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Dr. Nasreen Banu
Principal Scientist, AICRP -
H.Sc, All India Coordinated
Research Project – Home
Science), Human Development
Component, PGRC, PJTSAU
(Professor Jayashankar
Telangana State Agricultural
University), Rajendra nagar,
Hyderabad, Telangana, India

Dr. K Yashoda
Research Associate, AICRP-
H.Sc,Human Development
Component, PGRC, PJTSAU,
Rajendranagar, Hyderabad,
Telangana, India

Reproductive health knowledge among pregnant women

Dr. Nasreen Banu and Dr. K Yashoda

Abstract
Present study was taken up to find out the Knowledge levels of the Pregnant women (Primi-gravida) in the adopted villages of Maheshwaram mandal, RR district, Hyderabad with regard to Reproductive health issues. 75 Married women (First time pregnant) formed the sample for the present study. Checklist was developed to find out the Knowledge levels of Pregnant women. Based on the results, Knowledge based Intervention programmes were organized. Impact assessment showed significant improvement in the Knowledge levels of the sample, reflecting the effectiveness of the Intervention programme.

Keywords: Reproductive health; Intervention programme; Knowledge levels; Pregnant women

Introduction

Girls who get pregnant at the age of 14 years or younger, and, to a lesser extent, at 15–17 years and 18–19 years, are at considerably heightened risk of complications such as pregnancy-induced hypertension, obstructed and prolonged labour, vaginal tearing, obstetric fistula, and postpartum haemorrhage, in addition to premature delivery, low infant birth weight, perinatal mortality and health problems in the newborn (Senderowitz 1996; Phipps and Sowers 2002; WHO 2004a; Lloyd 2005: 518–22; Temin and Levine 2009) [3, 2, 1, 4].

The relative risks of early pregnancy to both mothers and newborns are exacerbated for girls who are nutritionally deprived: a pregnancy can compromise the mother's status even further and disrupt the normal growth patterns, while babies born to such mothers are even more likely to be underweight and to die (Temin and Levine 2009: 12–14) [4]. The absolute and relative risks of pregnancy at each age and developmental stage could be documented at different levels of antenatal and delivery coverage, for better estimates of the extent to which the disadvantages of precocious pregnancy can be ameliorated by nutritional supplements and by accessible high quality obstetric care.

Many young women are sexually active at increasingly early ages. Their vulnerability, ignorance on matters related to their sexuality and reproductive health lead adolescents and young girls to early pregnancies. World Health Organization report on "early marriages, adolescent and young pregnancies" states about 16 million girls aged 15 to 19 years and two million girls under the age of 15 give birth every year. Worldwide, one in five girls has given birth by the age of 18. Complications in pregnancy and child birth are the leading causes of death among adolescent girls ages 15-19 in low and middle income countries, resulting in thousands of deaths each year (WHO, 2012).

NFHS-3 data show that overall, 12 percent of women age 15-19 have become mothers and 4 percent of women age 15-19 are currently pregnant with their first child. This means that one in six women age 15-19 have begun childbearing. The proportion of women in age group of 15-19 years, who have begun childbearing, is more than twice as high in rural areas (19 percent) as in urban areas (9 percent). It is noted that on an average, gynecologists in India deal with four to five pregnant teens each month and doctors opines that the main reason for teenage pregnancies and consequent abortions is the lack of knowledge about contraception. Teenage pregnancy is also responsible for a higher infant mortality rate, as adolescent mothers are less likely to obtain skilled care before, during and after childbirth (Sharma, 2015).

Operational Definition

Knowledge: Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. According to Webster's dictionary, knowledge is 'the fact or condition of knowing something with familiarity gained through experience or association'.

Correspondence
Dr. Nasreen Banu
Principal Scientist, AICRP -
H.Sc, All India Coordinated
Research Project – Home
Science), Human Development
Component, PGRC, PJTSAU
(Professor Jayashankar
Telangana State Agricultural
University), Rajendra nagar,
Hyderabad, Telangana, India

In practice, though, there are many possible, equally plausible definitions of knowledge. A frequently used definition of knowledge is "the ideas or understandings which an entity possesses that are used to take effective action to achieve the entity's goal (s).

Intervention: An intervention is a combination of programme elements or strategies designed to produce behavior changes or improve health status among individuals or an entire population.

