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**Factors Influencing the Quality of Antenatal Care at
Governmental Clinics in Gaza Strip**

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Factors Influencing the Quality of Antenatal Care at Governmental Clinics in Gaza Strip

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Thesis Approval

Factors Influencing the Quality of Antenatal Care at Governmental Clinics in Gaza Strip

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Jerusalem – Palestine

1440/ 2018

Dedication

This work is dedicated to my husband "Jamal", who has been a constant source of support and encouragement during the challenges of graduate studies and life as a whole. I am truly thankful for having you in my life. I would like to dedicate my work to all my family especially for parents.

Ayda Nassar

Declaration

I certify that this thesis submitted for the degree of Master is the result of my own research, except where otherwise acknowledged, and this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signed:

Ayda Nassar

.../.../....

Acknowledgment

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With my appreciation and respect

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Abstract

Antenatal care (ANC) for pregnant women is an important strategy to reduce maternal and infant morbidity and mortality. This study was conducted to assess the level of quality antenatal care provided at governmental primary health care centers in the Gaza Strip from women and health care provider's perspectives. Observational analytical cross sectional study using mixed methods was carried out with both quantitative and qualitative methods to identify factors that may influence the quality of care in primary health care clinics. The six main governmental primary health care clinics were included in the study (Jabalia, Sorni, Al Remal, Rafah, Dair Al Balah, Khanyounis, and Rafah clinics) Quantitative data were collected using interviewing questionnaires .Women less than one month after delivery attending ANC participated in the study and have been randomly selected(267)to fill a questionnaire with a response rate 98.9% .Health care providers questionnaire was filled with all ANC providers(34) in the governmental primary health care. The qualitative data were collected through in- depth interviews with the providers. The study results show that women have a good utilization for the services in that the majority of them (94%) initiate the ANC services before 12 weeks of gestation, and visit the clinics according to the national guidelines. About 92.1% are satisfied about the service provided. However, there is a room for further improvement in the items related to waiting time and dealing women with more respect. The study revealed that health care providers still face challenges that may affect the provision of care. These challenges were related to limited incentives to staff, heavy workload, no feedback of patients after referral of obstetric complications, limited space for privacy, small ANC waiting area, and shortages of essential ANC supplies and others. Further improvements are needed in order to tackle these barriers, and thus making the provision of ANC services of more quality and equity.

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List of Abbreviations

ACOG	American College of Obstetricians and Gynecologists
ANC	Antenatal Care
DM	Diabetes Mellitus
FANC	Focused Antenatal Care
FGR	Fetal Growth Restriction
FHR	Fetal Heart Rate
GS	Gaza Strip
HIV	Human Immunodeficiency Virus
IUFD	Intra-Uterine Fetal Death
IUGR	Intrauterine Growth Restriction
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MoH	Ministry of Health
NGOs	Nongovernmental Organizations
PCBS	Palestinian Central Bureau of Statistics
PHC	Primary Health Care
PNC	Post Natal Care
Rh	Rhesus Factor
STIs	Sexually Transmitted Infections
TB	Tuberculosis
TT	Tetanus Toxoid
U/S	Ultrasonography
UNFPA	United Nations Fund for Population Activities
UNRWA	United Nations Relief and Work Agency for Palestinian Refugees
WB	West Bank
WHO	World Health Organization

Chapter1 : Introduction

1.1 Background

Antenatal care (ANC) is defined as the care provided by skilled health-care professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy (WHO, 2016a) . World health organization (WHO) suggested that the components of ANC include risk identification; prevention and management of pregnancy-related or concurrent diseases; health education and health promotion (WHO, 2016a).

ANC service delivery improves uptake of important health services for women and better health outcomes (deJongh et al. 2016). Antenatal care reduces maternal and perinatal morbidity and mortality by detection and treatment of pregnancy related complications, and through the identification of women and girls at increased risk of developing complications during labor and delivery.

Although it was previously reported that maternal mortality rate was dropped by about 44% worldwide between 1990 and 2015 (WHO, 2018b), it was reported that during the year 2015 approximately 303,000 women and adolescent girls died as a result of pregnancy and childbirth-related complications (Alkema et al., 2016). In addition, 99% of maternal deaths occur in low-resource settings and most of them can be prevented (WHO, 2018b).

Maternal mortality rate (MMR) varies across the world in that a big difference is seen between countries, such as in Jordan 58, in Egypt 33, in Libya 9, in Kuwait 4, in Lebanon 15, in United States 14, and in European Union 8 (World Bank, 2015). The MMR in Palestine declined from 38 in 2009 to 24.7 in 2014, with a wide variation between West Bank (WB) and Gaza Strip (GS) (MoH, 2016) and the decreases is continued to reach 5.9/100000 (MoH, 2018).

In low and middle income countries ANC utilization has increased since the introduction in 2002 of the WHO ANC model, known as focused antenatal care (FANC) or basic ANC, which is a goal-orientated approach to delivering evidence-based interventions carried out at four critical times during pregnancy (WHO, 2002; Lincetto et al., 2006). However, globally, during the period 2007–2014, only 64% of pregnant women attended the WHO-recommended minimum four contacts for ANC, suggesting that much more work needs to be done to address ANC utilization and quality.

The new ANC model suggested by WHO recommends a minimum of eight contacts: one contact in the first trimester, two contacts in the second trimester, and five contacts in the third trimester with the possibility to modify the new model according to the context based on the country's defined core package of ANC services and consensus on what care is provided at each contact (WHO, 2016 a).

Globally, 85% of pregnant women attend at least one antenatal visit with skilled health professional, and 58% attend at least 4 ANC visits. However, ANC utilization varies within and among countries; maximizing the life-saving potential of ANC requires health systems strengthening, which includes ensuring adequate training, supplies and infrastructure and a focus on quality (WHO, 2016a).

Accessibility and provision of ANC is good in Palestine (Yousef et al., 2016). Although ANC is provided free of charge at the primary health care (PHC) centers that belong to the Palestinian Ministry of Health (MoH) or United Nations Relief and Work Agency for Palestinian Refugees (UNRWA). However, not all patients take advantage of this free service, as some women prefer to use private services and others don't receive ANC for a variety of reasons such as place of living or economic reasons (Böttcher et al., 2018)

This study addressed quality of ANC services from two perspectives, providers and women attend ANC services in order to know the most important factors affecting the provision of good ANC services in the GGs.

1.2 Research problem

Despite MMR have been declined in Palestine from 24.7/ 100000 in 2014 (MoH, 2016) to 5.9/ 100000 in 2017 (MoH, 2018). There was still a variation between MMR in WB and GS. MMR is 8.6/ 100000 in GS compared to 3.8/ 100000 in WB (ibid). Although there is no consensus on the indicators for quality of ANC care, this may include early initiation and having four or more ANC visits and coverage of essential interventions delivered through ANC services. But, in order to achieve good outcomes, provided ANC services should be of high quality (Simkhada et al., 2008). Focused antenatal care model of the WHO showed that essential interventions can be provided over four visits at specified intervals, at least for healthy women with no underlying medical problems. For many of the essential interventions in ANC, it is crucial to have early identification of underlying conditions – for example, control of anemia, hypertension, diabetes mellitus, provision of health education program about the essential food and breast feedings. Hence, the first ANC visit should be as early as possible in pregnancy, preferably in the first trimester (WHO, 2002). The study examines to what extent health care providers follow national guidelines regarding number of visits and the initiation of ANC services.

In addition, the study assessed quality of ANC services from two perspectives, quality of health care and women' satisfaction with the manner in which the service is delivered. Evaluation of women' satisfaction with ANC services is clinically relevant, as satisfied women are more likely to comply with treatment, take an active role in their own care, continue using the services and stay with the health provider.

The results from this study could promote positive change by helping healthcare providers and women themselves identify the factors that influencing the quality of ANC at PHC clinics which will aid to improve targeted ANC services provided in order to reduce maternal health complications and improve pregnancy outcomes.

1.3 Justification

Quality of ANC is an important tool in improving maternal health. However, many women still start attending ANC clinics at late stage of their pregnancy while others only turn up for delivery with no ANC visits.

Factors affecting the quality of ANC perceived by nurses and midwives providing ANC in governmental PHC clinics were studied and the results were newly published (Abu-El-Noor et al., 2018). However, their commitment to WHO standards regarding initiation of the ANC services and number of visits are not studied yet.

Also, the gap of information still exists about the quality of ANC from women' perspectives and women' satisfaction about the services. The study will be the first that assess the quality of ANC services from women's perspectives. This is clinically important, as satisfied women are more likely to comply with appointments and treatment, take an active role in their own care, and continue using the services. This would provide complete information about the provision of the services and the challenges that face health care providers in the provision of care and barriers that may affect women's satisfaction and their utilization of the service. Finally, it could be beneficial for policy makers to improve the services provided in order to decrease pregnancy related morbidities and mortalities.

1.4 Study Objectives

1.4.1 General Objective

The study aims to identify factors that may influence the quality of antenatal care at primary health care clinics from health care provider's and women' perspectives.

1.4.2 Specific Objectives

1. To examine the adherence of health care provider to national and international standards regarding timing and frequency of ANC visits.
2. To assess women's satisfaction about the quality of antenatal care at PHC in the Gaza Strip
3. To examine the differences between the level of women's' satisfaction and their demographic variables
4. To assess the challenges faced by healthcare providers in the provision of high quality of antenatal care.
5. To suggest recommendations for Gaza's women, ANC health providers, and policy makers in order to improve the quality of ANC services in the Gaza Strip.

1.5 Research Questions

- What is the number of ANC visits that women booked during their entire pregnancy?
- When do women initiate their ANC visits in a positive pregnancy?
- Do women in GS initiate their ANC visits regarding timing and frequency as recommended by the standards?
- What is the relationship between number of visits to ANC with regards to women's demographic variables?
- What are the differences between initiation of ANC and women's' demographic characteristics?

- What is the level of women's satisfaction about the ANC service provided?
- Are women different in their level of satisfaction according to their utilized health center?
- What are the main challenges face health care providers during provision of ANC services?
- What are the differences between ANC services provided by health care providers and presence of enough time for the provision of care?

1.6 Context of the study

1.6.1 Gaza Governorate demographic characteristics

Palestine is a small country in its area (26.323Km²). It has an important geographic location (Annex 1); it is located in the East of the Mediterranean Sea in the Middle East, boarded by Syria and Jordan from the east, Lebanon from the north, Golf of Al Aqaba from the south and by Egypt and the Mediterranean Sea from the west. Palestinian National Authority controls two geographically separated areas, WB and GS. Population density in Palestine is 811 (Capita / km²) in the end of the year 2016, for the WB is 519 and for GS is 5154 (PCBS, 2017a).

GS is a small piece of land located in the southern area of Palestine, according to Palestinian Central Bureau of Statistics (PCBS), there were 2,000,000 inhabitants in the mid-year 2017 (PCBS, 2017b). It is divided into five governorates: North Gaza, Gaza City, Mid Zone, Khanyounis and Rafah (Annex 2).

1.6.2 Palestinian health care system

Health care system plays an important role in improving health. Well-functioning health system enables achievement of good health with efficient use of available resources (Atun, 2012). In the GS, health care services are provided mainly through four sectors,

governmental health services at MoH, Nongovernmental organizations (NGOs), UNRWA, and the Private Sector.

Ministry of Health provides primary, secondary, and tertiary health services and purchases the unavailable tertiary health services from domestic and abroad providers. UNRWA provides primary care services and purchase secondary care services for refugees. NGOs provide primary, secondary and some tertiary services. Private for-profit sector provides the three level of care through a variety of specialized hospitals and investigation centers. The fragmentation in the health care system and the lack of coordination between various sectors increase the challenges to provide optimal health care services.

