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Research about:

Factors Influencing Utilization of Antenatal Care Services Among Pregnant Women in Eldaow Hagog Health Center 2016

A thesis submitted in requirements of partial fulfill for the master's degree in community health Nursing

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَوَصَّيْنَا الْإِنْسَانَ بِوَالِدَيْهِ

قال تعالى:-

وَوَصَّيْنَا الْإِنْسَانَ بِوَالِدَيْهِ حَمَلَتْهُ أُمُّهُ وَهْنًا عَلَيَّ
وَهْنٍ وَفِصَالُهُ فِي عَامَيْنِ أَنِ اشْكُرْ لِي وَلِوَالِدَيْكَ
إِلَى الْمَصِيرِ

صدق الله العظيم

سورة لقمان - الآية (14)

Dedication

*To the soul of my heart really you are terrific
and gentle thank you for supporting through
out the process of completing this degree*

My husband Tarig

To My honor , strength, and my light,

My parents, sisters & brothers

To my children you are treasures from god and

I'm blessed

(Khalid, Abd elrahman)

To

My teachers, friends and Colleagues

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First the greatest thanks to God Almighty

Allah.

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Dr. Mohammed Jaber Eldar Abu Anga

*For her support, guideline and patience, thanks a lot for
her.*

Finally I would like to thanks all of

*the people who help me in this research, all pregnant
mother and all the staff in ther center*

ملخص الدراسة

مقدمة: الرعاية اثناء الحمل هي مفتاح الإستراتيجية لتقليل معدل المراضة معدل الوفيات للام جنينها كما ان الاستخدام الجيد لخدمات الرعاية اثناء الحمل يساعد في الاكتشاف المبكر لاي خطر يصاحب الحمل .

الهدف:تقييم العوامل المؤثرة على استخدام النساء الحوامل لخدمات الرعاية اثناء الحمل بمركز صحي الضوء حجوج

طريقة البحث: أجريت هذه الدراسة الوصفية المقطعية بمركز صحي الضوء حجوج بأمر درمان في الفترة من سبتمبر إلى ديسمبر 2016م لتقييم العوامل المؤثرة علي استخدام الحوامل لخدمات الرعاية أثناء الحمل. أخذت العينة من 140 حامل بواسطة العينة المتيسرة و تم جمع البيانات باستخدام استبيان ذات أسئلة مغلقة تم تحليل بواسطة الحزم الإحصائية للعلوم الاجتماعية وعرضت النتائج في أشكال وجداول.

النتائج: وجدت هذه الدراسة أن للدخل الجيد والمستوي التعليم العالي للام والزوج اثر جيد في استخدام الخدمات. وان للحوامل رضا نفسي تجاه سلوك الكادر الصحي ورعايته. كما أن زمن انتظار الرعاية وقرب المسافة لا يؤثران سلبيا علي قبولهم للرعاية. ووجدت الدراسة أن اكثر من نصف الامهات (58.6%) يحضرن بانتظام لمتابعة الحمل و ان (60.0%) منهن بدأن المتابعة في الفترة الأولى من الحمل و ان(75.7%) قد تلقوا التطعيم ضد التيتنوس. و ايضا معظم الحوامل قدأجرين فحص هيموقلوبين وسكر الدم(92.1%) و الفحص الروتيني للبول(94.3%)

ووجدت الدراسة ان(99.3%)من الحوامل يؤكدون علي أهميه متابعة الحمل و ان ثلثي مجموعة الدراسة (66.4%) يعرفن عدد الزيارات اثناء الحمل و موعد ابتداء تناول أقراص حمض الفوليك

التوصيات: وأوصت الدراسة بزيادة التوعية عن أهمية المتابعة والكشف الدوري عبر وسائل الاعلام والكوادر الصحية لزيادة استخدام خدمات الرعاية اثناء الحمل.

Abstract

Background : Antenatal care is a key strategy for reducing maternal and neonatal morbidity and mortality rate and the adequate utilization of antenatal health care services helping early detection of any risk associated with pregnancy.

Aim:the aim of this study Assessment of the Factors influencing utilization of antenatal care services among pregnant women in El daow Hajoj health center 2016.

Methods: This was descriptive study aimed at assessing the factors influencing the utilization of antenatal care among pregnant women in Eldaow Hagog primary health center, convenience sampling technique, 140 pregnant mother were selected, data collected using self structured questionnaire, analysis was done using scientific package of social sciences SPSS,

Result: the study revealed that the good socioeconomic status affect positively the utilization of services high literacy of mother and husband, good income family are more utilize the ANC services, the study revealed the satisfaction toward the services and the attitude of health care provider affect positively the utilization, while the proximity and time waiting consider not effect negatively the attendance and utilization, the study finding more than half(58.6%) of pregnant women attended the ANC regularly and(60.0%) of them start the first visit in the first trimester, (75.7%) received the tetanus vaccine. Most of the study group(92.1%) received blood sugar and hemoglobin test and(94.3%)received Urine general test. And tow third of study group (66.4%) had adequate knowledge about the number of the first visit, and time of starting the folic acid.

Recommendation: The study recommend that the important of role of mass media and health care providers on the education about the antenatal care and fallow up to increase the utilization of the antennal care services.

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List of abbreviations

Abbreviation	Term
ANC	Antenatal care
DM	Diabetes mellitus
Hb	Hemoglobin
HTN	Hypertension
P.P	Placenta previa
PIH	Pregnancy induced hypertension
UTI	Urinary tract infection
WHO	World Health Organization

Introduction:

Pregnancy is a period at which a woman's health is placed at risk. However, health care professionals providing antenatal care (ANC) can reduce that risk by monitoring women' health regularly and offering both preventive and curative services. Worldwide, an estimated 515,000 women die of pregnancy-related causes, a rate of over 1,400 maternal deaths each year. The overwhelming majority of these deaths and complications occur in developing countries. ⁽¹⁾

The Millennium Development Goals(MDGS) aim to reduce the maternal mortality ratio(MMR)by three quarters by 2015The Antenatal Care(ANC) is considered as a focused strategy to reduce MMR⁽²⁾

The maternal mortality ratio in developing countries is 240 per 100 000 births versus 16 per 100 000 in developed countries. There are large disparities between countries, with few countries having extremely high maternal mortality ratios of 1000 or more per 100 000 live births.In 2010, The maternal mortality ratio in Sudan was estimated at 750/100,000 live births. Sudan was one of eleven countries that are responsible for 65% of global maternal deaths according to a World Health Organization (WHO) estimate.

Women and children in developing countries are dying from simple preventable conditions. WHO estimated that more than 500,000 mothers die each year because of pregnancy and related complications. It was found that about 88% to 98% of all maternal deaths could be avoided by proper handling during pregnancy and labour⁽³⁾

The estimated Maternal Mortality Ratio (MMR) in Sudan is 1107 per 100.000 live births and represents one of the highest in WHO-EMRO region. However only 69.6% of pregnant women in Sudan have access to services; that is targeted to be increased to 90% by the end of the year 2010, We have

previously suggested that the high maternal and prenatal mortality in Sudan could be reduced by increasing the use of antenatal care ⁽²⁾

Adequate prenatal care was recognized as an important factor in the reduction of maternal and newborn deaths newborn deaths⁽³⁾

Many initiatives have been implemented to increase coverage of maternal health services. These include the expansion of maternal and newborn health services across Sudan through the renovation and construction of health facilities, and building the capacity of health care providers ⁽⁴⁾

The antenatal care play very important role in caving the mother and fetal health ,so it is necessary to study and understand the factors influencing the utilization of this important cervices to contribute in promotion and increases the up take among pregnant women.

