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STUDY OF COMPARISON BETWEEN TEENAGE PREGNANCY AND NORMAL PREGNANCY IN NUTRITIONAL STATUS AND HEALTH STATUS

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ABSTRACT
Pregnancy is one of the most important periods of a woman's life and is influenced by many different factors. For years, it was assumed that teenage pregnancy can cause poor pregnancy outcome. Teenage mothers are at high risk of maternal and neonatal complications include maternal anaemia, hypertensive disease in pregnancy, preterm birth, urinary tract infection, low birth weight, neonatal mortality etc. Teenage pregnancy only and delivery are not associated with adverse pregnancy outcomes, but also associated with poor education, increase health care costs and living in poverty. This study find out the incidence of teenage pregnancy & analysis the different health complication and impact of nutrition on health between teenage pregnant mother (15 to 19 years) and adult pregnant mother. (20 to 30 years)
Keywords: Teenage pregnancy, Pregnancy outcome, Preterm delivery, Placental abruption, Energy requirement, Placenta previa.

INTRODUCTION

Adolescent pregnancy has been defined as a pregnancy in women aged between 13-19 years [1] and as a social problem distributed worldwide, has serious implications on maternal and child health, especially in the developing countries [2]. More than 16 million babies (11% of all births globally) are born to adolescent girls [3]

Globally, adolescent birth rates for every 1000 births in the year 2016 were 0.045 in the World, 0.047 in Arab World 0.038 in the Middle East & North Africa, 0.022 in OECD members, 0.020 in North America, 0.019 in Asia, 0.010 in European Union. Among all countries of the world, the highest rate (206/1000) belongs to Niger. The countries with the lowest birth rates among adolescents in the range of age 15-19 are Slovenia and Denmark (0.004), Hong Kong and Switzerland (0.003), South Korea (0.002). In our country, the adolescent birth rate was 0.017 in the year 2016 [4].

Teenage mothers are at high risk of maternal and neonatal complications include maternal anaemia, hypertensive disease in pregnancy, preterm birth, urinary tract infection [5], postpartum haemorrhage, eclampsia and cephalopelvic disproportion, as well as adverse infant outcomes including preterm birth, poor fatal growth, low birth weight, neonatal mortality [6], respiratory diseases and birth trauma, besides a higher frequency of neonatal complications and infant mortality [7].

Although adolescent pregnancies, especially unintended pregnancies, might carry a greater risk of adverse consequences in developing countries with limited health resources and restrictive abortion laws, pregnancy and childbirth among young women in developed countries can also pose challenges to their social, economic and physical well-being. Studies on complications in teenage pregnancy have yielded conflicting results, and opinions of different authors vary in this regard [8], [9]. Given the characteristics of adolescence, pregnancy during the period is different from other age groups and creates different feelings in women. Pregnancy during adolescence is considered a social issue associated with medical, emotional and social outcomes for the mother, child and family [10]. Early marriage, in some traditional rural communities, low educational level, low level of sexual education and contraceptive use, high rate of poverty are important factors in the rate of adolescent pregnancy. Adolescent mothers are more likely to have poor prenatal health behaviours and poorer health status [11].

In these group of women, pregnancy and delivery are not only associated with adverse pregnancy outcomes, but also associated with low school achievement, increased health care costs, and living in poverty. This study aimed to determine maternal, prenatal and neonatal outcomes in nulliparous singleton adolescent pregnancies compare to nulliparous singleton adult pregnancies aged 20-24 years.[12]

Teenage pregnancy is a major public health problem worldwide. Teenage pregnancy is defined by WHO as a period from 10-19years. (13)

During this period, the structural, functional and psychosocial development occurs in a girl and prepares her for motherhood. About 16 million girls aged 15 to 19 and some 1 million girls under 15yrs give birth every year-most in low- and middle-income countries. The 2014 World Health Statistics indicate that the average global birth rate among 15 to 19 year olds is 49 per 1000 girls. Country rates range from 1 to 299 births per 1000 girls, with the highest rates in sub-Saharan Africa. Babies born to adolescent mothers face a substantially higher risk of dying than those born to Dr MoitreyeeSaloi et al. A Study of Factors Associated with Teenage Pregnancies in Comparison with Pregnant Women of 20-29yrs in Boko, Assam International Journal of Health Sciences & Research

(www.ijhsr.org)19Vol.7; Issue: 4; April 2017women aged 20 to 24. According to WHO report Sept 2014 early childbearing increases the risks for both mothers and their newborns. (14)

In low- and middle-income countries, babies born to mothers under 20 years of age face a 50% higher risk of being still born or dying in the first few weeks versus those born to mothers aged 20-29. The factors leading to a teenage pregnancy are different in the Western world and in India. In India, teenage pregnancy is mostly because of early marriages and early child bearing. Whatever be the cause, the impact of teenage pregnancy is on the teenage girl and her future generations. Teenage pregnancy affects the education of the girl child. Better education and a delay in family formation would give her better opportunities for skill development. Mothers with less education are less likely to educate their children. Teenage girls often get pregnant with older husbands. This large spousal age gap facilitates powerdifferentials between the girl and her partner. Teenage mothers are at increased risk of pregnancy complications like anaemia and preterm labour. Inadequate antenatal care, lack of education and poor socioeconomic conditions also affect the outcome. (15-16)

According to UNFPA, the number of adolescent or teenage pregnancy depends on the extent of adolescent population in the world. The total population of adolescents will increase from 1.2 billion to 1.3 billion from 2010 to 2030, in spite of forecasted declines in fertility. By 2030, 15% of the female population worldwide will be represented by adolescents. (17]

Child marriage and early confinement are well accepted custom in India. Poverty and ignorance magnifies this problem to a greater extent. (18) According to National Family Health Survey-3, the incidence of teenage pregnancy in India was 16%, with majority of them occurring in uneducated rural population. The present study was conducted in BOKO CHC to compare the obstetric outcome between teenage pregnancies and pregnancies in mothers of 20-29 years age group

1. A Medical risks and Realities of Teenage Pregnancy

Teen pregnancy often comes with unique complications for the young mum and her baby, especially if the teenager is not getting adequate prenatal care. If you're pregnant, try to get your parents' or a close relative's support and make sure to attend all your routine prenatal check-ups. The aim of prenatal care is to detect any medical issue with you or your baby, monitor the baby's development and intervene promptly should any complication arise.

