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وزارة التعليم العالي والبحث العلمي
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قسم طب المجتمع

Knowledge Attitude and Practice Regarding Antenatal Care among Pregnant Women in Sanaa City

المعرفة والمواقف والممارسات فيما يتعلق برعاية ما قبل الولادة بين النساء الحوامل في مدينة صنعاء

A research Submitted to the Department of Human medicine- Collage of Medical and Health Science, EIU, As a partial fulfillment of the requirements for the graduation of bachelor degree

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Dedication

We dedicate our research to our parents whom did for us more than we can do for ourselves.

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To everyone prayed for us and wished to see us the best doctors ever.

To our first love Yemen

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Abbreviations

ANC	Antenatal Care
AO	Adjusted Odds Ratio
CIS	Confidence intervals
CSO	Central Statistical Organization
COR	Crud Odds Ratio
EDD	estimated date of delivery;
IPTP	Intermittent Preventive Treatment during Pregnancy
MICS	Multiple Indicators cluster Survey
MDGs	Millennium Development Goals
MMR	maternal mortality ratio
P=Value	Statistical Significant at < 0.05
PIH	Pregnancy induced hypertension
SDGs	Sustainable Development Goals
UN	United Nation
UNFPA	United Nation Population Fund
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization
YNHDS	Yemen National Health and Demographic Survey

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نبذة مختصرة عن البحث:

المقدمة: الرعاية ما قبل الولادة أثناء فترة الحمل توفر مراقبة ومتابعة منتظمة لصحة الأم والجنين. النساء اللواتي تنتظمن برعاية دورية أثناء فترة الحمل تميل للحصول على نتائج ولادة أفضل.

الأهداف: هذه الدراسة تصف أنماط الانتفاع من الرعاية أثناء فترة الحمل وتقيم المعرفة والمواقف والممارسات فيما يتعلق برعاية ما قبل الولادة بين النساء الحوامل في مدينة صنعاء.

الطرق: دراسة مستعرضة تعتمد على المرفق الصحي. تم جمع البيانات من النساء الحوامل اللواتي تقدمن بالزيارة إلى المراكز الصحية المعنية بين أبريل 2021 ويونيو 2021.تم استكمال استبيانات المقابلة وجهًا لوجه من النساء اللواتي تطوعن في المشاركة خلال فترة زيارتهن لعيادات مراقبة الحمل والذي تضمن أربعة أقسام كالتالي البيانات الديموغرافية، المعرفة والمواقف والممارسات.

النتائج : من بين370 امرأة حامل شملتها الدراسة، كانت غالبية المستجوبات 169 (45.7٪) من الفئة العمرية أقل من 25 سنة. وبمجموع 155 (41.9٪) كانوا على مستوى التعليم الثانوي. حوالي 242 (65.4٪) منهم أتوا من دخل أسرة متوسط. كان لدى المشاركات معرفة كافية عن الرعاية ما قبل الولادة بما يقارب 277(75٪) وموقف إيجابي 342 (92.4٪) وممارسات الجيدة 223 (64٪). كانت أعلى نسبة حضور للعيادة بغرض متابعة الحمل ما قبل الولادة هي مرة واحدة في الشهر 149 (40.3٪) مع وجود عدد قليل من النساء اللواتي قمن بزيارة مرة واحدة كل ثلاثة أشهر 126 (34.1٪) واعترفت 14 فقط من النساء الحوامل (3.8٪) أنهن لم يسبق لهن المتابعة على الاطلاق و81 (21.9) منهن يقمن بالزيارة فقط عندما يشعرن بالتعب. كان لسن المرأة والمستوى التعليمي وتوافر خدمة الرعاية الصحية على مدار 24 ساعة في اليوم ارتباطات ذات دلالة إحصائية مع الحواجز التي تحول دون الوصول إلى خدمات الصحة الإنجابية.

الخلاصة: تظهر النتائج أن تعليم الأمهات وتوافر الخدمات الصحية يظلان عاملان رئيسيان في الانتفاع الأفضل لخدمات ما قبل الولادة. علاوة على ذلك، دورالعاملين الصحيين في زيادة الوعي بين الأمهات حول أهمية الرعاية ما قبل الولادة بشكل عام وتحسين صحة الأم وتحسين الوضع الصحي للأطفال حديثي الولادة.

Abstract:

Introduction: Antenatal care (ANC) provides monitoring and regular follow-up of maternal and fetal health during pregnancy. Women with appropriate ANC tend to have better delivery and birth outcomes.

Objectives: This study describes the patterns of ANC utilization and Assess the Knowledge Attitude and Practice Regarding Antenatal care among pregnant women in Sanaa city, Yemen.

Methods: A cross-sectional Health facility based study. Data was collected from pregnant women who participated in the health centers between April 2021 and June 2021. Participants were recruited during ANC visits and completed face-to-face interview questionnaire that include four sections demographic data, Knowledge, Attitude and Practice.

Results: Among the 370 women included, Majority of respondents 169 (45.7%) was from the age group less than 25 years. A total of 155 (41.9%) were at the level of high school education. About 242 (65.4%) of them were come from average family income. The respondents had adequate knowledge about ANC 277 (75%), positive attitude 342 (92.4%) and good practice 223 (64%). The highest first antenatal clinic attendance of pregnancy was once a month 149 (40.3%) with the few of the women had attended at one time every three month 126 (34.1%) and Only 14 (3.8%) of the women admitted that they never come for antenatal visit and 81 (21.9) of women did antenatal visit only when they feel tired. The age of woman, educational level, and availability of health care service 24 hours a day had statistically significant associations with the barriers to accessing reproductive health services.

Conclusion: The results show that maternal education and availability of health services remains a key factor in the better utilization of antenatal services. Moreover, the role of health workers in increasing awareness among mothers about the importance of ANC in general and improve their maternal health and eventually improve the health status of newborn child.

CHAPTER 1 : INTRODUCTION

1.1 Background

Different women have different needs during their pregnancy. Timely monitoring of mothers and babies improves health outcomes. Antenatal care is a system of planned visits with a midwife and/or doctor during pregnancy to support promoting healthy lifestyles, and screening for and managing health problems to help both mother and baby (WHO, 2016b).

Antenatal care is one of the most commonly accessed routine medical services in the world. Although considerable progress has been made to improve outcomes for pregnant women (eg, according to UNICEF the global maternal mortality rate declined by 38% between 2000 and 2017), complications of pregnancy and childbirth remain the leading cause of morbidity and mortality in women of reproductive age globally (WHO, 2019).

Every year about 6 million women become pregnant; 5 million of these pregnancies lead to the birth of the child smoothly. An adequate use of antenatal health services is associated with improved maternal and neonatal health status. Pregnancy care expected to affect the development of the fetus and the mother. The WHO recommends monitoring and evaluation of maternal satisfaction with public health care services, in order to improve the quality and efficiency of health care during pregnancy early Observation and ongoing care during pregnancy provide more favorable healthy births compared to no prenatal observation (Akhtar, Hussain, Majeed, & Afzal, 2018).

However, to achieve the full life-saving potential that ANC promises for women and babies, four visits providing essential evidence based interventions – a package often called focused antenatal care – are required. Essential interventions in ANC include identification and management of obstetric complications such as preeclampsia, tetanus toxoid immunization, intermittent preventive treatment for malaria during pregnancy (IPTP), and identification and

management of infections including HIV, syphilis and other sexually transmitted infections (Lincetto, 2006).

Maternal health services have a potentially critical role in the improvement of reproductive health. The use of health service related to availability, quality and cost of services as well as the social structures,health beliefs and personal characteristics of the users. Over half a million women die each year from complications of pregnancy or childbirth. Most maternal deaths occur during childbirth and the presence of trained medical staff could greatly reduce this number. (Lewis, 2003). Many of these deaths would be preventable through increased access to and use of quality health care during pregnancy and childbirth. Building on the progress made by the Millennium Development Goals (MDGs) in 2015, the Sustainable Development Goals (SDG) were launched to guide the eradication of poverty, hunger, illiteracy, and disease (Giles et al., 2020). Antenatal Care is an opportunity to promote the benefits of skilled attendance at birth and to encourage women to seek postpartum care for themselves and their newborn. It is also an ideal time to counsel women about the benefits of childbirth spacing.(WHO, 1999). Attitude refers to the affective feelings of the expectant mother who like and dislike prenatal services. Thus, the personal experience of pregnant women in prenatal services can be positive or negative (Akhtar et al., 2018).