Reproductive health: Reproductive health refers to the diseases, disorders and conditions that affect the functioning of the male and female reproductive systems during all stages of life.
Reproductive health is a state of complete physical, mental and social well-being, and not merely the absence of reproductive disease or infirmity. Reproductive health deals with the reproductive processes, functions and system at all stages of life.

Research Methodology: Sample was identified from the adopted villages (5) of Maheshwaram mandal, RR District, Hyderabad, through field survey and focused group interviews with the help of the AWWs, ANMs, and Women Self-help Group leaders in the village.

Criteria for sample selection:
▪ Women who were married and living with their husband
▪ Women who were Pregnant for the first time

General objective: Promoting Reproductive health Knowledge among Pregnant women

Specific objectives
▪ To find out the demographic profiles of the Selected sample
▪ To find out the Knowledge levels of the Selected sample with regard to Reproductive health
▪ To develop suitable IEC material for promoting Reproductive health among the selected sample
▪ To conduct Knowledge based Intervention programme to the selected sample
▪ To assess the impact of the Intervention programme on the Knowledge levels of the selected sample

Research strategy adopted: In order to achieve the above objectives, Knowledge based Intervention programmes (20) were organized for the Pregnant women, using the developed IEC material.

Research tools Details
1. **SES scale** developed by Aggrawal, *et al.* (2005) was used to find out the SES of the Rural families. Scoring was given as per the norms provided in the manual. It is a standardized scale, used to assess the family background information of the individuals, which includes parameters like educational and occupational status of parents, number of siblings, material possession, kind of locality, presence of farm animals, land holdings, number of earning members in the family etc. The scale categorizes the sample on: Upper High; High; Upper middle; Lower middle; Poor and Very poor Socio Economic Status.
2. **Reproductive health awareness checklist** was developed by AICRP-CD, Hyd Unit (2017) to find out the Knowledge levels of Married women with regard to Reproductive health issues. The Reliability Value of the checklist is: 0.81. The checklist comprises of 5 dimensions:

i) Pre-conception Health: It is the First dimension and has 26 statements. It measures the knowledge levels of the sample in the following 4 areas: Preparation for Parenthood (7 statements); Factors that Boost Preconception Health (8 statements); Preparedness for pregnancy (5 statements); and Preconception Behaviours (6 statements).

ii) Reproductive health problems: It is the Second dimension and has 31 statements. It measures the knowledge levels of the sample in the following 4 areas: Menstrual problems (9 statements); Menstrual hygiene practices (6 statements); Potential risks to health due to poor menstrual hygiene (4 statements); Gynecological problems (12 statements).

iii) Family planning: It is the Third dimension and has 17 statements. It measures the knowledge levels of the sample in the following 3 areas: Family Planning Methods (5 statements); Purpose of following Family planning methods (4 statements); Contraceptive related problems (8 statements).

iv) Sexually Transmitted Diseases: It is the Fourth dimension and has 36 statements. It measures the knowledge levels of the sample in the following 5 areas:Awareness about HIV/AIDS & related problems (8 statements); Awareness about RTI/STD related problems (11 statements); Awareness about transmission of HIV / AIDS (9 statements); Preventive methods for HIV/AIDS (3 statements); Preventive methods for RTI/STD (5 statements).

v) General: It is the Fifth dimension and has 30 statements. It measures the knowledge levels of the sample in the following 3 areas: Services Related to Reproductive Health (10 statements); Awareness about marital laws & legal rights (9 statements); Awareness about Reproductive rights (11 statements).
There are all together 140 statements (all 5 dimensions). Each statement is arranged on 3 point scale ie aware is marked as 3; aware but not sure 2; Not sure as 1. The total scores were further grouped as Low, Average and high. Higher the score, higher is the level of Knowledge in that particular dimension.

Research Findings
Demographic data on Pregnant women (Primi-gravida):
There were 961 married women from the selected clusters of adopted villages, Maheshwaram mandal, RR district. Out of 961 married women, 8% (80) were pregnant women (First time) and 75 formed the sample for the present study.

Table 1: Age wise distribution of the sample (N=75)

16 -19 yrs	20– 25 yrs	26– 30yrs	31 –35yrs
N & %	N & %	N & %	N & %
17 (23%)	37 (49%)	21 (28%)	---

The above table depicts the Age wise distribution of the sample (Pregnant women – Primi-gravida). Out of the total sample 75, slightlyless than half of (49%) were in the age range of 20-25 yrs; 28% were in the age group of 26-30 yrsand the remaining 23% were in the age group of 16-19 yrs.

