Perception of Early Pregnancy Symptoms among Antenatal Women in Port Harcourt, Southern Nigeria

Dr Ikobho Ebenezer Howells, Department of Obstetrics and Gynaecology, Niger Delta University Teaching Hospital

Dr Adam Dagogo Semenitari, Department of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital

Corresponding author: Dr Ikobho E.H. Email – ikobhoebenezer@yahoo.com

Abstract

Background

Early pregnancy symptoms are commonly experienced by most women during pregnancy. While some such as missed periods may serve as an early warning symptom, others may be troublesome, necessitating treatment, and even hospital admission.

Objective

The main objective of this study is to determine the pattern of early pregnancy symptoms among pregnant women in Port Harcourt, Southern Nigeria. Specifically, it would determine the type of symptoms, the period of onset, climax, and when they subside. It would also determine the recurrence rate and the maternal effects in the index pregnancy.

Materials and Method

A cross-sectional observational study of 616 booked pregnant women who attended antenatal care at the department of obstetrics and gynaecology, University of Port Harcourt Teaching Hospital, from February 2015 to January 2016. The patients were educated about early pregnancy symptoms, and relevant questions and concerns were addressed. Verbal consent was obtained from those who agreed to participate; a structured questionnaire was then distributed among the participants, which was filled, and data were analyzed.

Result

The prevalence rate for early pregnancy symptoms was very high 89.6%, the symptoms were commoner among primigravid women 208(33.8%), and they tend to reduce significantly with increasing parity. The recurrent rate among parous women was high 82.6%.

The mean gestational age at onset of symptoms was 4.06 ± 1.64 weeks, and by eight weeks, about 87% of the women have developed pregnancy symptoms. The symptoms were perceived

to be worse between 5 and eight weeks, with a mean of 7.20 ± 2.15 weeks, and they started to subside by 9 – 12 weeks, with a mean of 14.06 ± 3.85 weeks.

Amenorrhoea was the commonest symptom 98.6%, followed by nausea and vomiting 52.3%, then breast pain and heaviness 52.3%, low back pain 45.3%, and urinary symptoms 36.4%. Pregnancy symptoms interfered very little with professional and domestic activities, and the hospital admission rate was quite low 8.4%.

Conclusion

Women hardly go through pregnancy without experiencing multiple pregnancy symptoms. The prevalence rate was high, especially among Primigravidas, and symptoms tend to be recurrent among multiparous women. Pregnancy symptoms tend to peak around 5 – 8 weeks and begin to subside by 9 -12 weeks.

Key words: *Early pregnancy symptoms, antenatal clinic, University of Port Harcourt Teaching Hospital, Southern Nigeria*

Introduction

Almost every woman experiences signs and symptoms during pregnancy. For both the patient and the health professional, these signs and symptoms are fundamental for the diagnosis of pregnancy. Studies done in USA revealed that about 90% of pregnant women experience symptoms within eight weeks from LMP.[1] In women of reproductive age group, the abrupt cessation of menstruation (amenorrhea) is usually the earliest sign, and strongly suggestive of pregnancy. [2]

Vomiting in early pregnancy, especially in the morning (morning sickness), often accompanied by nausea is quite common especially in primigravida. It usually begins at 4 to 6 weeks, and rarely goes beyond 12 weeks. Prevalence rates of 80% for nausea and 50% for vomiting have been reported in previous studies; [3] and a meta-analysis of various studies have reported rates between 35% and 91%, with a mean rate of 70 %. [4]

Occasionally nausea and vomiting become troublesome and may progress to hyperemesis gravidarum.[5] It was defined as intractable vomiting associated with weight loss of more than 5% of pre-pregnancy weight, dehydration, and electrolyte imbalances which may lead to hospitalization. [6] Authorities from various centres have reported prevalence rates ranging from 0.3% to 3% among pregnant women. [6, 7]

In early pregnancy, about 4 to 6 weeks, many women experience changes in the breast such as: enlargement, pain, tenderness, and a sensation of heaviness. [8] It is thought to be associated with hormone-mediated increased vascularity, and nodularity. Other early pregnancy manifestations on the breast are also common: by eight weeks gestation, the nipples and areola may enlarge and become deeply pigmented. [8, 9] Excessive secretions from the sebaceous glands may result in Montgomery's tubercles, which usually present as prominent, raised, pink, or red nodules on the areola.