Justification

As In other developing countries, ANC services in Sudan are underused. The first round of the Sudan Household Health Survey (SHHS-1) conducted in 2006 found that 69.6 % of pregnant women attended ANC at least once during their pregnancy. The SHHS-2, conducted in 2010, reported a slight increase to 74.3 %, although this remains lower than the national target of 90 % of pregnant women accessing ANC⁽⁴⁾.so this study conduct in Eldaow hajooj because it is big referral center in Omdurman and the pregnant women came to this center from different areas , to study the factors influence the utilization to contribute in increasing the utilization of antenatal care.

Objectives

General objective:

Assessment of the Factors influencing utilization of antenatal care services among pregnant women in El daow Hagog health center 2016.

Specific objectives:

1. To assess the knowledge of women about importance of antenatal care services.
2. To assess maternal utilization of antenatal care services.
3. To determine the factors affect the utilization of antenatal care.

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Literature Review

2.1. Background

Prenatal care is ideally a multi disciplinary an activity in which nurses work with physicians or midwives, nutritionist, social worker and others collaboration among these individual is necessary to provide holistic care. ⁽⁵⁾

2.2 Definition:

Prenatal care Is the care of a pregnant woman and her baby throughout a pregnancy . Such care involves regular visits to a doctor or midwife, who performs abdominal examinations, blood and urine tests, and monitoring of blood pressure and fetal growth to detect disease or potential problems. ⁽⁵⁾

Ante natal care is the clinical assessment of mother and fetus during pregnancy for the Purpose of obtaining the best possible out come for the mother and child. Ante natal care is a time of physical and psychological preparation for birth and parenthood becoming a parent represent one of the maturational crises of peoples lives and as such it is a time of intense learning for parents and those close to them. ⁽⁶⁾

2.3 The aim of ante natal care:

The aim of ante natal care is screening the high risk cases to prevent or detect or treat at the any earliest complication to ensure continue medical surveillence and prophylaxis, to educate the mother about the physiology of pregnancy and labor and preparing the women for labor location and care of her baby, providing safe delivery for mother and her new born and preparing parent for responsible and parenthood, To discuss with the couple about the place ,time and mode of the delivery , to motivate the couple about the need of family planning to advice the mother about breast feeding, post natal care and immunization. ⁽⁵⁾

2.4 Importance of ante natal car:

Ante natal care is very important to monitoring the maternal health and the development of the fetus during pregnancy through health check up to identify any risk causing factor and complication during pregnancy. Immunizing the mother to be against tetanus to protect her and her infant. Promoting good nutrition hygiene, exercise and rest in the expecting mother. Providing iron and folic acid supplement during pregnancy.

Giving mother knowledge on the elements of child care, The need for family planning and the importance of birth spacing, Removing anxiety and dread associated with delivery. ⁽⁵⁾

2.5 Content of antenatal care:

2.5.1 General History:

To know whether the woman had any significant, Weather or not she has taken drugs, pervious surgical treatment ,particularly gynecological operation, may be relevant Illness including cardiac disease, renal disease, blood transfusion.

2.5.2 Family History:

Any disease with hereditary tendency, including diabetes and hypertension is recorded .a family history of twins.

2.5.3 Occupational history:

- ❖ Occupation. Exposure to chemicals or other harmful substances.
- ❖ Opportunity for regular lunch breaks of nutritious snake.
- ❖ Previous of maternity leave.

2.5.4 Nutritional history:

The nutritional status has a direct effect on the growth and development of the fetus, a dietary assessment can reveal special diet practices, food allergies, eating behaviors, the practice of pica and, Pregnant women motivated to learn about good nutrition respond well to nutritional advice generated by this assessment.

2.5.5 Past obstetric history:

If the woman has been pregnant before ,she is questioned about previous pregnancy and labor. A history of raised blood pressure might suggest pregnancy induced hypertension, with the possibility of recurrence, history of previous labors is a guide to what may be expected in the coming labor, a history of post partum hemorrhaged would be a warning of possible recurrence, it is essential to know the birth weights of any previous children the cause of any stillbirth or neonatal death should be ascertained whenever possible ,some times by writing to the doctor who was then in charge of the patient.

2.5.6 History Of The Present Pregnancy:

The date of the first day of the last menstrual period must be carefully recorded, if she was using oral contraception this may be relevant, as may a history of sub fertility and the form of treatment used. Any episode of vaginal bleeding or pain in early pregnancy should be noted, and the occurrence of any incidental illness or drug treatment recorded the doctor will then examine the abdomen. ⁽⁷⁾

2.5.2 General Examination:

The woman is weighted, and her height and development are noted ,the breasts are examined to exclude a tumor, and to check the nipples for breast feeding .the blood pressure is recorded and the heart and lung examined .the teeth should be inspected for the presence of gum infection and caries, and dental care encouraged the legs should be examined for the presence of varicose vein, edema and any other abnormality ⁽⁶⁾

An examination of the abdomen is made, including auscultation of the fetal heart sound .if the pregnancy has reached 24weeks pinnard stethoscope will suffice ,while before this fetal blood flow through the fetal heart can be demonstrated with a hand held Doppler monitor from as early as 12 weeks.⁽⁵⁾ Inspection to check movement, Assess the size of the uterus, The shape of the uterus, Contour of the abdominal, Fetal Fundal height.

on palpation the Fundal palpation To determines the presence of the breech or the head .to detect soft consistency and identifiable out line that denotes the breech ,Pelvic the palpation: If the head is presenting, a hard mass with a distractive round, if pelvic wide enough a part to accommodate 55the fetal head and Lateral palpation It is used to locate the fetal back in order to determine position.⁽⁵⁾

The health status of the fetus is assessed at each visit for the remainder of the pregnancy.

Fetal gestational age determined from the menstrual history , contraceptive history, pregnancy test result ,and the following finding obtained during the clinical evaluation.

- ❖ First uterine evaluation: data, size.
- ❖ Date of quickening.
- ❖ Current fundal height, estimated fetal weight.
- ❖ Current week of gestation by history of large menstrual period and\ or ultra sound examination.⁽⁷⁾

2.6Follow –up visit:

Monthly visits are scheduled routinely during the first and second trimester. during third trimester however the possibility for complications increases and closer monitoring is warranted starring with 28 week mattering visits are scheduled every2 week until 36 week and then every week until birth – unless the health care provider individualize schedule –individual need

complication and risk of pregnant woman may warrant visits more or less often the pattern of interviewing the woman first and then assessing physical change and performing laboratory tests is maintained. ⁽⁷⁾

2.6.1 Initial visit:

The initial evaluation includes the initial visit usually occurs in the first trimester ,with monthly visits through week 28 of pregnancy thereafter, visits are scheduled every 2weeks until 36 weeks, and then every week until birth. the pregnant woman and family member who may be done present should be told that the first prenatal visit is more lengthily and detailed than are future visit. ⁽⁶⁾

comprehensive health history, physical, assessment, diagnostic testing and an over all risk, assessment depending on the duration of gestation.

2.6.2 Subsequent antenatal visit:

Antenatal visit are monthly until 28weeks,the fortnightly until 36 weeks and then weekly until the baby is born .if there are any pregnancy complications or special considerations the mother may need some extra visits.

These visits are usually straight forward check -up ,they are necessary to check the progress in pregnancy ,and wellbeing the well being of baby, to identify problems and to start planning of the delivery. ⁽⁶⁾

2.6.3 The following checks will be made at each subsequent antenatal visit:

Blood pressure ,abdomen palpation, ultra sound scan of the baby to check the baby well being and growth, urine testing for protein toxemia, kidney disease and if the mother have RH negative blood group the mother will be offered prophylaxis anti- D injections twice in the pregnancy to protect the baby from RH disease .the first will be after 28 week blood test results are know and the second will be at about 36weeks ,if the mother have bleeding in the pregnancy they will extra anti- D to be given. ⁽⁶⁾

2.7 Laboratory Tests Provide in Ante Natal Care:

At the first visit to clinic, the following routine hematological and urinary investigation are recommended:

1-Haemoglobin concentration and where indicated, a complete blood picture, this should be repeated on at least two subsequent occasions at 28 weeks and 36weeks gestation .