Why are antenatal appointments important?

keep an eye on how your baby is growing.

pick up some conditions such as pre-eclampsia and urinary tract infections – these might not have any early symptoms that you would notice but routine blood-pressure checks and urine tests can pick up on them, even if you feel fine check the health of your baby through blood tests and ultrasound scans. If you don’t want to go because you're worried about having blood tests, tell the midwife about your fears. If you can't go to an antenatal appointment, let your

midwife or the hospital know so you can make another one (Hub., 2020).

Pregnancy related deaths

complications of pregnancy are a major source of mortality.Although the risk of dying from pregnancy in the United States decreased approximately 99% during the 20th century and is now consedered an irreducible level, several facts indicate that further reductions are possible.Twenty-nine other developed countries have a maternal mortality ratio (maternal deaths per 100,000 livebirths), as measured by vital statistics, lower than that of the United States. Finally, several studies from Europe and the United States have found 1 of 3 to 2 of 3 pregnancy-related deaths to be preventable (Berg et al., 2005).

1.2 Maternal and child health in Yemen

Maternal health and health care indicators are also extremely low as compared to the rest of the Eastern Mediterranean region (Table 1.1). One of the most serious health risks for Yemeni women is their extremely high fertility rate. The total fertility rate (TFR) of Yemen is one of the highest in the world at 4.4 children per woman. The high fertility levels are of major concern for the development of the country. The country has also demonstrated steady and significant decrease in maternal mortality ratio, from 351 to 148 maternal deaths per 100,000 live births, resulting in a 58% reduction between 1997 and 2013s then no other studies has been done after that time to show us the percent of improvement or deterioration. The maternal mortality decrease may be interpreted as a great success of Yemen, taking into account the level of poverty, the population illiteracy and the small budget dedicated to health services (17-21 US$/inhabitant). However, although the decline was sharp (annual reduction of 5.1%), it is not enough to reach the MDG5 target (5.5% is the minimum). It is thus

essential to increase the level of efforts to reach the MDG 5 target, and the sustainable development goals (SDGs) above all, to reduce inequity. The lifetime risk of maternal death estimated as 1 in 60 as compared to a maternal mortality ratio (MMR) of around 16 per 100,000 live births and a lifetime risk of 1 in 4900 in developed regions (WHO, UNICEF, UNFPA, UN, & The World Bank, 2015). The majority (70%) of deliveries occur at home usually attended by a senior female relative or a traditional birth attendant. Only 30% of births occur at the health facility and only 45% of births are by a skilled health attendant (YMoPHP & CSO., 2013) while the percentage of skilled birth attendant for Egypt and Jordan are 92% and 100% respectively (WHO, 2016b). Forty-four percent of home births develop birth complications (Banajeh, Al-Rabee, & Al-Arashi, 2005) and maternal deaths account for 42% of all female deaths among women of reproductive age (15-49 years) (Khan & Chase, 2003).

Table 1.1: Main Indicators of Yemen, 2006, 2013 and MDGs.

Indicator	[a]MICS 2006	([b]YNHDS2013)	[c]MDGs Target 2015
Area (KM^2)	555,000	555,000	…
Population (million)	20892000 (WHO 2006)	24526703	…
Population growth rate (%)	3 (WHO 2006)	3	…
Total fertility rate	5.2	4.4	…
Life expectancy at birth (years)	62.9 (WHO 2006)	61 (M60/F62)	…
Literacy rate among adults (%)	35	40.7	…
MMR/100,000 live births	366 (WHO 2006)	148	>135
Under five mortality rate Per 1000 live births	78	53	37
IMR/1,000 live births	69	43	27.3
NMR/ 1,000 live births	37	26	>20%
LBW	8%	23%	…
Number of medical doctors/10,000	3.6 (WHO 2006)	1.9	…
Number of midwives /10,000	5.7 (WHO 2006)	1.7	…
Number of nurses/10,000	----	5	
Antenatal Care (at Least 1 Visit) (%)	47%	60%	70%
Delivered at health facilities %	24%	30%	35%
Skilled Birth Attendance %	36%	45%	60%
Caesarean section (%)	1% (WHO 2006)	7%	5%
Postnatal care visit within two days of child birth (%)	31%	17%	60%

[a]MICS 2006- Multiple Indicators cluster Survey, [b]YNHDS 2013- Yemen National Health and Demographic Survey , [c]MDGs 2015- Millennium Development Goals.
MMR-Maternal mortality ratio. IMR-Infant mortality rate, NMR-Neonatal mortality rate. LBW-Low birth weight.

1.3 Justification of the study

This study identifies the gap between knowledge, attitude and practices of pregnant women regarding antenatal care. According to the National demographic and Health survey conducted in 2013 in Yemen found that the ANC estimated as 60% due to the deterioration of health conditions as a result of the war and the siege since six years, which led to the lack of pregnant women who visited health care services. Therefore, this study aims to assess the knowledge and attitudes of pregnant women in the city of Sana'a.

Moreover, Study enable the community administration to evaluate the knowledge, attitude and practice of pregnant women towards the antenatal care. The findings of current study will be shared and presented to the higher authorities andpolicy makers. Study will be an ingredient for decision maker, stalk holder, and policy maker to refine or develop certain policies for managing the maternal mortality and morbidity rate with in the community. The study will be helpful for the participants whom should be aware about the importance of antenatal care and understand how its lack is effecting their health.

1.4 Research objectives:

1.4.1 General:

The aim of the study is to assess the knowledge, attitude and practice toward antenatal care among pregnant women in Sanaa City,Yemen.

1.4.2 Specific:

1- To identify the knowledge of women regarding antenatal care among pregnant women.

2- To identify the attitude of women regarding the Antenatal care among pregnant women.

3- To assess the practice of pregnant women regarding Antenatal care among pregnant women.

4- To determine an association between socio-demographic characteristics of respondents and the effect of a woman's barrier from accessing health services.

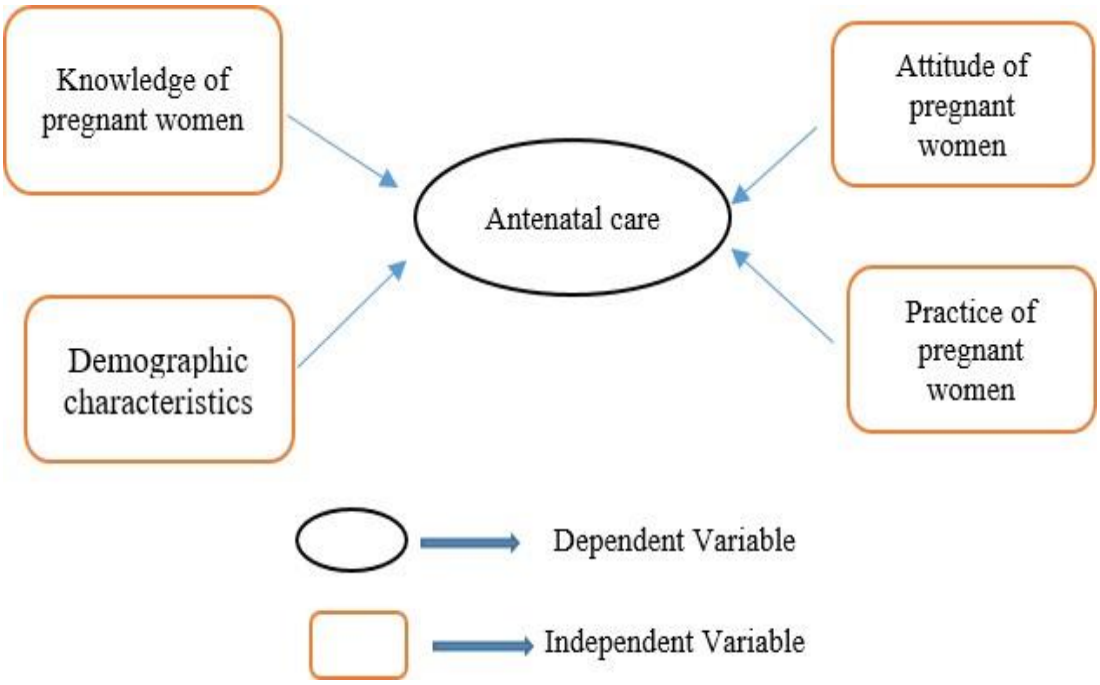

Figure 1: Conceptual framework (Source: Rosenstock, 1974)

CHAPTER 2 : LITERATURE REVIEW

2.1 Antenatal care (ANC)

Antenatal care is the clinical assessment of mother and Fetus, during the period of pregnancy used for getting the best possible results for both the mother and child. Early Observation and ongoing care during pregnancy provide more favorable healthy births compared to no prenatal observation.(Health Evidence Network, 2005)

2.2 Prenatal Care (Ante-natal care)

A Jamaican study observed that mothers who began their ANC during the 1st trimester, showed a lower perinatal death risk (McCaw-Binns, Greenwood, Ashley, & Golding, 1994) The main rationale behind the introduction of the ANC was that it was possible to determine and adequately manage the early signs and risk factors for the diseases and deaths, occurring during pregnancy (AbouZahr & Wardlaw, 2003).