GS suffers from several severe social and economic challenges due to the occupation and a 10- year of siege. Furthermore, the population has been subjected to the devastating effects of four major military campaigns, the latest was in 2014.

1.6.3 Primary health care

Ministry of health is the main PHC provider that operates 472 PHCs; 54 in GS and 418 in WB, While NGOs manage 210 PHCs; 81 in GS and 129 PHCs in WB (MoH, 2011). Compare to UNRWA that operates 65 PHCs; 22 in GS and 43 in WB (UNRWA, 2015). Although UNRWA had this number of health centers in GS, It serves a round 1.2 million of Palestinian refugees which constitute about 74% of population (ibid).

In the GS the provision of health care services is adversely affected by the continuous Israel siege and the internal political division, while the primary and secondary health sector continue to function it faces many challenges as shortage of essential drugs and medical disposables at MoH facilities, 28% of medicine stocks and 54% of medical disposables were at zero stock in June 2014 in GS that put the patients at substantial risk of medical complications and deterioration in health status especially for cancer patients who

are requiring on-going chemotherapy, patients with kidney diseases, transplants, hypertension, blood conditions and chronic illnesses who require a regular regime of medications, some of which are unavailable. This could expose patients to special risk (MoH, 2011).

1.6.4 The participated PHCs in the current study

The participated clinics (Jabalia, Sorni, Al Remal, Dair Al Balah, Khanyounis, and Rafah clinics) were considered main clinics and classified as fourth level centers. It serves primary health care services, in addition to lab services, dental care, preventive and emergency department.(General directorate of primary health care, 2018).

1.6.4.1 Jabalia clinic

The clinic has been operating since 1970 and started to provide primary care services. Gradually, in 1994, it was fully working and staffed by 25 employees. It served an area of 30,000 population. The number of visitors in this period was about 250, and it was rebuilt in 1997. So far, 70 employees are serving an area with a population of about 100,000 people. The average number of patients is 360 patients per day. The clinic is working in the morning and is considered a fourth level clinic.

1.6.4.2 Al Rimal Clinic

The clinic was opened in 1972 and was a specialized clinic with visiting doctors. When Palestinian Authority arrived, it was reconstructed behind the old building and on the developed methods in the advanced health centers. The new five-role building was opened in 1998 at the expense of the world bank in cooperation with the Ministry of Health. The center is considered one of the most important health centers in the Gaza Strip. It covers an area with a population of more than 150,000 and has around 100 employees. The average number of patients is 450 patients per day .The building also includes the General

Administration of Primary Care and the Department of Administrative and Financial Affairs and some other departments. The clinic is considered a fourth level clinic.

1.6.4.3 Sorani clinic

The Sorani clinic was established in 1962. Its services were limited to primary care. The number of employees before the arrival of the Authority was about 21. The number of patients was 150 patients daily. The center served a residential area of 18,000 people. The clinic has several departments. During the year 1995, the clinic was rebuilt and the number of employees was increased to reach 42 employees and the clinic become serve an area of 100,000 people.

1.6.4.4 Deir El-Balah Clinic

Deir El- Balah clinic was established in 1985 and serves the city of Deir El-Balah and the camp with a 49 employees. The number of beneficiaries from the clinic is about 35, 000 people. The number of patients is about 445 patients. Now, its employees were increases to 48 employees serving an area of 65,000 people and the average number of visitors about 250 daily.

1.6.4.5 Khanyounis

This center was established in 1967. It was a health office for births and deaths. Medical care was added to it in 1976 and it was developed until 1994. Its employees were 25 employees. The center has about 350 visitors per day and the center served a residential area of 65 thousand people.

At the time of the National Authority, the center was rebuilt from two floors. The number of employees increased by more than 100%, reaching 83 employees. The number of

beneficiaries increased to more than 350, and the center serves a residential area of 100,000 people.

1.6.4.6 Rafah Center

It was established at the beginning of the sixties and was developed and added to new departments. In the early nineties, the number of its employees reached 22 employees and serve an area with a population of 70,000 and an average of 200 visitors daily. In 1998, the center was rebuilt and developed. The number of visitors reached 400 cases per day. Now, the number of employees has been increased to 77 employees serving a population of 90,000 people with the average number of patients 350 patients daily.

1.7 Definition of terms

1.7.1 Multipara

A woman has delivered two or more pregnancies beyond 20 weeks of gestation regardless of whether the fetuses were born live or stillborn (Boissonnault, 2010).

1.7.2 Primipara

A woman has one delivery beyond 20 weeks of gestation (Boissonnault, 2010).

1.7.3 Primigravida

A woman has been pregnant once, regardless of outcome (Boissonnault, 2010).

1.7.4 Multigravida

A woman had more than one pregnancy, regardless of the outcome. It represents the number of pregnancies (Boissonnault, 2010).

1.7.5 International standards for ANC

World health organization set a group of guidelines in the provision of ANC care models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care, also WHO suggested that women should initiate

ANC visits early and before 12 weeks of gestation (WHO, 2016a). The researcher examined if pregnant women visits the ANC following WHO guidelines regarding time and frequency of these contacts.

1.7.6 National standards

Policy makers in Palestine with WHO cooperation modified the WHO international standards according to MoH strategic plan. These modifications were conducted to meet the economic and human resources (Annex 3). The adherences to national guidelines regarding timing and frequency of ANC visits were examined in this study.

1.7.7 Satisfaction

Patient satisfaction is commonly used indicator for measuring the quality in health care. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centered delivery of quality health care. Patient satisfaction is thus a proxy but a very effective indicator to measure the success of doctors and hospitals (Prakash, 2010). Also, Torcson (2005) suggested that a patient's expression of satisfaction or dissatisfaction is a judgment on the quality of hospital care in all of its aspects. In the current study, the researcher measured the level of women satisfaction about the service provided during provision of ANC services by using question

1.8 Operational definitions

1.8.1 Quality

Quality in a service is not what the supplier puts in. It is what the customer gets out and is willing to pay for (Sondalini, 2016). The researcher examined quality of ANC from two perspectives, women' perspective and health care provider perspective. It was assessed based on ANC service provision s related to satisfaction towards packages of service during antenatal visits.

1.8.2 Challenges

Challenge in health care was defined as a person's estimation of the level of barrier of social, personal, environmental, and economic obstacles to a specified behavior or their desired goal status on that behavior (Glasgow, 2008).

In the current study, challenge is any obstacle face the health care provider and hinders the provision of a quality ANC services.

Chapter2 : Conceptual framework and literature review

2.1 Conceptual framework

The researcher drew the conceptual framework based on the literature review and personal experience. This framework shows what the researcher is going to study. The current study examines factors affecting the quality of ANC services provided from two perspectives women perspectives and health care providers perspectives as illustrated in (Figure 2.1).

First: Women perspectives

- **Services provided during ANC visits**

Pregnant women should be given a comprehensive education program during ANC visits. Health care providers should ask about history of previous delivery, complications and any previous health condition. Also, blood, urine should be examined and blood pressure should be measured. In addition, iron/ folic acid supplements should be given for women during pregnancy period. Appointment to return to ANC visits, calculation of expected date of delivery, diet intake, rest and exercises, family planning methods, breast feeding, danger signs of pregnancy, delivery and the expected complications, place of delivery, using drugs during pregnancy, the use of personal hygiene practices and assessment by US during the first trimester.

- **Women's satisfaction about the services provided**

As a measure of quality also women were asked about their satisfaction regarding the services provided and these include waiting time before seen by the healthcare provider, time taken with the health care provider, if the patients were treated by healthcare provider with respect, confidentiality, if there is a chance to ask questions, empathy, privacy, and place cleanliness. All these factors increase the quality of the service provided and thus increase women utilization and their adherence regarding the booked ANC visits.

- **Women satisfaction**

Another quality indicator about the service provided is the measure of patients' satisfaction; patient will be satisfied when their expectations are met. Patients to be satisfied, they want to be treated like individuals and engaged with on a personal level, respecting their times, providing any required help and treatment, to be treated with respect, privacy and confidentiality. Patients who rate their doctor's empathy high have better clinical outcomes, their commitment about the appointments will be more and thus make the job easier and of more quality.

Second: Health care provider's perspective

- **Characteristics of ANC care**

The availability of infrastructure and supplies, health care workers' level of training, to have enough time for comprehensive health education, to be able to provide all ANC services, to be able to refer women in case of any occurred complications and many other factors affect the quality of care and make the work environment easier and more effective.

- **Challenges in provision of care**

Challenges in provision of health care are also important factors in provision of care and may affect the quality of the services provided. In the current study, health care providers were asked about some challenges that face them including training and education, availability of required equipment, heavy workload and , feedback in case of referring complicated cases, lack of continuity of care, and many other challenges. Providers were asked about these challenges in 5- points Likert scale.

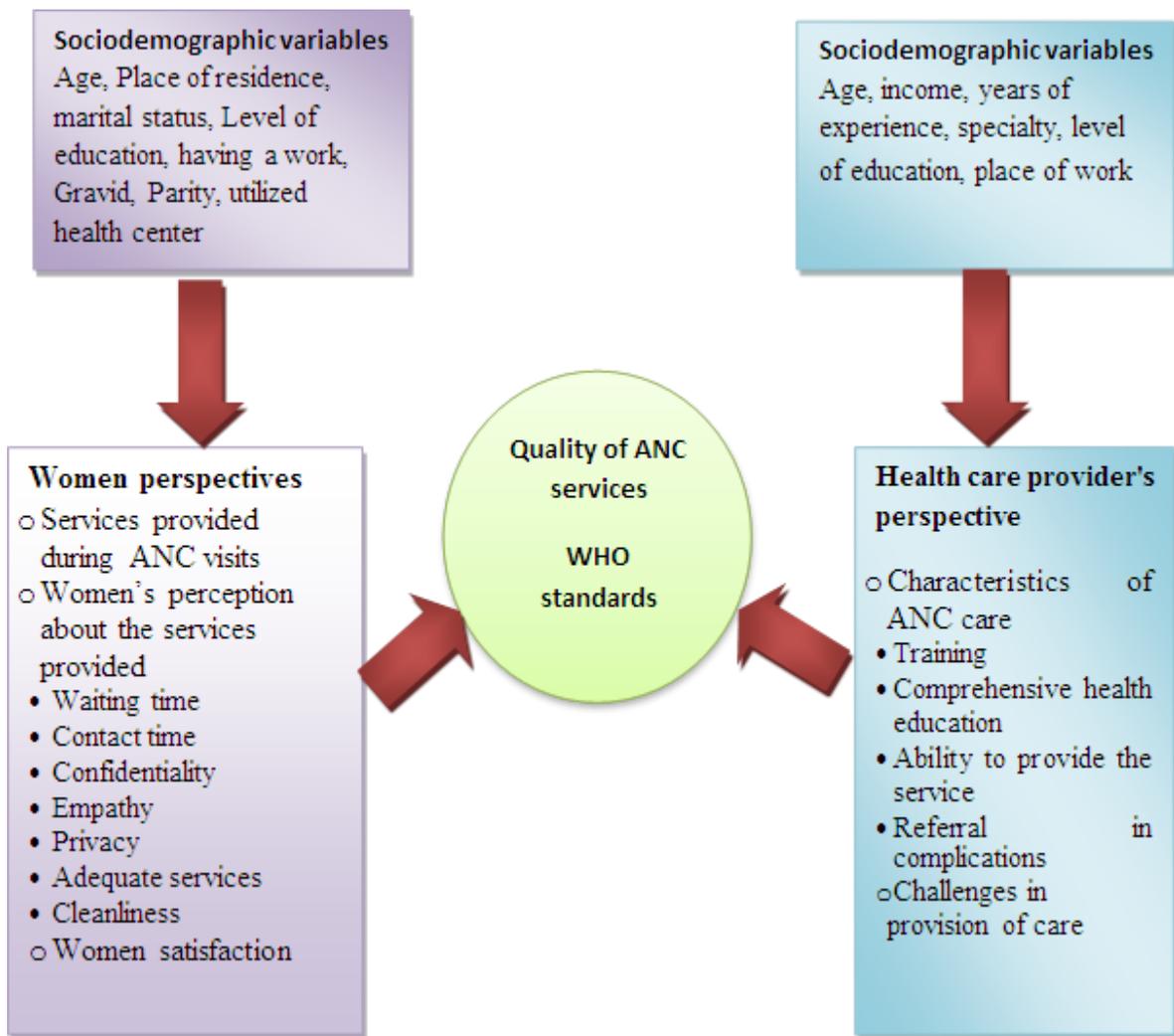


Figure 2.1: Conceptual framework: Self developed

2.2 Definition of pregnancy

Pregnancy – the nine months or so for which a woman carries a developing embryo and fetus in her uterus – is for most women a time of great happiness and success. However, during pregnancy, both the woman and her developing child may face various health risks. Therefore, it is important that all pregnancies should be monitored by skilled care providers (WHO, 2018a).