2-determaine of blood groups (ABO and RH) should be routinely performed and include screening for RH anti bodies in RH negative women .if no antibodies are detected ,the test should be repeated at 32 weeks gestation. ⁽⁸⁾

Clean –catch urine specimen is obtained to test for glucose ,protein, nitrites and leukocytes at each visit .urine specimens for culture and sensitivity ,as well as blood samples are obtained only if signs and symptoms warrant. It is recommended that the maternal serum alpha fetoprotein, screening be done between 15and 22 centimeter, ideally between 16 and 18centimeter. Ultrasonography for more in depth investigation. A glucose challenge is usually done between 24 and 28 of gestation, amniocentesis, a procedure used to obtain amniotic fluid for analysis (hematocrit, hemoglobin. ⁽⁵⁾

2.8 Ante Natal Education:

An important part of ante natal care is in the preparation for child birth and subsequence care of the child, ante natal education should ideally start before pregnancy as part of school education and it should continue throughout pregnancy and the puerperium. Whatever approach is considered preferable, there is a common need to inform the mother of the changes she can expect during pregnancy and of the nature of labor and delivery ,the education program should also include parent craft and the advice on care of the child should be continued in the puerperium. ⁽⁶⁾

During pregnancy the woman should be advised by the nurse to attend the education classes which are now generally available at antenatal clinics. this education classes help women in provide knowledge about pregnancy and labor, it is very important totally any anxiety about labor, a simple explanation of the stages of labor should be given to the woman so that she will know what to be expect .this is a convenient time to discuss analgesia and to help the woman to prepare a birth plan if she so wishes .a visit to the labor ward where she can meet some of the staff will help to familiarize her with a strange environment. ⁽⁶⁾

2.8.1 Dietary Advice:

A poor quality diet may predispose pre term labor and increased preterm prenatal mortality, but claim that hypertension can be prevented by modification of the diet during pregnancy have not been substantiated ,there is no need for a large increase in calorie value of the diet 2400 calories is recommended protein should be increased ,in the later half of pregnancy, there is need for a considerable increase in the intake of calcium with progress during pregnancy, phosphors, vitamin increase with progress during pregnancy, decreased amount with progressive during pregnancy, and probably of other trace elements, to supply the needs of the growing fetus and to prepare for lactation .many woman have poor iron reserves at the beginning

of pregnancy so it is necessary to check the hemoglobin level throughout pregnancy, During pregnancy megaloblastic anemia from deficiency of folic acid may occur, and in many clinics combined pills are used, containing iron with a daily dose of 0.5mg of folic acid, mother must be increased taken iron during pregnancy. ⁽⁵⁾

There is ample evidence that the outcome of pregnancy can be influenced by dietary intake, gross malnutrition is known to result in intra-uterine growth retardation, anemia, prematurity and fetal malformation.

Lesser degrees of malnutrition may also be associated with increased frequency of fetal malformation and it is therefore important to identify those mothers who have poor dietary intake and provide advice for all mothers during pregnancy. there is also some evidence to suggest that mothers who have experienced complications in a previous pregnancy may benefit from appropriate dietetic advice which may prevent the development of abnormalities. ⁽⁸⁾

2.8.2 Caloric Intake:

A total caloric intake of 2000 to 2500 calories a day is optimal during the last two trimesters and this requirement may increase to 3000 calories per day in the puerperium in lactating women.

2.8.3 Protein:

An average of 60-80g per day is desirable, and the diet is particularly likely to be deficient in lower socioeconomic groups and in association with vegetarian diets. Animal protein is obtained from meat poultry, fish eggs and cheese. vegetable protein occurs in nuts, lentils, beans and peas, mother must be increase protein amount with progressive pregnancy. ⁽⁶⁾

2.8.4 Rest and Exercise:

Although violent exercise is imprudent during pregnancy the woman should be encouraged to continue all ordinary activities.

In many clinic woman are given instruction in ante natal exercise these are directed more to posture and general physique than to the muscle especially concerned with child birth .adequate sleep must be secured ,with a sufficient number of hours in bed. ⁽⁶⁾

Pregnant women should be encouraged to under taken reasonable activity .this will be limited with advancing gestation by the physical restrictions imposed by the pregnancy but during early pregnancy there is no need to restrict sporting activities beyond the commonsense limits of avoiding excessive exertion and fatigue .swimming is helpful, particularly in late pregnancy. ⁽⁸⁾

2.9Vaccination during pregnancy:

Some infections can harm the mother and her baby during pregnancy .this is why vaccinations are so important they help to protect the baby from infection and help to keep the baby safe during the first few months of life until he gets his own vaccination. Vaccinations also protect the mother from getting a serious disease that could affect future pregnancies. ⁽⁶⁾.

2.10Role of community nurse inANC:

- ❖ **Care giver:** to miximize the women's health during ,after pregnancy, detect problems.
- ❖ **Coordinator:** ensures holistic, voluntary and social services for pregnant lady
- ❖ **Leader:** reduces admission to hospital and result in significant less intervention during birth.
- ❖ **Communicator:** develop trust relationship, helb in solving problems.
- ❖ **Educator:** provide health education to promote healthy life.
- ❖ **Counselor:** about prenatal self care including; nutrition, hygiene, breast feeding and danger signs in pregnancy and childbirth.
- ❖ **Family planner:**

Provide information about all kinds of family planning methods .

- ❖ **Super visor:** monitoring pregnant lady condition and her fetus to identify early complications. ⁽⁵⁾

2.11 Factors that influences utilization & satisfaction of ANC services:

2.11.1 Socio-demographic factors:

Age: older women belong to more traditional cohorts and thus be less likely to use modern facilities than young women, occupation, income level ,level of education: utilization of ANC high among women with higher economic status, educational level of husband & wife, and employed pregnant women .also cultural and religious affect utilization of ANC

Marital status: unmarried less likely to seek ANC due to lack of support of parent guardians and spouses

2.11.2 Knowledge & utilization:

About sexuality, pregnancy, nutrition, family planning, requirement for attending ANC schedule of ANC visits.

2.11.3 Factors of accessibility of ANC and utilization:

Access to ANC is important point to promote positive health practice.

2.11.4 Quality of the services rendered factors:

Include personal behavior, skills of personnel, attitude and past experiences. ⁽⁹⁾

2.12.1 Maternal & child health:

Refer to promotion, prevention, curative and rehabilitation health for mother and child.

2.12.2 Goals of MCH SERVICES:

- ❖ Ensure the birth of healthy infant.
- ❖ Provide services to promote growth & development of child under five years.
- ❖ To identify health problem for child and mother and treated.
- ❖ To prevent malnutrition in mother and child.

- ❖ To prevent communicable and non communicable diseases in mother and child.
- ❖ To promote family planning services.
- ❖ To educated mother on improvement of their health and their children and health. ⁽⁵⁾

3 Methodology

3-1 Study design:

This study is descriptive, cross sectional community based research, to assess factors influencing utilization of anti natal care services among pregnant women in El daow Hagog primary health center.

3- 2 Study duration:

In period extended from September to December 2016.

3-3 Study area:

Khartoum state. It is located at the confluence of the White Nile, flowing north from Lake Victoria, and the Blue Nile, flowing west from Ethiopia. The state lies between longitudes 31.5 to 34 °E and latitudes 15 to 16 °N. It is surrounded by River Nile State in the north-east, in the north-west by the Northern State, in the east and southeast by the states of Kassala, Gedaref and Gezira, and in the west by North Kurdufan.