Table 2.1:**The four-visit ANC model outlined in WHO clinical guidelines (WHO, 2016a)**

First visit 8-12 weeks	**Second visit 24-26 weeks**	**Third visit 32 weeks**	**Fourth visit 36-38 weeks**
Confirm pregnancy and EDD, classify women for basic ANC (four visits) or more specialized care. Screen, treat and give preventive measures. Develop a birth and emergency plan. Advise and counsel.	Assess maternal and fetal well-being. Exclude PIH and anaemia. Give preventive measures. Review and modify birth and emergency plan. Advise and counsel.	Assess maternal and fetal well-being. Exclude PIH, anaemia, multiple pregnancies. Give preventive measures. Review and modify birth and emergency plan. Advise and counsel	Assess maternal and fetal well-being. Exclude PIH, anaemia, multiple pregnancy, malpresentation. Give preventive Measures. Review and modify birth and emergency plan. Advise and counsel.

Since 2017, WHO has recommended that antenatal care models include a minimum of eight contacts during pregnancy (double the previous recommended minimum of four visits), to reduce the risk of perinatal mortality, and to promote a positive pregnancy experience and increase satisfaction with care.

The new recommendation is expected to increase the quality of antenatal care by leading to the detection of more maternal and fetal problems. The updated care model is also expected to increase the number of women who have a positive pregnancy experience since supportive care relationships take time to establish (Meaney, Leitao, Olander, Pope, & Matvienko-Sikar, 2021) .

A standardized '6-visit ANC' system was offered for the low-risk pregnancies. Additionally, an ultrasound and obstetric consultation was also provided at the health care centers during 22-24 weeks of pregnancy. The WHO has recommended a total of 4 ANC visits in the case of the low-risk mothers. Furthermore, the WHO defined the ANC as a dichotomous factor, and includes 1-2 visits made to a professionally trained person during the pregnancy (Nisar & White, 2003). During the early 1900s, the authorities introduced the ANC (i.e., "care before birth") in the higher income countries with an aim to improve the maternal health, determine the adverse conditions, and for enhancing the neonatal health (Health Evidence Network, 2005).

A descriptive study conducted in Iraq, showed higher risk of perinatal deaths amongst the women who were <20 and >40 years, lower socioeconomic status, grand-multiparity, and poor ANC attendance (EMAN Y. MALIK, 2007). Some studies investigated the relationship between the ANC and the perinatal mortality in the MIC. Kenyan study noted that the women

who visited >2 ANCs showed a higher perinatal outcome compared to those receiving <2 ANC visits (Brown, Sohani, Khan, Lilford, & Mukhwana, 2008).

Since 2007, the ANC became mandatory according to the WHO-recommended evidence-based care.. It is important to seek prenatal care, from the first trimester, regularly, for improving the health of the mother and the baby. Prenatal care, if sought early, can also offer a preventive care that benefits the mother, like providing relevant information regarding family planning, nutrition, breastfeeding, iron and folic acid supplementation, tetanus toxoid immunization and hygiene-counseling. The prenatal care can also help in treating existing maternal diseases, which are aggravated during pregnancy.

The prenatal care can help in preventing the complications that occur during pregnancy and labour. Adetola et al. (Adetola, Tongo, Orimadegun, & Osinusi, 2011) conducted a study for determining the Neonatal Mortality Rate (NMR), causes for death and the related risk factors affecting the hospital live births. They noted that the related risk factors were due to no ANC.

Another population study investigated the association between the ANC and the facility-birth and perinatal survival was conducted in Bangladesh. The researchers noted that the ANC visits were related to a high facility-based births, and the adjusted OR for the perinatal mortality was 2-times higher amongst the women receiving ≤1 ANC, in comparison to women receiving ≥3 ANC visits (Pervin et al., 2012).

A prospective study investigated the women in the Nepal Medical College Teaching Hospital (NMCTH), found that maternal complications like pregnancy induced hypertension and anemia were more frequent in the women without any ANC. The proportion of preterm babies and low birth weight (LBW) was higher in the women with no or inadequate ANC.

Also, these women showed a high Special Care Baby Unit (SCBU) admission because of birth asphyxia, neonatal sepsis, jaundice etc. The perinatal mortality rate (PNMR) was seen to be 16-times higher than that seen in the women with >4 ANC visits. Better perinatal and maternal results were noted in the women visiting ANC (Tuladhar & Dhakal, 2012). Hawkes et al. (Hawkes, Gomez, & Broutet, 2013) carried out a meta-analysis and systematic review of the published studies. They noted low adverse outcomes amongst women receiving intervention care (like screening and treatment) during their 1st and 2nd trimesters compared to the 3rd trimester (Hawkes et al., 2013).

Good ANC links the woman and her family with the formal health system, increases the chance of using a skilled attendant at birth and contributes to good health through the life cycle,Inadequate care during this time breaks a critical link in the continuum of care, and effects both women and babies :

Effects on mothers: It has been estimated that 25 percent of maternal deaths occur during pregnancy, with variability between countries depending on the prevalence of unsafe abortion, violence, and disease in the area.

1 Between a third and a half of maternal deaths are due to causes such as hypertension (pre-eclampsia and eclampsia) and antepartum haemorrhage, which are directly related to inadequate care during pregnancy.

2 In a study conducted in six west African countries, a third of all pregnant women experienced illness during pregnancy, of whom three percent required hospitalisation.

3 Certain pre-existing conditions become more severe during pregnancy. Malaria, HIV/AIDS, anaemia and malnutrition are associated with increased maternal and newborn complications as well as death where the prevalence of these conditions is high.

New evidence suggests that women who have been subject to female genital mutilation are

significantly more likely to have complications during childbirth, so these women need to be identified during ANC.4 Gender- based violence and exposure to workplace hazards are additional and often underestimated public health problems. Rates of depression may be at least as high, if not higher, in late pregnancy as during the postnatal period.5 Some African societies believe that grieving for a stillborn child is unacceptable, making the death of a baby during the last trimester of pregnancy even harder to process and accept.

Effects on babies: In sub-Saharan Africa, an estimated 900,000 babies die as stillbirths during the last twelve weeks of pregnancy. It is estimated that babies who die before the onset of labour, or antepartum stillbirths, account for two-thirds of all stillbirths in countries where the mortality rate is greater than 22 per 1,000 births – nearly all African countries.6;7 Antepartum stillbirths have a number of causes, including maternal infections – notably syphilis – and pregnancy complications, but systematic global estimates for causes of antepartum stillbirths are not available. Newborns are affected by problems during pregnancy including preterm birth and restricted fetal growth, as well as other factors affecting the baby's development such as congenital infections and fetal alcohol syndrome (Ornella Lincetto, 2016).

CHAPTER 3 : METHODOLOGY

3.1 Study Area:

The study was performed in Sana'a City (Figure 3.1), which is the capital city of the Yemen. It is located in the center of Yemen and situated at an altitude of 2300 metres and has a dry, mild climate with 200 mm of rainfall annually and minimum–maximum average monthly temperatures of 6–30 °C. The area of the capital is about (5.6) square kilometers spread over ten districts, according to the administrative division authority of Sana'a City for the year 2004. Sana'a City has a population of 2,345,000 people, 521862 of them in the reproductive age and the population is growing at a rate of (5.55%) per annum, with a population (8.9%) of the total population of the Republic of Yemen. In Sana'a City 24 percent of females have never attended school; this compares with only 10.5 percent of males (YMoPHP & CSO., 2013) and the poverty account for 15 percent of all residents (Yemen, UNDP, & Bank, 2007). In this study, was involved five health center (Maeen , Cloody Fayan, Alolofi, Azal and Alrazi) and one Hospital (Al-Sabein maternal and child hospital).

Figure 3 : **Sana'a Capital City Map, location of study**

3.2 Study Design

A Descriptive cross sectional health facility based study design was conducted from 20 April 2021 to 10 June 2021 in health facility clinic units, Sana'a City, Yemen.