A.1. Pregnancy Induced Hypertension and Preeclampsia

Compared to pregnant women in their 20s, pregnant teens are more vulnerable to high blood pressure. They are also at higher risks of preeclampsia, a life-threatening condition characterised by a rapid increase in blood pressure accompanied by protein loss via urine. This can lead to premature birth, seizure, stroke, multiple organ failure and maternal or foetal death. Medication may be required to control the symptoms and prevent any harm to the developing baby.

A.2. Preterm Delivery

Teenagers are more likely to go into labour prematurely especially if they have a poor diet or if they were underweight prior to pregnancy. A premature baby — one born before the 37th week of gestation — is more vulnerable to respiratory diseases and infections as well as cognitive and vision problems.

A.3. Low Birth Weight Baby

Since teenagers are still growing, they are at higher risks of delivering a low birth weight baby — one who weighs less than 2.5kg. Low birth weight infants are very fragile and more prone to infections, respiratory and health problems. According to studies, these babies are more likely to suffer from developmental delays, poor language development, behavioural disorders and they may score lower at school. And if the baby's weight is less than 1.5kg, she/he may have trouble breathing and may need ventilator support.

Compared to babies born with a normal weight, low birth weight infants are at greater risk of diabetes, heart disease and high blood pressure later in life.

A.4. Neural tube Defects (NTDs)

Teenage pregnancies are often unplanned and young girls might enter pregnancy with a low folate status, predisposing their baby to births defects known as neural tube defects, which occur when a baby's brain and spinal cord fail to fully develop.

A.5. Postpartum Depression

Teenagers are more vulnerable to depression after giving birth. Feeling depressed may prevent you from taking care of your baby and may also interfere with your own healthy development. But it can be treated so if you feel depressed either during or after your pregnancy, confide in your GP or someone you trust.

A.6. Impact on Adolescent's Mental Health

Pregnant adolescent is at higher risk to get mental health problems such as depression, intense stress and pressure to become parents. They are faced with a lack of support from family and community that will lead to depression, making wrong decisions and abusing drugs.

Because of the stigma of teenage pregnancy is still high in our community, pregnant teen may deal with feelings of shame, guilt, anger, denial and may lead to depression and low selfesteem. Eventually they will be afraid to seek help from friends, family or anyone about becoming pregnant which lead to further isolation from society.

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A.7. Effects of induce Abortion/Termination of Pregnancy

A pregnancy that result in induced abortion can result in long-term psychological effects on adolescent which include depression, post-traumatic stress disorder, guilt feelings, sleep problems and anxiety disorders.

A.8. Haemoglobin Level (Anaemia)

Haemoglobin value <11 g/dL is defined as anaemia in pregnancy by WHO.[21] Anaemia in pregnancy can be further divided as mild, moderate and severe anaemia for haemoglobin level 10.0–10.9 g/dL, 7–9.9 g/dL and severe <7 g/dL.[21]

Various studies showed an association between anaemia and maternal mortality.[22] Apart from maternal mortality, anaemia in pregnancy may result in intrauterine growth retardation, low birth weight, still-birth, and neonatal death.[23]

1. B. Causes of Teenage Pregnancy

B.1. Prenatal Care

Maternal and prenatal health is of particular concern among teens who are pregnant or parenting. The worldwide incidence of premature birth and low birth weight is higher among adolescent mothers.[24] In a rural hospital in West Bengal, teenage mothers between 15 and 19 years old were more likely to have anaemia, preterm delivery, and a baby with a lower birth weight than mothers between 20 and 24 years old.[25]

B.2. Sexual Abuse

Studies from South Africa have found that 11–20% of pregnancies in teenagers are a direct result of rape, while about 60% of teenage mothers had unwanted sexual experiences preceding their pregnancy. Before age 15, a majority of first-intercourse experiences among females are reported to be non-voluntary; the Guttmacher Institute found that 60% of girls who had sex before age 15 were coerced by males who on average were six years their senior.[26] Multiple studies have indicated a strong link between early childhood sexual abuse and subsequent teenage pregnancy in industrialized countries. Up to 70% of women who gave birth in their teens were molested as young girls; by contrast, 25% of women who did not give birth as teens were molested.[27]

B.3. Dating Violence

Studies have indicated that adolescent girls are often in abusive relationships at the time of their conceiving.[28] They have also reported that knowledge of their pregnancy has often intensified violent and controlling behaviours on part of their boyfriends. Girls under age 18 are twice as likely to be beaten by their child's father as women over age 18. A UK study found that 70% of women who gave birth in their teens had experienced adolescent domestic violence. Similar results have been found in studies in the US. A Washington State study found 70% of teenage mothers had been beaten by their boyfriends, 51% had experienced attempts of birth control sabotage within the last year, and 21% experienced school or work sabotage.[29]

B.4. Socioeconomic factors

Teenage pregnancy has been defined predominantly within the research field and among social agencies as a social problem. Poverty is associated with increased rates of teenage pregnancy.[30]

B.5. Education

The Dutch approach to preventing teenage pregnancy has often been seen as a model by other countries. The curriculum focuses on values, attitudes, communication and negotiation skills, as well as biological aspects of reproduction. The media has encouraged open dialogue and the health-care system guarantees confidentiality and a non-judgmental approach.[31] From this data, 11 states currently have no requirement for sexual education for any years of schooling, meaning these 11 states may have no sexual education at all. This could also mean these states are allowed to teach sexual education in any way they would like, including in medically inaccurate ways. This point is also valid for those 22 states that do not require sexual education to be medically accurate. Comprehensive sexual education has been proven to work to reduce the risk of teenager pregnancies.[32]

1. C. Nutritional needs of the Pregnant Teenager

A balanced and nutritious diet is a cornerstone of good prenatal care and healthy nutrition becomes even more crucial if you're a teenage mother-to-be.

C.1. Foliate

Foliate is the natural form of folic acid. You can get it from pulses, papaya, oranges, green leafy vegetables like spinach and edamame.

Don't like veggies? Make a green smoothed — no, you won't taste the greens — by blending a banana, 1-2 cups of spinach (or any green veggie), your favourite fruit and a cup of water. You can also add some raw cocoa powder and some nuts. Or throw some veggies in your stews or soups.

Buy fruit or veggies that are in season or go shopping at the farmer's market. You can also use your vouchers from Healthy Start to buy fruit and vegetables.

C.2. Calories

As your body changes weekly you may feel tempted to restrict your intake but if you do, remember that this can hamper your baby's development and your own. Without sufficient calories, your body won't be able to efficiently use the nutrients from your diet — this could cause your baby to be malnourished.