Khartoum, the national capital Sudan, is the capital o the Khartoum State. The state o Khartoum is divided intae seven localities: al-Khartoum Locality, al-Khartoum Bahri, Umdurman, Jabal Awliya,. Sharq an-Nile, Ombadda and Karari.

The health services are provided in addition to the ministries of health (federal, state and localities), by health sub-systems like insurance schemes, armed forces, and private providers. For provision of service, health care is organized at three levels: primary, secondary and tertiary level ,government hospital is the major health facility providing secondary health care services. Primary health care is delivered through the 81 referral health centers.

3-4 Study setting:

El daow Hagog primary health center. is located in Umdrman city in Abcadook neighborhood west of Elarbaeen street North east the administration of the passport. The center provides the services mainly for the

fallowing area. Banatsharig, Banat ghrib, Elabasia, and all the population surround the Abcadook neighborhood.

The center is equipped with the essential services of primarily health care component: vaccination, maternal and child health, child nutrition, in addition to curative care, facilitated with diagnostic services and dental care.

In terms of personnel, the health center has medical doctors and nurses including - medical assistants and about clinical officers.

The frequency of the pregnant women is about 400 pregnant per month. They receive the services from both the health visitor and the specialist.

3-5 Study population:

Pregnant women attending ANC service in Eldaow Hagog primary health center.

3-6 Sampling technique:

The sample was taken by non probability method sampling (Convenience sample).

3-7 Sample size:

The study included (140) pregnant women whom were attending the ANC.

3-8 Data collection tool:

Data was collected by using structured questionnaire developed by researcher based on literature review.

3-9 Layout questionnaire:

Composed of (35) questions. And four part

Part one: (6) questions about demographic data

Part tow: (7) Questions related to utilization of the antenatal care.

Part three:

About the knowledge about the antenatal care and content (9) question.

Part four

Factors influencing utilization of antenatal care services are (8) questions.

The questionnaire was tested for content validity by experts. A pilot study was carried out to test the reliability..

3-10 Data Collection technique:

The data was collected by direct interview (face to face) between researcher and respondent, with in period extended from September to December 2016on Tuesday, Wednesday, Thursday, at the time 9am-11am (days of obstetrician and health visitor attendance) the fulfill of questionnaire by researcher every questionnaire takes 7-10minutes.

3-11 Data analysis:

The data was analyzed by statistical package for social science (SPSS version 21) and presented in form s of table s and figures.

3-12 Ethical consideration:

Ethical approval to conduct the study well obtained from the the university of Shendi ,faculty of the post graduate department and then from Khartoum Ministry of Health under research committee

of Ministry, Permission to conduct the study also sought from the administration of Eldaow Hagog health center. Verbal consent was obtained from participating mothers, To maintain confidentiality for participating numbers instead of names were used on the questionnaires.

Results

Table no (1): Distribution of the study population according to their Socio- Demographic Characteristics (Residence, age, Occupation): (n=140)

Socio demographic data	Frequency	Percent
Residence		
Umbada	23	16.4%
Eljamoaya	37	26.4%
Salha	28	20.0%
ALfytuhaab	25	17.9%
Omdurman	18	12.9%
Khartoum	5	3.6%
Jadeen	4	2.9%
Total	140	100.0%
Age		
15-19 years	6	4.3%
20-30 years	71	50.7%
30-35 years	46	32.9%
more than 35 years	17	12.1%
Total	140	100
Occupation		
House wife	116	82.9%
Worker	8	5.7%
Student	5	3.6%
Employed	11	7.9%
Total	140	100.0%

Above table illustrated that (26%) (of pregnant live far away from the center in Eljamoaya while (17.9%) of them live in El Fityhab and (1 2.9%) live in Omdurman. (20.0%) live in Salha, , (3.6%) live in Khartoum, (2.9%) live in Jadeen.

About the age the table showed that(50.7%) their age range between20-30years, while (32.9%) their age range 30-35years, and. (12.1%) their age more than35years ,(6%) their age range15-19years, about the occupation The table revealed that (82.9%) of respondent were house wife while. (7.9%) of the pregnant were Employed, and (.5.7%) were worker, (3.6%) were student

Table no (2): Distribution of the study population according to their Socio- Demographic Characteristics (marital status, Religion ,Level of education : (n=140)

Marital status		
Married	139	99.3%
Divorced	1	.7%
Total	140	100.0%
Religion		
Muslim	140	100%
Christian	000	000
Total	140	100%
Level of education		
Illiterate	10	7.1%
Primary level	39	27.9%
Secondary	39	27.9%
University	49	35.0%
Post graduate	3	2.1%
Total	140	100.0%

Above table illustrated that.(99.3%) of the respondent were married and all of them were Muslim, (35%) of study group their level of education was Universal level, (27.9%)were primary level, and (27.9%) were secondary level. While (7.1%) Illiterate and (2.1%) were Post graduate.

Table (3) Distribution of the study population according (Socio-Demographic Characteristics (Income, Husband occupation, - husband education and parity) : (n=140)

Income	Frequency	Percentage
500 - 1000 SDG	16	11.4%
1000 - 2000 SDG	83	59.3%
MORE THAN 2000 SDG	41	29.3%
Total	140	100.0%
Husband occupation		
Employer	27	19.3%
Worker	5	3.6%
Free business	83	59.3%
Other	25	17.9%
Total	140	100.0%
Husband education		
Illiterate	6	4.3%
Primary level	36	26.0%
Secondary	53	37.9%
University	36	25.7%
Post graduate	9	6.4%
Total	140	100.0%
number of child		
1-2	51	36.4%
3-4	45	32.1%
More than 4	18	12.9%
Prime gravid	26	18.6%
Total	140	100.0%

Above table clarify that(59.3%) their income between(1000 - 2000)SDG, while(.11.4%) their income range between(500 - 1000) SDG, and(..29.3%) their income more than 2000 SDG.

About husband occupation the table showed that (59.3%) of respond anent husbands were free business, (19.3%) were employers, (3.6%), were worker, while (17.9%) were other occupation, regarding the study group husbands education the table showed that (37.9%) of the study group their husband had Secondary level, (26.0%)had Primary level, while (25.7%) were University level, (6.4%) were post graduate level, and(4.3%) were Illiterate. about child number (36.4%) had (1-2) child. while (32.1%) had 3-4 child's, (12.9%) had more than four child, and (18.6%) were prima gravid.

Table (4) Distribution of study population according their utilization of antenatal care in present pregnancy: (n=140)

Gestational age	Frequency	Percent
1-3 month (0-12 Weeks)	19	13.6%
4-6 month (13-24 Weeks)	52	36.6%
7-9 month(25-36 Weeks)	69	49.3%
Total	140	100.0%
The regularity for antenatal care		
Regular	82	58.6%
Irregular	58	41.4%
Total	140	100.0%
The time of starting the antenatal care		
0 – 3 months (0-12 Weeks)	84	60.0%
4 – 6 months (13-24 Weeks)	51	36.4%
7 – 9 months (25-36weeks)	5	3.6%
Total	140	100.0%
Reasons for attending antenatal Clinic		
Regular visits	128	91.4%
Complications	12	8.6%
Total	140	100.0%

Above table showed that (49.3%) of study group were in third trimester, (36.6%) were in second trimester. And(13.6%) were in the first trimester.

about the attending regular to antenatal clinic (58.6%)of responders attend for antenatal care regular. While (41.4%)did not attending regularly. about timing of the first visit (60.0%)of responders started the antenatal care according to the recommended in the first trimester, while (36.4%)started the antenatal care in second trimester, and (3.6%) were starting too late in the third trimester. (91.4%)attending the clinic for fallow up and(8.6%) had complications.