3.3 Study Population

The target populations were the reproductive age 15-50 of pregnant women

3.4 Inclusion and exclusion criteria

3.4.1 Inclusion

- All pregnant women aged 15-49 years old in the six selected health facilities in Sana'a city governorate are eligible for inclusion.
- The pregnant women lived in the selected areas and had intention to participate in the study.
- The women had no recently diagnosed severe illness (e.g. including influenza virus, measles, smallpox), no known learning difficulties or psychiatric disorder and who consented to participate in the study

3.4.2 Exclusion criteria

- Women who did not consent to participate in the study
- Women with known psychiatric disorder and severely ill

3.5 Sample size determination and sampling technique

A sample size of 365 was calculated using OpenEpi, version 3 (Open source of calculator for sample size and power for population survey or descriptive study) (Figure 3.2) was used based on the following assumptions:

Considering a 95% confidence interval, 60% prevalence (YMoPHP & CSO., 2013), and 5% precision. A 2% non-response and attrition rate were added to the estimated sample

size, the finally derived sample was 370. The study subjects were selected using a systematic random sampling method. On average, about 45 to 55 pregnant women visit the ANC clinic of gynecological units in health facilities every day. According to the information from the registry of the ANC clinic, a total estimated number of pregnant women visiting ANC clinic during the study period would be 4200 and the Kth (K = 3) was determined by dividing the total number of pregnant women estimated to attend by the required sample size. The first sample was between 1 and Kth was randomly chosen, then taking every Kth participant thereafter, where Kth was a sampling interval based on the register list made for the day. The procedure was repeated until the estimated eligible sample size was reached with the study period for each health center. In the case of unwillingness to participate, the immediate next participant was approached.

Table 3.1: Sample size determination

Sample Size for Frequency in a Population

Population size(for finite population correction factor or fpc)(*N*):	29200
Hypothesized % frequency of outcome factor in the population (*p*):	60%+/-5
Confidence limits as % of 100(absolute +/- %)(*d*):	5%
Design effect (for cluster surveys-*DEFF*):	1

Sample Size(*n*) for Various Confidence Levels

ConfidenceLevel(%)	Sample Size
95%	365
80%	157
90%	258
97%	446
99%	624
99.9%	1004
99.99%	1385

Equation

Sample size $n = [DEFF*Np(1-p)]/ [(d^2/Z^2_{1-\alpha/2}*(N-1)+p*(1-p)]$

Results from OpenEpi, Version 3, open source calculator--SSPropor
Print from the browser with ctrl-P
or select text to copy and paste to other programs.

Table 3.2: Sampling and sampling technique

District	Name of health center	No.of attended pregnant women per year	Sample size
Shoub	Al-Razi	4800	61
Al-Tahreer	Al-Awlifi	4200	53.2
Maen	Maen compound	2400	30.4
Al-Sabaen	Al-sabaen Hospital	5000	63.4
Al-Wadah	Clodifen	8000	101.4
Azal	Azal	4800	61
Total		29200	370

3.6 *Study tools:*

Face to face interview questionnaires adopted from published research article Included four sections (Tadesse, Melese, Eshetie, Chane, & Ali, 2020) demographic data, Knowledge, Attitude and Practice used to collect the information.

3.7 Data Gathering Procedure

Data was collected by using face to face interview. Women are eligible for inclusion in the study was approached by team work. On average, each recruiter covered 37 pregnant women. The interviewer read the Arabic consent statement, explaining the study objectives and procedures to the respondents and she was given a chance to ask all possible questions, and very often she had the time to discuss it with her husband as required by the culture in this region.

3.8 Data analysis

Data were entered Statistical Package for Social Sciences software version 24.0 (SPSS Inc., Chicago, USA). The data were checked the completeness, clarity, and internal consistency or missing data. Descriptive statistics computed using percentage, mean, standard deviation, and frequency distribution used to summarize the data. Binary and multivariate logistic regression test used to estimate odds ratio (OR) and determine the associations between independents and dependents variables with 95% confidence interval (CIS). Two-

sided test with level of significant at alpha < 0.05 was used.

3.9 Study Timeline

The data was collected from 20th of April to 10th of June.

3.10 Ethical Consideration

Ethical approval was obtained from the Sana'a city Health office. Ethical Review Board (111) (Appendix K). Approval for obtained from the ethics committee of the college of medical sciences of Emirate International University prior to carrying out this study. Informed written consent was secured from all patient in medical center of the study participants. The right of the respondent to withdraw from the interview or not to participate was informed and respected. The results of the research were communicated to government offices and most importantly to the study subjects and members of the community through health workers.

CHAPTER 4 : RESULTS

4.1 : Socio-demographic, obstetric, and health characteristics of pregnant women

Table 4.1 shows a total of 370 pregnant women were selected with response rate 100% regarding the age group of participants, majority (45.7%) were in the age group (Less than 25 years), (35.1%) women were in the age group (30 to 40 years), while 68 (18.4%) were in the age group (20 to 25 years), (0.8%) in the age group (Over 40 years) With 102 (27.6%) women from Hada zone, while 31 (8.4%) from Maen zone.

And 155 (41.9%) of the attendant only high school education while 96 (25.9%) had Primary education 91 (24.6%) of the women had 1 alive child, while 18 (4.9%) had more than 4 alive children Most women of 242 (65.4%) reported had a family monthly average income.

Just over half of the women (51.6%) had 2 kilometer distance from the health center, and 179 (48.4%) of them had a more than 2 kilometer distance from the health center

264 (71.4%) of the women say that health care services available during 24 hours in a day.

Table 4.1: Socio-demographic, obstetric, and health characteristics of pregnant women

Variables		Freq.	Per.%
Age of Women	Less than 20 years	169	45.7
	20 to 25 years	68	18.4
	30 to 40 years	130	35.1
	Over 40 years	3	0.8
living location \ address	Clody fan	102	27.6
	ALSBAEEN	63	17.0
	AZAL	61	16.5
	ALRAZI	61	16.5
	ALALFI	52	14.1
	MAEN	31	8.4
Educational level	Illiteracy	48	13.0
	Read & Write	32	8.6
	Primary education	96	25.9
	High school education	155	41.9
	University education	36	9.7
	Postgraduate	3	.8
The children are alive	0	78	21.1
	1	91	24.6
	2	66	17.8
	3	75	20.3
	4	42	11.4
	More then 4	18	4.9
Monthly income	Poor	120	32.4
	Average	242	65.4
	High income	8	2.2
Distance from the health center	Less than 2 kilometer	191	51.6
	More or Equal to 2 kilometer	179	48.4
Are health care services available during 24 hours in a day	Available	264	71.4
	Not Available	106	28.6

Figure 4.1 presents that the distribution of respondents according to age group category. about (45.7%) of the participants were in age group less than 20 years.

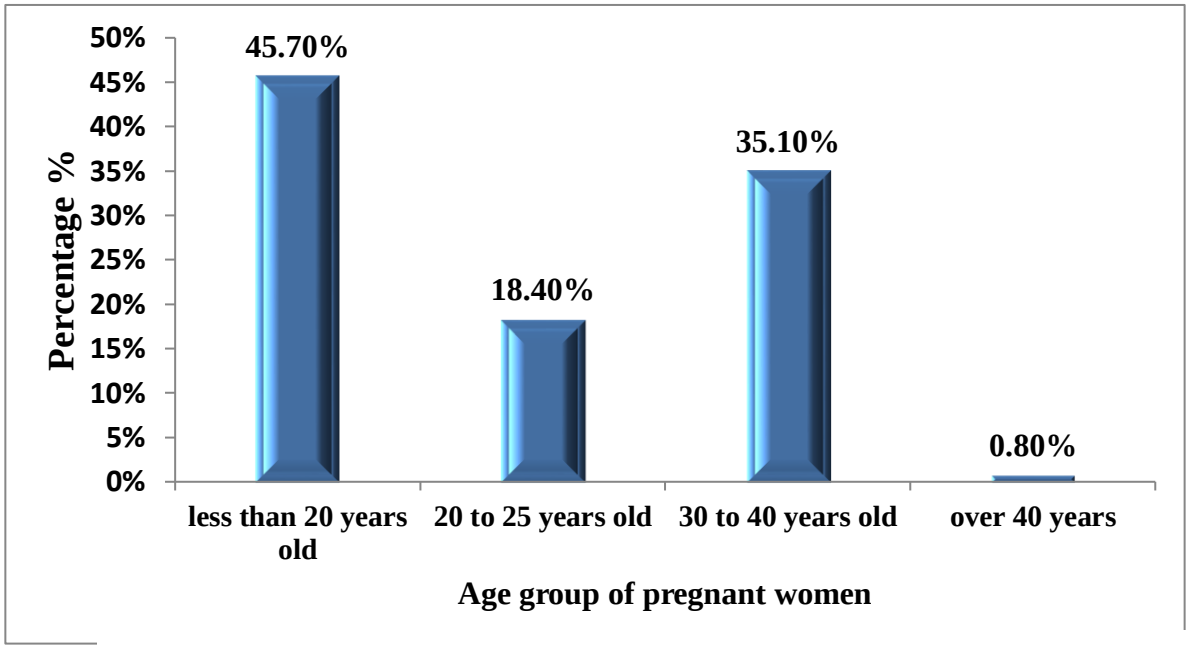

Figure 4.1: Distribution of pregnant women sorted by age group

Figure 4.2 presents the distribution respondents according to the place of residence, about (27.6 %) of them from Clodyfan.