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C.3. Protein and iron

Most teenagers can easily meet their protein requirements from fresh chicken, turkey, beef, fish, eggs, dairy products, pulses, beans and nuts. These foods are also rich in iron but since teenagers are prone to iron-deficiency anaemia, your GP may recommend an iron tablet.

To maximise iron absorption, include a vitamin C containing food (any fruit or veggie with a yellow, orange, red or green colour) at each meal and avoid drinking tea or coffee 1-2 hours before and after your meals.

Avoid taking high-protein supplements: routine ingestion of these products has been linked to an increased risk for preterm birth.

C.4. Vitamin D

Taking a vitamin D tablet will ensure that your body can absorb and use calcium properly. You can get the supplement from Healthy Start.

C.5. Calcium

You will need this mineral to help your baby grow strong bones, so try to consume a dairy product once or twice a day or have at least three servings of green leafy veggies daily. Calcium fortified products can also do the trick.[33]

2. REVIEW & LITERATURE

Name of the author	Title of the work	Published in journal	Reference
Kul Bhushan et al	*The health consequences of teenage fertility". Family Planning Perspectives.*	Journal of multi cultural social work (1994)	[33]
Andrew B. et al	Past physical abuse is significantly correlated with pregnancy as an adolescent	Journal of obstetrics and gynaecology (1976)	[34]
MC Grew et al	Organization. WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Health Outcomes Among Adolescents in Developing Countries	Journal of family practice (1991)	[35]
Jenny Donovan et al	"What Pregnancy and Childbirth Do to the Bodies of Young Girls".	Journal of family practice (2000)	[36]
Haldre, kai ,et al	Individual and family factor associated with teenage pregnancy and interview study	European journal of public health (2009)	[37]
E. Dickins et al	Teenage pregnancy and motherhood	Journal of evolutionary psychology (2011)	[38]
Meklissa jordan et al	Impact of social and cultural factors of teenage pregnancy	Journal of health disparities research and practice (2015)	[39]
S.Bajracharya et al	Contributing factor of teenage pregnancy among pregnant teenager of selected hospital of Dhalagiri Zone .	Journal of chitwan medical collage (2016)	[40]

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Ayanaw Habity et al	Prevalence and factor associated with teenage pregnancy	Journal of pregnancy (2018)	[41]
Stephanie PW . et al	Risk factor and birth outcome associated with teenage pregnancy	Journal of paediatric and adolescent gynaecologist(2020)	[42]

3. AIMS AND OBJECTIVES

Aims: Adolescent Pregnancy is a major public health problem in world wide bearing serious social and medical implication relating to maternal and child health.

In this research is undertaken to find the incidence of teenage pregnancy & to study the different health complication and impact of nutrition on health between teenage pregnant mother (15 to 19 Years Aged) and Adult pregnant mother (20 to 29 years Aged)

Objectives:

- To determine the nutritional status between teenage pregnant mother andAdult pregnant mother
- To compare the health complication of teenage mother with those of primimother aged 20 to 29 Years
- To suggest the nutritional information for improve the health of teenage pregnant mother

4. METHODOLOGY

1. Study Nature= Descriptive and Analytical type of study
2. Place of study (location)= Munjushree and Hariballab pur
3. 3Duration of study : 5 Days
4. Socio demographic profile:
   A. **Personal history:-**The questionnaires was based on demographic information , pregnancy report card , personal hygiene and dietary information about teenage and adult pregnant women at pregnancy period . Each subject will be identified by Name, age, Socio economic status .
   B. **Parameters studies** :To fiend out the effect of different physical parameters and nutritive value of teenage pregnant mother and about pregnant mother's individual parameters following parameters were adopted .

I. Anthropometric and Physical Status:

- Weight (kg)
- Blood pressure

II. Biochemical status :

- Haemoglobin level (Hb)

III. Socioeconomic Status:

- Age
- Activity Level
- Family income status

C. Instrument requirement for the survey:

- Weight machine
- BP machine

5. Anthropometric Measurement :

- **Weight:** The weight is measured by weighing ,subject should be on the platform of the weighing machine exerting equal pressure on both feet . The subject should be bare footed, the reading is taken from the scale with an accuracy pf 0.5 kg
- **Body Mass index** :Body Mass Index (BMI) is a simple index of weight -forheight that is commonly used to classify underweight, overweight and obesity . it is defined as the weight in kilograms divided by the square of the height in meters (kg/m2). In this study it is computed using the following standard equation

BMI(kg/m2)=Weight/Height(m2)

- **BP(Blood Pressure) :**

Blood pressure is measured in millimetres of mercury (mmHg) and is given as 2 figures: systolic pressure – the pressure when your heart pushes blood out diastolic pressure – the pressure when your heart rests between beats For example, if your blood pressure is "140 over 90" or 140/90mmHg, it means you have a systolic pressure of 140mmHg and a diastolic pressure of 90mmHg.

As a general guide:

ideal blood pressure is considered to be between 90/60mmHg and 120/80mmHghigh blood pressure is considered to be 140/90mmHg or higher low blood pressure is considered to be below 90/60mmHg.

