



“A STUDY TO ASSESS THE EFFECTIVENESS OF ANTENATAL HEALTH PROMOTION INTERVENTION IN TERMS OF SELF-CARE PRACTICE AMONG PREGNANT WOMEN IN COMMUNITY HEALTH CENTER, DOIWALA, DEHRADUN, UTTARAKHAND”

¹Yogyata Kandwal ²Dr. Kanchan Bala ³Mrs. Shobha Masih

¹M.Sc. Nursing, Obstetrics and Gynaecological Nursing, Himalayan College of Nursing, Swami Rama Himalayan University, Jollygrant Dehradun, Uttarakhand, India

²Assistant Professor, Obstetrics and Gynaecological Nursing, Himalayan College of Nursing, Swami Rama Himalayan University, Jollygrant Dehradun, Uttarakhand, India

³Assistant Professor, Community Health Nursing, Himalayan College of Nursing, Swami Rama Himalayan University, Jollygrant Dehradun, Uttarakhand, India

ABSTRACT

Introduction: Health promotion is a vital component for women's health and well-being, especially in pregnancy. Maternal and fetal health are vital for the welfare of next generations; it can help in predicting the upcoming challenges for the country and denotes the overall health status of a country. The goals of prenatal care for women with uncomplicated pregnancy are to provide adequate guidance, education, reassurance and support to identify and manage minor pregnancy problems and to provide effective screening during pregnancy. Pregnancy is a great time to start making lifestyle modifications and encourage a healthier life. Antenatal health promotion intervention is needed at an early stage of pregnancy to reduce mother and foetal mortality attributable to preventable causes.

Title of the study: A study to assess the effectiveness of antenatal health promotion intervention in terms of self-care practice among pregnant women in community health center, Doiwala, Dehradun, Uttarakhand.

Material and methods: Quasi-experimental Research approach with one group pre-test post-test design was used for the study. Purposive sampling technique was used to select 80 pregnant women fulfilling the inclusion criteria. Pre-test was obtained using socio-demographic tool and self-reported self-care practice checklist followed by the antenatal health promotion intervention given to the pregnant women. The post-test was obtained on 7th day after intervention was given. Descriptive and inferential statistics was used for data analysis.

Results: Post-test self-care practice mean (33.46 ± 6.627) on antenatal health promotion was maximum than the pre-test self-care practice mean (30.83 ± 6.640). The overall mean difference in pre-test and post-test self-care practice was 2.65. There was a significant relationship discovered between levels of self-care practice with gestational age of pregnant women ($p=.001$). There was a significant weak positive correlation seen ($r=0.11$) between knowledge and self-care practice regarding antenatal health promotion among pregnant women.

Conclusion: According to the study's findings, there was a significant rise in pregnant women's post-test level of self-care practice scores regarding antenatal health promotion. The Antenatal Health Promotion Intervention was helpful in enhancing pregnant women's self-care practice and health promotion behaviours.

Keywords: Self-care Practice, Antenatal Health Promotion Intervention

1. INTRODUCTION

1.1 Background of the study

Health promotion is a vital component for both men's and women's health and well-being, especially in pregnancy. Promotion of maternal and foetal well-being and a happy pregnancy are the primary goals of prenatal health promotion. Safe pregnancy with safe newborn is predicted only upon achieving good pregnancy care and for improved neonatal outcomes antenatal health promotion at an early stage is needed. Healthy pregnancy behaviours are linked to both immediate and long-term health advantages for both the mother and the baby. The goals of prenatal care for women with uncomplicated pregnancy are to provide adequate guidance, education, reassurance and support to identify and manage minor pregnancy problems and to provide effective screening during pregnancy. The healthcare service provider should ensure that the pregnant woman and family have all of the information needed to make informed decisions about health during pregnancy, labour and the postpartum/newborn period. Risk assessment, preventing and management of pregnancy related concurrent illnesses as well as health education and promotion are all part of antenatal care. Pregnancy is a great time to start making lifestyle modifications and encourage a healthier life. Women who are using healthcare services for prenatal care are more open to receiving health information. As according today's standards all pregnant women should be informed about the key parameters that may influence pregnancy outcomes. Simply following health-related advice throughout pregnancy has been found to reduce the risk of gestational diabetes mellitus, pre-eclampsia and physical pregnancy symptoms as well as enhance psychological wellbeing of the mother. Good health started before pregnancy and is the strongest foundation for women's and their child's developmental health. Prenatal care can be planned better when a pregnancy is detected early. Early pregnancy detection has multiple benefits both for mother and foetus. Many health benefits, including behavioral and emotional well-being. The provision of prenatal health education has been proven to be a significant element of prenatal care. This method has been linked to a wide range of maternal and child outcomes including lower preterm and low birth weight as well as higher rates of breastfeeding initiation and progression. During Prenatal visit, pregnant mothers require antenatal education to address various areas of pregnancy, delivery and infant care. Practitioners, care managers and midwives must use stronger structured interventions.