2.3 Maternal mortality

2.3.1 Maternal mortality world wide

Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (WHO, 2018b).

Maternal mortality is high. It is estimated that about 830 women die every day from pregnancy- or childbirth-related complications around the world. In 2015, roughly 303 000 women died during pregnancy and childbirth. Almost all of these deaths occurred in low-resource countries, and most could have been prevented (Alkema et al., 2016).

In 2015, MMR in developing countries is 239 per 100 000 live births versus 12 per 100 000 live births in developed countries. Therefore, large disparities were found between countries and within countries also. Also, the differences are seen between women with high and low income and those women living in rural versus urban areas (WHO, 2018b).

2.3.2 Maternal mortality in GS

According to MoH in Palestine, MMR declined from 24.7 /100000 in 2014 to 5. 9/ 100000 in 2017 with variation between MMR in WB and GS in that it is 3.8/ 100000 for the WB and 8.6/ 100000 for the GS (MoH, 2018). However, it was reported by WHO to be 15.5/100000 in the Gaza Strip compared to 12.4 in the West Bank during the 2016 (WHO,2017). This variation between the two reports could be interpreted by the fragmentation of the health system and the differences in the way of counting the cases.

A published report by United Nations Fund for Population Activities (UNFPA) identified causes and investigated the 18 maternal mortalities that took place between July 2014 and June 2015. This report showed that women age ranged between 18-44 years, with a mean

age of 33.5 years. Eight of the 18 cases (44%) were classified as high-risk pregnancies, with the most frequent cause of such classification being previous Caesarean section and preeclampsia complicated by gestational Diabetes Mellitus (DM) in two cases. Examination of previous histories revealed that two cases were epileptic, while two suffered from poorly-controlled bronchial asthma, one had an attack of DVT during a previous pregnancy and one had an aortic stenosis (Böttcher et al., 2018)

2.4 Definition of Antenatal care (ANC)

Antenatal care means “care before birth” and includes education, counseling, screening, treatment, monitoring and promoting the well-being of the mother and fetus (Di Mario, 2005).

Antenatal care includes examining and providing advice for women during pregnancy to ensure normal pregnancy with delivery of healthy babies from healthy mothers through early diagnoses, treatment and prevention of complications during pregnancy (Di Mario, 2005; Mansur et al., 2014; Al-Ateeq and Al-Rusaies, 2015). An effective ANC package depends on competent health care providers in a functioning health system with referral services and adequate supplies and laboratory support (Lincetto et al., 2006).

2.5 Selected Pregnancy Complications

2.5.1 Pregnancy Loss

Human pregnancy may be characterized as somewhat inefficient. Historically, pregnancy losses prior to 20 weeks gestation have been termed “miscarriages” or “spontaneous abortions,” and the delivery of a dead fetus at or beyond 20 weeks has been referred to as “stillbirth.” In the general obstetric population, fetal death occurs in some 1.5–2 % of pregnancies, with most of these occurring between the 10th and 15th week. From 16 weeks forward, approximately 1 % of live fetuses expire in utero (Simpson, 1987).

After 20 weeks, fetal deaths occur in approximately 5–7 per 1,000 births in the general US population (Mac Dorman et al., 2006).

Factors lead to fetal deaths were previously studied, a study conducted in a department of Obstetrics and gynecology at King Abdul-Aziz Medical City, Riyadh, Saudi Arabia which aimed to explore factors contributing to the occurrence of intra-uterine fetal death (IUFD). The study revealed that the Patients who did not receive ANC services are at 70 % increased risk for developing IUFD. Risk of IUFD increases 25-fold with the occurrence of abruption placenta, ten folds with the occurrence of intra-uterine growth restrictions and three folds with the presence of hypertensive disorder in pregnancy (Al-Kadri and Tamim, 2012).

2.5.2 Hypertensive pregnancy

Hypertensive pregnancy includes chronic hypertension, which represents elevated blood pressure prior to the gestational age of 20 weeks, and pregnancy-induced hypertension, which means high blood pressure that occurs after 20 weeks of pregnancy. Hypertension is one of the most common medical conditions that complicate pregnancy with an incidence of 7–10% (Allen et al., 2004; Kheir et al., 2014).

The disease would complicate proteinuria, often called preeclampsia. About 5.6–9.4% of pregnancies complicated by preeclampsia end in intrauterine fetal death (Yücesoy et al., 2005 ; Saadat et al., 2007).

Ananth and Basso, (2010) showed a substantial burden of stillbirth and neonatal mortality is associated with hypertensive pregnancy, especially among multiparas women, which may be due to more severe disease women, or to a higher burden of underlying disease.

2.5.3 Fetal growth restriction (FGR)

FGR is a common and complex clinical problem which confers a considerable risk of morbidity. In addition to infectious causes and congenital malformations, FGR has been identified as a major contributor to perinatal mortality (Manning et al., 2013).

Pathologic restriction of fetal growth can be grouped into several categories, though overlap of these is common. Perhaps the most important etiology of intrauterine growth restriction (IUGR) is poor placental vascular development, a condition commonly termed “placental insufficiency.” It is also well known to be associated with maternal hypertensive or vascular conditions, including maternal renal disease of diverse etiologies ranging from acquired nephritis to inherited nephropathies (Branch and Wong, 2014).

2.5.4 Gestational DM

When women with history of gestational DM undergo the 75 gram GTT at 6–12 weeks postpartum, 2–16% are diagnosed with type 2 DM and 36% are found to have intolerance to carbohydrates. Women who had prior gestational DM have a 36–70% risk of developing type 2 DM later in life, depending on risk factors and length of follow-up. It is important for women who had gestational DM to have appropriate follow up, since it can cause damage to various organs (heart, blood vessels, kidneys, eyes, nerves, etc.) (Neiger, 2017).

Infections include some sexually transmitted infections (STIs), that may occur during pregnancy and lead to complications for the pregnant woman and the baby after delivery. Some infections can pass from mother to infant during delivery when the infant passes through the birth canal. Many of these infections can be prevented or treated with appropriate preconception, prenatal, and postpartum follow-up care. Infections in pregnancy can cause or contribute to pregnancy loss/miscarriage, Ectopic pregnancy,

Preterm labor and delivery, Low birth weight, Birth defects, Stillbirth, newborn death (ACOG, 2014).

2.5.5 Preterm Labor

Preterm labor is labor that begins before 37 weeks of pregnancy. Any infant born before 37 weeks is at an increased risk for health problems because organs such as the lungs and brain finish their development in the final weeks of gestation before a full-term delivery (39 to 40 weeks). Certain conditions increase the risk for preterm labor, including infections, developing a shortened cervix, or previous preterm births (Office on Women's Health, 2010).

2.5.6 Other Complications

Other complications of pregnancy may include the following: Severe, persistent nausea and vomiting. Although having some nausea and vomiting is normal during pregnancy, particularly in the first trimester, some experience more severe symptoms that last into the third trimester. The cause of the more severe form of this problem, known as hyperemesis gravidarum is not known. Women with hyperemesis gravidarum experience nausea that does not go away, weight loss, reduce of appetite, dehydration, and feeling faint (National Organization for Rare Diseases, 2015).

Iron-deficiency anemia: Pregnant women need more iron than normal for the increased amount of blood they produce during pregnancy. Iron-deficiency anemia, a condition occurs when the body doesn't have enough iron, is somewhat common during pregnancy and is associated with preterm birth and low birth weight. Symptoms of iron deficiency include feeling tired or faint, experiencing shortness of breath, and becoming pale. American College of Obstetricians and Gynecologists (ACOG) recommends 27 milligrams

of iron daily (found in most prenatal vitamins) to reduce the risk for iron-deficiency anemia (ACOG, 2015).

2.6 Benefits of providing ANC services

Almost 303,000 women and adolescent girls died from pregnancy and childbirth-related complications in 2015 (Alkema et al., 2016). In the same year, 2.6 million babies were stillborn. Almost all of the maternal deaths (99%) and child deaths (98%) occurred in low- and middle-income countries. These maternal deaths could be prevented if the pregnant women or adolescent girls had been able to access good ANC (WHO, 2016b). Sixty percent of the stillbirths (1.46 million) occurred during the antepartum period and mainly due to untreated maternal infections, hypertension, and poor fetal growth (Blencowe et al., 2016).

ANC provides women and their families appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes (Lincetto et al., 2006).

In addition, ANC provides an entry for interventions which give health workers the opportunity to detect risky conditions that need further interventions and accordingly refer them for early management which will lead to better maternal and neonatal outcomes (Afulani, 2015).

According to deJongh et al. (2016), ANC service delivery results in improved uptake of crucial health services for women, earlier initiation of treatment, and better health outcomes.

2.7 Integration of ANC services in PHC

Since the year 2005, ANC coverage has increased significantly. WHO estimates suggested that during the period 2005–2012 approximately 80.5% of pregnant women worldwide, including 71.8% of women in low–income countries, had at least one ANC visit during pregnancy worldwide (WHO, 2013).

Antenatal care provides an opportunity for women to access effective interventions that reduce risks associated with pregnancy and improve their health and well–being, as well as that of their born. However, while there was considerable progress towards the Millennium Development Goals 4 (to reduce child mortality) and 5 (to improve maternal health), maternal and neonatal mortality from preventable pregnancy and birth related complications remain high, particularly in low and middle income countries (WHO, 2012).

It was reported that around 289 000 women died during and following pregnancy and childbirth during the year 2013. The majority of them are in low resource countries (WHO, 2014). Between one third and one half of these pregnancy related deaths are due to preventable complications, such as eclampsia and haemorrhage which are directly related to inadequate care (Khan et al., 2006).

The WHO has identified integration of ANC with other health services including PNC as a key policy for reducing missed opportunities for patient contact and for effective and comprehensive address of health and social needs for pregnant women and their children as well, thus maternal and child health (MCH) will be improved (Lawn et al., 2006; Lincetto et al., 2006; Kerber et al., 2007).