Table 2: Education wise distributionof the sample (N=75)

Illiterate	Primary school	Secondary school	Inter	Degree Continuing
N & %	N & %	N & %	N & %	N & %
9 (12%)	13 (17%)	38 (51%)	11 (15%)	4 (5%)

The above table depicts the Education wise distribution of the sample (Pregnant women – Primi-gravida). Out of the total sample 75, half of (51%) completed Secondary school; 17% completed Primary school; 15% completed Inter and only 5% were pursuing their degree.

Table 3: Occupation wise distributionof the sample (N=75)

House wife N & %	Fully involved in agriculture N & %	Partially involved in agriculture N & %	Petit business N & %
38 (51%)	7 (9%)	27 (36%)	3 (4%)

The above table depicts the Occupation wise distribution of the sample (Pregnant women – Primi-gravida). Out of the total sample 75, half of (51%) the sample were housewives; 36% were partially involved in agriculture; 9% were fully involved in agriculture and only 4% were running petit business.

Table 4: Socio Economic Status of the sample (N=75)

Socio economic status classification	Score	Pregnant women (First time) (N=75)
Upper High	>76	----------------
High	61-75	2 (3%)
Upper middle	46-60	8 (10%)
Lower middle	31-45	45 (60%)
Poor	16-30	20 (27%)
Very poor	<15	--------------------

The above table depicts the Socio Economic Status of the sample (Pregnant women – Primi-gravida). Out of the total sample 75, more than half of (60%) the sample were in lower middle income level; 27% were in poor economic status; 10% were in upper middle income level and only 3% were in high income group.

Table 5: Reproductive Health Knowledge scores of Pregnant women (Primigravida)-Pretest scores

S. No	Reproductive Health awareness dimensions	Category	Score	Pregnant women (First time) N=75 (No & %)
A	Preconception Health (26 statements)	High	53-78	24 (32%)
		Average	27-52	40 (53%)
		Low	< 26	11 (15%)
B	Reproductive health problems (30 statements)	High	61-90	27 (36%)
		Average	31-60	36 (48%)
		Low	< 30	12 (16%)
C	Family planning(17 statements)	High	35-51	24 (32%)
		Average	18 - 34	37 (49%)
		Low	< 17	14 (19%)
D	Sexually transmitted diseases(36 statements)	High	73-108	26 (35%)
		Average	37-72	35 (46%)
		Low	< 36	14 (19%)
E	General (30 statements)	High	61-90	10 (13%)
		Average	31-60	41 (55%)
		Low	< 30	24 (32%)

The above table traces the pretest scores of Pregnant women with regard to Reproductive Health. The Self structured Checklist covers 5 dimensions.

With regard to Preconception Health dimension, out of 75 samples, more than half (53%) of the sample obtained Average scores; 32% obtained High scores and 15% obtained Low scores.

With regard to Reproductive health problem dimension, out of 75 samples, less than half (48%) of the sample obtained Average scores; 36% obtained High scores and 16% obtained Low scores.

With regard to Family planning dimension, out of 75 samples, less than half (49%) of the sample obtained Average scores; 32% obtained High scores and 19% obtained Low scores.

With regard to Sexually transmitted diseases dimension, out of 75 samples, less than half (46%) of the sample obtained Average scores; 35% obtained High scores and 19% obtained Low scores.

With regard to General dimension, out of 75 samples, slightly more than half (55%) of the sample obtained Average scores; 32% obtained Low scores and 13% obtained High scores.

Planning & preparing educational material: Based on the bench mark issues and pre-assessment results, videos, brochures, leaflets, resource books and educational posters were planned / developed on selected thematic areas.

Videos mainly focused on: Menstrual Hygiene; Sanitary napkin – Homemade procedure; Effective Family planning methods; Importance of Breast feeding; Care of the Newborn; Care during Pregnancy; Diet during Pregnancy; Immunization

Schedule to be followed; Transmission of AIDs; Transmission of STI/ RTI; Importance of Reproductive Health; Antenatal Care; Reproductive rights; Menstrual problems; Danger symptoms of Pregnancy; HIV prevention; Healthy pregnancy; Reproductive Health; Maternal & Child health services; Personal Hygiene during periods; Sanitation of sanitary pads / Methods of disposing sanitary pads/cloth; Managing Malnutrition in Children

Some of the intervention strategies used for promoting Reproductive Health Knowledge among the sample was:

group exercises, role plays, open ended stories, Brain storming, Group activities, Situation analysis, Case studies, Responding to real life situations and Group discussions etc.