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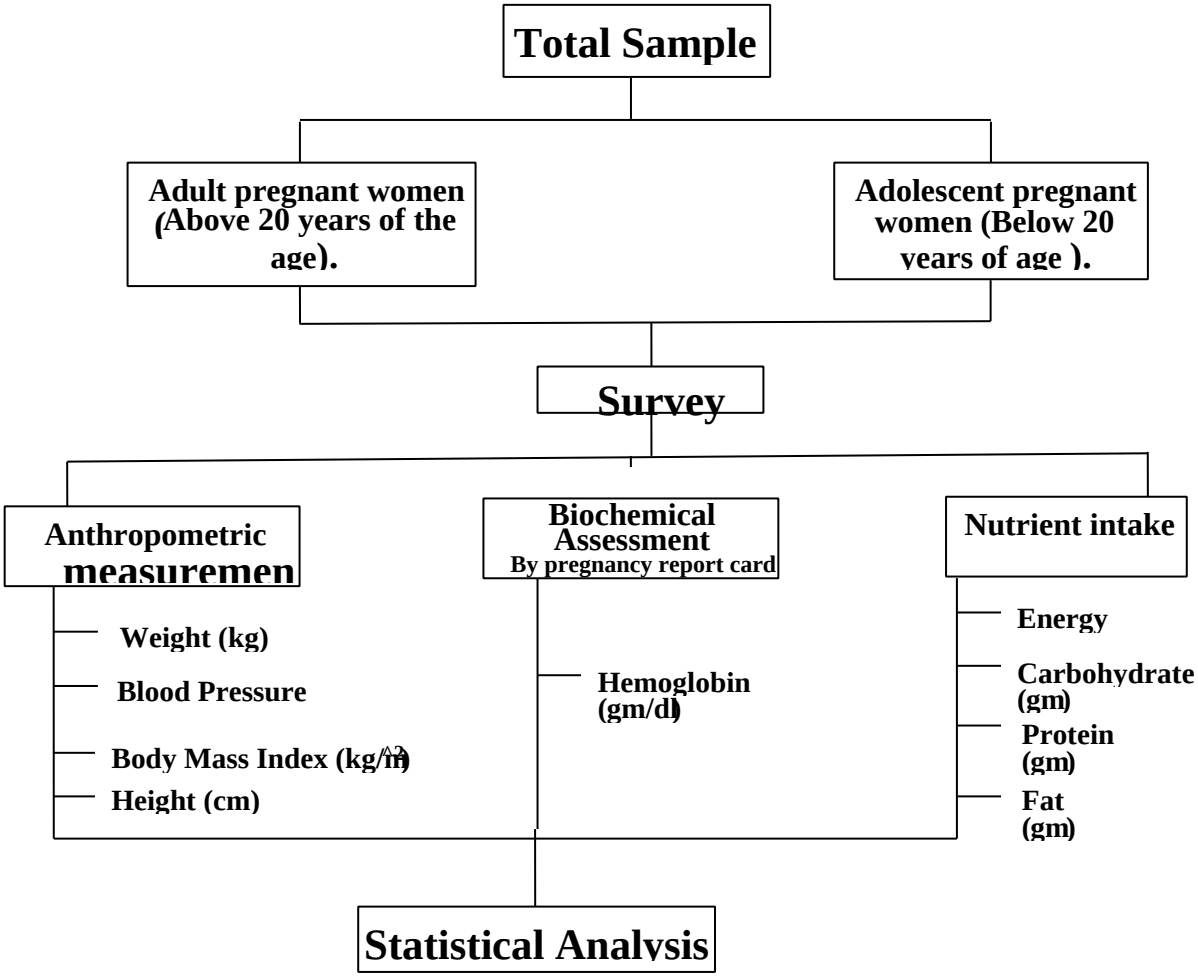
- **Nutritional Status:** Nutritional status was evaluated using internationally accepted world health organization BMI (kg/m2) guidelines. The following cut- off point were used. Underweight ;<18.5-24.9, overweight BMI>25.0.
- **Statistical Analysis:** Data processing and statistical analysis were done using the SPSS for windows statistical software package. Descriptive statistic were used for all the variable studied. Student t test. The p value <0.05 was considered statistically significant and p value >0.05 was considered statistically not significant.

6. Biochemical Assessment:

Haemoglobin Level: Haemoglobin (Hb) is the protein contained in red blood cells that is responsible for delivery of oxygen to the tissues. To ensure adequate tissue oxygenation, a sufficient haemoglobin level must be maintained. The amount of haemoglobin in whole blood is expressed in grams per decilitre (g/dl). The normal Hb level for males is 14 to 18 g/dl; that for females is 12 to 16 g/dl. When the haemoglobin level is low, the patient has anaemia. An erythrocytosis is the consequence of too many red cells; this results in haemoglobin levels above normal.

5. EXPERIMENTAL DESIGN



6. RESULT

Group distribution –

Age (year)	Normal pregnancy (n=30)	Adolescent pregnancy (n=30)
16	0	2
18	0	5
19	0	23
20	1	0
21	2	0

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22	1	0
23	3	0
24	2	0
25	5	0
26	2	0
27	2	0
28	3	0
29	2	0
30	3	0
31	1	0
32	1	0
33	2	0

Anthropometric Data Analysis:

NAME OF THE PARAMETER	NORMAL PRAGNANCY	TEENAGE PRAGNANCY	t- TEST	LEVELS OF SIGNIFICANCE
Height(cm)	149.2± 7.76	146.1± 12.2	1.17	NS
Weight(kg)	63.3± 8.77	53.4±9.13	4.28	P<0.001 Significant
BMI(kg/m^2)	28.29±4.11	25.44± 4.56	2.54	P<0.05 Significant
Systolic blood pressure(mmHg)	116.27±9.82	112.1± 12.14	1.46	NS
Diastolic blood pressure(mmHg)	70.53± 9.29	71.43± 8.44	0.39	NS
Haemoglobin level(gm/dl)	12.28±1.94	10.49±1.32	4.18	P<0.001 Significant

Nutritional Data Analysis:

NAME OF THE PARAMETER	NORMAL PRAGNANCY	TEENAGE PRAGNANCY	t-TEST	LEVELS OF SIGNIFICANCE
Energy(kcal)	2553.53±279.81	1938.6±305.1	8.14	P<0.001 Significant
Carbohydrate(gm)	431.64±54.58	290.75±40.13	11.39	P<0.001 Significant
Protein(gm)	38.21±9.36	76.38±18.86	1.78	NS
Fat(gm)	50.77±5.91	48.98± 10.57	0.81	NS

Table -1

Comparison of Height(cm) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Height (Cm)	149.20 ± 7.76	146.10 ±12.20(NS)

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters

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significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