Another common complaint in early pregnancy is urinary tract infection (UTI); it is thought to result from progesterone mediated anatomical and physiological changes in the urinary tract, these changes are usually notice at 6 - 8 gestation.[10]. UTI usually begin at six weeks, and peak at 22 – 24 weeks; the prevalence of cystitis is 1 -2 %, and that for acute pyelonephritis is 0.5 – 2%. [10]

Many women experience Changes in appetite when they get pregnant. [11] It could be in the form of food aversion: when they begin to dislike some food they previously enjoyed before getting pregnant. Others include food craving, which is an intense desire to eat, and pica, which is the habit of eating inappropriate food such as clay and chalk. Some pregnant women suddenly become intolerance to the pleasant aroma, such as: perfumes, and the smell of food. Other relatively common symptoms include: fatigue, dizziness and changes in sleep pattern.

Low back pain is a common and often distressing pregnancy symptom. Previous studies have demonstrated that as much as 67% of pregnant women experience low back pain during pregnancy, [12] and in as much as 57.9% of the women, the pain was severe enough to interfere with daily activities and sleep.[12, 13]

Excessive salivation is often quite troublesome, and the effected women usually move about with a cup to carry saliva. [14] Heart burn is another common complaint among pregnant women; it could be very discomforting, necessitating the use of antacids. It is caused by hormonally induced reduced gastric emptying, and reflux oesophagitis. Less common symptoms experienced by women in early pregnancy include: irritability, and mood swing. [15] Mood changes could manifest in the form of mixed emotional feelings, such as: joy and sorrow, excitement and depression, laughter and tears; mood changes usually reduce after 13 weeks gestation.

It is very unusual for a pregnant woman to go through pregnancy without experiencing at least one early pregnancy symptom. This study intends to determine the scope and impact of early pregnancy symptoms experienced by our pregnant women in Port Harcourt, using the University of Port Harcourt Teaching Hospital (UPTH) as a case study.

Methodology

Objectives

The main objective of this study is to determine the pattern of early pregnancy symptoms among pregnant women in Port Harcourt, Southern Nigeria, using University of Port Harcourt Teaching Hospital as a case study. Specifically, it would determine the type of symptoms, the period of onset, climax, and when they subside. It would also determine the recurrence rate and the maternal effects in the index pregnancy.

Study design

A cross-sectional observational study of 616 booked pregnant women who attended antenatal care at the department of obstetrics and gynaecology, University of Port Harcourt Teaching Hospital, southern Nigeria. The study was carried out from February 2015 to January 2016.

Sample size

An appropriate sample size was calculated using EpiInfo statistical software based on an annual delivery rate of 2500 in UPTH, and an assumed early pregnancy symptoms rate of 50%. Confidence level was set at 95%, assuming an error of 5%.

Inclusion criteria

Those included in this study were pregnant women who presented for antenatal care in UPTH, and accepted to participate in the study.

Exclusion criteria

Women on treatment for medical conditions that could mimic or exacerbate pregnancy symptoms were excluded. These include patients on treatment for urinary tract infection, anaemia in pregnancy, gestational diabetes mellitus, and peptic ulcer disease.

Data collection

Data was collected from 616 parturients who consented to participate in this study. Approval was obtained from the ethical committee of the Hospital; the patients were informed about this study and were educated about early pregnancy symptoms. All relevant questions and concerns were addressed, and consent was obtained from those who agreed to participate. A structured questionnaire was filled by each patient and information concerning their bio-data, such as: age, parity, educational level, tribe, occupation and religion were obtained. The patients' gestational age (GA) at booking was verified from the antenatal records. However, the current GA (at the time of the study) was calculated for each patient; from the first day of the last normal menstrual period, using Naegle's rule.

