Knowledge Regarding Prevention of Low Birth Weight Babies among Antenatal Mothers

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ABSTRACT

Low Birth Weight is a life-threatening condition. The occurrence of this condition causes substantial morbidity and mortality in children. Nurses have an important role in primary and preventive care of the community. Antenatal mothers must be made aware of this condition and their active cooperation in prevention and control measures. A Pre-experimental study to assess the effectiveness of structured teaching programme on knowledge regarding prevention of low birth weight babies among antenatal mothers at PHC Gari harsaru, Gurgaon. Objectives of the study to assess the level of knowledge among antenatal mothers regarding prevention of low birth weight babies. To evaluate the effect of structured teaching programme on mothers by post test. To associate the relationship between post test knowledge scores with selected demographic variables. The study consists of 50 Antenatal Mothers, who are in-between below 20 to above 35 years and available at the time of study at PHC Gari harsaru, Gurgaon. Convenient sampling method was used for the selection of samples. The instrument for the data collection was a structured knowledge questionnaire. Result: There is a significant difference between the scores of pre-test and post-test knowledge of antenatal mothers regarding prevention of low birth weight. In pre-test the mothers had 41(82%) of inadequate knowledge in post-test majority of the mothers 42 (84%) has adequate knowledge. It also shows that there is an association between demographic variables with post-test knowledge scores. The demographic variables which have relationship are age, education, parity. Earlier studies conducted by other researchers also showed educational programs are helpful in increasing the knowledge of antenatal mothers.

Key word: *Life-threatening, morbidity, mortality, primary and preventive care, community & control measure*

INTRODUCTION

Motherhood is a beautiful and Joyous experience to a woman. The health of mother during pregnancy is important to give birth to a healthy baby. The best and most precious gift the mother can give the baby is the gift of health. A healthy child is a boon to the country. Any country's growth and development depends on the health of it's citizens. So better growth and development of country is resulting form the health of its citizens. The process of health begins from the early stages of life. So the mother plays an important role participating in the first step of human life. So caring the mother during pregnancy and providing information to her regarding care of the baby is the first step in health care delivery system. The Government of India has launched various awareness programmes by conducting "Newborn Week" collaborated with UNICEF between 15th – 21st November 2006 and also the C.S.S.M. Programme in 1992. The main aim of these programme is to decrease the infant mortality rate. These programmes also emphasize the mothers to have up to date knowledge regarding the care of low birth weight neonate so as to identity the problems as early as possible and provide need based care to promote optimum health in low birth weight neonate.

NEED FOR THE STUDY

Low birth weight remains as an important unresolved problem which is distributed universally in all population. WHO estimates that about 25 million low birth weight babies are born each year globally, consisting 17 percent of all live births of which nearly 95% of them are in developing countries. The incidence of low birth weight varies widely between regions of the world. In INDIA the infants who weigh less than 2.5 kg at birth represent about 26% of all live births. Nearly the world average infant mortality which has been estimated about 54 per 1000 live births out of which 51% of deaths are due to low birth weight in India and Karnataka is also leading at a rate of infant mortality of 49 per 1000 live births. The vast majority of low birth weight babies in India are born in rural areas with a prevalence of 24% and in urban areas with 21%. Unless the outcomes of these babies are improved it is unlikely to change the overall national neonatal mortality rate. As the mother is both the "seed and the soil" there is link between the health of the mother and the health of a child and more importance should be given for antenatal mothers. Hence the investigator felt the need to asses the antenatal mother's knowledge regarding prevention of low birth weight babies and to prepare a structured teaching programme for the purpose of improving the knowledge of antenatal mothers. Finally this study

would contribute towards reducing infant mortality rate and to develop a healthy society in our country.

Objectives of the study:

1. To assess the level of knowledge among antenatal mothers regarding prevention of low birth weight babies.
2. To evaluate the effect of structured teaching programme on mothers by post test.
3. To associate the relationship between post test knowledge scores with selected demographic variables.

Hypothesis:

H1. There will be significant difference between the scores of pre & post test knowledge of antenatal mothers regarding prevention of low birth weight babies.