Table no (5) Distribution of study population according to their utilization of antenatal care in previous pregnancy: (n=140)

Item	Frequency	Percentage
Attendance TO ANC		
Regular	112	98.2%
Irregular	2	1.8%
Total	114	100.0%ss
Number of visits		
1-2	4	3.5%
3-4	40	35.1%
More than 4	44	38.6%
Not remember	26	22.8%
The time of starting ANC		
1-3 months(0-12 Weeks)	79	69.3%
4-6(13-24 Weeks	31	27.2%
7-9(25-36weeks)	1	.9%
Not remember	3	2.6%
Total	114	100.0%
Occurrence of complications		
Yes	33	28.9%
No	81	71.1%
Total	114	100.0%

Above table showed the utilization of the antenatal care in previous pregnancy, (98.2%) were attending the clinic regularly. While only (1.8%) were not. about the number of visits (38.1%) had more than four visit, (35.1%) their visit range btween3-4visit, (3.5%) had less than 3 visit, and.(22.8%) were not remembering. About the time of initiating the antenatal

care (69.3%) were starting in the first trimester, (27.2%) were starting in the second trimester, and (2.6%) were not remember. About the complications (71.1%) had no complications. while (28.9%) had complications.

Table no (6): Distribution of study population according to utilization of antenatal car services: (n=140)

Item	Yes		No	
	Frequency	Percent	Frequency	Percent
ANC services				
Vaccination	106	75.7%	034	24.3%
Weight and height	034	24.3%	106	75.7%
Blood pressure	082	58.6%	058	41.4%
Obstetrical Examination	126	90.0%	014	10.0%
Total	348	62.0%	212	38.0%
Investigation				
Blood SugarandHemoglobin	129	92.1%	11	7.9%
Urine general	132	94.3%	08	5.7%
Ultrasound	107	76.4%	33	23.6%
Total	368	87.6%	52	12.4%
Health education	65	44%	75	53.6%

Above table showed that (75.7%) of responders received the vaccine, (24.3%) do not received the vaccine. About Measurement Weight and Height (75.7%)did not received this services, and (24.3%). were received. about blood pressure(58.6%)were measured ,and(41.4%) were not. About Obstetrical Examination (90%) were examined, and (10.0%) did not examined. About blood sugar and hemoglobin (92.1%) were tested (7.9%) were not. about urine general test (94.3%) were tested test. Only (5.7%) were not. About ultra sound (76.4) revised the service

Table no (7): Distribution of study population according to number of tetanus vaccination doses : (n=140)

Number of Dose	Frequency	Percent
Single	25	20.0%
More than 2	95	76.0%
Not remember	5	4.0%
Total	125	100.0%

Above table illustrated that (76.0%) study group received more than 2 doses, while. (20.0%) of responders received one dose, and (4.0%) were not remember the number.

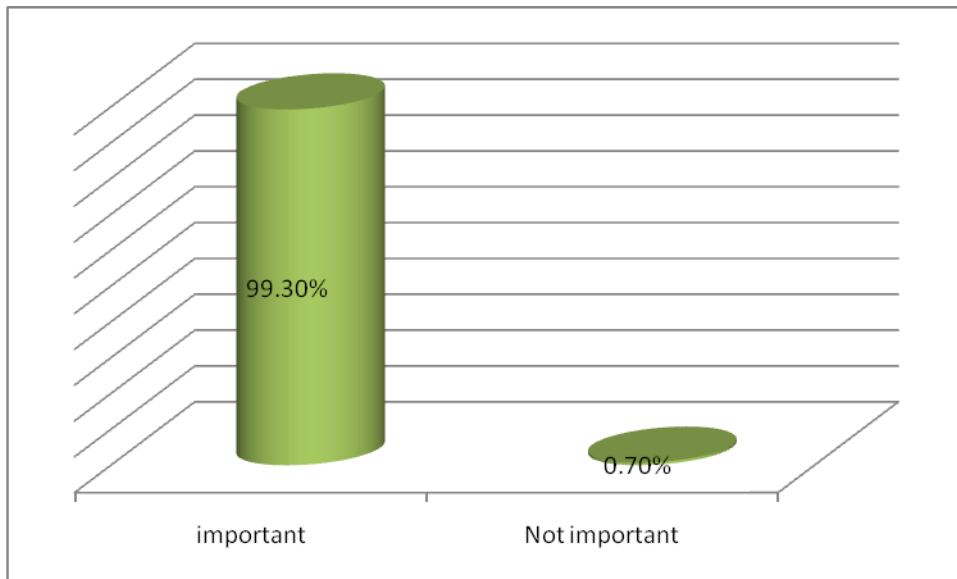


Figure (1) Clarify almost (99.3%) of respondents were agree that ANC is important. while only. 7% were not agree.

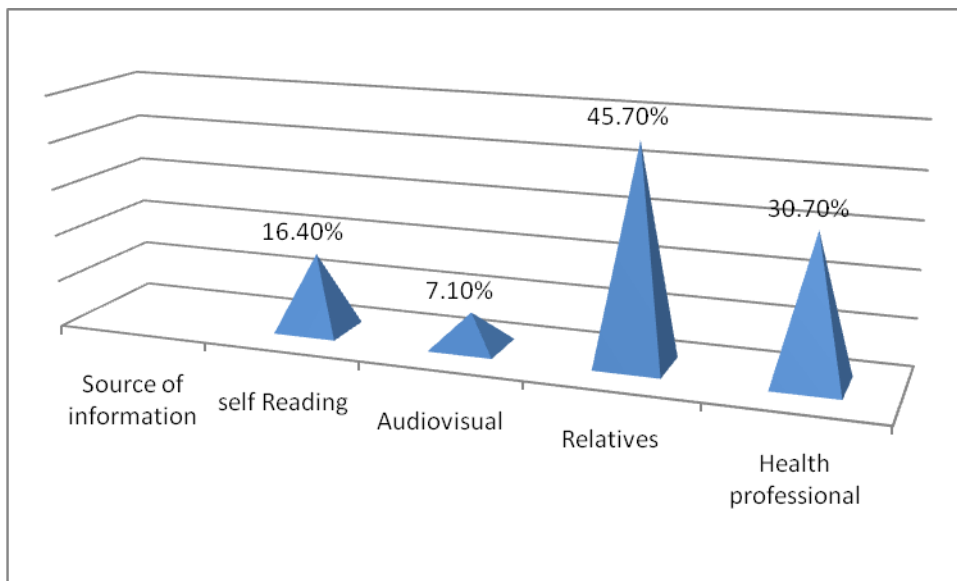


Figure no (2) Shows Source of information.

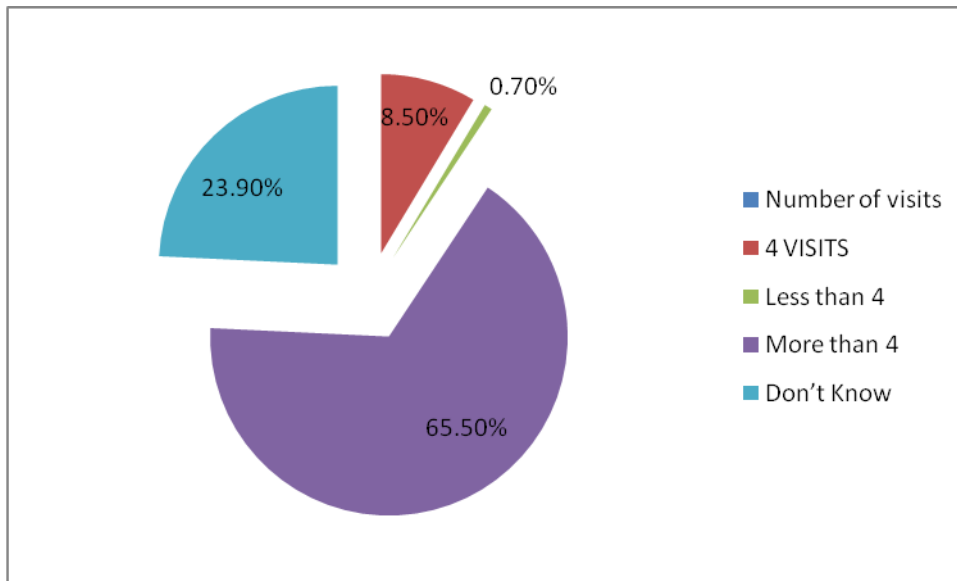


Figure (3) Showed the knowledge about Number of visit.

