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# A Study to Assess the Knowledge and Attitude Regarding Preconception Care Among Women in Selected Area of the City With a View to Develop an Information Booklet

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**Abstract:** Health is a essential theme in most of the cultures. In fact all communities have their concepts of health, as a part of the individual. The health of the community depends comprehensive health of the all age groups in the community the women, children and old age people health is the indicator whole community health. Health and family welfare services covering the wide spectrum health of all the population. Among this heart of community health depends mainly women's health. The women's health depends upon the women in the reproductive age group. Maintaining optimal health is a goal for all women. A quantitative descriptive research approach, survey research design was used in this study to assess the knowledge and attitude regarding preconception care among women in selected area of the city with a view to develop an information booklet. In this study sample consists of 124 women between age group of 18-45 years of age. Structured knowledge questionnaire and attitude scale was developed and introduced to them.

**Keywords:** Preconception care; women

## I. INTRODUCTION

Essential components of health maintenance are identification of unrecognized problems and potential risks and the education and the health promotion needed to reduce them. This is especially important for women in their childbearing years, because conditions that increase a woman's health risks are not only of concern for her well-being but also are potentially associated with negative outcomes for both mother and baby in the event of a pregnancy. Prenatal care is an example of prevention that is practiced after conception; however, prevention and health maintenance are needed before pregnancy because many of the mother's risks can be identified and then eliminated or at least modified.

### A. Need For The Study

Major component of Health & Family Welfare Program is related to Health problems of women and children, as they are more vulnerable to ill health and diseases. Since women folk constitute more than 48 % of population, it is essential to health status of women so that the causes of ill health are identified, discussed and misconceptions removed. Ill health of women is mainly due to poor nutrition due to gender discrimination, low age at marriage, risk factors during pregnancy, unsafe, unplanned and multiple deliveries, limited access to family planning methods and unsafe abortion services.<sup>10</sup> According to statistics, every minute in the world, 380 women become pregnant 190 face unplanned or unwanted pregnancy; 110 experience a pregnancy-related complication; 40 have an unsafe abortion; and one woman dies from a pregnancy-related cause. Hardly 20per cent of mothers receive all the required components of prenatal care.<sup>11</sup> India with its one billion people contributes to about 6.2% of all maternal deaths in the world. To understand the Maternal Mortality situation in the country better and to map the changes, especially at the regional level, the government has categorised states into three groups: empowered action group (EAG), southern states, and other states.<sup>12</sup> Even though infant 5 mortality has declined in India maternal mortality has remained high at about 113 per 100,000 live births.

Causes of maternal mortality globally are severe bleeding 25%, Indirect causes 20%, Infection 15%, Unsafe abortions 13%, eclampsia 12%, Obstructed labor 8% and Other direct causes 8%.<sup>1</sup> The Indian scenario the maternal mortality is high proportion comparatively other developed countries. The major causes mainly 38% are due to haemorrhage 11% sepsis 5% hypertension 5% obstructed labor.<sup>1</sup> According to Sample Registration Survey (SRS) in 2016-18, The maternal mortality rate in India is 113 and for Maharashtra is 46 maternal deaths per 1,00,000 women and state has fulfilled the sustainable development goal in this regard set by the United Nations.<sup>13</sup>

The census of India reported that adolescent girls in the age-group 15-19 years who account for 52.14 million (10.5%) are very sensitive from the viewpoint of planning because of the preparatory stage for their future productive and reproductive roles in the society and family, respectively women in the reproductive age-group 15-44 years numbering 233.72 million (47.1%) need special care and attention because of their reproductive needs. In India, more than a million women suffer from RTIs accounting for 25% of the reproductive tract infections between the ages of 15 and 44 years. The main reasons are exist a “culture of silence” surrounding these diseases, due to the associated stigma and taboos as well as the widespread belief that symptoms of pain and discomfort are a natural part of a women’s lifecycle and pre conception health practices.

#### *B. Problem Statement*

A study to assess the knowledge and attitude regarding preconception care among women in selected area of the city with a view to develop an information booklet.