The WHO defined integrated care as bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation and health

promotion in order to improve services in relation to access, quality, user satisfaction and efficiency (Gröne and Garcia-Barbero, 2001; WHO, 2008).

2.8 Components of ANC

A systematic review of randomized controlled trial on the effectiveness of different models of ANC led to agreement on the elements of care that are likely to improve maternal and perinatal outcomes (Carroli et al., 2001) which have been incorporated in the WHO guidelines (WHO, 2001). The guidelines highlighted only on examinations and tests that serve an immediate purpose and that have been proven helpful. These examinations include blood pressure measurement, testing of urine for bacteriuria and proteinuria, and blood tests to detect syphilis and severe anaemia. Routine weight and height measurement at each visit is considered optional (WHO, 2001; Abou-Zahr et al., 2003). Examination for signs of chronic conditions and infectious diseases such as human immunodeficiency virus (HIV), malaria, syphilis and STIs, anemia, heart disease, DM, malnutrition, and Tuberculosis (TB) is crucial since such conditions may affect the pregnancy outcome and therefore requires immediate treatment, intensive monitoring and follow-up throughout the course of pregnancy. All pregnant women should receive immunization against tetanus, and take iron and folate supplementation (WHO, 2006).

Approximately 15 percent of all pregnant women will develop a life-threatening complication (Stephenson, 2005). Therefore, improved education component during the ANC visits especially on recognition of danger signs and appropriate responses is important (Carroli et al., 2001; Langer et al., 2002). Other health education components include suitable diet, infection prevention, breastfeeding and family planning.

2.8.1 Nutritional interventions

Counseling about healthy food and keeping physically active during pregnancy is recommended for pregnant women to stay healthy and to prevent excessive weight gain. Undernourished populations, nutrition education on daily energy and protein intake is recommended for pregnant women to reduce the risk of low birth-weight neonates and to reduce the risk of stillbirths. Daily oral iron and folic acid supplementation is recommended for pregnant women to prevent maternal anemia, puerperal sepsis, low birth weight, and preterm birth. Also, in populations with low dietary calcium intake, daily calcium supplementation is recommended for pregnant women to reduce the risk of pre-eclampsia. Vitamin A supplementation is only recommended for pregnant women in areas where vitamin A deficiency is a severe public health problem, to prevent night blindness. For pregnant women with high daily caffeine intake (more than 300 mg per day), a lowering daily caffeine intake during pregnancy is recommended to reduce the risk of pregnancy loss and low birth weight neonates (WHO, 2016a).

2.8.2 Maternal and fetal assessment

2.8.2.1 Maternal assessment

Full blood count testing is the recommended method for diagnosing anemia during pregnancy, midstream urine culture for diagnosing asymptomatic bacteriuria in pregnancy, hyper glycaemia first detected at any time during pregnancy should be classified as either gestational DM or DM in pregnancy, according to WHO criteria. Health care providers should ask all pregnant women about their tobacco use, alcohol and other substances use (past and present) and exposure to second hand smoke as early as possible in pregnancy and at every ANC visit, to integrate HIV testing with syphilis, viral or other key tests, as relevant to the setting. In addition, systematic screening for active TB should be considered

in countries where the tuberculosis prevalence in the general population is 100/100 000 population or higher (WHO, 2016b).

2.8.2.2 Fetal assessment

Ultrasound scan before 24 weeks of gestation (early ultrasound) is recommended for pregnant women to estimate gestational age, improve detection of fetal anomalies and multiple pregnancies, reduce induction of labor for post term pregnancy, and improve a woman's pregnancy experience (ibid).

2.8.3 Preventive measures

Seven day antibiotic regimen is recommended for all pregnant women with asymptomatic bacteriuria to prevent persistent bacteriuria, preterm birth and low birth weight. Antibiotic prophylaxis is only recommended to prevent recurrent urinary tract infections in pregnant women in the context of rigorous research, Tetanus Toxoid (TT) vaccination is recommended for all pregnant women, preventive treatment for malaria is recommended in endemic areas (ibid).

2.8.4 Interventions for common physiological symptoms

Medicine for the nausea relief during early pregnancy are recommended, advice on diet and lifestyle is recommended to prevent and relieve heart burn in pregnancy. Magnesium, calcium or non-pharmacological treatment options can be used for the relief of leg cramps in pregnancy, based on a woman's preferences and available Options. Also, regular exercise throughout pregnancy is recommended to prevent low back and pelvic pain. In addition, fiber supplements can be used to relieve constipation in pregnancy if the condition fails to respond to dietary modification, based on a woman's preferences and available options. Furthermore, non-pharmacological options can be used for the management of varicose veins and edema in pregnancy (ibid).

2.8.5 Health systems interventions to improve the utilization and quality of ANC

Each pregnant woman should carry her own case notes during pregnancy to improve continuity, quality of care and her pregnancy experience. In addition, it is recommended that midwives support a woman throughout the antenatal, intrapartum and postnatal continuum, packages of interventions that include household and community mobilization. Antenatal home visits are recommended to improve ANC utilization and perinatal health outcomes, particularly in rural settings with low access to health services. Furthermore, policy-makers should consider educational, regulatory, financial, personal and professional support interventions to recruit and retain qualified health workers in rural and remote areas. And finally ANC models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care (WHO, 2016a)

2.9 WHO recommendations regarding initiation of ANC and the number of ANC visits

2.9.1 Focused ANC (Basic ANC model)

Previously during 2002, WHO recommended a focused approach to ANC to improve quality of care and increase ANC coverage, particularly in low income countries (WHO, 2002). The FANC which is also called basic ANC model includes four ANC visits. These visits should be conducted between 8 and 12 weeks of gestation, between 24 and 26 weeks, at 32 weeks, and between 36 and 38 weeks. Guidance on each visit includes specific evidence based interventions for healthy pregnant women, with appropriate referral of high risk women and those who develop obstetric complications. The number of visits in this model is considerably fewer than in ANC models used in high income countries. Briefly, this model have suggested that a pregnant women should initiate her ANC visits before 12 weeks of gestation and to have at least 4 visits during her pregnancy (ibid). (Annex 4)

2.9.2 WHO's 2016 ANC Model

The 2016 WHO ANC model aims to provide pregnant women with respectful, individualized, person centered care at every contact and to ensure that each contact delivers effective, integrated clinical practices (interventions and tests), provides relevant and timely information, and offers psychosocial and emotional support by specialists with good clinical and interpersonal skills working in a well- functioning health system. It is found that perinatal deaths increase with only four ANC visits and that an increase in the number of ANC contacts, regardless of the country, is associated with an increase in maternal satisfaction. So, WHO recommends a minimum of eight contacts: five contacts in the third trimester, one contact in the first trimester, and two contacts in the second trimester. WHO assumes each country will modify the new model to its context based on the country's defined core package of ANC services and consensus on what care is provided at each contact, who provides ANC care, where care is provided, and how care is provided and organized across all eight ANC contacts (WHO, 2016a) Annex (4). In this model, the word "contact" has been used as an alternative to the word "visit", as it implies an active interaction between a pregnant woman and a health-care provider that is not contained with the word "visit" (ibid).

2.10 MCH services in PHC- Gaza Strip

Previously, MCH services started in the responsibility of nurses in the first degree, and one delegated physician from the hospital who visit the clinic one time weekly and not in all the clinics. After integration of MCH services in clinics, six PHC centers have been established and distributed along GS (Jabalia, Sorani, Al Remal, Dair Al Balah, Khanyounis and Rafah). These centered clinics receipt the referred cases from the decentralized ones which are 25 clinics. Also, the clinics were provided by Ultrasonography (U/S) equipment (except Dair Al Balah), and fetal heart rate (FHR)

examination devices. In addition to establishing two centered clinics (Al Remal and Khanyounis) for the risk pregnancy to receipt cases from all other clinics. Also, a plan was developed with the departments of gynecology at hospitals to receipt a risk pregnancy cases and to exempt them from the hospitalized fees (Director of maternal health department, September 2018, Personal communication).

2.10.1 Provided ANC services

- Reception of new cases
- Give TT vaccine
- Comprehensive examination for the women (by the nurse)
- Comprehensive examination for the women (Physician)
- Follow up cases
- Laboratory tests
- U/S
- Reception of women's with risk pregnancy and follow up them
- Referral, follow up of the referred cases (to the hospital)

2016 WHO ANC services model was adopted in Palestine. However, some modifications were done by policy makers according to MoH strategic plan and available resources (Public health officer, coordinator of reproductive health programs between the MoH and UNDP, September 2018, personal communication). Number of visits was modified to be a booking visit, a visit at 16 week of gestation, a visit at 18-22 weeks of gestation, 24- 28 weeks, 32 weeks, and in 36 weeks of gestation. So, the adopted guideline in ANC services regarding number of visits suggests 5 visits in addition to the booking one (National unified reproductive health guidelines and protocols, 2016).

2.11 Quality of ANC

The ANC research is now focusing on the quality of prenatal care provided because research trends have exposed quality of care as an equal or greater predictor than adequacy of care for usage of prenatal care services (Sword et al., 2012).

Factors contributing to quality prenatal care have been divided into three categories reflective of Donabedian's (2005) model of quality care: structural factors, clinical processes of care, and interpersonal care processes (Sword et al., 2012).

There are three major structural elements that promote high quality prenatal care. One element of quality prenatal care is having access to prenatal care services (Sword et al., 2012). This involves women having the ability to initiate prenatal care services as early as possible with a prenatal care provider of the woman's choosing, and then maintaining this care over the duration of her pregnancy (ibid). Women describe access to include having practice locations that are close to their home or place of work, being close to public transportation, and having free or inexpensive parking (ibid). Another component of access is being able to easily schedule convenient appointments and having telephone access to prenatal care providers in order to address any pressing questions or concerns. Finally, women describe having access to educational materials such as handouts, pamphlets, and videos as an element of quality prenatal care (ibid).

The physical setting of prenatal care has an impact on its quality. Contributing factors include cleanliness, aesthetics and comfort, as well as privacy. Privacy is a priority when patients are being assessed, and when discussing personal information with prenatal care providers (ibid). Health care provider characteristics are structural elements that affect the quality of ANC care providers with a pleasant manner, knowledge of patient information,

and the ability to efficiently complete care are preferred. Also, if they are knowledgeable and confident is contributed to higher quality ANC (ibid).

Clinical care processes represent a significant content of ANC. Quality ANC includes the confirmation of pregnancy, the estimation of date of delivery based on the last menstrual period or U/S in the absence of an accurate last menstrual period (National Institute for Health and Clinical Excellence, 2008). Routine blood work must be incorporated into these visits to complete ABO and Rhesus factor (Rh) blood typing and anemia screening, along with routine fetal heart monitoring and assessment of blood pressure, weight, urine. In addition to provide a special attention for mothers with significant medical or genetic health history undergoing genetic testing (Kirkham et al., 2005).

Health teaching and counseling are important components of quality ANC; health education should focus on educating mothers about physiological changes that occur during pregnancy and discussing dietary guidelines for pregnant women, appropriate weight gain, and perhaps nutritional supplements (Sword et al., 2012). Another prominent focus of health teaching and counseling is prescription and herbal medication use, alcohol use, smoking, and workplace hazardous materials (National Institute for Health and Clinical Excellence., 2008). Care providers should identify negative health behaviors in pregnancy, providing counseling for the cessation in risk behaviors needs to become a priority, and has been shown to positively impact the modification of negative health behaviors (Ricketts et al., 2005).