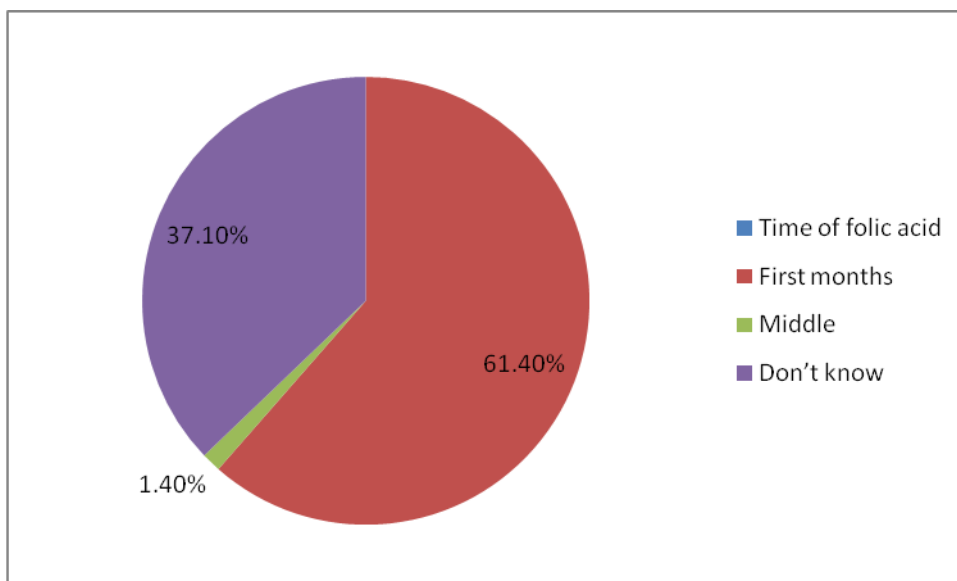


Figure (4) Showed knowledge about Time to start folic acid

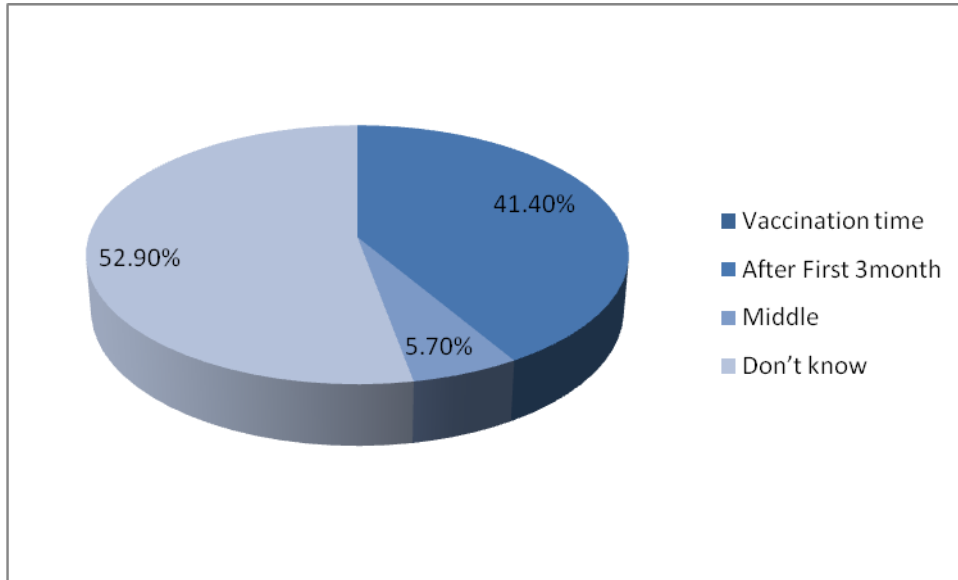


Figure no (5) Showed knowledge about vaccination time.

Table no (8): Distribution of study population according to their knowledge about nutrition needs during pregnancy: (n=140)

Nutrition need during pregnancy	Yes		No		Don't Know	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
High protein	123	87.9%	10	7.1%	007	05.0%
Low carbohydrate	036	25.7%	97	69.3%	007	05.0%
More mineral and vitamins	128	91.4%	05	3.6%	007	05.0%

Above table clarified that(87.9%) agree that pregnant women need high protin (7.1%)not agree, (05.0%) ignored taking of protin . about the need of the carbohydrate(25.7%) agree that pregnant women need low carbohydrate,(69.3%) not agree, while(05.0%)ignore. about taking More mineral and vitamins(91.4%) of them agree. (3.6%) Were not agree. (05.0%) were ignored.

Table no (9): Distribution of study population according to factor influence their utilization of ANC: (n=140)

Item	Frequency	Percent
Husband's attitude		
Supportive	138	98.6%
Not supportive	1	.7%
Don't know	1	.7%
Total	140	100.0%
Proximity of ANC		
Walking distance	9	6.4%
One way of transportation	50	35.7%
Two or more way	81	57.9%
Total	140	100.0%
Time waiting to meet care provider		
<30 minutes	25	17.9%
30minutes - 1 hours	52	37.1%
>2 hours	63	45.0%
Total	140	100.0%
Satisfaction toward the attitude of health providers		
satisfied	130	92.9%
Not satisfied	10	7.1%
Total	140	100.0%
Cost of services		
Expensive	7	5.0%
Not expensive	97	69.3%
Suitable	33	23.6%
Accepted	3	2.1%
Total	140	100.0%
services satisfaction		
satisfied	116	82.90%
Not satisfied	24	17.10%
Total	140	100.00%

table(9)revealed that (98.6%) of husband were supported for antenatal care. (57.9%) of the respondent were take tow or more bus to come to the center. And about the waiting time (45.0%) waiting more than 2 hours, (92.9%) were satisfied toward the attitude of health providers (69.3%) of study group the cost of the services was suitable for them, and (82.90%) satisfied toward services.

Table (10) Correlation between Attending the ANC Vs Factor influence the attendance of ANC Cross tabulation:

Factors		Do you attend the antenatal care regular?		Total	P. Value
		YES	NO		
husband's attitude towards ANC	Supportive	81	57	138	0.346
	Not supportive	1	0	1	
	Don't know	0	1	1	
Total		82	58	140	
Proximity of ANC?	Walking distance	8	1	9	0.116
	One way of transportation	26	24	50	
	Two or more way	48	33	81	
Total		82	58	140	
Time waiting	<30 minutes	9	16	25	0.038
	30minutes - 1 hours	32	20	52	
	>2 hours	41	22	63	

Total		82	58	140	
Satisfaction toward care providers	YES	78	52	130	0.216
	NO	4	6	10	
Total		82	58	140	
Cost of services?	Expensive	2	5	7	0.000
	Not expensive	58	39	97	
	Suitable	20	13	33	
	Accepted	2	1	3	
Total		82	58	140	
Satisfaction of services	YES	66	50	116	0.002
	NO	16	8	24	
Total		82	58	140	

P. value < 0.05 significant

P. value > 0.05 non significant

Table No (11) Correlation between level of income and cost of services?