H2. There will be significant association between pretest and post test knowledge scores with selected socio-demographic variables.
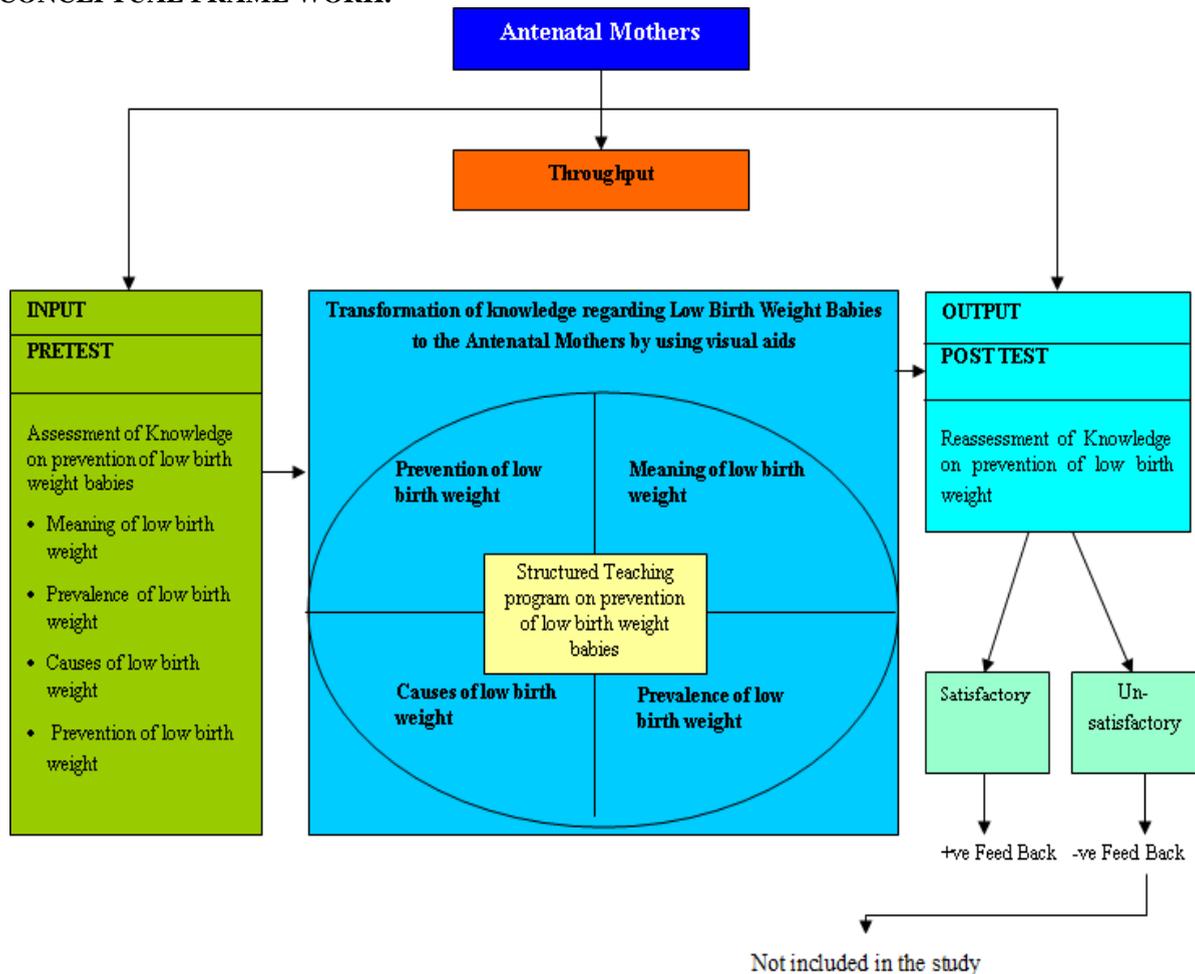
CONCEPTUAL FRAME WORK:

Fig 1: Modified Dorothy Johnson's Open System Model (1980) Adopted for Educating Prevention of Low Birth Weight Babies

METHODOLOGY

Research approach: Quantitative Approach

Research Design: Pre Experimental Study

Group	Pre-test	Intervention	Post-test
Antenatal mothers (50)	O_1	X	O_2

Fig 2: Schematic representation of study design

O_1: Pre test assessment of knowledge regarding prevention of low birth weight among antenatal mothers by using structured knowledge questionnaire.

X: Administration of Structured teaching programme.