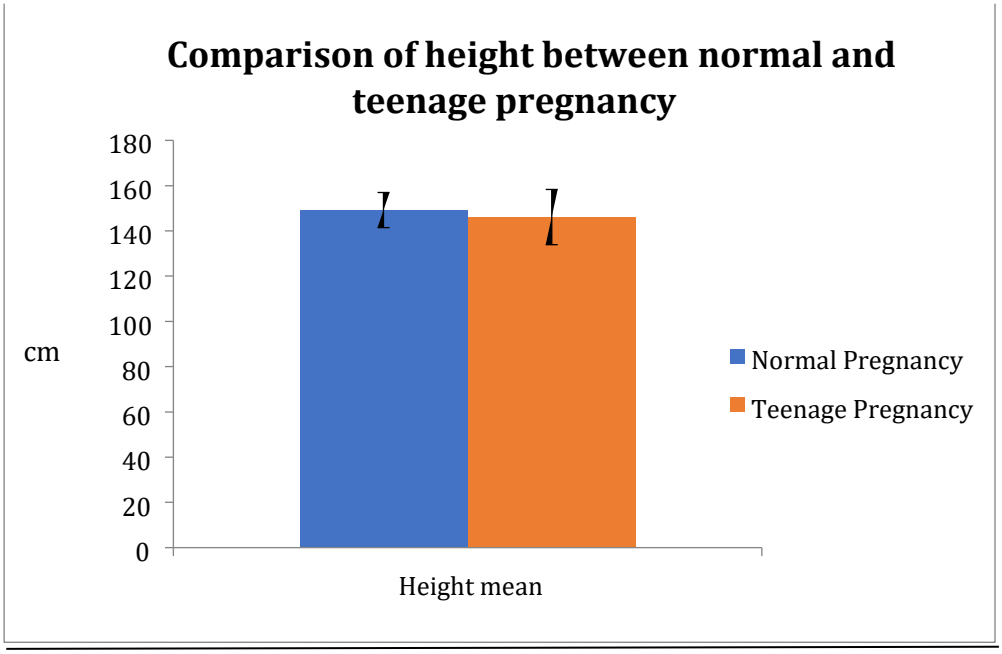

Fig -1: Graphical presentation of height (cm) between normal and teenage pregnancy it is not significant.

Table -2

Comparison of weight (kg) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Weight (kg)	63.30± 8.77	53.40± 9.13

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

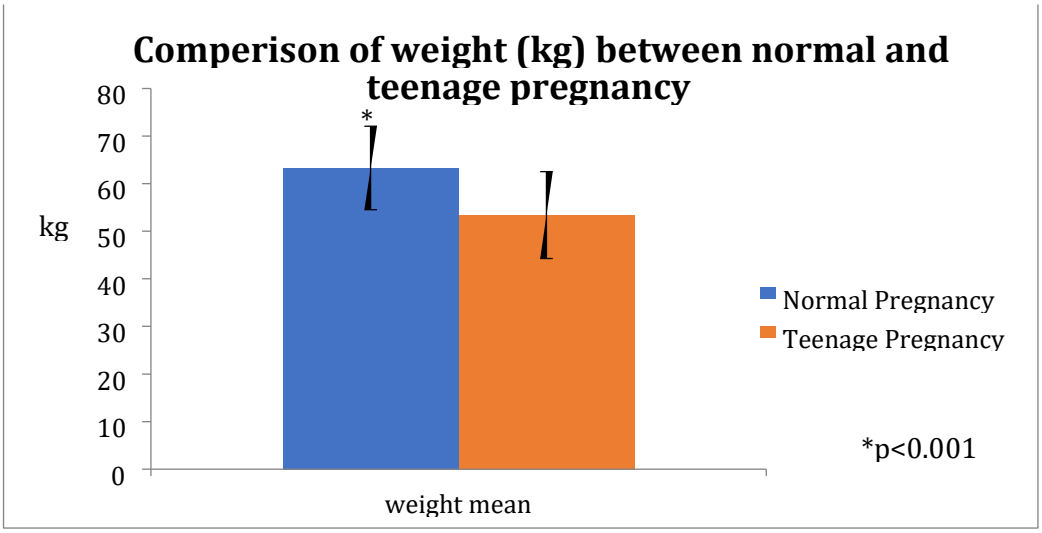

Fig -2: Graphical presentation of weight (kg) between normal and teenage pregnancy . P<0.001, it is significant.

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Table -3
Comparison of Body mass index(kg/m2) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Body mass index (kg/m^2)	28.29 ± 4.11	25.44 ±4.56

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

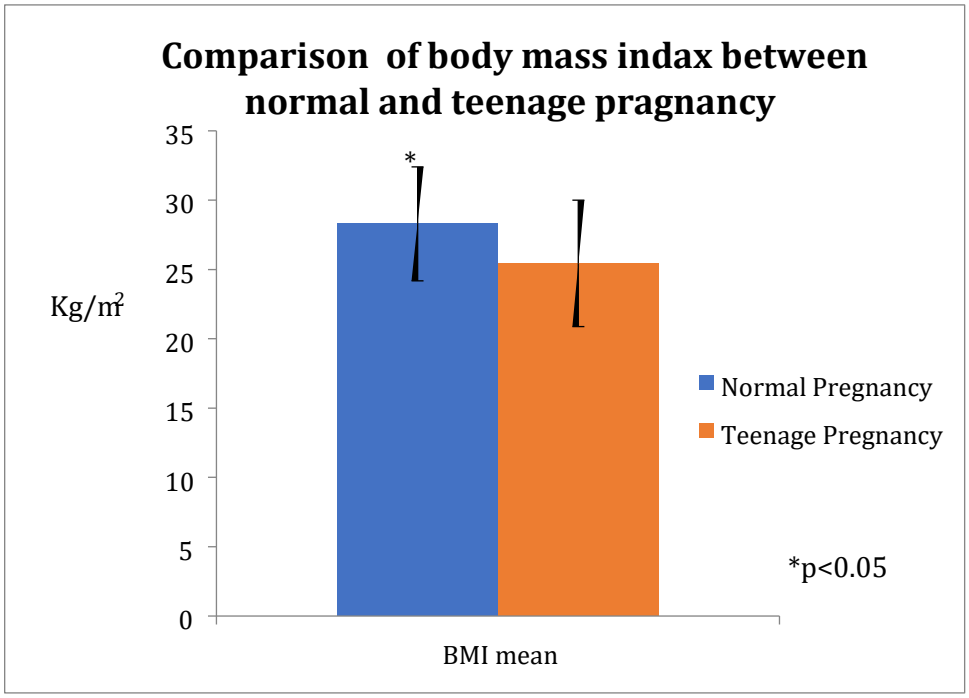

Fig -3: Graphical presentation of Body mass index (kg/m2) between normal and teenage pregnancy . p<0.05,it is significant.