Information obtained concerning early pregnancy symptoms include GA at the onset of symptoms, the climax, and when the symptoms subsided. Also obtained was the pattern of early pregnancy symptoms, recurrent symptoms in previous pregnancies, and the maternal effects in the index pregnancy, including hospital treatment and admission resulting primarily from pregnancy symptoms.

Data analysis

Data collected from each subject was entered into SPSS statistical software version 20 spread sheath, and EPI info version 7. Data were analyzed and presented as mean with standard deviation, rates, and proportions in tables. The confidence interval was set at 95%, and differences were deemed to be statistically significant at $P < 0.05$.

Results

Table 1

Bio-data

The mean maternal age was 29.7± 5.51 years, the minimum age was 18.0 years, the maximum was 42 years, and the mean parity was 1.46 ± 1.40.

Bio-data	Number (n=616)	Percentage
Age		
≤19 yrs	12	2.5
20-24yrs	116	18.8
25-29yrs	204	33.1
30-34 yrs	152	24.7
≥ 35yrs	132	21.4
Party		
0	208	33.8
1	120	19.5
2	152	24.7
3	80	13.0
4	32	5.2
≥5	18	3.8
Tribe		
Ijaw	88	14.3
Igbo	364	59.1
Hausa/Fulani	8	1.2
Yoruba	52	8.4
Other tribes	104	16.8
Educational level		
Non-formal	16	2.6
Primary	20	3.2
Secondary	172	27.7

Tertiary	408	66.3
Occupation		
House wife	96	15.6
Petty traders/Farmers	214	34.7
Civil servant	120	19.5
Student	64	10.4
Private enterprise	88	14.4
Religion		
Christian	584	94.8
Muslim	32	5.2

Majority of the women who participated in this study 204(33.1%) were of average maternal age 25 – 29 years; 2.7% were teenagers, and 132(12.9%) were of advanced maternal age, ≥ 35years. Nulliparous women predominated, accounted for 208(33.8%), Para ^{2} was next accounting for 24.7%, and only 3.8% were grand multiparous.

Majority of the women 364(59.1%) were from the Igbo speaking tribe. The major tribe in the Niger Delta (the Ijaw ethnic nationality) accounted for only 58(14.3%). Only a few women were from the two most predominant tribes in Nigeria, namely Yoruba 8.1%, and Hausa/Fulani 1.2%.

Majority of the women 408(66.3%) attained secondary education; most of the women 214(34.7%) were petty traders. A great majority of the participants 584(94.8%) were Christian, Only 5.2% were muslins.

Table 2

Onset, Climax and Resolution of Pregnancy Symptoms

The mean GA of the women at the period of study was 27.6 ± 7.9 weeks. The women did not book early, the mean GA at the booking visit was 23.4 ± 8.2 weeks.
The mean GA at the onset of symptoms was 4.06± 1.64 weeks, at the climax of symptoms it was 7.20 ± 2.15 weeks, and by 14.06 ± 3.85 weeks the symptoms have subsided.

Gestational Age	Number (n = 616)	Percentage	Odds Ratio	Confidence Interval
GA at Onset of Symptoms				
≤ 4 weeks	352	57.1		
5 - 8 weeks	148	29.9	4.22	[3.30, 5.58]
9-12 weeks	36	5.8	21.48	[14.80, 31.18]
13-16 weeks	12	1.9		
17-20 weeks	4	0.6		
> 20 weeks	_	_		
No response	64	10.4		
GA When Symptoms Were Worse				
≤ 4 weeks	164	26.6	0.88	[0.69, 1.13]
5-8 weeks	180	29.2		
9-12 weeks	120	19.5	1.71	[1.31, 2.22]
13-16 weeks	28	4.5	7.20	[4.73, 10.94]
17-20 weeks	24	3.9	10.18	[6.54, 15.87]
> 20 weeks	36	5.8	6.65	[4.55, 9.71]
No response	64	10.4		
GA When the Symptoms Resolved				
≤ 4 weeks	38	7.8		