#### *C. Objectives of Study*

- 1) To assess the knowledge regarding pre conception care among women in selected area of the city.
- 2) To assess the attitude regarding pre conception care among women in selected area of the city.
- 3) To find out the co-relation between knowledge and attitude regarding preconception care among women in selected area of the city.
- 4) To find out the association between knowledge regarding preconception care with selected demographic variables among women in selected area of the city.
- 5) To find out the association between attitude regarding preconception care with selected demographic variables among women in selected area of the city.

#### *D. Assumptions*

- 1) There may be inadequate knowledge about preconception care of the woman.
- 2) There may be inadequate attitude towards preconception care of the woman.

#### *E. Ethical Aspect*

- 1) The study proposal was sanctioned by ethical committee.
- 2) Confidentiality and anonymity of the sample was obtained.
- 3) Written consent was taken from the participants.
- 4) Prior permission was obtained from the DHO of Urban Health Center.

The nature of the study, aims and objectives were explained to the samples after assuring that their information would be kept confidential and used for research purpose only through written consent of them.

## **II. RESEARCH METHODOLOGY**

- 1) *Research Approach:* Quantitative descriptive research approach.
- 2) *Research Design:* descriptive survey research design.
- 3) *Setting of the Study:* The selected area of the city.
- 4) *Target Population:* The women of the city.
- 5) *Accessible Population:* Reproductive age women (18-45 years of age) in selected area of the city.
- 6) *Samples:* Women (18-45 years) and who fulfilled the inclusion and exclusion criteria.
- 7) *Sampling Technique:* Non-probability purposive sampling technique.
- 8) *Sample Size:* 124 women of reproductive age group (18-45 years).

## **III. CRITERIA FOR SELECTION OF SAMPLE**

#### *A. Inclusion Criteria*

- 1) Women those who are planning for pregnancy.
- 2) Women who are efficient to read and write English / Marathi.
- 3) The women age group between 18-45 years of age.

**B. Exclusion Criteria**

- 1) Those who are not willing to participate.
- 2) Those who are not present at the time of study.
- 3) Those who are pregnant.

**IV. DESCRIPTION OF TOOL:**

**A. Section- A**

Demographic data of the women Demographic data consist of 10 different variables such as age in years, education, type of family, monthly income of family, occupation, number of children, history of previous pregnancy, information about preconception care, source of information regarding preconception care.

**B. Section- B**

Structured knowledge questionnaire This tool was prepared by the investigator based on the first objective of the study, that is, to assess the knowledge about preconception care among women. Before preparing the tool, a blueprint was constructed which included 5 different areas such as introduction, general health & fertility, pre-existing medical conditions & drugs, environmental factors, genetic counselling. This tool consists of 30 questions. Scoring mode for structured knowledge questionnaire: Each correct response was given a score of one & incorrect response a score of zero. The maximum scoring possible was 30 & minimum 0 in the knowledge questionnaire.

The scoring was categorized as

- 0 – 10 = Inadequate knowledge.
- 11 – 20 = moderate knowledge.
- 21 – 30 = Adequate knowledge.

**C. Section- C**

Attitude scale This tool was prepared by the investigator based on the second objective of the study, that is, to assess the attitude towards preconception care among women. It includes 30 items (positive statement-15 and negative statement-15). For positive statements: The responds strongly agree, agree, neutral, disagree, strongly disagree carries 4,3,2,1,0 mark respectively. For negative statements: The responds strongly agree, agree, neutral, disagree, strongly disagree carries 0,1, 2,3,4 marks respectively. The total score was 120120 & minimum 0 in the attitude scale.

The scoring was categorized as:

- 0-40 = Inadequate attitude
- 41-80 = Moderate attitude
- 81-120 = Adequate attitude

**V. ORGANIZATION OF STUDY FINDINGS:**

- 1) *Section I:* Frequency distribution of socio demographic variables among women.
- 2) *Section II:* Assessment of knowledge among women regarding pre conception care.
- 3) *Section III:* Assessment of attitude among women regarding pre conception care.
- 4) *Section IV:* Correlate the knowledge and attitude regarding pre conception care among women. Section V: Determine the association between level of knowledge on preconception care with selected demographic variables.
- 5) *Section VI:* Determine the association between level of attitude on preconception care with selected demographic variables.

Section I: Frequency distribution of socio demographic variables of women.