Cross tabulation:

Count		Cost of services?				Total
		Expensive	Not expensive	Suitable	Accepted	
Level of income	500 - 1000 SDG	2	8	5	1	16
	1000 - 2000 SDG	4	57	20	2	83
	MORE THAN 2000 SDG	1	32	8	0	41
Total		7	97	33	3	140

P. value 0.32

5.1 Discussion

Antenatal care is a key strategy for reducing maternal and neonatal morbidity and mortality rate because adequate utilization of antenatal health care services is associated with improved maternal and neonatal health outcomes, this was descriptive, cross-sectional study attempt to assess factors influencing utilization of antenatal care services among pregnant women in Eldaow hajooj primary health care center 2016.

The study reflected that more than half (50.7%) of the respondents their age between (20-30) years, this finding compatible with Swenson and Pandey they found that Younger women are more likely to receive antenatal care than older women (≥ 31) The relationship between age and the utilization of ANC services was found to be statistically significant. Women in lower age group were more likely to have ANC services for more than four times than the women in higher age group ⁽¹⁰⁾.

concerning the occupation the study finding that higher percentage of the study group (82.9%) were house wife's, most of study group were Muslim and married . the study clarified that more less than third(27.9%) had university level and only(7.1%) were illiterate.. this means that education is a determine factor in the utilization of ANC services which is in contrast with the findings of Simkhada et al⁽¹¹⁾. similarly with Pandey finding ,the maternal education is predictor for using antenatal care services⁽¹⁰⁾.

Regarding the level of income the present study showed that more than half (59.3%) their income between (1000-2000)SDG,and also more than half (59.3%) are free business, this interpreted the economic status of the family affect the utilization of antenatal care services compatible with Pandey Women in families with high income were three times more likely to received ANC services than the women in the families with low income⁽¹⁰⁾.

about the husband education, more than third (37.9%) had secondary level and only (4.3%) are illiterate the previous study confirm the effect of the husbands education on the utilization of ANC, in Kassala eastern Sudan low husband education associated with low utilization⁽¹²⁾. in Islam Abad the utilization associated with maternal education and their husband⁽¹³⁾.

the present study revealed that more than third of study group (36.4%) had(1-2) child, and(12.9%)had more than four child and this interprets that the high parity mother are less utilize the antenatal care similarly in Negeian, women with lower parity are more likely to receive ANC services in contrast to women with higher parity, parity had a statistically significant effect on adequate attendance. this study results contradicts the findings by Onasoga et al⁽¹⁴⁾.

concerning the gestational age near the half of study group (49.3%) at the third trimester, (13.6%) in the first trimester .. On other hand more than half (58.6%) a attending with regular visit ,while more than tow fifth (41.4 %) were irregular in their visits. the similar with Onasoga finding (56.9%) of the Nigerian women attending regular for antenatal visits⁽¹⁵⁾.

regarding the time of starting the antenatal care less than tow third (60%) started in the first trimesre as recommended.

(91.4%) attending mainly for check and fallow up, and this interpreted their concerning with pregnancy and their health. regarding the utilization of the antenatal care in previous pregnancy, most of them (98.2%) attending the clinic regularly. More than third (38.1)starting the visits ofthe antenatal care in the first trimester. and more than third (36.4%) had late antenatal care. Constractly with WHO that all the pregnant women should start the first visit in the first trimester. More than third(38.6%) had more than four visit. (35.1%) their visit range btween3-4visitonl, more than tow third (69.3%) started in the first trimester. Less than one third (27.2%) started in the second trimester, more than half (71.1%) had no complications.

while the time of initiating the antenatal visit determine the adequacy of utilization we observed more than half of the respondents (69.3%) had adequate utilization.

the study showed that more than three-quarter (75.7%) of responders received the vaccination and also more than three quarter (76.0%) receive more than two dose.

about Measurement Weight and Height three-quarter (75%) of them did not received this may be due to un functional scale in the center. About Blood pressure two fifth did not measured despite of the availability of the sphygmomanometer.

about the abdominal examination high percentage of pregnant were examined an only (10%) the possible cause that the abdominal examination is not usual done in the early gestational of pregnancy. And about the blood investigation (92.1%) performed the test

although the prenatal education is very important in the antenatal care more than half (52.8%) not educated about the antenatal care,

About the important of antenatal care, most of them (99.3%) agree with the important of pregnancy care this is refer to high level of the education in the study group. and this good indicator for more utilization, about the source the information in the antenatal care less than half (45.1%) heard from the relative, while less than third (30.0%) from health provider, the role of mass media was very low only. (7%) their source is audio visual inconstantly with Pandey reveal that As the exposure to mass media increases the chances of attending ANC services also increases. Nearly two-third of women who are exposed to mass media used ANC services more often than did women with no exposure⁽¹⁰⁾.. regarding the knowledge About the number of the visit the present study showed that more than two third (66.4%) believed that the number of visit should be more than four, less than quarter were ignoring

contrastly with study conducted in India which reveal that knowledge about adequate antenatal visits was poor⁽¹⁵⁾.

About the nutritional knowledge (91.4%) agree that pregnant women need more mineral and vitamin, (87.9%) believe that she need more protein and this indicate that they have good knowledge about the nutrition during pregnancy. about the time of starting vaccine the study showed that more than half(52.9%) ignored the accurate time of vaccination, the about timing of starting folic acid less than tow third (61.4%) were knowledgeable, high level of illiteracy the possible reason for adequate knowledge.

the husband attitude effect the attendance and utilization of ANC services(97.2%)of husband are supported to utilization and attendance. Similary to Onasoga finding, the husband acceptance is major factor influencing the utilization of ANC⁽¹⁴⁾.

more than half (57.9%) take more than tow bus to render the service in the center this indicate the accessibility is not determinant the utilization and also more than tow fifth(44.4%) wait more than tow hours, and high percentage (91.5%) are satisfied toward the services rendered and (81.7%) are satisfied toward the health care provider and more than tow third mention that the services is not expensive.

The study showed spastically correlation between the the time waiting, cost of the services, satisfaction of the services and the regularity of the attendance.

Conclusion

Base on the finding of this study it was conclude that:

Utilization among pregnant women has been shown to be influenced possatively by literacy, good income, husband acceptance, low parity, satisfaction regarding services and attitude of health care provider, accessibility and waiting time, showed less likely influence the utilization of services.

The highly proportion of study group had adequate knowledge ANC services.

Concerning the Services that the pregnant women received in the health center the study displays that most of the study population receive essential services available and rendered for pregnant except weight measurement and antenatal education.

Recommendations

Based on the study result and conclusion the study recommended that:

Icarrige the health provider to providing a ANC education.

- Implementation of the focus antenatal care approach and application of new strategies recommended by world health organization toward the number of visit.
- The role of mass media in promoting of the antenatal care utilization should be conducted.
- Improving the health services at the center by improving the facilities.
- Further studies should apply at the different centers in the Omdurman locality in order to generate detailed information which would help improve delivery of ANC services in the locality.
- Continuous disseminating of information by the MOH on antenatal care, postnatal care services to enhance accessibility by every pregnant woman.

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Questionnaire about Factors influencing utilization of antenatal care services among pregnant women in El dow Hagog health centers 2016.

Serial number.....