Continuity of care is another component of ANC as it permits mothers to develop a mutual, positive relationship through sharing of information between ANC providers and their women' needs to be clear, easy to understand, and honest about their information (Sword et al., 2012).

Other important components of quality prenatal care are non-medicalization of pregnancy and mothers centered care. ANC providers need to provide prenatal care that is highly personalized, focusing on the patient's lifestyle, circumstances, and social determinants of health (ibid).

By actively engaging in their own care, mothers have meaningful participation in shared decision making to successfully consolidate the varied clinical elements (Kirkham et al., 2005). Interpersonal care process is also category of quality ANC described by Sword et al. (2012). In addition quality care is characterized by the health care provider having a respectful attitude, a friendly manner, and non-judgmental interactions; Provision of emotional support, characterized by listening, expressing care and concern, and acknowledging feelings, is another important of interpersonal process (ibid).

2.12 Satisfaction features structure and process

Satisfaction with quality of care is the degree to which the women' desired expectations, goals and preferences are met by the healthcare provider and service (Nwaeze et al., 2013). women' satisfaction has usually been linked to the quality of services given and the extent to which specific needs are met. Satisfied women are likely to come back for the services and recommended service to others. Various factors including attitude of staff, cost of care, time spent at the hospital and doctor communication have been found to influence women' satisfaction. In general satisfaction and dissatisfaction indicate women judgment about the strengths and weaknesses of the service (ibid). Women's satisfaction with the quality of ANC is an important determinant of their utilization and continuation with the service (Fawole et al., 2008).

2.13 Summary of the related studies

Deep investigation of the literature showed that there is a lack of local studies related to quality of ANC services in the Gaza Strip. Also, number of visits provided and the time of ANC initiation are not studied yet in the Gaza Strip. So, study execution is important to provide us information about the ANC services provided and to what extent the service is in a good quality. Thus, improvement of the service will be possible.

Chapter3 : Methods

This section specifies materials and methods used in assessing factors influencing and hindering the quality of ANC services in governmental MCH clinics. It explains the study design, study period and setting, study population, sample size and sampling process, tools of data collection and analysis, reliability and validity of the instruments. In addition it clarifies the administrative and ethical considerations.

3.1 Study design

Observational analytical cross sectional study using mixed methods was carried out with both quantitative and qualitative methods to identify factors that may influence the quality of ANC care at PHC clinics from health care providers and women's perspectives. The major purpose of cross sectional analytical method allows the investigator to use facts or information already available, and to analyze them to make a critical evaluation of the examined situation (Kothari, 2004; Levin, 2006). The study is a mixed study involving both quantitative and qualitative data using three main tools. The combination between the two methods creates inclusive information about the study domains that cannot be collected in one method. In addition, the combination between the two approaches maximizing the benefits of both and minimizing the limitations of each (Hussein, 2015).

3.2 Study setting

The study was conducted at the main PHC of MoH which provide MCH services in GS which are (Jabalia clinic, Sorni clinci, Al Remal clinic, Dair Al Balah clinic, Khanyounis clinci, and Rafah clinic).

3.3 Study population

The study population includes two populations, the first is the mothers between 0 –1 month after delivery seeking postnatal care services and utilized ANC services at selected

governmental MCH clinics in the GS. The second population is ANC care providers at the selected governmental MCH clinics in the GS. The total number of women having delivery less than a month and follow up at the selected six centers was 740 women.

3.4 Study period

The study took 13 months to be conducted as it started in October 2017 and completed by October 2018. The research proposal has been defended in the front of faculty of health professions assigned committee in December 2017. Initially, the research proposal described the entire process and provided information about study design, data collection and analysis methods and tools. After obtaining the committee's approval, the researcher prepared the required tools of this study. In March 2018 the tools were ready to start the data collection and the researcher trained one data collector and the required training was carried out prior to piloting and field work. Piloting started between 1st March and 15th March 2018. Actual data collection of quantitative part and data entry as well started on 25th March through 15th April 2018. The researcher and her assistant began collecting data at the selected clinics.

Data entry was performed at the time of data collection. Analysis part of the study was immediately initiated after the completion of data collection. Data management and recoding of variables were done, descriptive analysis, frequency tables were extracted, and then inferential statistics were performed. In-depth interviews were done after analysis of quantitative part in August 2018. Then, the researcher started to prepare the final report which has been finalized by October 2018.

3.5 The study sample and sample size

3.5.1 Pregnant women sample

Simple random sample from the pregnant mothers was selected according to proportional ratio as a representative sample between clinics. In order to calculate the sample size, Monkey survey online program was used and resulted in sample size at least 254 cases for a representative sample at 95% confidence interval and 5% margin of error, (Annex 5). The researcher took into consideration the following parameters during sample size calculation:

- The total number of women having delivery less than a month and follow up at the selected six centers was 740 women,
- Confidence interval 95%,
- A margin of error 5%.

The study sample was 254, and the researcher increased the sample size to be 270 cases to cover the possibility of non-respondents.

3.5.2 Health care provider's sample

All the health care providers (34 providers) who provide ANC care at the 6 main clinics (Jabalia, Sorani, Al Remal, Dair Al Balah, Khanyounis and Rafah) were included in this study and the table (3.1) illustrates the sample size of the two populations and their distribution in the centers.

Table 3.1: Sample size of the study populations and their distribution in PHC

Name of the health center	Mothers	Health care providers
Jabalia clinic	55	7
Sorani Clinic	34	4
Al-Remal Clinic	55	7
Dair Al Balah clinic	27	4
Khanyounis clinic	62	7
Rafah clinic	21	5
Total	254	34

3.6 Study variables

3.6.1 Independent variables considered

Age, education level, employment status, marital status, parity and gravida, and adherence to standards and quality of care (was measured by women' satisfaction).

3.6.2 Dependent variables considered

Perceived quality, timing of visits, and frequency of visits, challenges faced and satisfaction are considered outcome variables.

3.7 Eligibility Criteria

3.7.1 Inclusion Criteria

- Mothers between 0 –1months after delivery
- Mothers who attend governmental ANC services.
- Have willing to participate in the study.

3.7.2 Exclusion Criteria

- Mothers seeking ANC out of the study period.
- Mothers who received ANC from non-governmental (PHC).
- Those who refuse the participation.

3.8 Research Instruments

3.8.1 Quantitative data

For the quantitative data, the study used two instruments, the first one is interviewing questionnaire designed to enable collection of data about mothers' characteristics, content of ANC, services provided, women's satisfaction (Annex 10) and the translated Arabic version (Annex 11). The second one is interviewing questionnaire with providers working at ANC services (Annex 12) and the translated version (Annex 13). The tools were arbitrated by experts and their opinions were taken into considerations. The arbitration stage lasted for 6 weeks including reviewing of study tools by the arbitrators and the academic supervisor's feedback. The tool gathers data about characteristics of working with ANC, adherence to standards and challenges faced by health care providers.

3.8.1.1 Mothers' questionnaire

The questionnaire designed for mothers contains the following parts:

Part1: Socio-demographic characteristics of the pregnant mothers.

Part2: Content of ANC provided.

Part3: Services provided during ANC visits.

Part4: Mothers' satisfaction regarding ANC.

Part5: General satisfaction.

Part 6: Challenges and barriers in receiving care– open ended questions.

3.8.1.2 Health care provider's questionnaire

The questionnaire designed for health care provider contains the following part

Part1: Health care provider characteristics.

Part2: Characteristics of working with ANC

Part3: Challenges faced by health care providers.

3.8.2 Qualitative data

For the qualitative data, seven in- depth interviews were conducted with health care providers who provide ANC services at the governmental PHC using semi- structured questionnaire (Annex 14) and the translated version (Annex 15). In addition, mothers were asked about challenges and barriers to receive ANC services using open ended questions.

3.9 Pilot study

For the quantitative data, a pilot study conducted at governmental MCH clinics, A total of 30 questionnaires for mothers and 12 questionnaires for care providers used in the pilot test were done to explore the relevance of the study instruments and allow the research team to train for data collection; this step allowed exploring the appropriateness of the questions, women' responsiveness and further improvement of the study validity and reliability. Participants in the pilot study were included in the research.

Qualitative part: A pilot interview was done with a health care provider, which allowed for further improvement of the study validity and reliability. Based on the result of this stage; the questions were ordered and the way of asking the questions was improved to be more deep.

3.10 Response rate

For the quantitative data, during the time of data collection, 270 interviewed questionnaires were distributed in the six governmental PHC centers; most of them (267) were fulfilled. So, the response rate was 98.9%. For the health care providers, the response rate was 100%.

For the qualitative data: Seven in-depth interviews were carried out with health care providers and the response rate was 100%.

3.11 Scientific rigor

Quantitative data

3.11.1 Validity

3.11.1.1 Face validity

Interviewing questionnaires were organized in order to allow smooth data collection.

3.11.1.2 Content validity

Concerning the content validity, adequate reviewing of related topics in the literature about ANC and factors that affect the quality of the services provided. To assess the relevance of the questionnaires, experts conducted evaluation process and comments were taken in consideration. In addition, a pilot study was conducted before the actual data collection to examine women' responses to the questionnaire and how they understand its questions. Slight modifications were done to make it well understood. This would increase the validity of the questionnaires.

3.11.2 Reliability

The following steps were done to assure instruments reliability:

- Standardization of filling the questionnaires.
- Data entry was done in the same day of data collection to permit possible interventions to assure data quality and to re-fill the questionnaire when it is required.
- Re-entry of 5% of the data after finishing data entry to assure correct entry process and thus to decrease the errors.

- Patients' satisfaction data and challenges faced by health care providers were examined for internal consistency and relatedness of the statements. The researcher used Cronbach's alpha coefficient to check the reliability for each domain as illustrated in (Table 3.2)

Table 3.2: Cronbach's alpha coefficient for reliability

Item	Cronbach's Alpha	No. of Items
Mothers satisfaction regarding ANC	0.764	9
Challenges Faced by the Healthcare Providers of Antenatal Care in the Provision of Care	0.773	17

Cronbach's alpha coefficient shows that the questionnaires are reliable for application and data collection from health care providers. Therefore, both questionnaires have good validity and reliability.

Qualitative part

To assure the trustworthiness of the qualitative part in this study, three steps were considered. First, a peer check was completed by health experts to review in-depth interview questions to assure that they cover all the essential domains. Second, points were taken about the important issues discussed during the interviews. Third, a debriefing report was written at the end of each interview including the most important points discussed during it.

3.12 Data entry and Analysis

Quantitative part: The researcher used Statistical Package for Social Science (SPSS) program version 22 for data entry and analysis. The first stage of data entry was through constructing the entry base and coding of variables, followed by actual data entry. Data entry was performed at the time of data collection. At the analysis stage, data cleaning and data management for the variables of interest were performed.

The management of data depended upon scientific literature, merging and discretizing continuous variables into categories with minimal loss of information. Descriptive analysis including figures, frequency tables, and cross tabulation were used to describe the main features of the data. t-test and ANOVA tests were used to measure the relationship between number of visits to ANC and patient demographic characteristics, relationship between number of visits and medical risk, relationship between women' satisfaction and the utilized health care center, relationship between the ANC provided and time factor. In addition, Chi square test was used to examine the relationship between early initiation of ANC and characteristic variables.

Qualitative part: Open coding thematic content analysis technique was used to analyze the transcripts of the in-depth interviews. The researcher would gain the main findings from the interviews. Then, categorization of related ideas, comparison and integration between the quantitative and the qualitative findings was done to create rich items for discussion and interpretation. Also, in-depth interviews were analyzed deeply to identify the most important factors affecting the quality of NAC.