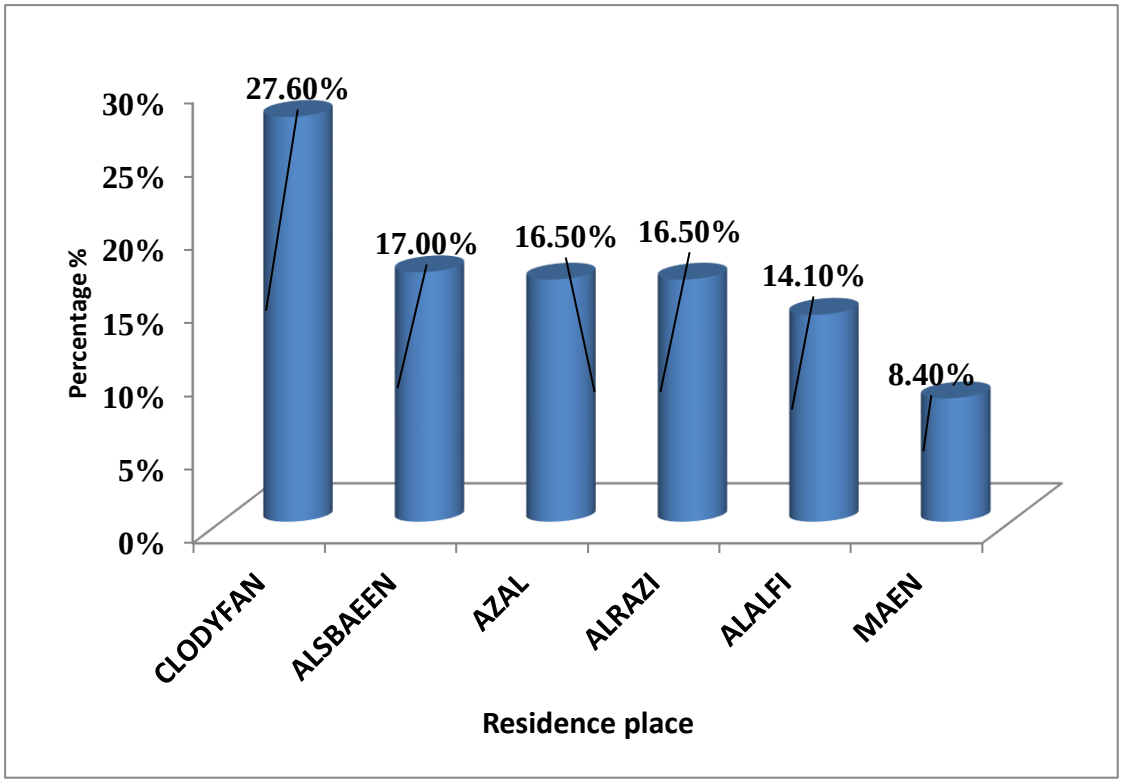

Figure 4.2: Distribution of pregnant women according to residence place

Figure 4.3 presents the distribution of respondent according to education background about (41.9%) of them attended only high school education .

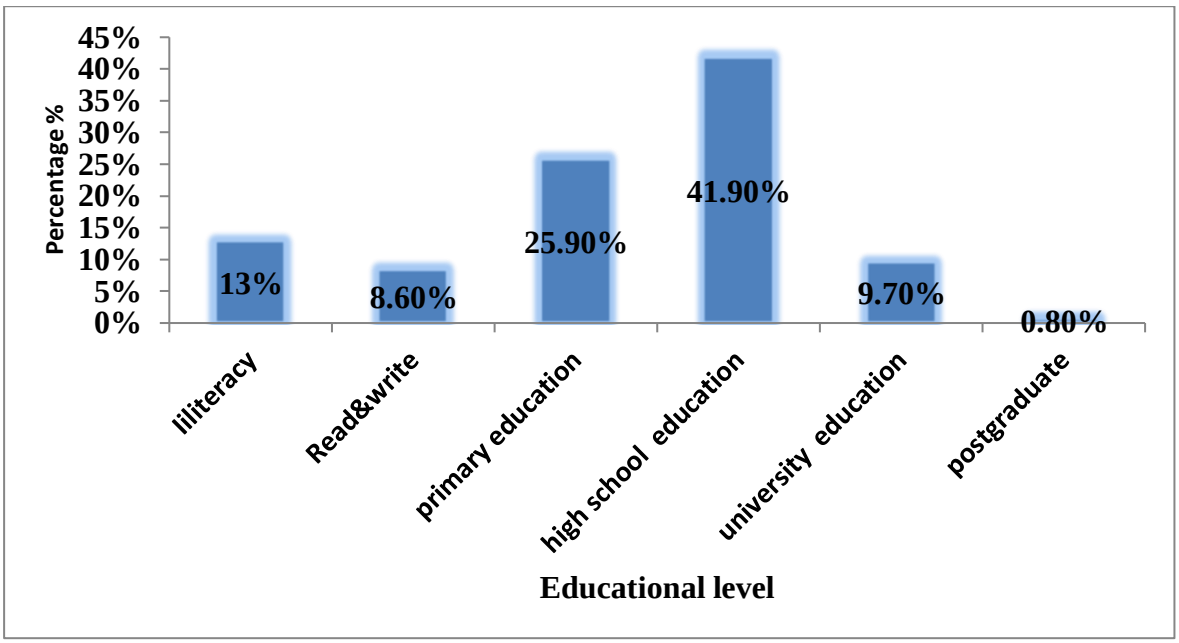

Figure 4.3: Percent of pregnant women according to educational level

Figure 4.4 presents the distribution of children are alive, (24.6%)of the respondents had 1 alive child.

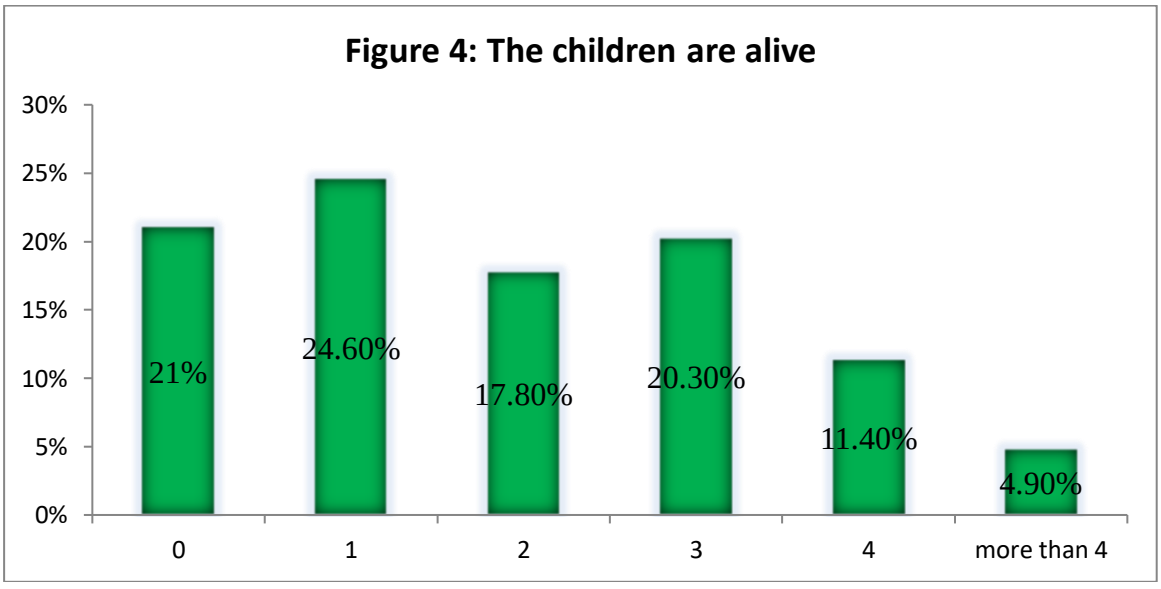

Figure 4.4: presents the distribution of alive children

Figure 4.5 presents that the majority of respondents 51.6 % were of the respondents had less than one 2 kilometer distance from the health center.