Conducting programmes on Reproductive Health care: Knowledge based Capacity building programmes (25) were conducted for married women from the adopted villages on issues concerning Reproductive Health care.

Capacity building programmes

Impact of Knowledge based Intervention

Table 6: Reproductive Health Knowledge scores of Pregnant women (Primigravida) - Post assessment Scores:

s.no	Reproductive Health awareness dimensions	Category	Score	Pregnant women (First time) N=75 (No & %)
A	Preconception Health (26 statements)	High	53-78	40 (53%)
		Average	27-52	32 (43%)
		Low	< 26	3 (4%)
B	Reproductive health problems (30 statements)	High	61-90	37 (49%)
		Average	31-60	35 (47%)
		Low	< 30	3 (4%)
C	Family planning(17 statements)	High	35-51	42 (56%)
		Average	18 - 34	30 (40%)
		Low	< 17	3 (4%)
D	Sexually transmitted diseases(36 statements)	High	73-108	38 (51%)
		Average	37-72	32 (43%)
		Low	< 36	5 (6%)
E	General (30 statements)	High	61-90	40 (54%)
		Average	31-60	28 (37%)
		Low	< 30	7 (9%)

The above table traces the post-test scores of Pregnant women with regard to Reproductive Health Knowledge.

With regard to Preconception Health dimension, out of 75 samples, more than half (53%) of the sample obtained High scores; 43% obtained Average scores and only 7% obtained Low scores.

With regard to Reproductive health problem dimension, out of 75 samples, less than half (49%) of the sample, obtained High scores; 47% obtained Average scores and only 4% obtained Low scores.

With regard to Family planning dimension, out of 75 samples, more than half (56%) of the sample obtained High scores;

40% obtained Average scores and only 4% obtained Low scores.

With regard to Sexually transmitted diseases dimension, out of 75 samples, slightly more than half (51%) of the sample obtained High scores; 43% obtained Average scores and only 6% obtained Low scores.

With regard to General dimension, out of 75 samples, more than half (54%) of the sample obtained High scores; 37% obtained Average scores and only 9% obtained Low scores.

Reproductive Health knowledge scores of Pregnant women (First time pregnant) – Dimension & category wise
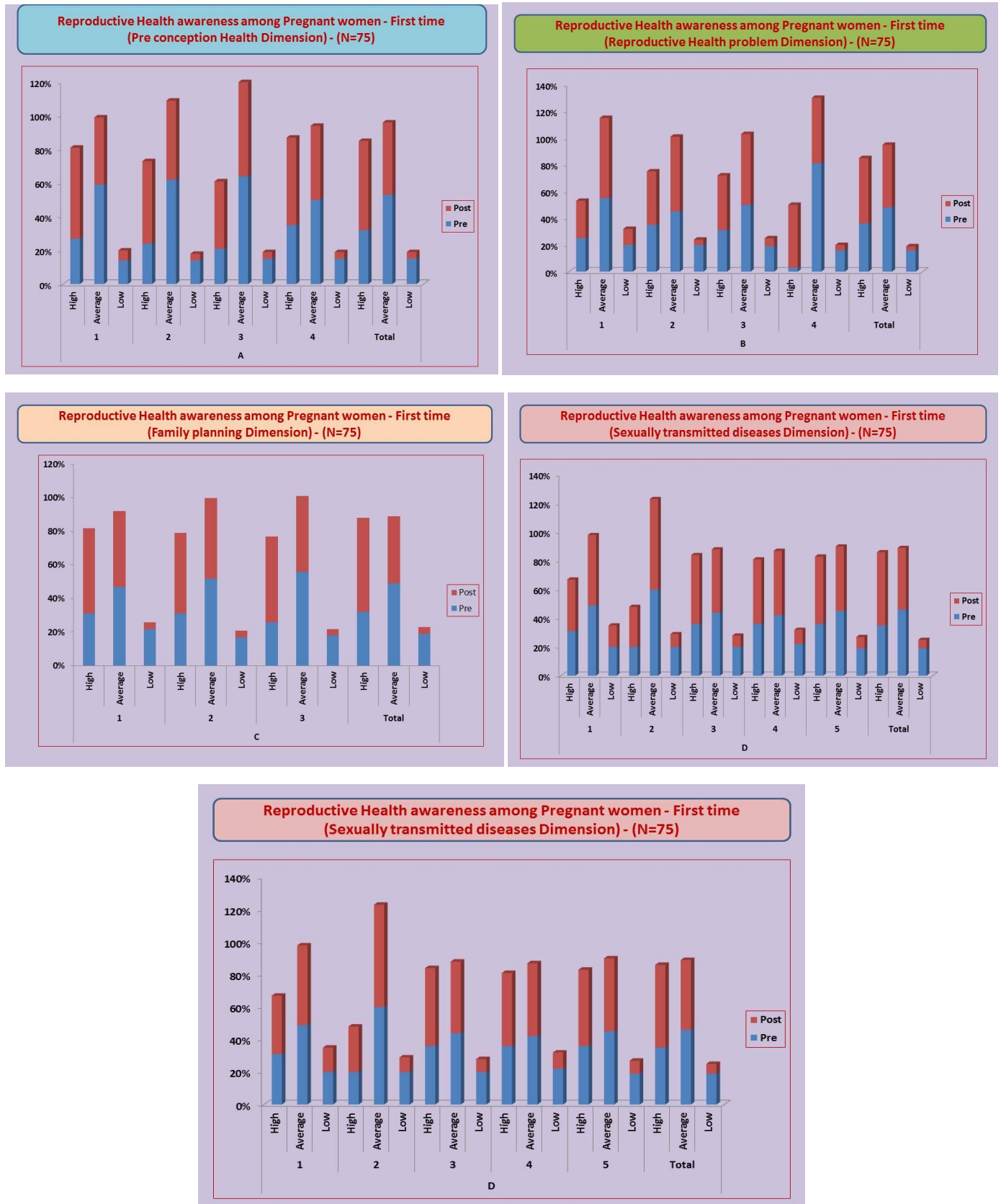
Reproductive Health awareness among Pregnant women - First time (Pre conception Health Dimension) - (N=75)