1.2 Need for the study

Approximately 800 women worldwide die every day due to pregnancy-related avoidable causes; 20 % of these women are from India. Every year in India, it is estimated that 44, 000 women die from pregnancy-related conditions that might have been avoided (WHO India 2016). India's 2014-16 maternal mortality rate was 93 death per 100,000 live birth, data given by NITI Ayog. According to antenatal health survey of Uttarakhand, maternal mortality rate of 162 death per 100,000 live birth in 2015. Three-quarters (75%) of pregnant women had prenatal care from a qualified professional, while 22 % of pregnant women did not receive any prenatal care. Pregnant women's understanding of prenatal care, as well as their adherence to it, is critical in reducing mother and newborn mortality and morbidity. To improve maternal health, barriers to access to effective maternal health treatments must be addressed correctly at all levels of healthcare. Women require information regarding their health status and the need of adequate prenatal care. Every year, out of 200 million pregnant women in underdeveloped countries, many suffer from nutritional inadequacies that have a negative impact on both the woman and her newborn infant. As a result, good diet throughout pregnancy is essential for a healthy pregnancy and baby. In order to sustain a healthy pregnancy, the mother's diet must be properly balanced in order to provide the foetus with essential energy and nutrients. In India, low birth weight has been connected to widespread maternal malnutrition, according to researchers. The association between birth weight and maternal nutrition must be better understood before effective treatments to promote birth weight and favourable neonatal outcomes in pregnancy can be planned and implemented. Antenatal health promotion intervention is needed at an early stage of pregnancy to reduce mother and foetal mortality attributable to preventable causes.

2. MATERIAL AND METHOD

The primary goal of this study report was to assess the efficacy of an antenatal health promotion intervention on pregnant women's self-care practice regarding antenatal health promotion. A Quasi-experimental one group pre-test post-test research design with a quantitative research approach was used for the present study. Non-probability purposive sampling technique was used to select 80 pregnant women up to 34th week of pregnancy visiting the prenatal clinic of Community Health Center, Doiwala, Dehradun and Uttarakhand. The data collection started from 17 February 2021 to 13 March 2021. To elicit a true response, pregnant women's were briefed about the study objectives, purpose and they were ensured of the confidentiality of their responses. Data was collected through semi-structured interview method using socio-demographic tool and self-reported self-care practice checklist regarding antenatal health promotion. After the pre-test, pregnant women were given antenatal health promotion intervention and after that an informational booklet was provided to them. On 7th day post-test was collected from the study participants.

3. RESULT

Table 1: Frequency and percentage distribution of socio-demographic profile and pregnancy related data of pregnant women

(n=80)

S.No	Demographic Profile	Frequency (f)	Percentage (%)
A.1 Socio-demographic characteristics			
1	Age of pregnant women a. 19 - 23 years b. 24 - 28 years c. 29 - 33 years d. 34 - 38 years	22 38 18 2	27.5% 47.5% 22.5% 2.5%
2	Religion of pregnant women a. Hindu b. Muslim c. Sikh d. Christian	67 13 0 0	83.8% 16.3% 0 0
3	Education qualification a. No formal education b. Primary education c. Secondary education d. Graduation e. Post-graduate and above	8 10 31 25 6	10% 12.5% 38.8% 31.3% 7.5%
4	Occupation a. Home maker b. Daily wages c. Self-employed d. Service (Govt/ private)	71 3 1 5	88.8% 3.8% 1.3% 6.3%
5	Family type a. Joint family b. Nuclear family c. Extended family	39 22 19	48.8% 27.5% 23.8%
6	Dietary pattern a. Vegetarian b. Non- vegetarian c. Mixed	27 2 51	33.8% 2.5% 63.8%
7	Residential place a. Rural area b. Urban area c. Semi-rural area	73 4 3	91.3% 5% 3.8%
8	Occupation of the husband a. Daily wages b. Service (Govt/ Private) c. Self-employed	26 37 17	32.5% 46.3% 21.3%
9	Monthly family income a. 5000 - 10,000 Rupees b. 10,001 - 15,000 Rupees c. 15,001 - 20,000 Rupees d. 20,001 - 25,000 Rupees e. 25,001 - 30,000 Rupees	51 16 10 0 3	63.8% 20% 12.5% 0 3.8%
10	Education of husband a. No formal education b. Primary c. Secondary d. Graduate e. Post-graduate and above	9 14 38 15 4	11.3% 17.5% 47.5% 18.8% 5%
A.2 Pregnancy related data			
11	Is your current pregnancy planned? a. Yes b. No	44 36	55% 45%
12	Gravida of pregnant women a. Primigravida b. Multigravida	35 45	43.8% 56.3%
13	Gestational age of pregnant women a. 1-13 weeks (first trimester) b. 14-27 weeks (second trimester) c. 28-34 weeks (third trimester)	26 30 24	32.5% 37.5% 30%

