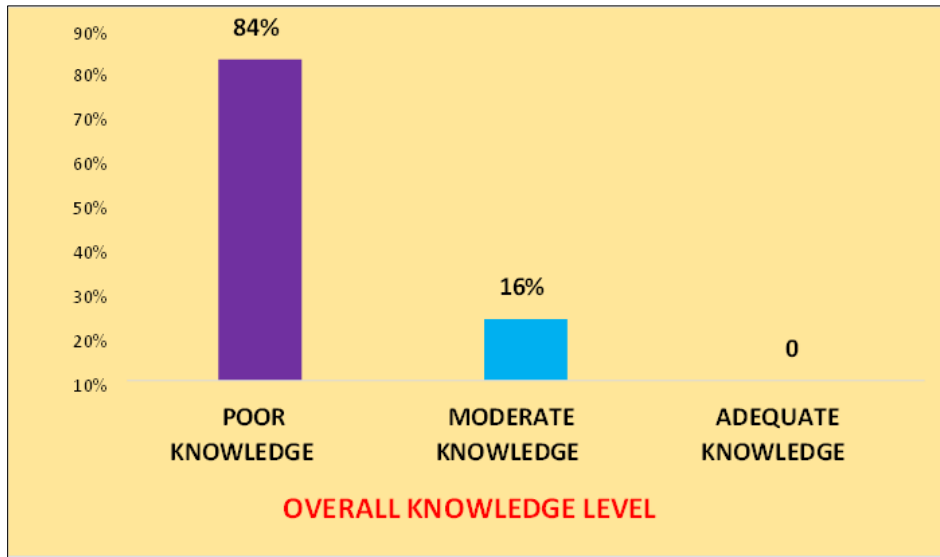
3.2. Section II

3.2.1. Part A: Overall knowledge scores of the women.

Table 1 Distribution of the knowledge score regarding services available in the primary health centre N=100

SL.NO	Overall knowledge	Frequency (f)	Percentage (%)
1	Poor knowledge	84	84
2	Moderate knowledge	16	16
3	Adequate knowledge	-	-
TOTAL		100	100

According to Table-1, majority 84 (84%) women had poor knowledge score and 16 (16%) women had moderate knowledge score on services available in the primary health centre.

Figure 1 Bar diagram representing percentage distribution and number of subjects based on overall knowledge level regarding services available in the primary health centre.

3.2.2. Part B

Area wise knowledge scores of the women.

Table 2 Area-wise analysis of knowledge scores regarding services available in the primary health centre   N=100

Sl.no	Area	Maximum score	Mean	Mean percentage	Standard deviation
1	Primary health centre	05	2.15	43	0.957
2	MCH	09	5.98	57	0.716
3	RCH	11	5.29	48	0.577
4	Reproductive health programmes for women	10	4.20	42	0.836
TOTAL		35	17.62	49	3.086

The table 2: shows area-wise analysis of knowledge score of women regarding services available in the primary health centre shows that overall knowledge mean was 17.62 and mean percentage was 49 with standard deviation of 3.086.

3.3. Section III

3.3.1. This section deals with the level of utilization of services available in PHC among women

Table 3 Distribution of the samples on level of utilization of services available in the PHC N=100

S. No	Item	Frequency (f)	Percentage (%)
1	Have you done pregnancy registration at your PHCs?	85	85
2	Have you maintained antenatal card?	76	76
3	Have you been for the antenatal visits according to the dates given by PHCs?	80	80
4	Have your weight been checked and recorded periodically during antenatal visit at PHCs?	81	81

5	Have you received iron and folic acid tablets during pregnancy from PHCs?	82	82
6	Did you receive 2 doses of tetanus diphtheria immunization during pregnancy?	81	81
7	Did you undergo urine and blood test during pregnancy?	75	75
8	Did you receive health education from PHCs?	82	82
9	Do you take medications that are given by PHCs?	92	92
10	Have you undergone safe delivery at PHCs?	48	48
11	Have you visited PHCs after delivery?	59	59
12	Have you ever reported any abnormal signs to health care workers at PHCs?	37	37
13	Have you received oral pills, I U D from urban family welfare centre?	52	52
14	Have you ever undergone medical termination of pregnancy at hospital?	13	13
15	Do you practice consuming balanced diet in order to prevent nutritional disorders?	100	100
16	Do you practice safe sex practices to prevent STD/HIV AIDS?	85	85
17	Have you ever found difference in health after visiting PHCs?	77	77
18	Do you maintain interpersonal relationship with health care personnel at PHCs?	79	79
19	Do you utilize schemes available at PHCs?	100	100

Table 3: showed level of utilization of services in PHC, 100% of the samples utilized the services available at PHC and practice consuming balanced diet in order to prevent nutritional disorders. 85% had done their antennal registration and went for regular treatment within the scheduled time. 52% had utilized family planning services. 13% had undergone MTP.