Table -4
Comparison of Systolic blood pressure (mmHg) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Systolic blood pressure mmHg	116.27 ± 9.82	112.10 ±12.14(NS)

Data presented as mean ± Sd, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

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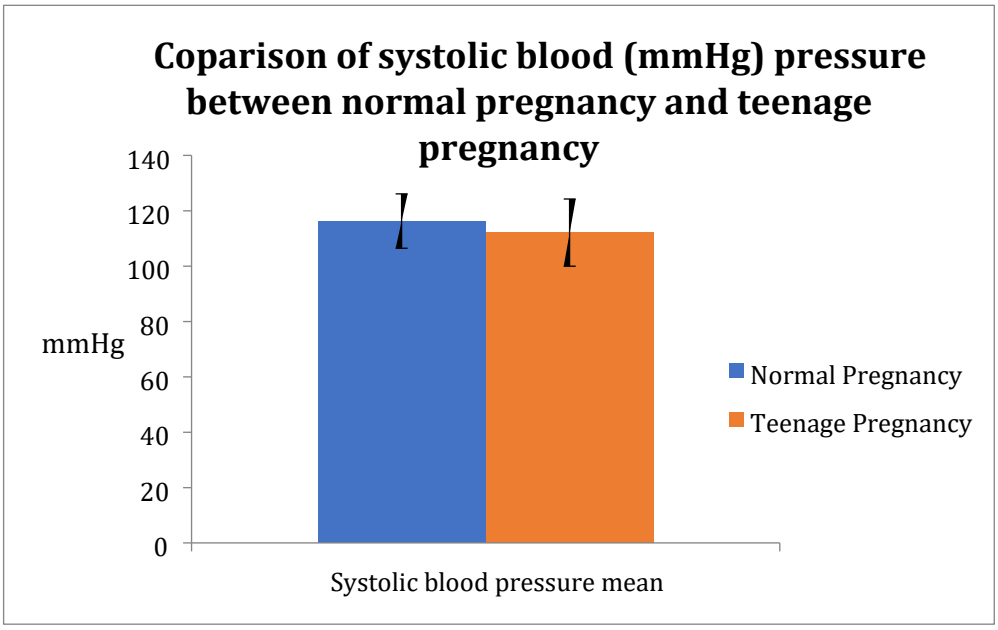

Fig -4: Graphical presentation of Systolic blood pressure (mmHg) between normal and teenage pregnancy. It is not significant.

Table -5
Comparison of Diastolic blood pressure (mmHg) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Diastolic blood pressure mmHg	70.53 ± 9.29	71.43 ±8.44(NS)

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

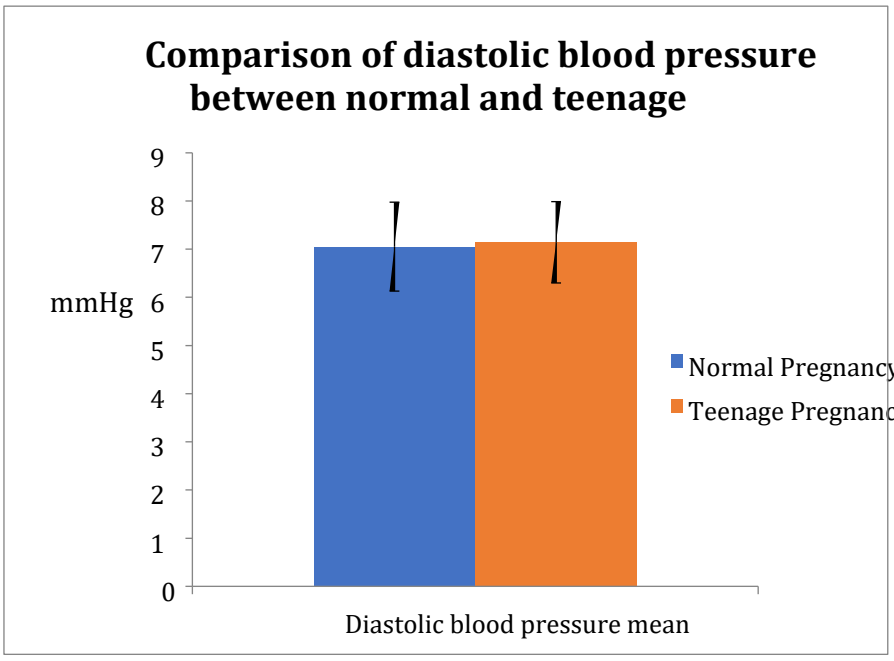

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Fig -5: Graphical presentation of Systolic blood pressure (mmHg) between normal and teenage pregnancy. It is not significant.

Table -6

Comparison of Haemoglobin level (g/dl) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Haemoglobin Level (g/dl)	12.28 ± 1.94	10.49 ±1.32

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

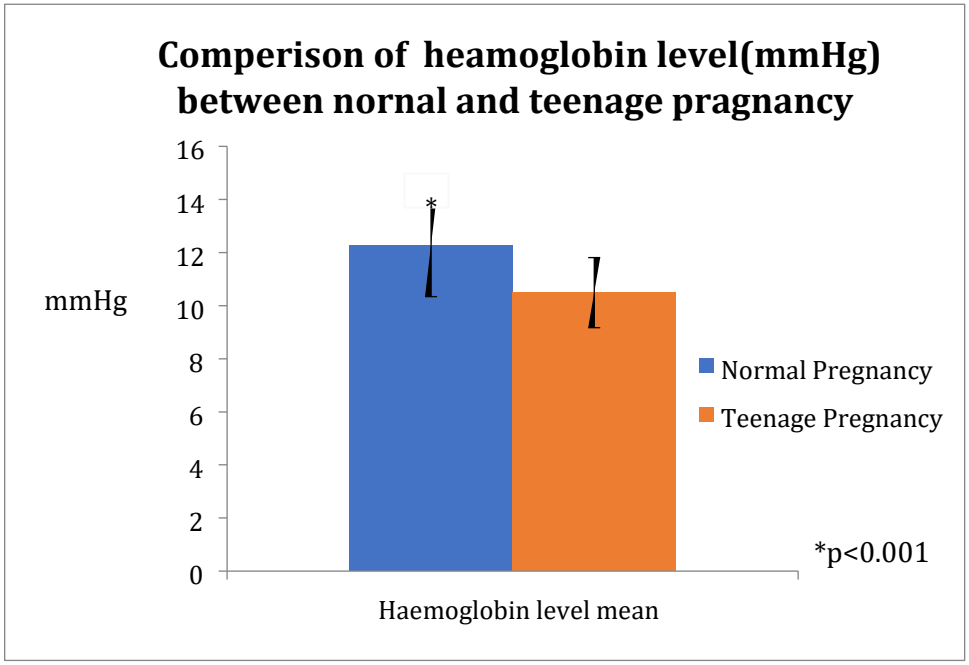

Fig -6: Graphical presentation of Haemoglobin level (g/dl) between normal and teenage pregnancy. p<0.001, it is significant.