14 (a)	Do you have any previous knowledge regarding antenatal health?		
	a. Yes	26	32.5%
	b. No	54	67.5%
14 (b)	If yes, please specify:		
	a. Previous pregnancy experience	16	20%
	b. Sister's pregnancy experience	1	1.25%
	c. Mother-in-law	1	1.25%
	d. Anganwadi	1	1.25%
	e. ASHA	4	5%
	f. Nurse by profession	3	3.75%
15 (a)	Do you know the sources of getting right pregnancy related information?		
	a. Yes	28	35%
	b. No	54	65%
15 (b)	If yes, please specify:		
	a. Hospital	7	8.75%
	b. Doctor	11	13.75%
	c. Nurse/Midwife	1	1.25%
	d. ASHA/ANM	5	6.25%
	e. Anganwadi	2	2.5%
	f. Dai	1	1.25%
	g. Mother-in-law	1	1.25%
16 (a)	Did you attend any antenatal class?		
	a. Yes	7	8.8%
	b. No	73	91.3%
16 (b)	If yes, then specify:		
	a. At Anganwadi by ASHA	7	8.8%
17 (a)	Do you want any other information regarding pregnancy?		
	a. Yes	24	30%
	b. No	56	70%
17 (b)	If yes, then specify:		
	a. Childbirth process	8	10%
	b. Childbirth in 2 nd pregnancy	1	1.25%
	c. Danger signs in pregnancy	1	1.25%
	d. Diet during pregnancy	5	6.25%
	e. Sleep during pregnancy	1	1.25%
	f. National education schemes for girls	1	1.25%
	g. Minor ailments in pregnancy	3	3.75%
	h. Methods of family planning	2	2.5%
	i. Everything regarding pregnancy	2	2.5%

Objective 1: To assess the self-care practice regarding antenatal health promotion among pregnant women.