3.4. Section IV

This section deals with the association between knowledge score and demographic variables

Table 4 Distribution of the samples association between knowledge and demographic variables N=100

S.N	Demographic variables	Chi-square value	df	p- value	Significance
1	Age in years	0.567	1	0.869	NS
2	Educational status	0.429	1	0.502	NS
3	Religion	0.303	1	0.582	NS
4	Family monthly income	0.691	1	0.428	NS
5	Occupation	0.786	1	0.739	NS
6	Occupation of husband	0.829	1	0.859	NS
7	Number of children	0.438	1	0.327	S*
8	Previous knowledge	0.575	1	0.512	NS
9	Source of information	0.462	1	0.645	NS

*S-Significant, *NS- Not significant

Table 4 showed level of utilization of services in PHC, 100% of the samples utilized the services available at PHC and practice consuming balanced diet in order to prevent nutritional disorders. 85% had done their antennal registration and went for regular treatment within the scheduled time. 52% had utilized family planning services. 13% had undergone MTP.

To see the association between the knowledge score with selected demographic variables, hypothesis is formulated and tested by using chi-square test. The table 4 showed association of knowledge score with selected demographic variables. The variable like number of children had significant association with knowledge scores. The other variables such as age, education, religion, family income, occupation, occupation of husband, previous knowledge and source of information does not show any significant association.

H1: There will be a significant association between the knowledge and utilization of available services in PHC among women and selected demographic variables. Hence, the hypothesis H1 is partially accepted.

4. Discussion

4.1. Section I: Demographic variables of women

The study reveals that the majority of the participants were aged 31-35 years, with 56% being PUC, 17% high school, 11% primary and professional, and 5% no formal education. The majority were Hindu, 15% Muslim, and 12% Christian. The majority had monthly family income below Rs. 20,000. The majority were housewives, 18% private, and 13% self-employed. The majority had two children. The majority had previous knowledge of 85 (85%), and 65% received information from healthcare personnel. The majority of the information came from family, relatives, friends, and neighbors.

4.2. Section II: Assessment of overall knowledge scores of the women.

First objective is to assess the knowledge regarding services available in the PHC among women residing in the selected rural community area, Udupi. Majority 84 (84%) women had poor knowledge score and 16 (16%) women had moderate knowledge score on services available in the primary health centre.

4.2.1. Assessment of area-wise analysis of knowledge scores of women regarding ervices available in the PHC

A study in Gwalior City, India, found that 55% of mothers had good knowledge about reproductive child health program activities, while 45% had knowledge about essential newborn care. The majority had average utilization of these programs, with a positive correlation between knowledge and utilization. The study also found a significant association between the utilization of these programs and the mother's age and parity.

4.3. Section III: This section deals with the findings related to utilization of services available in the PHC among women

The study assessed the utilization of primary health centers (PHCs) in rural Udupi, India. Results showed that 100% of women used PHC services, consuming balanced diets to prevent nutritional disorders. 85% completed antennal registration and received regular treatment. Family planning services were utilized by 52%. The study found that primary level services were better for preventive and promotive care but poor for acute illness treatment, intranatal care, family welfare services, and special investigation services.

4.4. Section IV: Association between knowledge with selected demographic variables

The third objective is to find out the association between knowledge scores regarding services available in the PHC among women and selected demographic variables.

A study in West Bengal found that the number of children significantly influenced knowledge scores about reproductive tract infections (RTI) among reproductive age group women. Other variables like age, education, religion, family income, occupation, previous knowledge, and source of information did not show significant associations.

5. Conclusion

The study revealed that majority of women had poor knowledge regarding services available in the primary health centre. 100% of the samples utilized the services available at PHC and practice consuming balanced diet in order to prevent nutritional disorders. There was no statistically significant association found between knowledge score of women and demographic variables.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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