3.13 Administrative and ethical Considerations

Prior to data collection, permission obtained from Al-Quds University, Helsinki committee and MoH and Clinics directory in GS (Annex 16), and (Annex 17). Before fieldwork, meetings arranged with health administrators of selected clinics in order to explain the purpose of the study. Potential participants were given oral explanations of the study in simple language and those willing to participate were given oral consent. The participants assured of anonymity, confidentiality and informed of their ability to withdraw from the study at any time. All patients and providers were asked for their agreement to participate in the study (Annex 6, 8) and the translated versions (Annex 7, 9).

Chapter4 : Results and discussion

4.1 First: Mothers

4.1.1 Descriptive analysis

Distribution participated centres and the percentages of the study respondents in each centre

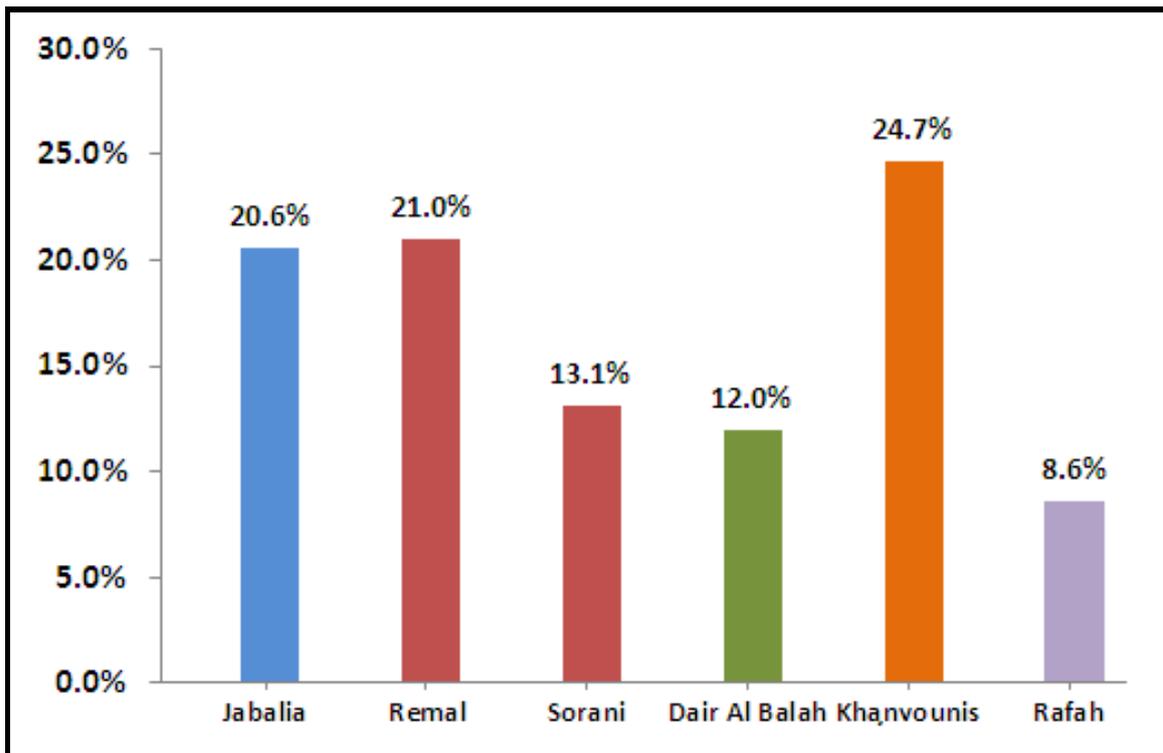


Figure 4.1: The percentages of the study participants in health care centres

The sample was taken from 6 main PHC centers covering all the geographic area of the GS. Figure (4.1) shows about 20.6% of the study sample were from Jbalia health center, where 21% from Remal health center, 13.1% from Sorani center, 12% from Dair Al Balah, 24.7% from Khanyounis, and finally, 8.6% from Rafah health center.

Table 4.1: Demographic characteristics of mothers and number of visits in the pregnancy (numerical variables)

Variable	Mean \pm SD (min- max)
Age	25.5 \pm 5.7 (16-42)
Gestational age of newborn	39.7 \pm 1.2 (28-42)
No. of live born infants	2.7 \pm 1.8 (1-8)
No. of abortions	0.5 \pm 0.9 (0-5)
Number of visits in the entire pregnancy	6.3 \pm 1 (2-11)

Table (4.1) shows demographic characteristics of participated mothers. Regarding age, the mean age of the participated women is 25.5 years old with a standard deviation 5.7, the minimum age was 16 years and the maximum one is 42 years old and this is considered the reproductive age of Palestinian women as it was previously reported by PCBS (PCBS, 2015).

Regarding gestational age of the newborns, the mean age of gestation is 39.7 weeks with a standard deviation 1.3. In comparison, it was estimated to be 38.7 weeks by Martin et al., (2015) Also, the minimum gestational age is 28 weeks and the maximum gestational age is 42weeks.

With regards to the number of live born infants, mean number of children is 2.7 with a standard deviation 1.8 in addition women were reported abortions by mean number 0.5 with a standard deviation 0.9. Also, the table shows that women visited the health center in the purpose of ANC services in a mean of 6.3 visits with a standard deviation 1. This is considered good if compared to national guidelines in ANC services (National unified reproductive health guidelines and protocols, 2016).

Table 4.2: Demographic characteristics of the study participants (categorical variables)

Variable	Categories	Frequency (%)
Current marital status	married	262 (98.1)
	divorced	4 (1.5)
	Widow	1 (0.4)
Place of residency	North Gaza	55 (20.6)
	Gaza	91 (34.1)
	Middle area	32 (12)
	Khanyounis	66 (24.7)
	Rafah	23 (8.6)
Educational level	primary	40 (15)
	secondary	125 (46.8)
	university	101 (37.8)
	higher education	1 (0.4)
Having a work	Yes	22 (8.2)
	No	245 (91.8)
Gravida	first time	73 (27.3)
	multiple	194 (72.7)
Parity	first time	80 (30)
	multiple delivery	187 (70)
No. of stillbirths	No	255 (95.5)
	One time	12 (4.5)
Governmental Hospital	Governmental Hospital	222 (83.1)
Private Hospital	Private Hospital	45 (16.9)
Medical risk during the last pregnancy	Yes	51 (19.1)
	No	216 (80.9)

Table (4.2) shows the demographic characteristic of the study participants. The majority of women are married at the time of data collection (98.1%), 34.1% are resident in the Gaza city reflecting the high population density of this city (PCBS, 2016), others are resident

along other governorates: Middle zone area, North Gaza, Khanyounis, and Rafah constituting 20.6% , 12%, 24.7%, 8.6% respectively.

The study shows that only 15% of the study participants have primary education, 46.8% of them have secondary education, and 38.2% have university education and more. In addition the study shows the majority of them did not have work (91.8%).

Regarding previous history of gestation, the study shows that 27.3% of women are Primigravida, 73.7% are Multigravida. Also, the study shows that 30% of participants are Primipara, while 70% of them are Multipara. In addition, the study showed that 4.5 % of the study participants have a previous stillbirth. Furthermore, the study revealed that 19.1% of the participated women had a medical risk during their last pregnancy.

4.1.2 Content of Antenatal Care (ANC) Provided

Table 4.3: Distribution of mothers regarding the ANC provided (categorical variables) n= 267

Variable	Categories	Frequency (%)
ANC provider	Nurse only	116 (43.4)
	Midwife only	54 (20.3)
	Doctor only	31 (11.6)
	Nurse + doctor	61 (22.8)
	Midwife + doctor	5 (1.9)
Initiation of ANC visits	before 12 weeks of starting pregnancy	251 (94)
	after 12 weeks of starting pregnancy	16 (6)
No. of visits according to WHO standards	< 8 visits	254 (95.1)
	≥ 8visits	13 (4.9)
No. of ANC visits according to national guidelines	< 4 visits	4 (1.5)
	≥ 4 visits	263 (98.5)

Table (4.3) shows the content of ANC provided for the pregnant women. 43.4% of women followed by the nurse only, 23.3% of them followed by the midwife. 11% were followed by the doctor. And finally, 22.8% were followed by the nurse and doctor.

Regarding the early initiation of ANC, the majority of women (94%) initiate the ANC before 12 weeks of gestation, WHO recommends that all pregnant women should initiate their first ANC visit in the first trimester of pregnancy to allow enough time for optimal care and treatment (WHO, 2016a). Only 6% of participants did not follow the WHO guidelines in the initiation of ANC visits which reflect that women in the GS have a good access to ANC. This good utilization indicates the universal coverage of health insurance in the GS as it was stated before (WHO, 2016a).

Early initiation of ANC is important to prevent and treat anemia and to identify and manage women with medical complications. Early care also allows for the development of interpersonal relationships between the health care providers and women that can help to ensure their health and well-being. The majority of women (95.1%) had less than 8 visits and only 4.9% of them had 8 visits and more during their pregnancy and this did not follow the WHO standards to have 8 visits and more (WHO, 2016a). Only 1.5% of women conducted ANC for less than 4 times and the majority of women have 4 visits and more. This reflect that health care providers are adherent to national guidelines regarding booking at least 4 visits of ANC services during the pregnancy (National unified reproductive health guidelines and protocols, 2016). Also, the good adherence to the booked visits means that ANC services are available, affordable, and easy access, thus increasing the utilization of ANC. In brief, the number of ANC visits during pregnancy follows Palestinian national standards (at least 4 visits). However, the figure is different from that recommended by the new WHO model (8 contacts).

Table 4.4: ANC services provided during visits (n= 267)

Variable	Frequency (%)
History of previous delivery, complications and health were taken	257 (96.3)
History of current pregnancy was taken	265 (99.3)
You were given information about iron/folic acid	251 (94)
blood pressure was measured	267 (100)
Urine sample was examined	267 (100)
Blood sample was examined	264 (98.9)
You are given an injection in your arm	27 (10.1)
You were given an appointment for a return ANC visit	267 (100)
You were advised on diet	257 (96.3)
You were advised on rest	258 (96.6)
You were advised on exercise	257 (96.3)
You were advised on practices of personal hygiene	262 (98.1)
You were advised on practices of harmful habits	257 (96.3)
You were counseled on family planning methods	208 (77.9)
You were given information or counseled about breastfeeding	252 (94.4)
You were counseled on the use of drugs during pregnancy	249 (93.3)
You were assessed by ultrasound before 24 weeks of gestation	267 (100)
You were told about child birth complications	236 (88.4)
You were told about danger signs/complications in pregnancy	236 (88.4)
You were told where to go in-case of these complications	233 (87.3)
The expected date of delivery was calculated	266 (99.6)
You were told where to deliver the baby	233 (87.3)

Study findings revealed that health education on diet, breast feeding, iron supplements, drug use, personal hygiene, information about exercise and rest were given to most women during their ANC visits. However other important information like danger signs, after birth complications, and plan for delivery which are emphasized in ANC were not given to some of the them (Table 4.4). This result is concurrent with the findings in other studies about quality of ANC services where most health workers in public facilities did not educate women on topics like danger signs and birth plan during pregnancy (Nawal, 2015, Fawole et al., 2008). Although WHO recommends the integration of family planning (FP) as an essential component of ANC and care after birth or abortion (who 2012; WHO 2016). Only 77.9 % of women were informed about its methods during their ANC visits. As far as the researcher knows ANC is an ideal platform for FP education and counseling because ANC women interact with health care providers on a regular basis throughout pregnancy and can prepare to initiate an FP method after childbirth. Therefore, much effort should be done in order to increase family planning sessions during ANC visits. Cleland et al. (2015) found evidence from several countries that multiple FP counseling sessions during ANC led to large increases in postpartum contraceptive use, whereas single and short counseling sessions had no impact.