5-8 weeks	86	14.9		
9-12 weeks	103	21.4		
13-16 weeks	84	16.9	1.27	[0.93, 1.74]
17-20 weeks	62	14.9	1.79	[1.28, 2.51]
21 -24 weeks	56	12.3	2.01	[1.42, 2.84]
24 - 28 weeks	30	4.9	3.92	[2.57, 5.99]
29 - 32 weeks	10	1.62	12.17	[6.29, 23.54]
Above 32 weeks	8	1.3	15.25	[7.36, 31.63]
Symptoms were still present	75	12.2		
No response	64	10.4		

Majority of the women 352 (57.1%) started experiencing pregnancy symptoms for the first time at ≤ four weeks gestation. However, the rate of onset was found to reduce significantly with increasing gestation, such that by 5 - 8 weeks the chances were four times lower. Odds Ratio = 4.22, P = 0.0001. Similarly by 9 - 12 weeks, the chances were even 21 times lower. Odds Ratio = 21.48, P = 0.00003.

In most of the women 180 (29.2%), the pregnancy symptoms were worse at 5 - 8 weeks gestation. However, as the gestational age increases above nine weeks, the symptoms tend to reduce significantly, such that by 29 - 32 weeks, the chances were ten times lower. Odds Ratio = 10.18, P = 0.000001.

In most of the parturients 103(21.4%), the symptoms were reported to subside by 9 - 12 weeks gestation. It was observed that there was a very high tendency for symptoms to resolve completely as gestational age advances, such that by 29 - 32 weeks, the chances are 12 times less. Odds Ratio = 12.17, P = 0.000001. Only eight women 1.3% reported that their symptoms resolved after 32 weeks gestation. However 75 women (13.2%), the symptoms were persistent at the time of the study.

Table 3

The Pattern of Early Pregnancy Symptoms

Symptoms	Frequency	Percentage
• Just a feeling of being pregnant	48	7.8
• Missed period	612	99.2
• Positive pregnancy test	212	34.4
• Breast pain and tenderness	324	52.3
• Breast enlargement and heaviness	364	59.1
• Fatigue	268	43.5
• Symptoms of urinary tract infection	224	36.4
• Nausea and vomiting	324	52.3
• Morning Sickness (vomiting in the morning)	128	20.8
• Excessive salivation	196	31.8
• Changes in sleep pattern	279	45.3
• Dizziness	148	24.0
• Feeling of fainting attacks	52	8.4
• Food aversion (dislike some food)	94	15.3
• Food cravings (intense desire to eat)	108	17.5
• Pica (enjoy eating unusual food e.g. clay, chalk)	48	7.8
• Sensitivity to Aromas (cannot tolerate some sweet smell)	120	19.5
• Heartburn and constipation	88	14.3
• Mood swings and irritability	52	8.4
• Excessive feeling of warmth	72	11.6
• Lower back pain	108	17.5
• Increase in vaginal discharge	80	12.0
• Implantation bleeding	4	0.6
• Bloating and weight gain	44	7.1

Most of the women tend to have multiple symptoms simultaneously. The commonest early pregnancy symptom in this study was amenorrhea, accounting for 614(99.8%). This was followed by Breast enlargement and heaviness, accounting for 364(59.1%); Nausea and vomiting were noticed in 52.3% of the cases, and the least symptom was Implantation bleeding, which was experienced by only 0.6% of the women. Only 212 (34.4%) of the parturient did a pregnancy test, which was positive.