Sr. No	Demographic Variable	Category	Frequency	%
1	Age in Years	18-22 years	10	8.06
		23-27 years	81	65.32
		28-32 years	29	23.39
		33-36 Years	4	3.23
		36 & above	0	0.00



2	Education	Illiterate	4	3.23
		Primary	5	4.03
		Secondary	11	8.87
		Higher secondary	23	18.55
		Graduation	74	59.68
		PG & above	7	5.65
3	Type of Family	Joint	57	45.97
		Nuclear	67	54.03
4	Diet Pattern	Vegetarian	80	64.52
		Mixed	44	35.48
5	Income	Below Rs 15000/-	1	0.81
		Rs. 15001-Rs. 25000	5	4.03
		Rs. 25001-Rs 35000	51	41.13
		Above Rs 35000	67	54.03
6	Occupation	Housewife	41	33.06
		Government	42	33.87
		Private Job	41	33.06
		Business	0	0.00
7	Number of Children	No any	6	4.84
		1	96	77.42
		2	21	16.94
		>2	1	0.81
8	History of previous pregnancy	Abortion	3	2.42
		Congenital anomaly	1	0.81
		Still birth	1	0.81
		LBW	5	4.03
		Normal outcome	111	89.52
		Any other	3	2.42
9	Do you know about preconception care	Yes	113	91.13
		No	11	8.87
10	If Yes, Source of information	Social Media	18	15.93
		Health care professional	55	48.67
		Friends & family	40	35.40
		any other	0	0.00

The above table 1 interprets, out of 124 samples, majority of the samples 81(65.32%) belongs to 23-27 years age group, 29(23.39%) belongs to 28-32 years age group, 10(8.06%) belongs to 18-22 years age group 4(3.23%) belongs to 33-36 years and none of the sample were age group of 36 years and above.

With regards to education, majority of the samples 74(59.68%) were graduates, 23(18.55%) were studied higher secondary education, 11(8.87%) were secondary education, 7(5.65%) were post graduates and above, 5(4.03%) were primary education and 4(3.23%) were illiterate.

Regarding type of family, majority of the sample 67(54.03%) were nuclear family type and 57(45.97%) were residing joint family.

With regards to diet pattern, majority of the samples 80(64.52%) were vegetarian and 44(35.48%) were mixed diet pattern.

Regarding Income of the family, 67(54.03%) were earning above Rs. 35000/-, 51(41.13%) were earning Rs. 25001- Rs 35000/-, 5(4.03%) were having monthly income of Rs. 15001- Rs 25000/- and 1(0.81%) was earning below Rs. 15000/-.

With regards to occupation of the women, 42(33.87%) were in government employee, 41(33.06%) each in private and house wives and none of the samples were business as a occupation.

Regarding number of children, 96(77.42%) were having 1 child, 21(16.94%) were having 2 children, 6(4.84%) were not having child and 1(0.81%) was having above 2 children.

With regards to history of previous pregnancy, majority of the sample 111(89.52%) were having a normal outcome history, 5(4.03%) were low birth weight pregnancy history, 3(2.42%) each in abortion and any other history and 1(0.81%) each in congenital anomaly and still birth as a history of pregnancy.

With regards to information regarding preconception care among women, majority of the women 113(91.13%) were having information regarding it whereas 11(8.87%) were does not have any information about preconception care.

Regarding source of information in concern to preconception care, majority of the sample 55(48.67%) were heard with health care professional, 40(35.40%) heard through friends and family, and 18(15.93%) by social media.

Section II: Assessment of knowledge among women regarding pre conception care

Level of knowledge regarding preconception care	Score	Frequency	Percentage (%)	Mean	SD
Inadequate knowledge	0-10	5	4.03	18.90	3.40
Moderate knowledge	11-20	69	55.64		
Adequate knowledge	21-30	50	40.32		

Table no 2 shows that, majority of the samples 69(55.64%) were having moderate level of knowledge, 50(40.32%) were having adequate knowledge and 5(4.03%) had inadequate knowledge on pre conception care.