Reproductive Health awareness among Pregnant women - First time (Reproductive Health problem Dimension) - (N=75)

Reproductive Health awareness among Pregnant women - First time (Family planning Dimension) - (N=75)

Reproductive Health awareness among Pregnant women - First time (Sexually transmitted diseases Dimension) - (N=75)

Reproductive Health awareness among Pregnant women - First time (Sexually transmitted diseases Dimension) - (N=75)

Table 7: Reproductive health Knowledge scores (Pre & Post) of Pregnant women (Primigravida) (N=75) – Dimension and Sub-dimension wise

Dimensions	Sub-Dimensions	Raw scores		Mean		SD		Mean differences (P1-P)	T values
		(P)	(P1)	(P)	(P1)	(P)	(P1)		
Pre-conception Health (includes 4 dimensions)	A (PP)	933	1058	12.44	14.11	3.30	3.48	1.67	4.39**
	B (PCH)	1035	1179	13.8	15.72	3.51	3.51	1.92	1.07**
	C (PP)	649	729	8.65	9.72	2.29	2.25	1.07	5.73**
	D (PB)	846	934	11.28	12.45	3.29	3.01	1.17	0.01NS
	Total	3463	3900	46.17	52	11.33	10.85	5.83	1.61**

Reproductive health problems (includes 4 dimensions)	A (MP)	1192	1231	15.89	16.41	4.66	4.40	0.52	0.06NS
	B (MHP)	817	876	10.89	11.68	3.36	2.95	0.79	5.33**
	C (PR-MH)	552	596	7.36	7.95	2.11	2.05	0.59	0.02NS
	D (GP)	1688	1806	22.50	24.08	6.53	6.18	1.58	0.05NS
	Total	4249	4509	56.65	60.12	15.12	13.68	3.47	9.80**
Family planning (includes 3 dimensions)	A (FPM)	666	772	8.88	10.29	2.81	2.63	1.41	5.67**
	B (PFPM)	555	628	7.4	8.37	2.56	2.22	0.97	8.52**
	C (CP)	1081	1233	14.41	16.44	4.59	4.26	2.03	6.83**
	Total	2302	2633	30.69	35.12	8.86	8.22	4.43	4.48**
Sexually transmitted diseases (includes 5 dimensions)	A (HIV/AIDS)	1038	1076	13.84	14.35	3.77	4.04	0.51	0.04NS
	B (RTI/STD)	1367	1451	18.22	19.35	4.54	4.63	1.13	8.74**
	C (T-HIV/AIDS)	1229	1352	16.38	18.03	5.07	4.84	1.65	3.18**
	D (PM-HIV/AIDS)	429	469	5.72	6.25	2.01	1.90	0.53	3.28**
	E (PM -RTI/STD)	714	773	9.52	10.31	3.08	2.95	0.79	0.04NS
	Total	4777	5121	63.69	68.28	16.88	16.15	4.59	7.61**
General (includes 3 dimensions)	A (RHS)	1209	1356	16.12	18.08	4.85	5.68	1.96	2.10**
	B (M&LR)	1137	1385	15.16	18.47	5.14	5.16	3.31	2.17**
	C (RR)	1397	1733	18.62	23.12	6.68	6.78	4.5	6.78**
	Total	3743	4474	49.90	59.65	15.73	16.45	9.75	1.37**