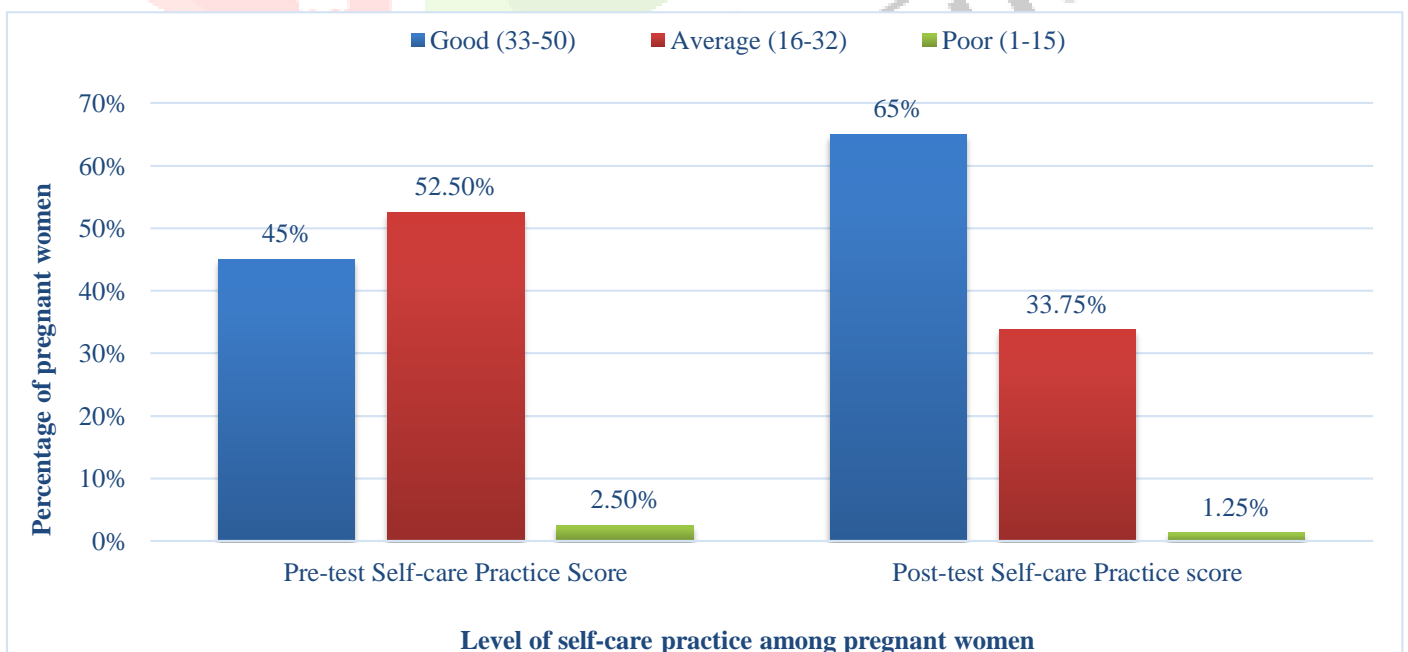


Figure 1: Comparing pre-test and post-test level of self-care practice regarding antenatal health promotion among pregnant women according to arbitrary scoring (n=80)

Data presented in the figure no. 5 shows the arbitrary scoring of level of self-care practice regarding antenatal health promotion among pregnant women at pre-test and post-test level. In pre-test self-care practice score 45% pregnant women had good self-care practice, 52.50% had average self-care practice and 2.50% had poor self-care practice regarding antenatal health promotion. At post-test level 21.25% had good self-care practice, 66.25% had average self-care practice and 12.50% had poor self-care practice regarding antenatal health promotion among pregnant women.

Table 2: Overall mean, standard deviation, mean difference and mean percentage distribution of self-care practice level regarding antenatal health promotion among pregnant women (n=80)

Overall Practice Level Score	Max. score	Range of score	Mean \pm S.D	Mean Diff.	Mean %
Pre-test	50	11 - 43	30.81 \pm 6.75	2.65	61.62%
Post-test		15 - 43	33.46 \pm 6.27		66.92%

Data presented in Table no.2 the mean and standard deviation for pre-test self-care practice level was 30.81 \pm 6.75 while in post-test score it was observed to be 33.46 \pm 6.27. The overall mean difference in pre-test and post-test self-care practice was 2.65

Table 3: Mean, standard deviation, mean difference and mean percentage distribution of domain wise pre-test self-care practice level of pregnant women regarding antenatal health promotion (n=80)

S.No	Knowledge Domains	Max Score	Range of score		Mean \pm S.D		Mean Diff.	Mean %	
			Pre	Post	Pre	Post		Pre	Post
1	Antenatal visits	2	0-2	0-2	1.4 \pm 6.674	1.55 \pm .654	0.15	70%	77.5%
2	Maternal assessment Investigation	9	0-9	0-9	5.78 \pm 2.619	6.14 \pm 2.396	0.36	63.3%	68.2%
3	Immunization	3	0-3	0-3	1.96 \pm 1.237	1.96 \pm 1.237	0	65.3%	65.3%
4	Antenatal advices	11	3-8	0-8	8.71 \pm 1.234	9.26 \pm 1.376	0.55	79.2%	84.2%
5	Nutrition in pregnancy	7	0-7	0-7	5.24 \pm 1.520	5.46 \pm 1.509	0.22	74.8%	78%
6	Supplementation during pregnancy	5	0-5	0-5	3.16 \pm 1.345	3.29 \pm 1.361	0.13	72%	65.8%
7	Physical activity	2	0-2	0-2	0.7 \pm 0.537	0.74 \pm .545	0.04	35%	37%
8	Rest and sleep	3	0-3	0-3	2.10 \pm .773	2.13 \pm .769	0.03	70%	71%
9	Preparation for labor	8	0-6	0-6	1.71 \pm 1.443	2.94 \pm 1.701	1.23	28.5%	48.3%

Data presented in Table no. 3 shows pre-test and post-test level of self-care practice regarding antenatal health promotion among pregnant women according to the domains. In pre-test self-care practice score the maximum mean score was observed in antenatal advices (8.71 \pm 1.234) and the lowest mean score was observed in physical activity (0.7 \pm 0.537); while in post-test self-care practice score the highest mean score was observed in antenatal advices (9.26 \pm 1.376) and the lowest mean score was observed in physical activity(0.74 \pm .545).