O_2: Post test assessment of knowledge regarding prevention of low birth weight among antenatal mothers by using structured knowledge questionnaire.
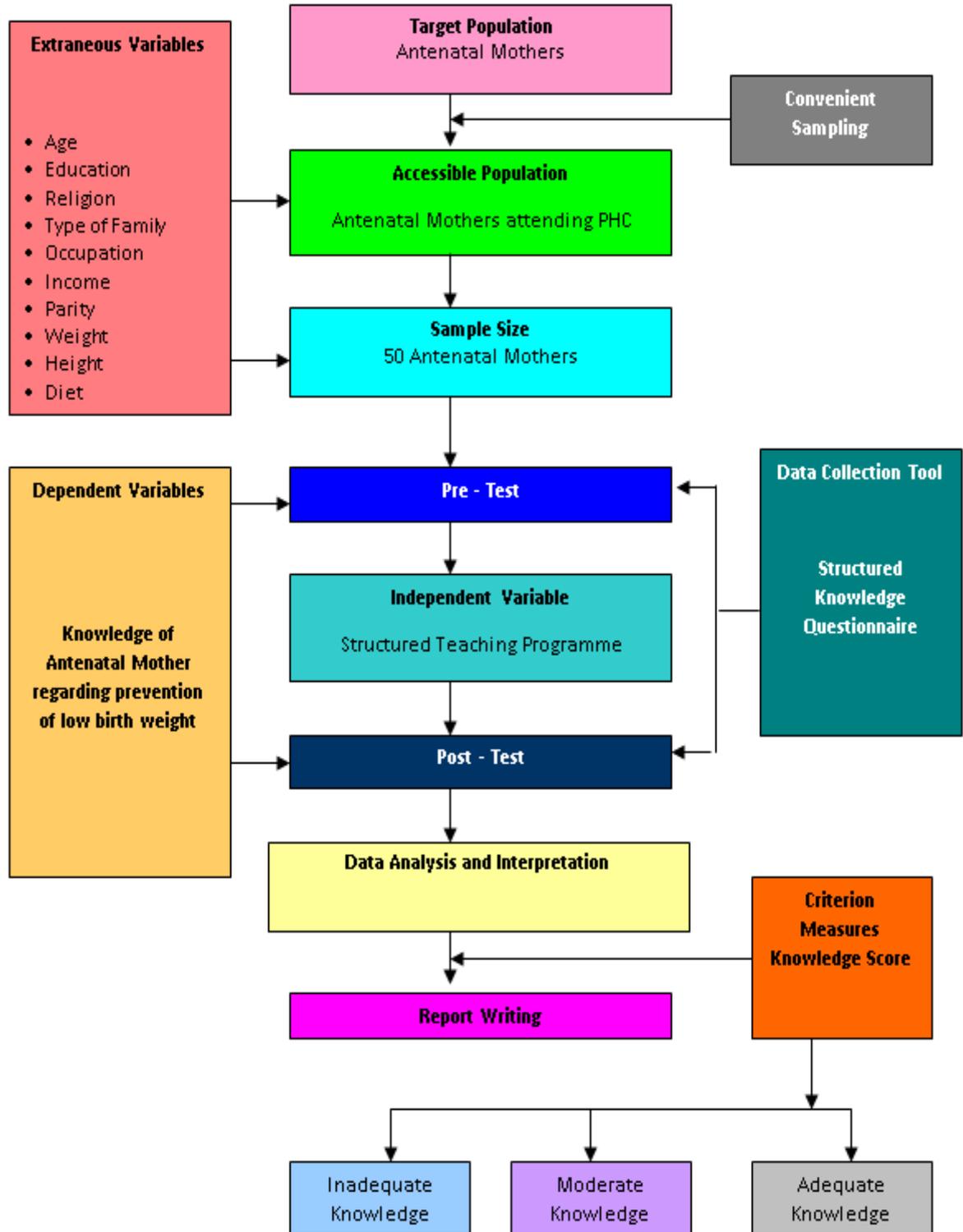

Fig 3: Schematic Diagram of Research Design

Major Findings:

- Maximum of Antenatal Mothers were found in the age group of 20- 30 yrs 27 (50%).Maximum of the Antenatal Mothers 21 (42%) had pre degree level of education. Majority of the Antenatal Mothers 40 (80%) were Hindus. Maximum Antenatal Mothers 23 (46%) belong to joint family Maximum Antenatal Mothers 17 (34%) emerge as coolie in occupation. Higher percent of Antenatal Mothers 25 (50%) had family income of below 3000 Rs. /month and above. Majority of Antenatal Mothers 27 (54%) are primi gravida mothers. Maximum Antenatal Mothers 24 (48%) were between 41 – 50 kg in weight. Majority of Antenatal Mothers 33 (66%) were having 141 – 145 cms in height. Majority of Antenatal Mothers 35 (70%) have mixed diet pattern.