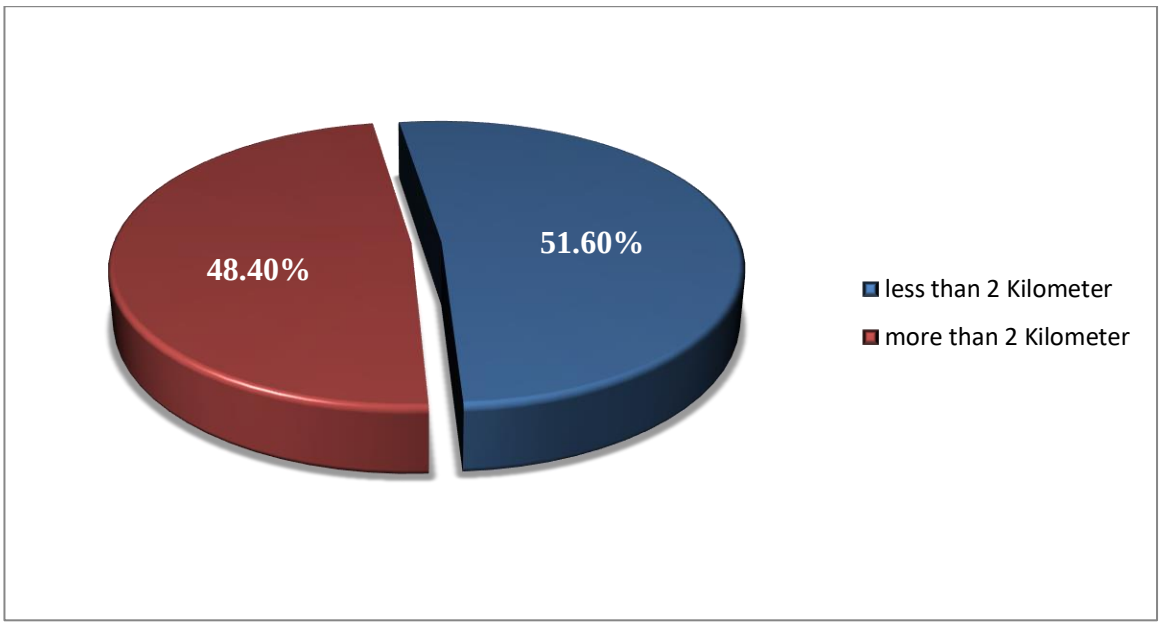

Figure 4.5: Percent of respondents depend on Distance from the health center

4.2 :Reproductive health services

Table (4.2) Shows 221 (59.7%) of the women say that (reproductive health services adequate in their area) and 243 (65.7) of participants receive reproductive health services by health center and 0.5 say there is no services available in their area

Table 4.2: Reproductive health services

Are reproductive health services adequate in your area	Freq.	Per.%
Yes	221	59.7
No	149	40.3
Total	370	100.0
Who provides reproductive health services in your area?	**Freq.**	**Per.%**
Government hospital	122	33.0
Health Center	243	65.7
No service	2	.5
I don't know	3	.8
Total	370	100.0

The effect of the barrier preventing women from accessing reproductive health services

Out of the total (n=370) pregnant women; the majority 263 (71.1%) say that high costing reproductive health services the main affect that prevent their access.

257 (69.5%) difficulty of transportation ,253 (68.4 %) reproductive health services are limited, 251(67.8 %) ignorance and illiteracy, 249 (67.3%) loss of trust in reproductive health service providers , 245 (66.2%) loss of trust in reproductive health services , 204 (55.1 %) Some religious beliefs and 184 (49.7%) Traditions.

Table 4.3 :Influintial factors regarding ANC

INFLUENTIALS	EFFECTIVE		INEFFECTIVE	
	Freq.	Per.%	Freq.	Per.%
Reproductive health services are limited	253	68.4	117	31.6
Loss of trust in reproductive health services	245	66.2	125	33.8
Loss of trust in reproductive health service providers	249	67.3	121	32.7
Reproductive health services are high costing	263	71.1	107	28.9
Difficulty of transportation	257	69.5	113	30.5
Ignorance and illiteracy	251	67.8	117	31.6
Some religious beliefs	204	55.1	166	44.9
Traditions	184	49.7	186	50.3

Summary	Freq.	Per.%
Effective	238	64.32
Ineffective	132	35.68

4.3 : Extent of knowledge about health care services during pregnancy

Table (4.4)below shows 94.6 % of women know that they need to be monitored during pregnancy 75.9% of women know it is necessary to go for checkup even though there are no pregnancy problems 77.3 % know that preliminary examination is required for pregnancy during the first trimester 66.8 % know it is necessary to get the tetanus vaccine 90% know that they need vitamins, iron and folic acid during pregnancy

89.7 % know that it is necessary to regularly check the blood pressure of a pregnant woman. 85.4 % know that high blood pressure in a pregnant woman affect the development of the fetus 92.4% of pregnant women have a positive attitude towards health care.

Table 4.4_:Extent of knowledge about health care services during pregnancy

EXTENT OF KNOWLEDGE ABOUT HEALTH CARE SERVICES DURING PREGNANCY	YES		NO	
	Freq.	Per.%	Freq.	Per.%
Do pregnant women need to be monitored during pregnancy?	350	94.6	17	4.6
If the answer is yes, is it necessary to go for checkup even though there are no pregnancy problems	281	75.9	89	24.1
Is a preliminary examination required for pregnancy during the first trimester?	286	77.3	84	22.7
Is it necessary for pregnant women to get the tetanus vaccine?	247	66.8	123	33.2
Do pregnant women need vitamins, iron and folic acid?	333	90.0	35	9.5
Is it necessary to regularly check the blood pressure of a pregnant woman?	332	89.7	35	9.5
Can high blood pressure in a pregnant woman affect the development of the fetus?	316	85.4	54	14.6
Is your attitude towards health care for pregnant women positive?	342	92.4	28	7.6

Summary knowledge about health care services	Freq.	Per.%
Yes	277	75
No	56	15

4.4 : The practice of health care during pregnancy

Table (4.5) below shows 81.4% of pregnant women attended do not suffer from any chronic disease and 4.3 % suffer from diabetes mellitus while 87.6% of pregnant women use other drugs such as Antibiotics, Aspirin and Proton Pump Inhibitors and 4.1 % use hypoglycaemic drugs.

40.3% of pregnant women visit the health care clinic once a month and 3.8% did not visit. 51.4% said that the time length between this pregnancy and the child before him more than

two years and 3.5% a month.

53.8 % of women did not have any problem in their pregnancy, 10.3% of pregnant women suffer from headaches and 2.2% no feeling of fetal movement.

55.9 % of pregnant women did not do anything with their problems during pregnancy and 2.7 % were advised for miscarriage.

Table 4.5 : The practice of health care during pregnancy

Do you suffer from any chronic diseases?	Freq.	Per.%
Yes, diabetes mellitus	16	4.3
Yes, Epilepsy	5	1.4
Yes, Heart disease	7	1.9
Yes, Hypertension	9	2.4
Yes, Fatal obesity	3	.8
Yes, Other	29	7.8
No	301	81.4
Total	**370**	**100.0**
Do you use any drugs?		
Antihypertensive drugs	9	2.4
Anti-thyroid drugs	12	3.2
Hypoglycemic drugs	15	4.1
Anti-epileptic drugs	3	.8
Cardiac disease drugs	7	1.9
Other	324	87.6
Total	**370**	**100.0**
How many visits have you made since discovering your pregnancy		
once a month	149	40.3
One time every three months	126	34.1
Never	14	3.8
Only when I feel tired	81	21.9
Total	**370**	**100.0**
How long time is between the last child and the one before it?		
This pregnancy is the first	14	3.8
A Month	13	3.5
A Year	77	20.8
Two years	76	20.5
More than two years	190	51.4

Total	**370**	**100.0**
Did you have any health problems during pregnancy?		
Yes	171	46.2
No	199	53.8
Total	**370**	**100.0**
If yes, what are the problems?		
Headache	38	10.3
Blurring vision	14	3.8
Swelling of hands and legs	21	5.7
frequent vomiting	12	3.2
No feeling of fetal movement	8	2.2
Abdominal pain	34	9.2
vaginal bleeding	18	4.9
Other	26	7.0
Total	**171**	**46.2**
How did you deal with the problem?		
Received treatment in the hospital	87	23.5
Medicines and rest at home	66	17.8
Miscarriage	10	2.7
Nothing	207	55.9
Total	**370**	**100.0**

Table. Bivariate logistic analysis result of knowledge towards antenatal and associated factors during pregnancy among women, (n = 370).

Tables 4.6 presents the simple binary logistic regression and multivariable logistic regression with odds ratio of barriers to accessing reproductive health services, and the 95% confidence intervals for all risk factors – woman age, educational level, and availability of

health care service 24 hours a day.