Section III: Assessment of attitude among women regarding pre conception care

Level of attitude regarding pre-conception care	Score	Frequency	Percentage (%)	Mean	SD
Inadequate Attitude	0-40	13	10.48	58.88	9.95
Moderate Attitude	41-80	104	83.87		
Adequate Attitude	81-120	7	5.64		

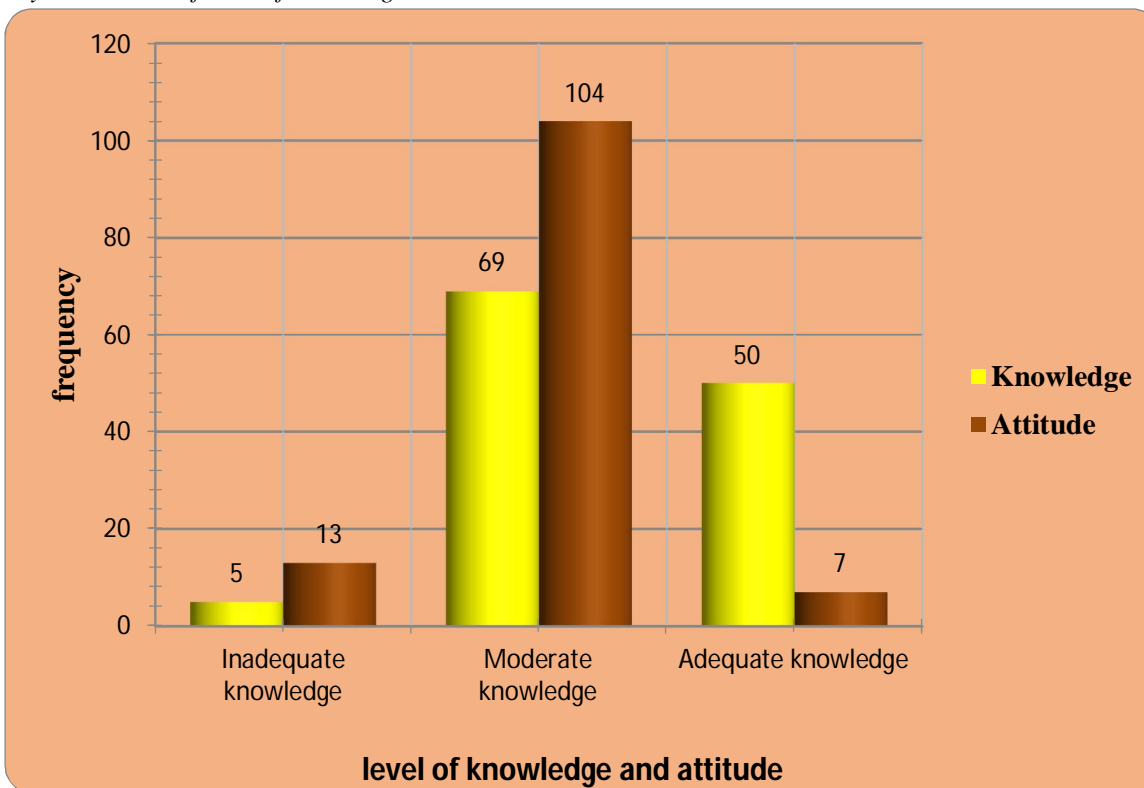
Table no 3 shows that, majority of the samples 104 (83.87%) were having moderate attitude, 7 (5.64%) were having adequate attitude and 13(10.48%) had inadequate attitude towards pre conception care.

Section IV: Correlate the knowledge and attitude regarding pre conception care among women

DOMAIN	CORRELATION BETWEEN	MEAN SCORE	KARL PEARSON CORRELATION COEFFICIENT (r)	P
		Mean ± SD		
Preconception Care among Women	Knowledge versus attitude score	18.90 ± 3.40 Versus 58.88 ± 9.95	0.54	0.000*

Table no 4 shows, knowledge and attitude scores with correlation value 0.54, there was a positive correlation with a significant level of 0.05.

A. Frequency distribution of level of knowledge and attitude



**B. Figure Showing Frequency Distribution Of Level Of Knowledge And Attitude Score Among Women**

Figure shows that, majority of the sample 104(83.87%) were having moderate attitude, whereas 69(55.64%) were having moderate knowledge, 50(40.32%) were having adequate knowledge where as 7(5.64%) were having adequate attitude and 13(10.48%) were having inadequate attitude whereas 5(40.3%) were having inadequate knowledge.