Objective 2: To assess the effectiveness of antenatal health promotion intervention on knowledge and self-care practice among pregnant women.

Table 4: Effectiveness of antenatal health promotion intervention on self-care practice regarding antenatal health promotion among pregnant women (n=80)

Self-care Practice score	Mean \pm S.D	Mean diff.	t-value
Pre-test scores	30.83 \pm 6.640	2.63	11.363
Post test scores	33.46 \pm 6.627		

$t_{79}=1.664$ at level of $p < 0.05$

Table no. 4 shows that post-test self-care practice mean (33.46 \pm 6.627) on antenatal health promotion was maximum than the pre-test self-care practice mean (30.83 \pm 6.640) and the mean difference was 2.63. The calculated value (11.363) was higher than tabulated value (1.664). Since the post-test mean self-care practice was higher than the pre-test mean self-care practice. Hence research hypothesis accepted and it can be inferred that antenatal health promotion intervention was effective.

Objective 3: To find the association between self-care practice scores regarding antenatal health promotion Intervention among pregnant women with their selected demographic variables.

Table 5: Association between pre-test level of self-care practice regarding antenatal health promotion among pregnant women with their selected demographic variables (n=80)

S.No.	Sample Variable	Below median	At & above median	χ^2	p
1	Age a. 19-28 years b. 29-28 years	31 7	29 13	1.67	0.19
2	Religion a. Hindu b. Others	34 4	33 9	1.74	0.18*
3	Education qualification a. No formal education b. Primary and above	9 29	9 33	0.05	0.80
4	Occupation a. Home maker b. Employed	34 4	37 5	0.00	1.00*
5	Family type a. Joint family b. Nuclear family	29 9	29 13	0.52	0.46
6	Dietary pattern a. Vegetarian b. Non-vegetarian	12 26	15 27	0.15	0.69
7	Place of residence a. Rural place b. Urban place	36 2	40 2	0.00	1.00*
8	Occupation of husband a. Daily wages b. Service (Govt/ Private) c. Self-employed	11 18 9	15 19 8	0.50	0.77
9	Family Income/month a. ≤10,000 Rupees/month b. >10,001 Rupees/month	25 13	26 16	0.13	0.71
10	Education of husband a. No formal education b. Primary and above	9 29	14 28	0.90	0.34
11	Is your current pregnancy planned? a. Yes b. No	20 18	24 18	0.16	0.68
12	Gravida of pregnant women a. Primigravida b. Multigravida	17 21	18 24	0.03	0.86
13	Gestational age of pregnant women a. 1-13 weeks (1 st Trimester) b. 14-27 weeks (2 nd Trimester) c. 28-34 weeks (3 rd Trimester)	19 14 5	7 16 19	13.67	0.001 [#]
14	Do you have previous knowledge regarding antenatal health? a. Yes b. No	11 27	15 27	0.41	0.51
15	Do you know the sources of getting right pregnancy related information? a. Yes b. No	10 28	18 24	2.39	0.12
16	Did you attend any antenatal class? a. Yes b. No	1 37	6 36	2.09	0.14*

$df_1=3.84$ $df_2=5.99$ *Yate's Correction #p value at level of significance <0.05

Table no. 5 presents description of the relationship between self-care practice scores and their chosen demographic component. The Chi-square test was used to determine the relationship between self-care practice scores and selected demographic factors. There was a significant relationship discovered between levels of practice and gestational age in pregnant women (p=.001). As a result, it can be concluded that gestational age had an effect on self-care practice score in this study. Hence, null hypothesis was partially rejected and the research hypothesis was partially accepted.