Table-7

Comparison of Energy (kcal) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Energy (kcal)	2553.53* ± 279.81	1938.60 ±305.10

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

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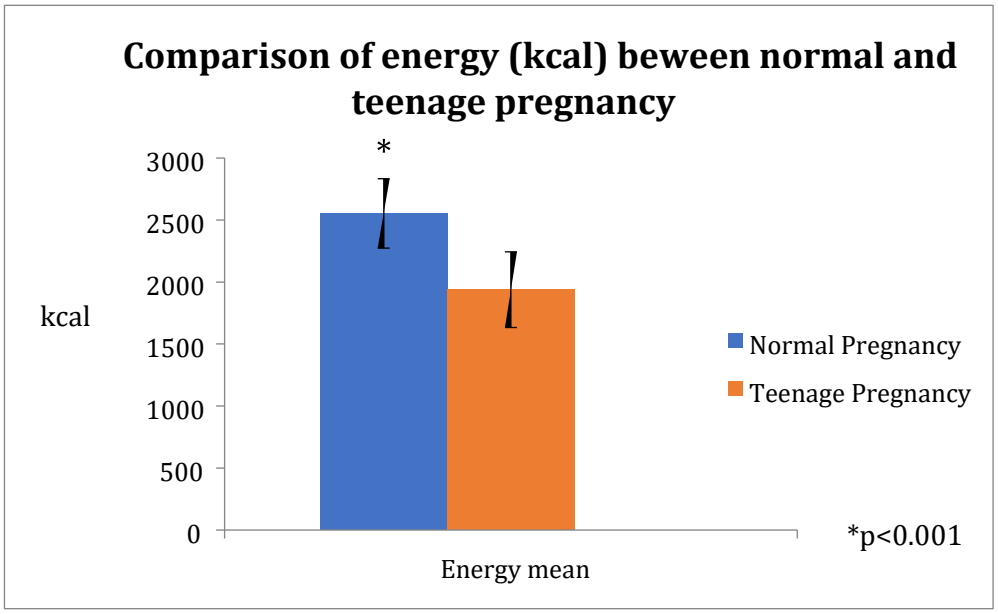

Fig-7: Graphical presentation of Energy (kcal) between normal and teenage pregnancy. p<0.001, it is significant.

Table -8
Comparison of Carbohydrate (gm) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Carbohydrate (gm)	431.64* ± 54.48	290.75 ±40.13

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

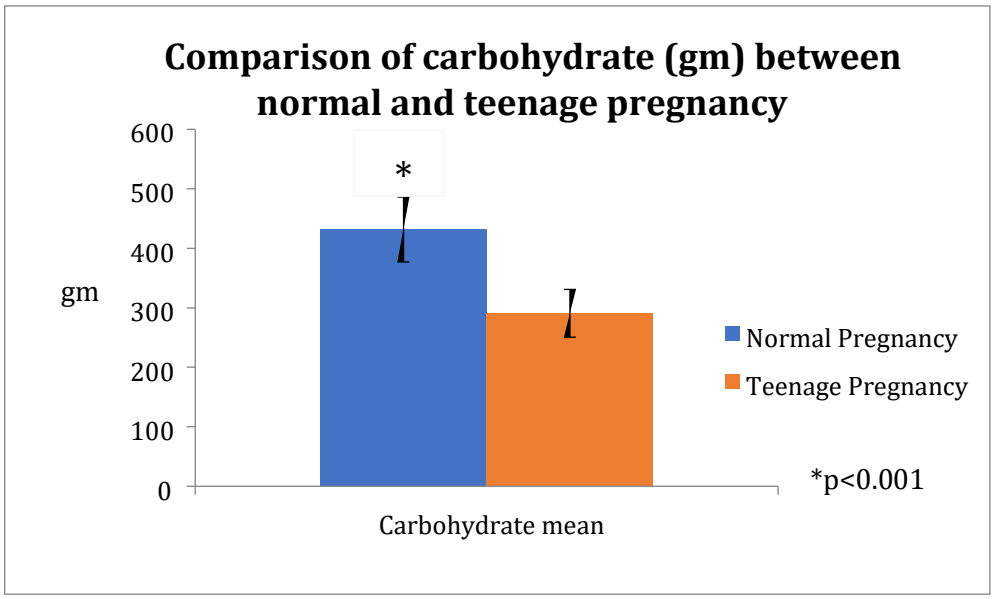

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Fig-8: Graphical presentation of Carbohydrate (gm) between normal and teenage pregnancy. P<0.001, it is significant.

Table-9
Comparison of Protein (gm) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Protein (gm)	83.21 ± 9.36	76.38 ±18.86(NS)

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

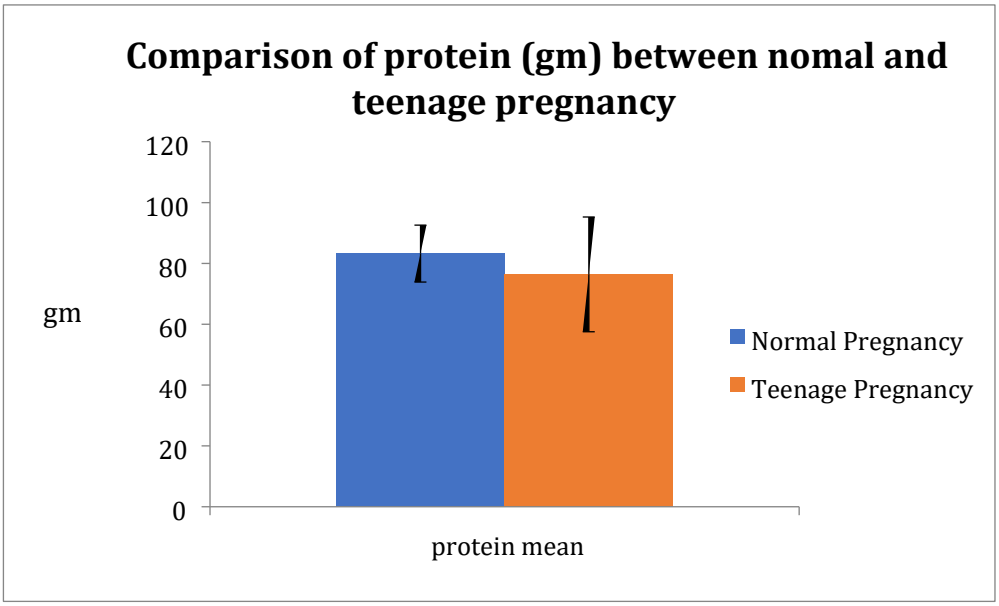

Fig-9: Graphical presentation of Protein (gm) between normal and teenage pregnancy.

Table-10
Comparison of Fat(gm) between normal and teenage pregnancy.