TABLE 4

Recurrence and effects of Early Pregnancy Symptoms

Response	Number (n = 616)	percentage	Odds Ratio	confidence interval
Recurrence of Pregnancy Symptoms				
Did you have early pregnancy symptoms during this pregnancy?				
Yes , 552	89.6,			
No	64	10.4%		
64 parturients did have clinical pregnancy symptoms (besides amenorrhea)				
Have you been pregnant before?				
Yes	468	76.0		
No	148	31.8		
Did you have early pregnancy symptoms in your previous pregnancies?				
Yes	384	82.1		
No	84	17.9		
No response	148			
148 women got pregnant for the first time				
In which of your pregnancies did you have symptoms?				
All pregnancies	320	83.3		
1st pregnancy only	80	20.8		
2nd pregnancy only	40	10.4	2.15	[1.44, 3.20]
3rd pregnancy only	20	5.2	4.45	[2.69, 7.36]
4th and above	8	2.0	11.34	[5.43, 23.68]
No response	148			
Effects of pregnancy symptoms				

In what way did these symptoms affect you?

a.	Gives a lot of emotional and psychological stress	60	9.7
b.	Interferes with routine domestic activities	108	17.5
c.	Interfered with professional duty	44	7.1
d.	Gives a lot of discomfort	284	46.1
e.	General feeling of being unwell	120	19.5

Did you ever regret getting pregnant because of these symptoms?

Yes	12	1.9
No	572	93.0
No response	32	5.2

Have you ever terminated a pregnancy because of unbearable symptoms?

Yes	8	1.3
No	536	87.0
No response	72	11.7

Have you been treatment in hospital as a result of these symptoms?

Yes	180	29.2
No	404	65.5
No response	32	5.2

If above is yes, were you admitted

Yes	52	8.4
No	128	93.0

Majority of the women 468(76.0%) in this study were parous, only 148(31.0%) were nulliparous. Out of the 468 parous women, 384 experience pregnancy symptoms in their previous pregnancies, giving a recurrence rate of 82.6%. A great majority of the parous women 323(83.3%) experienced pregnancy symptoms in all their pregnancies. It was also observed that pregnancy symptoms tend to reduce with increased parity; primiparous women were twice

more likely to have early pregnancy symptoms than women who have delivered twice. Odds Ratio = 2.15, P = 0.0001. They were also 11 times more likely to have symptoms than Para 4 women, Odds Ratio = 11.34, P = 0.00001.

The commonest effects of pregnancy symptoms experienced by the women was a strong feeling of discomfort, and it was noticed in 284(46.1%). This was followed by a general feeling of being unwell in 120(19.5%) of the cases. In 17.5% of the women, their main problem was interference with domestic activities. However, a majority of the pregnant women carried on fairly with their professional duties, as undue interference was only experienced by 7.1%.

When asked whether they regretted getting pregnant because of pregnancy symptoms, a great majority 572(93.0%) said no. Only 1.7% expressed regret getting pregnant; few women 8(1.3%) have actually terminated pregnancies in the past because of unbearable symptoms.

Most of the women in this study 404(65.5%) have not been treated in hospital because of pregnancy symptoms. However, 180(29.2%) have accepted receiving hospital treatment at one time or the other. Out of these, 52 have been admitted, giving an admission rate of 8.4%.

Discussion

Women hardly go through pregnancy without experiencing early pregnancy symptoms. The presence of these symptoms gives a high index of suspicion and usually necessitates the need to confirm the diagnosis. Thought married women frequently perceive pregnancy as the fruit of the womb, and a blessing from the Almighty God, the gestational period is not always juicy; it is at times turbulent, as it may be associated with profound pregnancy symptoms. [16]

The high prevalence rate of 89.6% was not surprising as pregnancy symptoms are known to be quite common. Besides, the rate was not at variant with the 89.0% reported in USA. [16] This study has clearly demonstrated that women with high parity were less vulnerable to early pregnancy symptoms than primigravidas. The reason for this is not very clear; further studies may be needed to crack this puzzle. Also, the very high rate of 59.1% among women from the Igbo speaking tribe, when compared to the predominant tribes in Nigeria, especially the Hausa/Fulani (1.2%) was however not surprising, because far more Igbo speaking women utilize this facility because of proximity.

Early pregnancy symptoms tend to be recurrent, and reports indicate that women tend to experience pregnancy symptoms in most of their pregnancies.[1, 2, 16] This fact was clearly validated in this study as the recurrence rate was as high as 82.6%. This study has also demonstrated that the risk of recurrence tends to decrease sharply with increasing parity, such that by para 4, they were 11 times less likely to have symptoms than primiparas.