- The first objective is to assess the level of knowledge among antenatal mothers regarding prevention of low birth weight babies The pre test scores of antenatal mothers revealed that regarding meaning & prevalence of low birth weight the mean score was 41% and on causes of low birth weight 45.3% and on prevention of low birth weight is 38.70%. The overall pre test knowledge mean score with standard deviation is 41.3%.

- The second objective is to evaluate the effect of structured teaching programme on mothers by post test.
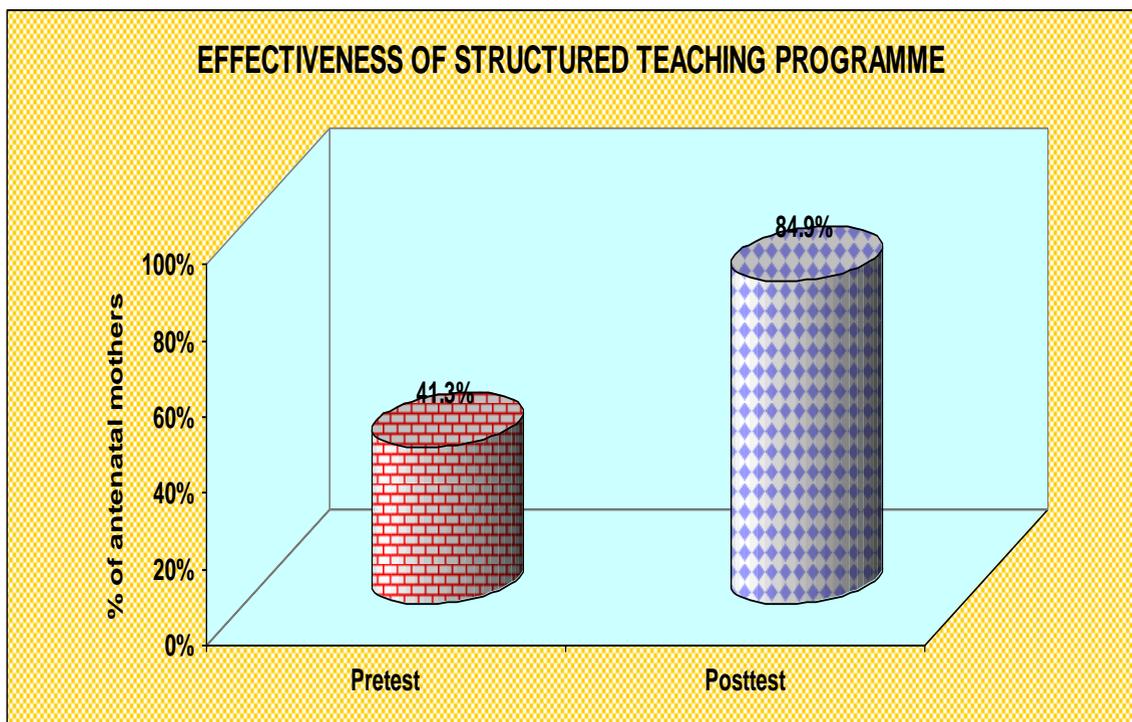

Fig4: Effectiveness of Structured Teaching Programme

a. Assessment of aspect wise post test mean response on antenatal mothers knowledge regarding prevention of low birth weight.The post test scores of antenatal mothers reveled that regarding meaning & prevalence of low birth weight the mean score was 85% and on causes of low birth weight 86.4% and on prevention of low birth weight the mean score was 83.9%. The overall post test knowledge mean score with standard deviation is 84.9%.

b. Assessment of overall pre test and post test mean response of antenatal mothers on knowledge regarding prevention of low birth weight**.** The overall mean antenatal mothers knowledge scores of pre test and post test reveals the post test mean score was high with 84.9% when compared with pre test mean score value with 41.3%

c. Comparison of knowledge score on prevention of low birth weight babies before and after administration of structured teaching programme. The pre test scores of antenatal mothers knowledge regarding prevention of low birth weight on meaning and prevention of low birth weight was 0.82% with SD 66 and on causes of low birth weight was 4.08% with SD 7.78 and on prevention of low birth weight 5.42% with SD 1.40%.The post test score of antenatal mothers knowledge regarding prevention of low birth weight on meaning & prevalence of low birth weight was 1.70% with SD 46 and on causes of low birth weight was 11.74% with SD 1.54The finding related to pre test and post test scores revealed with paired t-test value 8.34 on meaning prevalence of low birth weight and 13.78 't' value on causes of low birth weight and 26.17 't' value on prevention of low birth weight. The total p value is 0.001 which is statistically significant.