	Normal pregnancy	Teenage pregnancy
	Mean ± SD	Mean ± SD
Fat (gm)	50.77 ± 5.91	48.98 ±10.57(NS)

Data presented as mean ± SD, n=60 repeated measure t-test was performed. If one group parameters significant with another group parameters then *P≤0.05* it is significant .No sign means not significant.

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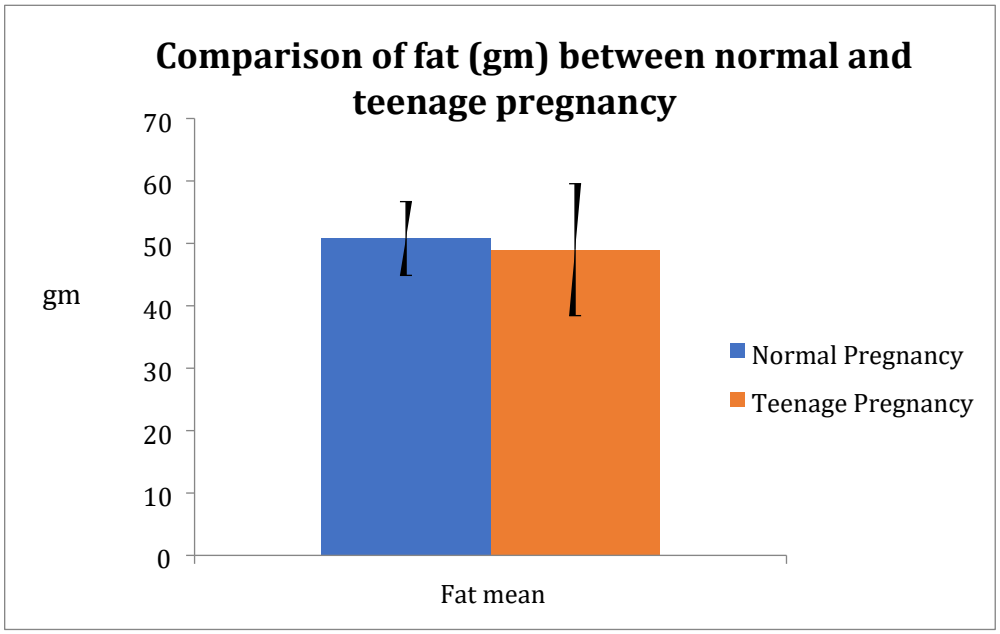

Fig-10: Graphical presentation of Fat (gm) between normal and teenage pregnancy .

7. DISCUSSION

the present study analyses the anthropometric parameters like height , weight,Body mass index (BMI), Blood pressure (BP) , and Biochemical assessment like haemoglobin level in the blood ratio of teenage pregnant women (under 20 years of age) comparison with adult pregnant women (Above 20 years of age)

it has been included that there have different between the weight, haemoglobin level, Blood pressure ,BMI ratio and energy, carbohydrate, protein and fat consumption of the teenage pregnant women comparison with adult pregnant women

In this study 30 sample of teenage pregnant women and 30 sample of adult pregnant women selected randomly. From the above study total sixty pregnant women (n = 30) where selected nearby community of manjushree and other community of kukrahati to hariballab pur in Haldia

Table = 1. Shows that the mean of Height is 146.20cm for Teenage pregnant women and the mean of Height is 149.20cm for adult pregnant it represent that the weight of the Teenage pregnant women and adult pregnant women has showing not significant

Table = 2. Shows that the mean of weight 53.40 kg for Teenage pregnant women and the mean of weight is 63.30 kg for adult pregnant women. A significant ($P<0.001$) decrease in weight of teenage pregnant women as a compare with adult pregnant women (According to weight gain during pregnancy)

Table = 3. Shows that the mean of Body mass index (BMI) 25.44 kg/m^2 for Teenage pregnant women and the mean of Body mass index (BMI) is 28.29 kg/m^2 for adult pregnant A significant ($P<0.001$) decrease in BMI of teenage pregnant women as a compare with adult pregnant women.

Table = 4. Shows that the mean of Systolic blood pressure 112.10 mmHg for Teenage pregnant women and the mean of Systolic blood pressure is 116.27mmHg for adult pregnant it represent that the of the Teenage pregnant women and adult pregnant women has showing not significant

Table = 5. Shows that the mean of Diastolic blood pressure 71.43 for Teenage pregnant women and the mean of Diastolic blood pressure 70.53 for adult pregnant it represent that the weight of the Teenage pregnant women and adult pregnant women has showing not significant

Table = 6. Shows that the mean of Haemoglobin level 10.49 g/dl for Teenage pregnant women and the mean of Haemoglobin level is 12.28 g/dl for adult pregnant women . A significant ($p<0.05$) decrease in haemoglobin level of teenage pregnant women. Compeer with normal pregnant women .

Table = 7 Shows that the mean of Energy (kcal) 1938.60 kcal for Teenage pregnant women and the mean of Energy is 2553.53 kcal for adult pregnant women .A significant ($P<0.05$) Decrease in Energy intake of teenage pregnant women as compare with adult pregnant women for poor nutrition status

Table = 8 Shows that the mean of Carbohydrate 290.75gm for Teenage pregnant women and the mean of Carbohydrate is 431.64gm for adult pregnant women. A significant ($P<0.05$) Decrease in protein intake of teenage pregnant women as compare with adult pregnant women because poor nutrition status

Table = 9 Shows that the mean of Protein 76.38gm for Teenage pregnant women and the mean of Protein is 83.27gm for adult pregnant it represent that the weight of the Teenage pregnant women and adult pregnant women has showing not significant

Table = 10 Shows that the mean of Fat 48.98gm for Teenage pregnant women and the mean of 50.77gm for adult pregnant it represent that the weight of the Teenage pregnant women and adult pregnant women has showing not significant.

8. SUMMARY & CONCLUSION

Religion plays an important role in our country . Here found that a higher incident of anaemia in adolescent pregnant women due to low level of haemoglobin comparison of adult pregnant women . and also found that most teenage pregnant women are inappropriate weight cause by age .by questionnaire method it has been known that teenage pregnant women are suffering several health complication such as Hypertension and preeclampsia, impact on adolescent's mental health, preterm delivery, and low birth weight baby etc due to the teenage pregnancy than adult pregnant women. Result indicate that nutritional health status of teenage pregnant women are significantly lower due to the lower age of women than adult pregnant women . And also found by the questionnaire method that teenage pregnancy occurs due to the lack of education, poor economical condition. it has been noted that the mean intake of energy, carbohydrates, protein, fat where less than RDA which was the reason of low weight of pregnant women.

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