1. Demographic and socialfactor:

1. Age:

15-19 { } 20-30 { } 30-35 { } more than 35 { }

2 . Residence :

3. Occupation:

House wife { } employed { } student { } other { }

4. Marital status

Married { } Divorced { } Widowed { }

5. Religion

Christian { } Muslim { }

6. Level of education

Illiterate { } primary level { } Secondary { } University { }

7. Level of income:

500-1000Gs { } >1000 Gs { } >5000 Gs { }

8. Husband occupation:

Employer { } worker { } framework { } other { }

9. Level of the education of the husband:

Illiterate { } Primary level { } Secondary { } University { }

10. Number of the child:

1-2 { } 3-4 { } more than4 { }

11. How old of your pregnancy?

1-3 month { } 4-6 month { } 7-9month { }

2.Utilization of the antenatal care:

12. Do you attend the antenatal care.....?

regular { } irregular{ }

13. At which month of the pregnancy did you start antenatal care?

(a) 0 – 3 months (0-12 Weeks) { } (b) 4 – 6 months (13-24 Weeks) { }

(c) 7 – 9 months (25-36weeks) { } (d) Don't Know { }

14. Reasons for attending antenatal Clinic

Regular visits { } complications { } other { }

15. Did you attend the antenatal care in previous pregnancy?

Yes { } no { }

Number of visits:.....

16. How old of your pregnancy in the first visit in previous pregnancy?

1-3 months { } 4-6 { } 7-9{ }

17. Have you any complications in the previous pregnancy?

Yes { } no { }

18. What is the cervices you recived in the center

1. Vaccination { } investigation { } weight and height measurement { }

Blood pressure { } education { }

19. are uoutake the tetanus vaccine yes { } no{ }

20. Number of injection single { } more than 2 { }

3. Knowledge about ANC

21. Antenatal care is important for pregnant women?

important { } not important { }

22. Source of information:

(a). Written { } (b) audiovisual { }. (c) internet { } (d) Relatives { }. health professional) { }

23. How many visit the pregnant women should be making during all pregnancy?

less than 4 { } 4 { } more than 4 { }

24. Is the pregnant women needs special nutrition?

Yes { } No { }

25. the time that the pregnant women should start the folic acid ?

1. First months { } 2. Middle { }. 3. Don't know { }

26. The time for pregnant women to take tetanus vaccine

1. after First 3month { } 2. After delivery { } 3. Don't know { }

27. You know the danger signs of pregnancy

Yes { } no { }

28. are you listened about the plan of delivery?

Yes { } no { }

Factor influence the attendance of antenatal care:

29. What was/is your husband's attitude towards ANC?

1. Supportive { } 2. Not supportive { } 3. Don't know { }

30. long Distance could prevent you to continue the follow up?

Yes { } no { }

31. time waiting to meet care provider.

<30 minutes { } 30minutes - 1 hours { } >3 hours { }

. 32. are you satisfied toward the attitude of health providers r?

Yes { } no { }

33. Cost of services?

expensive { } not expensive { } Suitable { } Accepted { }

34. the transportation to the health center ?

expensive { } not expensive { }

35. are you satisfied toward the services

Yes { } no { }

استبيان حول العوامل المؤثرة في استخدام الحوامل لخدمات الرعاية أثناء الحمل

الجزء الأول:

1. العمر:

أ) 15 - 19 سنة () ب) 20 - 30 () ج) 30 - 35 () د) أكثر من 35 ()

2..السكن:".....

3 المهنة:

أ) ربة منزل () ب) عاملة () ج) طالبة () د) أخرى ()

4. الحالة الاجتماعية:

أ) متزوجة () ب) مطلقة () ج) أرملة () د) أخرى ()

5.الديانة:

أ) الإسلام () ب) المسيحية () ج) أخرى ()

6. المستوى التعليمي:

أ) أمي () ب) أساس () ج) ثانوي () د) جامعي ()

7.الدخل الشهري:

أ) 100-500 () ب) 1000-2000 () ج) أكثر من 2000 () د) أخرى ()

8.وظيفة الزوج:

أ)موظف () ب)عامل () ج)أعمال حرة () د) أخرى ()

9.المستوى التعليمي للزوج:

أ) أمي () ب) أساس () ج) ثانوي () د) جامعي () هـ) فوق الجامعي ()

10. عدد الأطفال:

أ)1-2 () ب)3-4 () ج)أكثر من 4 () د) أخرى ()

الجزء الثاني: خدمات الرعاية أثناء الحمل:

11. عمر الحمل:

أ) 1-3 شهور () ب) 4-6 شهور () ج) 7-9 ()

12. هل تأتي للمتابعة بصورة منتظمة:

أ) منتظمة () ب) غير منتظمة ()

13. ما هو عمر الحمل عند أول زيارة:

أ) 1-3 شهور { 0-12 أسبوع } () ب) 4-6 شهور { 13-24 أسبوع } ()

ج) 7-9 شهور { 25-36 أسبوع } () د) لا أعرف ()

14. سبب الزيارة؟

أ) للمتابعة () ب) وجود مضاعفات () ج) أخرى ()

15. هل كنت تأتي للمتابعة في الحمل السابق:

أ) نعم () ب) لا ()

16. عدد الزيارات في الحمل السابق:

أ) 1-2 () ب) 3-4 () ج) لا أذكر ()

17. كم كان عمر الحمل عند أول زيارة في الحمل السابق:

أ) 1-3 شهور () ب) 4-6 شهور () ج) 7-9 ()

18. هل حدثت أي مضاعفات في الحمل السابق؟

أ) نعم () ب) لا ()

19. ما هي الخدمات التي قدمت لك في المركز الصحي؟

أ) التحصين () ب) قياس الطول والوزن () ج) قياس ضغط الدم ()

د) الفحص الطبي ()

20. الفحوصات الحمل التي قمتي بإجرائها :

أ) الدم () ب) البول () ج) الموجات الصوتية ()

21. هل أخذتي لقاح التتanos أثناء الحمل:

أ) نعم () ب) لا ()

22. إذا كانت إجابتك نعم ما هي عدد الجرعات المأخوذة:

أ) جرعة واحدة () ب) أكثر من جرعتين ()

23. هل تم تثقيفك عن الحمل:

أ) نعم () ب) لا ()

الجزء الثالث::

24. متابعة الحمل :

أ) مهمة () ب) غير مهمة ()

25. ما هو مصدر المعلومات:

أ) مقروء () ب) الراديو التلفزيون () ج) الأقارب () د) الكوادر الصحية ()

26. عدد الزيارات التي يجب أن تسجلها الحامل خلال فترة الحمل:

أ) 4 زيارات () ب) أقل من 4 زيارات () ج) أكثر من 4 زيارات ()

27. هل تحتاج المرأة الحامل إلى نظام تغذوي خاص:

أ) نعم () ب) لا ()

28. إذا كانت الإجابة نعم فإنها تحتاج إلى:

أ) الإكثار من البروتين () ب) القليل النشويات () ج) الفايتمينات والمعادن ()

29. ما هو الزمن المناسب لأخذ الفوليك أسيد:

أ) الثلاث شهور الأولى () ب) وسط الحمل () ج) لا أعرف ()

30. في أي شهر تأخذ الحامل لقاح التانوس؟

أ) بعد الثلاث شهور الأولى () ب) وسط الحمل () ج) لا أعرف ()

الجزء الرابع:

31. ما هو رأي زوجك في الذهاب للمركز للمتابعة:

أ) مؤيد () ب) معارض () ج) لا أعرف ()

32. وسيلة الوصول للمركز الصحي:

أ) بالأرجل () ب) مواصلات واحدة () ج) مواصلتين أو أكثر ()

33. زمن الانتظار لمقابلة الطبيب:

أ) أقل من نصف ساعة () ب) من نصف ساعة إلى ساعة () ج) أكثر من ساعتين ()

34. هل أنت راضية تجاه أسلوب مقدمي الخدمات الصحية بالمركز؟

أ) نعم () ب) لا ()

35. الخدمات الصحية

أ) غالية () ب) رخيصة

36. هل أنت راضية تجاه الخدمات الصحية المقدمة

أ) نعم () ب) لا ()