The lower the age of the pregnant woman, the greater the barriers to accessing reproductive health services, by 52-54% (95%CI: 0.29- 0.96; P= 0.035) compared to older pregnant woman. The association dropped from 52-54% to 37-40% but remained significant in adjusted analysis.

The odds ratio in crud and adjusted analysis of women who had lower of educational level had more effect the barriers to accessing reproductive health services from 7.18 to 3.68 times (95%CI: 2.19-23.53; p = 0.001) and (95%CI: 2.19-23.53; p= 0.002) compared to women with higher educational level. In addition, don't availability of health care services 24 hours a day the greater the barriers to accessing reproductive health services by 1.63 times (95%CI: 1.03-2.58; p= 0.038) in bivariate analysis and this association remained statistically significant in the multivariable analysis after adjusting for confounders 1.87 (95%CI: 1.09-3.22, p= 0.024).

Table (4.6) : Results of Simple and multivariable logistic regression between socio-demographic variable of respondents and the effect of a woman's barrier to accessing health services

Variables		The effect of a woman's barrier to accessing health services			
		[a]COR(95%CI)	p-value	[b]AOR (95% CI)	[c]P-value
Age of Women	Less than 25 years	1.00		1.00	-
	25 to 20 years	**0.52(0.29- 0.96)***	**0.035**	**0.37 (0.18-0.76)***	**0.007**
	30 to 40 years	**0.54(0.33-0.87)***	**0.012**	**0.40 (0.23-0.71)***	**0.0.002**
	Over 40 years	0	0	0	0
living location \ address	HADA	-	-	-	-
	ALSBAEEN	-	-	-	-
	AZAL	-	-	-	-
	ALRAZI	-	-	-	-
	ALALFI	-	-	-	-
	MAEN	-	-	-	-
Educational level	Illiteracy	0.49 (0.16-1.49)	0.209	1.00	
	Read & Write	**4.23 (1.69-10.61)***	**0.002**	**7.18 (2.19-23.53)***	**0.001**
	Primary education	1.92 (0.86-4.29)	0.110	**3.68 (1.24-10.92)***	**0.019**
	High school education	**2.56 (1.28-5.13)***	**0.008**	**5.03 (1.82-13.88)***	**0.002**
	University education	1.00		1.87 (0.60-5.87)	0.282
	postgraduate	1.41 (0.43-4.58)	0.568	1.98 (0.48-8.20)	0.345
The sons are alive	0	1.12 (0.58-2.16)	0.738	-	-
	1	0.58 (0.30-1.10)	0.095	-	-
	2	1.00		-	-
	3	**0.27 (0.13-0.56)***	**0.000**	-	-
	4	**0.38 (0.16-0.87)***	**0.023**	-	-
	More then 4	0.68 (0.23-1.96)	0.471	-	-
Monthly income	Poor	1.00			
	Average	0.65 (0.41-1.01)	0.058	-	-
	High income	0.42 (0.08-2.17)	0.302	-	-
Distance from the health center	Less than 2 kilometer	1.00	-	-	-
	More or Equal to 2 kilometer	0.78 (0.51-1.20)	0.256	-	-
Are health care services available 24 hours a day	Available	1.00	-	1.00	-
	Not Available	**1.63 (1.03-2.58)***	**0.038**	**1.87 (1.09-3.22)***	**0.024**

[a]COR-Crud odds ratio, [b]AO-Adjusted odds ratio. [c]P=value-statistical significant at <0.05

The prediction Equation: log(p/1-p) = b0 + b1*x1 + b2*x2 + b3*x3+b4*x4+b5*x5+b6*x6

CHAPTER 5 : DISCUSSION

It is known that most perinatal death can be prevented if adequate antenatal care and timely obstetric care is provided. This study overall knowledge regarding need of expectant ladies to go for prenatal assessment. Pregnancy is a special event, and the family and the community should treat a pregnant woman with particular care. The importance of knowledge and awareness among pregnant women as factors affecting the acceptance and utilization of health services has been shown in other studies (Ibrahim, El Borgy, & Mohammed, 2014).

In this study, majority of patients were in age group of less than 25yrs i.e. 45.7%. In a study conducted in Uttara hand 77.7% of respondents were in the age group of 20-30yrs The current study revealed that the majority(n=350) (94.6%) of the pregnant women had a high level of knowledge regarding ANC.

This finding is in contrast to a study in New Zealand. It is also relatively in disagreement with an Egyptian study, which reported that 58.2% of the pregnant women had unsatisfactory knowledge about ANC. In contrast, the current finding is in line with another study in Egypt, which revealed that 90.1 and 72.2% of their participants, respectively, had high knowledge regarding ANC. Obviously, the discrepancy among the different study results could be explained by the differences in the sampled populations and also the differences in the data collection tools. However, women with lower education (<10th) were performing less visits in term of visits and women with higher education (>10th) were doing better practice with regards to nutrition and other factors. Overall educated women were protecting in better way than non-educated women.in our study women who were average income more respondents than high and poor income. In this study, overall knowledge regarding need of expectant ladies to go for prenatal assessment. 94.6% (n=350) respondent were knew that pregnant women need to go for their checkup. 75.9% (n=281) pregnant women knows that it is necessary to go for antenatal care even if there is no

complication during pregnancy. 77.3 % (n=286) women have knowledge that 1st prenatal check-up should be done in the starting three months of gestation. Almost half of the women knows 66.8% (n=247) that high blood pressure can affect the growth of their children. Another similar study was conducted in Orang Asli in Jempol District shows 94.2% expectant females have awareness about "that expectant women need to go for gynecological assessment". Similarly, 73.1% women knows that pregnant females need to go for pre-birth check-up even if there is no complication. Regarding the use of supplements vitamins (iron and folic acid) during pregnancy, the current study revealed that 90.0% of the pregnant women mentioned that they take supplements during pregnancy. This is expected because supplements are routinely given to women attending ANC facilities and health advice for appropriate dietary practices to reduce anemia. Similarly, a study conducted in Pakistan on pregnant women revealed that 96% of them took iron and folic acid supplements.Meanwhile, the WHO emphasized the importance of antenatal visits during pregnancy, and stated that women should visit the antenatal clinic at least four times during the whole course of pregnancy. These visits will help the healthcare provider to detect any problem such as anemia and chronic constipation as early as possible and help the mother to acquire the necessary information about pregnancy, labor, and puerperium (Ibrahim et al., 2014).

Several authors have suggested that ANC is more beneficial in preventing adverse pregnancy outcomes when received early in pregnancy and continued until delivery. 51.6% had travelling distance less than 1kilometers to ANC facility and 48.4% had travelling distance more or equal to 1kilometers. Megadi et al. said that frequency of antenatal care is also influenced by the accessibility of antenatal care service (Jain & Jain, 2020) .

LIMITATIONS:

- Shortage of time
- Self-financing
- The most attendants to the antenatal facilities are the low income people whereas the high income people usually attend high specialized hospitals clinics.

CHAPTER 6 : CONCLUSION AND RECOMMENDATION

Among the 370 women included, Majority of respondents 169 (45.7%) was from the age group less than 25 years. A total of 155 (41.9%) were at the level of high school education. About 242 (65.4%) of them were come from average family income. The respondents had adequate knowledge about ANC 277 (75%), positive attitude 342 (92.4%) and good practice 223 (64%). The highest first antenatal clinic attendance of pregnancy was once a month 149 (40.3%) with the few of the women had attended at one time every three month 126 (34.1%) and Only 14 (3.8%) of the women admitted that they never come for antenatal visit and 81 (21.9) of women did antenatal visit only when they feel tired. The age of woman, educational level, and availability of health care service 24 hours a day had statistically significant associations with the barriers to accessing reproductive health services.

On the basis of these findings, it is recommended to implement health education programs to improve women's awareness towards ANC and ultimately improve the health status of Yemeni women. Knowledge about healthy behavior during pregnancy should be disseminated through the media, facilitation of services and support for poor families this reinforces the message health workers provide about pregnancy and the importance of antenatal follow-up visits.