Concerning the onset of pregnancy symptoms, amenorrhea seems to be the reference point for most women. However, Naegle's rule assumes that by the onset of amenorrhea, the women are already four weeks pregnant. Studies done in Durham, USA revealed that about 3% of women noticed early pregnancy symptoms before the date of missed period, and this rises sharply to 59% by five weeks, and 89% by eight weeks gestation. [16] This was similar to what was obtained in this study; the mean gestational age at onset of symptoms was 4.06 ± 1.64 weeks, and by eight weeks, about 87% of the women have developed pregnancy symptoms. However, it was observed that by eight weeks gestation, the rate starts to reduce exponentially, such that by 9 -12 weeks, the chances were 21 times lower than it was at four weeks gestation.

At what gestational age do pregnancy symptoms actually get worse? This issue has not been widely addressed because most studies tend to focus on specific symptoms. However, in most of the women in this study, the pregnancy symptoms were worse between 5 and eight weeks gestation, with a mean GA of 7.20 ± 2.15 weeks. It was also observed that above nine weeks, the rate at which the symptoms climax tend to reduce exponentially, such that by 29 - 32 weeks, the chances were ten times lower.

It is a well-known fact that the commonest early pregnancy symptom is amenorrhea, and it is usually experienced by all pregnant women.[7, 8] However, in early pregnancy, implantation bleeding and other early pregnancy bleeding disorders could cause confusion, and may delay the onset. The commonest early pregnancy symptom in this study was amenorrhea, accounting for 99.2%. However, this is not at variance with what was obtains in other centres. [One] it is very obvious that the women in Port Harcourt hardly experience implantation bleeding, as it was reported by only 0.6% of the parturients. A probable explanation is that the condition is under-reported because our women confuse it with menstruation or irregular vaginal bleeding.

Two notorious symptoms women consider very unpleasant are nausea and vomiting.[17] Studies done in the University of Lowa Hospital revealed that 25% of pregnant women suffer from nausea, and 50% have both nausea and vomiting. [18] This was very similar to the 52.3% obtained from this study, but varies widely with the 90% prevalence rate reported in Australia.[18] In 20.8% of the women; the symptoms were noticed in the morning (morning sickness). No case of hyperemesis gravidarum was reported in the study because they were assumed too ill to partake.

Urinary tract infections have been reported to be the commonest pregnancy-related infection, and prevalence rates of 8 – 30 % has been reported by various studies.[19, 20] unfortunately, the scope of this study did not permit screening for urinary tract infections. However, urinary symptoms were present in 36.4% of the parturients. Another notorious symptom which has been reported by many authorities is sialorrhoea gravidarum or ptyalism.[21, 22] Most women suffering from this condition have to carry lid to accommodate saliva wherever they go. Evidence emanating from this study indicates that pregnant women in Port Harcourt suffer very little from this condition, as it was reported by only 7.2% of the cases. However, this did not vary widely from the 2.4% reported in other centres. [22]

Low back pain is very common among pregnant women, and it's often distressful. Studies were done Southampton, the UK revealed that as much as 67% of pregnant women surfer from low back pain in early pregnancy, and in over 57.9%, the pain is severe enough to interfere with daily activities and sleep pattern. [1 2] Other studies have however reported similar rates of 62.8% and 55.4% [23, 24]. Comparatively, this study has revealed that the rate among pregnant women in Port Harcourt was quite low, as it was reported by only 17.5% of the women. There is no obvious explanation for this wide variation, but further studies are recommended.

Disorders of sleep are also common in early pregnancy, and are attributed to hormonal changes in pregnancy. Disorders which have been reported by various studies include: snoring, insomnia and changes in sleep pattern.[25] other studies have reported increased frequent of night waking, difficulty falling asleep, and increased symptoms of sleep apnea during pregnancy. [26] The prevalence of altered sleep during pregnancy has been reported from studies done in the

University of Melbourne, Victoria, Australia as 68%. [27] In this study, changes in sleep pattern were observed in 45.3% of the parturients. This was remarkably lower, probably because the above studies were carried out in the third trimester, instead of early pregnancy.