**C. Association Between Level Of Attitude With Selected Demographic Variables**

**n=124**

Sr. NO	Demographic Variables	Attitude on Preconception care			df	Chi square Value	P Value	Significance
		Inadequate Attitude	Moderate Attitude	Adequate Attitude				
1	Age in Years				6	7.53	0.274	Not Significance
	18-22 years	3	7	0				
	23-27 years	7	71	4				
	28-32 years	2	23	3				
	33-36 Years	1	3	0				
36 & above	0	0	0					
2	Education				10	150.522	0.0000	Significance
	Illiterate	4	0	0				
	Primary	5	0	0				
	Secondary	3	8	0				
	Higher secondary	1	22	0				
	Graduation	0	72	2				
PG & above	0	2	5					
3	Type of Family				2	19.004	0.00	Significance
	Joint	13	43	1				
	Nuclear	0	61	6				
4	Type of Diet				2	5.237	0.052	Not Significance
	Vegetarian	12	63	5				
	Mixed	1	41	2				
5	Income				6	11.405	0.076	Not Significance
	Below Rs 15000/-	0	1	0				
	Rs. 15001-Rs. 25000	1	4	0				
	Rs. 25001-Rs 35000	10	40	1				
Above Rs 35000	2	59	6					
6	Occupation				4	22.2007	0.000	Significance
	Housewife	11	30	0				
	Government	0	37	5				



	Private Job	2	37	2				
	Business	0	0	0				
7	No Children				6	6.894	0.330	Not Significance
	No any	0	6	0				
	1	9	83	4				
	2	4	14	3				
	>2	0	1	0				
8	History of previous pregnancy				10	1.945	0.996	Not Significance
	Abortion	0	3	0				
	Congenital anomaly	0	1	0				
	Still birth	0	1	0				
	LBW	1	4	0				
	Normal outcome	12	94	7				
Any other	0	1	0					
9	Do you have information regarding preconception care				2	4.105	0.128	Not Significance
	Yes	10	96	7				
	No	3	8	0				
10	If Yes, Source of information				4	1.746	0.782	Not Significance
	Social Media	1	15	2				
	Health care professional	5	48	2				
	Friends & family	4	33	3				
	any other	0	0	0				

The table 6 describes that, association between level of attitude score on pre conception care among women with selected demographic variables. The study demographic variables were; education, type of family, and occupation were significant, where as age, type of diet, income, number of children, history of previous pregnancy, information regarding pre conception care and source of information were not significant.

In order to compute the association between the level of knowledge score and demographic variables chi-square was applied and the value was observed with 0.05 significance level.

The chi square value of education  $\chi = 150.52$  with 10 degree of freedom, type of family  $\chi = 19.00$  with 2 degree of freedom, type of diet  $\chi = 5.23$  with 2 degree of freedom and occupation  $\chi = 22.20$  with 4 degree of freedom found statistically significant with demographic variable. Whereas there was no other demographic variables found association with level of attitude score on preconception care.

## VI. DISCUSSION

The knowledge and attitude was assessed by structured knowledge questionnaire and attitude scale. Knowledge and attitude scores with correlation value 0.54, there was a positive correlation with a significant level of 0.05. A similar cross-sectional study was carried out by Pritesh G Patel, Tejas A Shah At Urban Areas of Vadodara City, Gujarat, India among 100 newly married women residing at urban area of Vadodara city, To assess the knowledge & attitude regarding preconceptional care of newly married women of selected urban area of Vadodara city. The women were interviewed by using structured questionnaire. Data analysis was done using Microsoft Excel.

Out of 100 interviewed women 12% had poor, 82% had average and 6% of women had good knowledge. 52% of women had negative attitude and 48% of women had positive attitude. Correlation between knowledge and attitude was 0.815 at 5% level of significance which suggest moderately positive correlation. Average knowledge, Negative attitude & moderately positive correlation regarding pre-conceptional care were noticed among newly married women.

## VII. CONCLUSION

The knowledge and attitude was assessed by structured knowledge questionnaire and attitude scale. The conclusion drawn from the findings of the study are as follows: Majority of the samples were having moderate level of knowledge. Majority of the samples were having moderate level of attitude. There was a positive correlation between knowledge and attitude scores with correlation value 0.54, with a significant level of 0.05. The association between level of knowledge with selected demographic variables was significant in Education, type of family, income, occupation, and source of information regarding preconception care. The association between level of attitude with selected demographic variables was significant in Education, type of family, and occupation.

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