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Appendix

- Appendix 1 : Health and Population Office App
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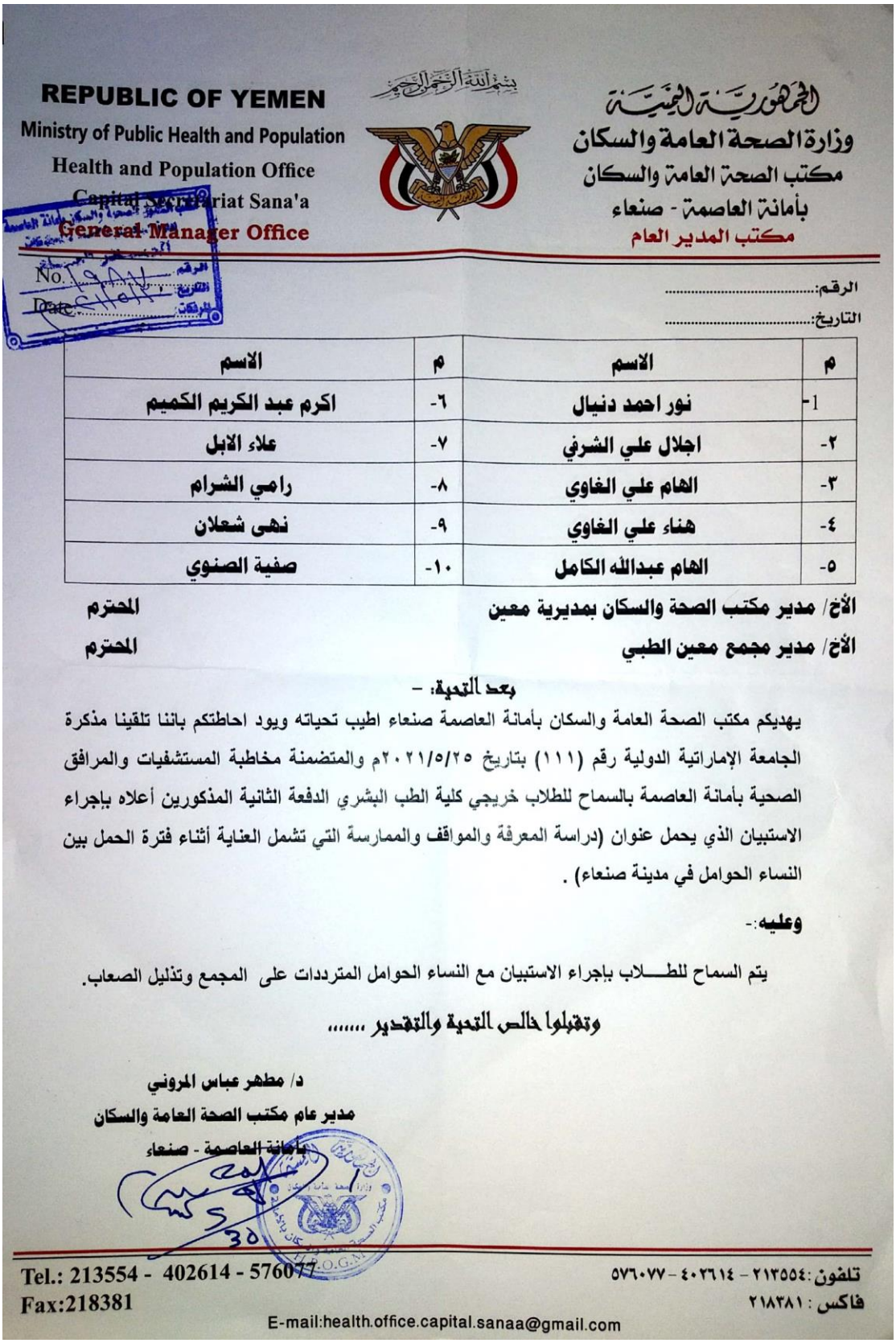

REPUBLIC OF YEMEN
Ministry of Public Health and Population
Health and Population Office
Capital Secretariat Sana'a
General Manager Office

بسم الله الرحمن الرحيم

الجمهورية اليمنية
وزارة الصحة العامة والسكان
مكتب الصحة العامة والسكان
بأمانة العاصمة - صنعاء
مكتب المدير العام

No.
Date

الرقم:.....
التاريخ:.....

م	الاسم	م	الاسم
1-	نور احمد دنيال	٦-	اكرم عبد الكريم الكميم
٢-	اجلال علي الشرفي	٧-	علاء الابل
٣-	الهام علي الغاوي	٨-	رامي الشرام
٤-	هناء علي الغاوي	٩-	نهى شعلان
٥-	الهام عبدالله الكامل	١٠-	صفية الصنوي

الأخ/ مدير مكتب الصحة والسكان بمديرية معين المحترم

الأخ/ مدير مجمع معين الطبي المحترم

بعد التحية: -

يهديكم مكتب الصحة العامة والسكان بأمانة العاصمة صنعاء اطيب تحياته ويود احاطتكم باننا تلقينا مذكرة الجامعة الإماراتية الدولية رقم (١١١) بتاريخ ٢٠٢١/٥/٢٥م والمتضمنة مخاطبة المستشفيات والمرافق الصحية بأمانة العاصمة بالسماح للطلاب خريجي كلية الطب البشري الدفعة الثانية المذكورين أعلاه بإجراء الاستبيان الذي يحمل عنوان (دراسة المعرفة والمواقف والممارسة التي تشمل العناية أثناء فترة الحمل بين النساء الحوامل في مدينة صنعاء) .

وعليه:-

يتم السماح للطـــلاب بإجراء الاستبيان مع النساء الحوامل المترددات على المجمع وتذليل الصعاب.

وتقبلوا خالص التحية والتقدير .....

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- Appendix 2: Questionnaire

Knowledge, Attitude And Practice Regarding Antenatal Care Among Pregnant Women in Sana'a city, Yemen

Dear Ma'am
We are students of Faculty of Medicine From Emirates International University represent these questions to you to study Knowledge, Attitude And Practice Regarding Antenatal Care Among Pregnant Women in Sana'a city, Yemen
As your help answering these questions will lead us to the accurate research

Important note: The data of this questionnaire is confidential and used for the purpose of scientific research only

Agreement to fill out the questionnaire:

Agree ☐ I don't agree ☐

Section 1: Social and Population Factors:

1.Woman Age ..... 2. place of residence.....

2. Educational level:

Illiterate ☐ write and read ☐ primary education ☐

high school ☐ University graduate ☐ Postgraduate ☐

3. **Living children:**

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ more than 4 ☐

4 .Monthly Income:

High ☐ middle ☐ weak ☐

5 .How far distance is it from the health care center?

Less than 2 km ☐ more than or equal to 2 km ☐

6 .Are Antenatal care services available in a 24 hours per day in a case of an emergency situation during pregnancy:

Available ☐ Not available ☐

Section 2 : Reproductive Health Services:

1. **Do you think reproductive health services are adequate for your needs in the area where you live:**
   Yes ☐ No ☐

2. **Who provides reproductive health services in the area where you live:**

   A. government hospital ☐ Health Center ☐
   C. No service ☐ D. I don't know ☐

3.Please estimate the impact of the barrier preventing women from accessing reproductive health services in your place:

Factors	effective	Ineffective
Reproductive health services are limited		
Loss of confidence in reproductive health services		
Loss of trust in reproductive health service providers		
high cost of reproductive health services		
Difficulty of transportation		
Ignorance and illiteracy		
Some religious beliefs		
Tradition		

Section 3: Measuring the extent of knowledge about health care services during pregnancy:

	Yes	No
Do pregnant women need to be monitored during pregnancy?		
If the answer is yes, is it necessary to go for checkup even though there are no pregnancy problems		
Is a preliminary examination required for pregnancy during the first three months?		
Is it necessary for pregnant women to get the tetanus vaccine?		
Do pregnant women need vitamins, iron and folic acid?		
Is it necessary to regularly check the blood pressure of a pregnant woman?		
Can high blood pressure in a pregnant woman affect the development of the fetus?		
Is your attitude towards health care for the pregnant women is positive?		

Section 4 : The practice of health care during pregnancy:

1.Do you suffer from any chronic diseases:

Diabetes ☐ epilepsy ☐ Heart disease ☐

high blood pressure ☐ morbid obesity ☐ other ☐

2.Do you use any medications:

Anti-hypertensive drugs ☐ Anti-thyroid drugs ☐ Hypoglycemic drugs ☐

Anti- epileptic drugs ☐ heart drugs ☐ others ☐

3.How many visits have you been doing since you found out about your pregnancy:?

Once a month ☐ once every 3 months ☐ Never ☐

Just in case i feel tired ☐

4.How long time is between the last child and the one before it?

One month ☐ 1 year ☐ 2 years ☐ more than 2 years ☐

5.Did you have any health problems during pregnancy?

Yes ☐ No ☐

6.If the answer is (yes), what are the problems:

Headache ☐ blurred vision ☐ Swelling in hands and legs ☐

repeated vomiting ☐ Not feeling the baby's movement ☐ Abdominal pain ☐

Vaginal bleeding ☐ other ☐

7.How did you deal with the problem?

I received treatment in the hospital ☐ Medicines and rest at home ☐

Miscarriage ☐ No action ☐

- Before leaving, make sure you fill in all the details

- When you are done with the interview, do not forget to thank the woman with whom the interview was conducted