The point in time when early pregnancy symptoms resolve varies from person to person, from one pregnancy to another and from symptom to symptom. Though symptoms like nausea and vomiting usually resolve quite early around 12 weeks, others like eating disorders, heart burn, low back pain, and constipation may persist till late 3rd trimester. Similarly, most studies tend to focus attention on individual symptoms, and collective information was scanty. However, in this study, the symptoms were reported by most women to subside by 9 - 12 weeks, with a mean GA of 14.06 ± 3.85. As it was expected, there was a very high tendency for symptoms to resolve as gestational age advances, such that by 29 - 32 weeks, the chances were 12 times higher than it was at four weeks gestation.

Though the gestational period has been reported by many authorities to be associated with emotional and psychological stress, [1, 2,] five this does not seem to manifest strongly with the women in this study, as it was reported by only 9.7% of the cases. It was also observed from this study that women in Port Harcourt tend to cope favourably with the stress of pregnancy, as there was little interference with professional and domestic activities in 1.7% and 17.5% respectively. This has also reflected in the low treatment rate of 29.2%, and the very low admission rate of 8.4%. However, the effects of early pregnancy symptoms predominantly manifested as a general feeling of discomfort and being unwell in 46.1% and 19.5% respectively.

It is very obvious from this study that no matter how drab adverse pregnancy symptoms may seem to be, it does not deter women from the Niger Delta from getting pregnant. When asked whether they ever regretted getting pregnant because of unbearable symptoms, only 1.7% expressed regret, and in the past, only 1.3% has actually terminated a pregnancy because of pregnancy symptoms. This may be because our socio-cultural environment encourages child bearing, with large family size, besides, Ijaw women are generally very fertile and love having children.

CONCLUSION

Women in Port Harcourt hardly go through pregnancy without experiencing multiple pregnancy symptoms. The prevalence rate was high, especially among Primigravidas, and symptoms tend to be recurrent among multiparous women. Pregnancy symptoms tend to occur quite early around four weeks gestation, peaks at about 5 – 8 weeks, and begin to subside by 9 – 12 weeks. Amenorrhea was the most consistent symptom, but others were also common, especially nausea and vomiting, and urinary symptoms. Our pregnant women seem to cope favourably

with these symptoms, as a majority tends to carry on with domestic and professional activities. This has also reflected in the low admission rate.