Table 4.5: Mothers' satisfaction regarding ANC services (n= 267)

Variable	very disagree n (%)	disagree n (%)	Neutral n (%)	Agree n (%)	very agree n (%)	mean	Weight %
Waiting time before seen by the healthcare provider is appropriate	0 (0.0)	3 (1.1)	91(34.1)	124 (46.4)	49(18.4)	3.8	76
Time taken with the health care provider is enough	0 (0.0)	2 (0.7)	10 (3.7)	162 (60.7)	93(34.8)	4.3	86
You are treated by healthcare provider with respect	1 (0.4)	21 (7.9)	24 (9)	38(14.2)	183(68.5)	4.4	88
healthcare providers handled your information with confidentiality	0 (0.0)	4 (1.5)	2 (0.7)	18 (6.7)	243 (91)	4.9	98
Time given by healthcare provider to ask questions is enough	1 (0.4)	3 (1.1)	1 (0.4)	16 (6)	246(92.1)	4.9	98
healthcare provider treating and dealing with your questions with empathy	0 (0.0)	3 (1.1)	1 (0.4)	19 (7.1)	244(91.4)	4.9	98
Privacy was kept during consultation	0 (0.0)	2 (0.7)	3 (1.1)	24 (9.0)	238(89.1)	4.9	98
Examination services and information provided are adequate	0 (0.0)	2 (0.7)	7 (2.6)	91(34.1)	167(62.5)	4.6	92
Examination area was clean	0 (0.0)	3 (1.1)	17 (6.4)	68(25.5)	179 (67)	4.6	92
Overall						4.6	91.8

The study revealed that the overall women's satisfaction about the services provided is high (mean= 4.6, weighted mean = 91.8%) as shown in the (Table 4.5). But the researcher found that patients' responded at a lower satisfaction scores for three statements. Regarding the statement "Waiting before seen by the healthcare provider" the study revealed that the lowest mean score for the satisfaction is for this statement (mean= 3.8, weighted mean= 76%) as about 34% of them responded with neutral. Long waiting time during ANC was reported to affect the utilization of ANC in several studies (Fawole et al., 2008; Obamiro, 2010; Phaladi-Digamela, 2014). Waiting time is an area that should be declined in order to

promote the quality of antenatal services in public healthcare facilities in the GS and to increase the utilization of ANC, thus improve the pregnancy outcome.

Regarding the statements " Waiting time before seen by the healthcare provider is appropriate", and " You are treated by healthcare provider with respect " the study showed that mean score for the satisfaction for these statements are 4.3, 4.4 and weighted mean scores are 86%, and 88% respectively.

In addition, the study showed that women responded regarding all the other statements with excellent scores (more than 90%) which reflect that the quality of the ANC services is excellent in the GS from women perspectives.

4.1.3 Women satisfaction about ANC provided (n= 267)

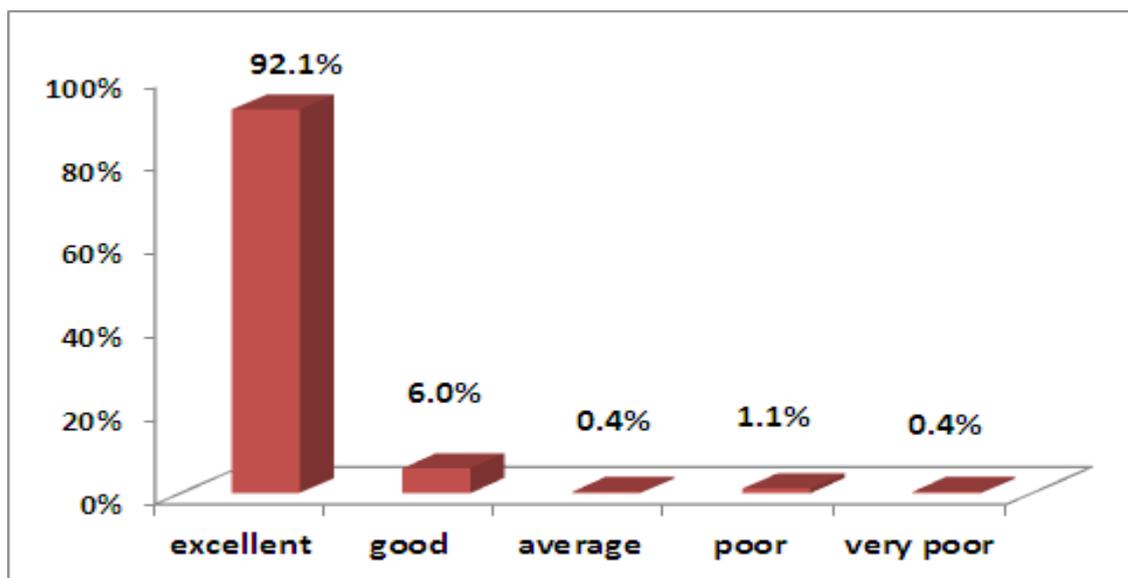


Figure 4.2: Women satisfaction about the services provided

Figure (4.2) shows that 92.1% of women have an excellent satisfaction about the ANC services. Women's' satisfaction is considered a good indicator about the quality of the services provided. On the other hand, only 7.9 % of them have good, average, poor or very poor satisfaction. Satisfaction and dissatisfaction indicate women' judgment about the strengths and weaknesses of the service provided (Chow et al., 2009). Also women

satisfaction with care often determines women' willingness to comply and continue with the service. Some studies have reported women satisfaction with ANC (Dyah and Rizal, 2002; Fawole et al., 2008; Montasser et al., 2012) specifically in these studies women were satisfied with the care received, interpersonal relationship and the infrastructures for providing the care.

However, other studies have revealed women dissatisfaction with ANC services (Oladapo et al., 2008; Ismail and Essa, 2017). Reasons for dissatisfaction in these studies were; long waiting time, inadequate medicine supply and health workers negative attitudes.

4.2 Inferential analysis

Table 4.6: Relationship between number of visits to ANC and womens' demographic variables (n= 267)

Variables	Categories	N	Mean \pm SD	F/t value	P-value
Place of residence	North Gaza	55	6.1 \pm 0.3	10.1	0.000*
	Gaza	91	6.0 \pm 1.2		
	Middle area	32	6.8 \pm 0.9		
	Khanyounis	66	6.7 \pm 0.9		
	Rafah	23	5.9 \pm 1		
Marital status	married	262	6.3 \pm 1	0.79	0.2
	divorced	4	6 \pm 0		
	widow	1	6 \pm 0		
Level of education	primary	40	6.4 \pm 1.2	0.096	2.4
	secondary	125	6.2 \pm 1		
	University and more	102	6.4 \pm 0.9		
Having a work	yes	245	6.5 \pm 1.3	1.2	0.23
	No	22	6.3 \pm 1		
Gravida	first time	73	6.2 \pm 0.8	-0.5	0.59
	multiple	194	6.3 \pm 1.1		
Parity	first time	80	6.2 \pm 0.8	-0.79	0.42
	multiple birth	187	6.3 \pm 1.1		

* Statistically significant

To examine the differences between pregnant women characteristics in their number of visits with regard to some characteristic variables, one- way ANOVA test was performed as shown in (Table 4.6). The test revealed that there is a statistically significant differences between mothers in their number of visits regarding their place of resident ($F= 10.1$, p -value= 0.000). Post hoc test shows a statistically significant within groups in that Rafah city has the lowest number of visits (mean= 5.9, SD= 1), followed by Gaza city (mean= 6, SD= 1.2), then for North Gaza (mean= 6.1, SD= 0.3), while it is (mean = 6.7, SD= 0.9) for Khanyounis, and finally it is (mean= 6.8, SD= 0.9) for Middle area. Several studies reported effect of residence on the number of ANC visits (Tuladhar and Dhakal, 2011; Yaya et al., 2017). Lack of transports or inability to pay for it may be the barrier to attend ANC and this factor should be examined in qualitative research. If this in case, women in distant areas could be encouraged to attend for ANC by providing transport or arranging an out- reach ANC service in certain areas. Alternatively, an attempt could be made to provide more health facilities to reduce the need for women to travel long distances.

For the other examined demographic variables (marital status, education level, occupation, Gravida, and Parity), the study revealed no statistically significant differences between number of visits and all the other examined variables.

Table 4.7: Relationship between number of visits and medical risks (n= 267)

Domain	Category	N	Mean \pm SD	t	p- value
Medical risk	Yes	51	6.9 \pm 1.2	3	0.09
	No	216	6.3 \pm 0.9		

The study revealed that women who have medical risk in their pregnancy visits health care providers more (mean= 6.9) than those who had not (mean= 6.3) but the differences did not reach the statistically significant (t - test= 3, p - value= 0.09) as illustrated in (Table 4.7).

In a randomized controlled trial that compared the standard model of antenatal care with a new model that emphasized actions known to be effective in improving maternal or neonatal outcomes and has fewer clinic visits. The study revealed that the two examined groups had the same complications when the number of visits is different and this had no effect in the pregnancy outcomes (Villar et al., 2001).

Table 4.8: Relationship between starting of ANC and womens' demographic characteristics (n= 267)

Variable	Initiation of ANC		Factor	Value	P-value
	Before 12 week	12 weeks and			
Age	25.24 ± 5.5	29.25 ± 7.4	t	2.7	0.02*
Place of residence					
North Gaza	55 (21.9)	0 (.0.0)	$\chi^{2\text{a}}$	5.17	0.023*
Gaza	85 (33.9)	6 (37.5)			
Middle area	32 (12.7)	0 (.0)			
Khanyounis	58 (23.1)	8 (50.0)			
Rafah	21 (8.4)	2 (12.5)			
Marital status					
Married	246 (98.0)	16 (100.0)	$\chi^{2\text{a}}$	0.29	0.59
Divorced	4 (1.6)	0 (.0)			
Widow	1 (.4)	0 (.0)			
Educational level					
Primary	38 (15.1)	2 (12.5)	χ^2	0.1	0.9
Secondary	117 (46.6)	8 (50.0)			
university and more	96 (38.2)	6 (37.5)			
Having a work					
Yes	21 (8.4)	1 (6.3)	χ^2	0.08	0.7
No	230 (91.6)	15 (93.8)			
Gravida					
Primigravida	72 (28.7)	1 (6.3)	χ^2	3.8	0.03*
Mutigravida	179 (71.3)	15 (93.8)			
Parity					
Primipara	79 (31.5)	1 (6.3)	χ^2	4.5	0.023*
Multipara	172 (68.5)	15 (93.8)			

^aFisher's exact, * statistically significant

Table (4.8) shows the relationship between women in their initiation of ANC and some demographic variable. The study shows that there is a difference between age of women attend the ANC services before 12 weeks of gestation (mean= 25.24 years) if compared to women attend the ANC services 12 weeks and more (mean= 29 years). And the difference is statistically significant (p- value= 0.02). The findings is congruent with several studies in the literature (Ajayi and Osakinle, 2013; Situ, 2013; Gupta et al., 2014; Yaya et al., 2017). This point should be considered as increasing age may lead to a higher risk of obstetric complications, and thus need more follow up.