d.   Classification of antenatal mother's knowledge regarding prevention of low birth weight. The antenatal mother's knowledge level is classified into 3 levels that are inadequate knowledge, moderately adequate knowledge, adequate knowledge. The mean scores of pre test and post test reveals that in pre test, majority of the antenatal mothers 41 (82%) has inadequate knowledge and remaining 9 (18%) has moderately adequate knowledge. In post test, majority of the respondents 42 (84%) has adequate knowledge and 8 (16%) have moderately adequate knowledge. Hence **H₁** is accepted, there is significant difference in the pre test scores of knowledge of antenatal mothers regarding prevention of low birth weight with that of post test scores of knowledge. This indicates that "Structured Teaching programme" was effective in increasing the knowledge of antenatal mothers regarding prevention of low birth weight.

Table 1: The third objective is to associate the relationship between post test knowledge scores with selected demographic variables

N=50

Demographic variables		Posttest Level of knowledge					Pearson chi square test/ Yates corrected chi square test
		Moderate		Adequate			
		n	%	n	%	Total	
Age	Less than20 yrs	7	35.0%	13	65.0%	20	**χ2=8.98 P=0.01 significant**
	21 -30 yrs	1	3.7%	26	96.3%	27	
	More than31 yrs	0	0.0%	3	100.0%	3	
Education	Primary education	2	100.0%	0	100.0%	2	**χ2=14.75 P=0.001 significant**
	Secondary education	5	23.8%	16	76.2%	21	
	PUC	1	7.1%	13	92.9%	14	
	Degree and above	0	0.0%	13	84.6%	13	
Religion	Hindu	7	17.5%	33	82.5%	40	χ2=0.52 P=0.77 Not significant
	Muslim	1	12.5%	7	87.5%	8	
	Christian	0	0.0%	2	100.0%	2	
Type of Family	Nuclear family	3	13.6%	19	86.4%	22	χ2=1.61 P=0.45 Not significant
	Joint family	5	21.7%	18	78.3%	23	
	Extended family	0	0.0%	5	100.0%	5	
Occupation	Government employee	1	16.7%	5	83.3%	6	χ2=2.91 P=0.41 Not significant
	Private employee	0	0.0%	11	100.0%	11	
	House wife	3	18.8%	13	81.3%	16	
	Coolie	4	23.5%	13	76.5%	17	
Income	Less than Rs.3000	6	24.0%	19	76.0%	25	χ2=2.84 P=0.24 Not significant
	Rs.3001 -5000	2	11.1%	16	88.9%	18	
	More than Rs.5001	0	0.0%	7	100.0%	7	
Parity	Primigravida	7	25.9%	20	74.1%	27	**χ2=4.31 P=0.04 significant**
	Multigravida	1	4.3%	22	95.7%	23	
Weight	30 -40 kg	5	22.7%	17	77.3%	22	χ2=1.72 P=0.42 Not significant
	41 -50 kg	3	12.5%	21	87.5%	24	
	More than 51 kg	0	0.0%	4	100.0%	4	
Height	Less than 140 cm	3	17.6%	14	82.4%	17	χ2=0.05 P=0.82 Not significant
	141 -145 cm	5	15.2%	28	84.8%	33	
Diet	Vegetarian	4	26.7%	11	73.3%	15	χ2=1.81 P=0.18 Not significant
	Mixed	4	11.4%	31	88.6%	35	

CONCLUSION

The reaserch reveals that there was a significant difference in knowledge reagarding prevention of low birth weight among antenatal mothers in PHc Gari Harsaru Gurgaon. The study also reveals that there was an association between demogrphic variables and knowledge regarding prevention of low birth weight among antenatal mothers. Many studies also support that there was differnce in knowledge scores of pre test and post test regarding low birth weight among antenatal mothers. The statistical report also shows that there were only 41% of knowledge before implementation of structured teaching programme among antenatal mothers.

RECOMMENDATIONS

- On the basis of the findings of the study, following recommendations have been made:
- A similar study can be replicated on a large sample to generalize the findings.
- A study can be conducted by including additional demographic variables..
- Manuals, information booklets and self-instruction module may be developed on prevention of low birth weight.
- A study can be carried out to evaluate the efficiency of various teaching strategies like SIM, pamphlets, leaflets and computer-assisted instruction on prevention of low birth weight.
- Based on study findings, intervention should be given to the community through mass media, role play, drama, and class room teaching, etc to enhance the knowledge so that mothers will take preventive measures, and give birth to healthy babies.

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