References

1. Sayle AE, Wilcox AJ, Weinberg CR, Baird DD**.** A prospective study of the onset of symptoms of pregnancy.Journal of Clinical Epidemiology. 2002; 55 (7): 676-80
2. Smith C, Crowther C, Beilby J, Dandeaux J. Aust. The impact of nausea and vomiting on women: a burden of early pregnancy. Australia and New Zealand Journal of Obstetrics and Gynaecology. 2000; 40 (4):397-401.
3. Woolhouse M*.* Complementary medicine for pregnancy complications*.* Australian Family Physician. 2007*;* 35*(9):*695*.*
4. Einarson TR*,* Piwko C*,* Koren G*.* Quantifying the global rates of nausea and vomiting of pregnancy: a meta-analysis*.* Journal of the Population Therapeutics and Clinical Pharmacology.2012*;* 20*(2):*171 - 83
5. Miller F*.* Nausea and vomiting in pregnancy: the problem of perception--is it really a disease?American Journal of Obstetrics and Gynecology. 2002*;* 186 *(*5*):*182-3
6. Eliakim R*,* Abulafia O*,* Sherer DM*.* Hyperemesis gravidarum: a current review*.* American Journal of Perinatology. 2000*;* 17*(4):*207-18*.*
7. Jewell D*,* Young G*.* Interventions for nausea and vomiting in early pregnancy. Cochrane Database of Systematic Reviews. 2003*;* 4*.*
8. Sabate JM, Clotet M, Torrubia S, Gomez A, Guerrero R. De LasHaras P, Lerma E. Radiological evaluation of breast disorders related to pregnancy and lactation. Radiographics. 2007; 27 (1): 101 – 24.
9. Robbins J, Jeffries D, Roubidoux M, Helvie M. Accuracy of diagnostic mammography and breast ultrasound during pregnancy and lactation. American Journal of Roentgenology. 2011; 55(1): 33-42.
10. Michelim L, Bosi GR, Comparsi E. Urinary Tract Infection in Pregnancy: Review of Clinical Management. Journal of Clinical Nephrology and Respiration. 2016; 3(1): 1030.
11. Victor Fornari, Ida Dancyger, Jessica Renz, Rebecca Skolnick, Burton Rochelson. Eating disorders in pregnancy. Open Journal of Obstetrics and Gynecology. 2014; 4: 90-4
12. Alda Marques, Sara H Demain, Pedro Sa-Couto. Women's experiences of low back pain during pregnancy. Journal of Back and Musculoskeletal Rehabilitation 2015; 28: 351–7
13. Jimoh, A. A. G. Omokanye L. O. Salaudeen A. G. Saidu R. Saka M. J. Akinwale A. Balogun O. R. and Sulaiman Z. A. Academic journals. Prevalence of low back pain among pregnant women in Ilorin, Nigeria. 2013; 4(4): 23-6.
14. Van Dinter MC. Ptyalism in pregnant women. Journal of Obstetrics and Gynecology and Neonatal Nursing. 1991; 20:206-9.
15. Ross LE, Sellers EM, Gilbert Evans SE, Romach MK. Mood changes during pregnancy and the postpartum period: development of a biopsychosocial model: Development of psychosocial model. Acta Psychiatrica scandinevica. 2004; 109 (6); 457 – 66

16. Amy E. Sayle a, Allen J. Wilcox a, Clarice R. Weinberg b, Donna D. Baird. A prospective study of the onset of symptoms of pregnancy. Journal of Clinical Epidemiology. 2002; 55: 676–80.
17. Niebyl JR. Nausea and vomiting in pregnancy. The New England journal of medicine. 2010; 363(16):1544-50.
18. Tricia Taylor, Australian Prescriber. Treatment of nausea and vomiting in pregnancy. 2014; 37: 42-5
19. Schnarr J, Smaill F. Asymptomatic bacteriuria and symptomatic urinary tract infections in pregnancy. European Journal of Clinical Investigations. 2008; 38(2):50-7.
20. Anbrin Salik, Arif Tajammul, Javed Iqbal et al. Frequency of urinary symptoms in pregnancy. Biomedical. 2015; 21.
21. Van Dinter MC. Ptyalism in pregnant women. Journal of Obstetrics and Gynecology and Neonatal Nursing. 1991; 20:206-9.
22. Bernstine RL, Friedman MHF. Salivation in pregnant and non-pregnant women. Obstetrics and Gynecology. 1957; 10(1): 84-9.
23. Ibanez G, Khaled A, Renard JF, Rohani S, Nizard J, et al. Back Pain during Pregnancy and Quality of Life of Pregnant Women. Prim Health Care. 2017 7: 261-3
24. Ayanniyi O, Sanya AO, Ogunlade SO, Oni-orisan MO. Prevalence and Pattern of Back Pain among Pregnant Women Attending Ante-Natal Clinics in Selected Health Care Facilities. African Journal of Biomedical Research. 2016; 9:149-56
25. Grace W. Pien, MD; Richard J. Schwab, MD. Sleep disorders in pregnancy. 2004; 27(7):1405-17.
26. Jodi A. Mindell, Barry J. Jacobson. Sleep disorder during pregnancy. Journal of Obstetrics and Gynaecology and Neonatal Nursing. 29: (6): 590–7
27. Suzuki S, Dennerstein L, Greenwood KM, Armstrong SM, Satohisa E. Sleeping patterns during pregnancy in Japanese women. Journal of Psychosomatics in Obstetrics and Gynaecology. 1994; 15:19-26.