4. DISCUSSION

The range of self-care practice score regarding antenatal health promotion among pregnant women at pre-test level were (11-43) and post-test knowledge were (15-43). The level of knowledge was categorized into three level good (33-50), Average (16-32), Poor (1-15). The pre-test self-care practice score 45% pregnant women had good self-care practice, 52.50% had average self-care practice regarding antenatal health promotion and 2.50% had poor self-care practice regarding antenatal health promotion. At post-test level 21.25% had good self-care practice, 66.25% had average self-care practice and 12.50% had poor self-care practice regarding antenatal health promotion among pregnant women. The research findings were supported by Sitalakshmi et al. According to the findings of the research study, 26% of women had completed three antenatal appointments. When asked if they take iron and folate throughout pregnancy, 87.2 percent replied yes, while 11% said no. 24.2 percent said they slept for 5-6 hours per day, 35.4 percent said they slept for 7 to 8 hours per day, and 35.6 percent said they slept for more than 8 hours per day. Health promotion is a vital aspect of nursing practice, nurses working in hospital and community health center can provide information and timely help the women during the antenatal period, teaching the antenatal mothers on preventive and promotive care during pregnancy. The data of the study findings could be used by nurses, doctors, midwives or nursing students to prepare an educational material for pregnant women, Antenatal care guidelines should be implicated in maternal health nursing curriculum so that nursing students could gain new evidence based knowledge and could educate mothers in clinical. Hospital obstetrics unit can prepare pamphlets containing information which are mostly asked by pregnant women, Along with antenatal visits pregnant women should be provided with a booklet in which she can maintain a health record of her pregnancy. These findings provide nurses a background data regarding the surrounding population, which can help the nurses to prepare any guideline or policy for the hospital which can help the women in need, Provides future basis for the nursing research in the respected area of antenatal care or a detailed experimental study in specific health promotion behaviour, Health camps can be organized and information can be provided to married women regarding antenatal health promotion.

5. CONCLUSION

According to the study's findings, the majority of pregnant women had an average level of self-care practice regarding prenatal health promotion. Pregnant women's self-care practice regarding prenatal health promotion increased significantly at post-test level. The Antenatal Health Promotion Intervention improved pregnant women's self-care practices. Hence, the intervention was effective in increasing the self-care practice behaviors of the pregnant women in accordance with their antenatal health promotion. Also, there was an association found between gestational age with self-care practice at <0.005 level of significance.

6. REFERENCES

1. Dutta D.C. Textbook of obstetrics. 9th Edition. New Delhi: Jaypee publishers; 2019.
2. Al-Ateeq, Al-Rusaies M, Amal. Health education during antenatal care: The need for more. International journal of women's health. 2019; 7; 239-242.
3. Pandey S, Singh A, Gaur A. Utilization of maternal health care services in Uttarakhand A comparative study between two divisions: kumaun and Garhwal. International Journal of Integrated Medical Sciences. 2019; 6; 1; 760-764.
4. Centers for Disease Control and Prevention. Recommendations to improve preconception health and health care - United States: A report of the Preconception Care Work Group and the Select Panel on Preconception Care. 2006; 55:1-23.
5. Kaur A, Singh J, Kaur H, Kaur H, Devgun P, Gupta VK. Knowledge and practices regarding antenatal care among mothers of infants in an urban area of Amritsar, Punjab. International journal of community medicine and public health. 2018; 5; 10.
6. Herval, Moreira A, Oliveira, Peruzzo D, Graduanga D, Gomes, Elisângela V, Duarte AM. Health education strategies targeting maternal and child health, Medicine. 2019; 98; 26; 161-174
7. Poma P A. Early detection of pregnancy. Journal of the National Medical Association. 76, 3: 305, 308-9, 314.
8. Özge T, Rosas P, Lawrie, Bucagu T, Oladapo M, Portela O, Gülmezoglu A. WHO recommendations on antenatal care for a positive pregnancy experience - going beyond survival. BJOG: An International Journal of Obstetrics & Gynaecology 2017. 124.
9. Rani, Reddi P, and Begum J. Screening and Diagnosis of Gestational Diabetes Mellitus, Where Do We Stand. Journal of clinical and diagnostic research. 2016. 10; 4; 1-4.
10. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva World Health Organization. 2016
11. Myles textbook for midwives. 16th ed. United Kingdom: Elsevier limited; 2014. Pregnancy [3] antenatal care; 179-188.
12. Sitalakshmi, Vuppu et al. Study on knowledge, attitude and practice of ante-natal care among pregnant women attending antenatal tertiary care institution. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2020 v. 9, n. 3, p. 1169-1180.