Note: ** at 1% level of significance

Abbreviations

1. Pre-conception Health	A:Preparation for Parenthood	B:Factors that Boost Preconception Health	C:Preparedness for pregnancy	D:Preconception Behaviours	-------
2. Reproductive health	A: Menstrual problems	B:Menstrual hygiene practices	C:Potential risks to health due to poor menstrual hygiene	D:Gynecological problems	----------
3. Family planning	A:Family Planning Methods	B:Purpose of following Family planning methods	C:Contraceptive related problems	----------	----------
4. STD	A:Awareness about HIV/AIDS &related problems	B:Awareness about RTI/STD related problems	C:Awareness about transmission of HIV / AIDS	D:Preventive methods for HIV/AIDS	E:Preventive methods for RTI/STD
5. General	A:Services Related to Reproductive Health	B:Awareness about marital laws & legal rights	C:Awareness about Reproductive rights	----------	----------

The above table presents the Pre & Posttest (Raw scores, Means, SD and T values) Scores of Pregnant women (Pregnant 1st time) with regard to Sub-dimensions under Reproductive Health Care. The table shows the progressive increase in the total raw scores across pre-test to post-test, along with the increase in the mean differences, which shows the impact of intervention programme. T values between the two means of pre-test and post-test was found to be highly significant, as the calculated values were found to be greater than the tabulated value. The results reflect the effectiveness of Intervention programmes on the Knowledge levels of Married women with reference to Reproductive Health.

Mean scores (Pre & Post) of Pregnant women on Reproductive Health care - Dimension wise (N = 75)
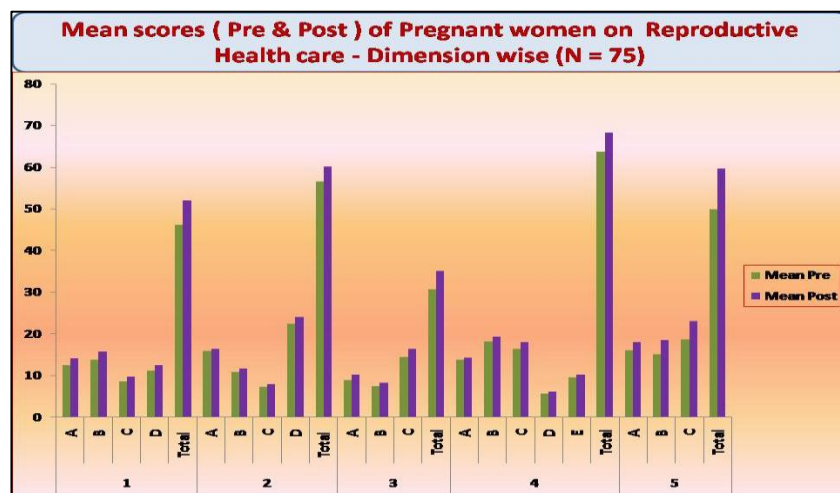
Conclusion

The results of the study suggest that reproductive health education by health professionals can improve the knowledge and perceptions of Pregnant women especially in rural areas. Such educational intervention programs must be given due importance, which will help the Pregnant women to take care of their own health and protect themselves from the risk of STDs etc.

Effective sex awareness programmes should start early in young people before they have developed established patterns of behaviour. Reproductive health should be an integral part of education and objective of this education should be to reduce the adverse outcome from sexual behaviour such as unwanted and unplanned pregnancies, and infections of reproductive tract including H.I.V. The symptoms; modes of transmission and preventive aspects of infections of reproductive tract should be stressed as they can influence their fertility and health.

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