The study revealed that there is a statistically significant difference in the initiation of ANC during pregnancy and the geographic area. Fisher's exact test revealed that 37.5 % of women started their ANC after 12 weeks of gestation are living in the Gaza city. Also, 50 % of women started their ANC after 12 weeks are resident at Khanyounis city. In addition, 12.5% of them are resident at Rafah city and the test is statistically significant ($\chi^2= 5.17$, p- value= 0.023). Within interviews, health care providers gave an explanation for this difference as one of them said *"Most of mothers' near Khanyounis clinic are citizens and landowners that prefer the private sector and come to the governmental MCH clinic when the time of birth is approached only to register for vaccinations"*.

The study also revealed that early initiation of ANC is affected by Primigravida or mutigravida that women in the first pregnancy initiate the ANC earlier than those who have multiple pregnancy ($\chi^2= 3.8$, p- value= 0.03). Regarding Parity, the study showed early initiation of ANC in case of primipara women if compared with multipara and the differences is statistically significant ($\chi^2= 4.5$, p- value= 0.023). This result could be interpreted in that women in primigravida and primipara experiencing first pregnancy and parity and will be more happy and concerned to register for pregnancy. In contrast,

multipara women may face more challenges than their primigravida counterparts as they adjust to becoming a mother of more children. Thus, this may delay the registration of a new pregnancy.

Furthermore, the study revealed no statistically significant differences between the other examined sociodemographic variables (marital status, education level, having a work) and early initiation of ANC (p- values > 0.05).

Table 4.9: Relationship between women satisfaction and the utilized health center (n= 267)

Domain	Category	N	Mean ± SD	F Value	p-
	Rafah	23	4.09 ± 0.49	2.9	0.013*
	Dair Al Balah	32	3.96 ± 0.2		
	Khanyounis	66	3.96 ± 1.17		
	Remal	35	3.95 ± 1.06		
	Jabalia	55	3.93 ± 0.76		
	Sorani	56	3.31 ± 0.72		

* Statistically significant

The researcher interested to examine the differences between women satisfaction level and the center they utilized. For this purpose, the researcher performed ANOVA test. The test revealed that there is a statistically significant difference between the level of satisfaction regarding the ANC provided and the sector they utilize. Post hoc test revealed that the lowest mean score is for women utilized Sorani center (mean= 3.3, SD= 0.72) and the result is statistically significant if it is compared to all other centers as illustrated in (Table 4.9) and Annex 18. Within in- depth interviews, health care providers at Sorani clinic determine some problems encountered them during provision of ANC as one of them said " *inadequate medical devices, unsuitable place to provide the service and long waiting time*

are the major factors affecting patient satisfaction at Sorani health center". Another health provider attributed the low level of satisfaction to the operating devices as one of them said "Frequent power cuts, failure to provide alternatives, and the slow network operation leading to an accumulation of the reviewers coming for follow-up". Another one attributed it to the small area as one said "The tightness of the examination place do not fit the number of recipients" .In comparison, health care providers explained high women' satisfaction level at Rafah by the presence of two qualified ANC physicians and clinic widening as one of them said" There are two qualified doctors at this clinic and the clinic is large and its rooms are wide make it more acceptable for the women". In addition for Rafah, health care providers attributed the high level of satisfaction by the few number of cases and short waiting time as one of them said "There are nearby non-governmental ANC service providers; this reduces the number of cases at the governmental clinics".

4.3 Second: Health care providers

4.3.1 Descriptive analysis

Table 4.10: Health care provider's characteristics (n= 34)

Variable	Mean \pm SD (min- max)
Age	40.6 \pm 6.7 (25-56)
Income	2097.1 \pm 933.7 (1000-5000)
Years of experience	17 \pm 6.3 (3-35)

Table (4.10) shows mean age of the participated health care providers is 40.6 years old with a standard deviation 6.7, the minimum age is 25 years and the maximum age is 56 years old. Mean of their salaries are between 1000 NIS to 5000 NIS with a mean 2097 NIS and a standard deviation 933.7 NIS. The difference between their salaries is according to the area political conditions as there are two governments in the area with two different policies in paying salaries.

Regarding years of experience, the study shows that the provider's years of experience started with 3 years to 35 years. The mean is 17 years with a standard deviation 6.3.

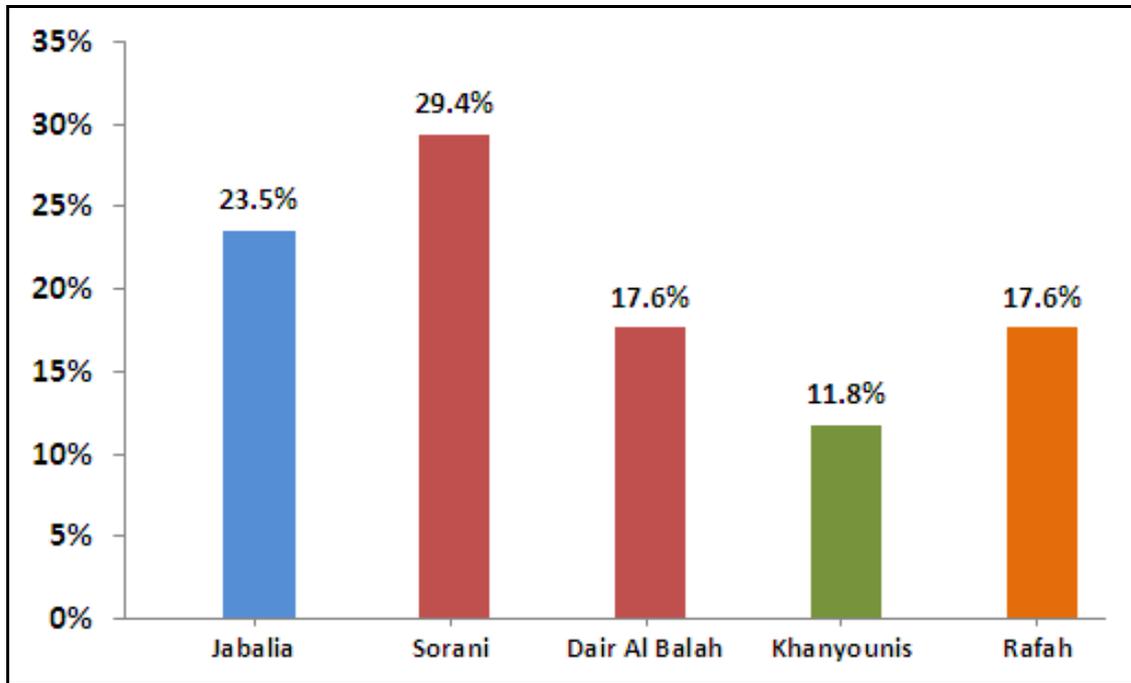


Figure 4.3: Distribution of participated health care providers

Figure (4.3) shows 23.5% of participated health care provider are working at Jabalia health center, 29.4% of them at Sorani, 17.6% at Dair Al Balah, 11.8% at Khanyounis, and finally 17.6% of them are working at Rafah health center.

Table 4.11: Health care providers characteristics (categorical variables)

Variable	Categories	Frequencies (%)
Gender	Female	34 (100)
Specialty	Nurse	6 (17.6)
	Midwife	17 (50)
	Physician	11 (32.4)
Level of education	Diploma	14 (41.2)
	Bachelor	16 (47.1)
	master and above	4 (11.8)

The study revealed that all the health care providers in the ANC units are females with no role for male as shown in (Table 4.11). The government interested in recruiting female health providers particularly in services provided for children and mothers. This could be attributed to the nature of the primary health services provided by antenatal care services where most of the clients are mothers and children in addition to that most of female graduates prefer to work in PHC. In addition to that, the presence of female health care providers is an important issue in follow up women especially in situations related to pregnancy and mother care which will be culturally more accepted.

About 50% of the participating health care providers are midwives, 17.6% are nurses, and 32.4% are physicians.

About half of them have bachelor degree (47%), diploma constituting around 41.2% and master and above constituting (11.8 %).

Table 4.12: Characteristics of ANC care working (n= 34)

Variable	Frequency (%)
Received training about ANC	34 (100)
Have enough time to give comprehensive health education to pregnant women	24 (70.6)
Able to provide all ANC for the pregnant women	26 (76.5)
You often refer women with complications in this facility	32 (94.1)
The referral services are adequate	19 (55.9)

Table (4.12) shows the characteristic of the health care providers; there are two good points in their characteristics during working. All the health care providers received training about the ANC services, and a high percentage of them refer women with complications for other investigations (94%). In contrast, health care providers have some weakness points in that 23% of them have not enough time to give women the comprehensive health education. This may be related to overcrowded clinics and an increase in the number of women need ANC. Also, time is also a challenge in the provision of the comprehensive health education in that about 29% of them have no time to provide the comprehensive ANC. Another problem in the provision of care needed is the inadequacy of the referral services, about 44.1% of the health care provides seeing that the referral system is inadequate.

Table 4.13: Relationship between ANC provided and time factor

Domain	Category	N	Mean ± SD	t	p-value
	Enough time for ANC				
Number of appointments for each pregnant woman	Yes	24	8.88 ± 4.5	2.8	0.008*
	No	10	5.8 ± 1.8		
Average number of women	Yes	26	26.19 ± 11.2	1.33	0.01*
	No	8	29.38 ± 1.8		

* Statistically significant

Table (4.13) shows that health care services provided at ANC unit is affected by the time factor in that health care providers invite pregnant women for care more when there is enough time for provision of the services. t- test shows that there is a statistically significant differences between health care providers who have enough time to provide a comprehensive services to invite the women more (mean= 8.88 appointments) than those who face a problem in the time required (mean= 5.8 appointments). Also, the study shows that average number of women that seen by health care provider affect the provision of a comprehensive ANC with health education in that employees that see a large number of pregnant women (mean= 29.38) responded with no enough time to provide the care in comparison with the others (mean= 26.19), and the result is statistically significant. This result congruent the result of Kongnyuy and colleagues that reported nurses and midwives when offering health services may be influenced by high workload and shortage of staff (Kongnyuy et al., 2009).In the majority of healthcare settings schedule of nurses is busy, therefore they become less aware of the problem of ineffective professional communication style. In order to make the health care providers to communicate more professionally, shortening the working hours and workload by recruiting more nurses or practical nurses is a must; this will reduce stress and make available more time for good communication and provision of a comprehensive education program.

Table 4.14: Challenges faced by health care providers in the provision of ANC

Variable	Never n (%)	Rarely n (%)	Sometimes n (%)	Often n (%)	Always n (%)	mean	weight %
Limited of incentives to staff	2 (5.9)	4 (11.8)	5 (14.7)	5 (14.7)	18(52.9)	4	80
Heavy workload	0 (0.0)	3 (8.8)	11 (32.4)	9 (26.5)	11(32.4)	3.7	74
No feedback after referral	1 (2.9)	5 (14.7)	7 (20.6)	13(38.2)	8 (23.5)	3.6	72
Limited space for private examination	8 (23.5)	1 (2.9)	3 (8.8)	10(29.4)	12(35.3)	3.5	70
Small ANC waiting area	6 (17.6)	2 (5.9)	10 (29.4)	8 (23.5)	8 (23.5)	3.3	66
Shortage of essential ANC supplies	0 (0.0)	7 (20.6)	15 (44.1)	11(32.4)	1 (2.9)	3.2	64
Non-adherence to providers' recommendations regarding the schedules of visits	1 (2.9)	5 (14.7)	17 (50)	10(29.4)	1 (2.9)	3.1	62
Women's ignorance of the importance of ANC	4 (11.8)	5 (14.7)	14 (41.2)	6 (17.6)	5 (14.7)	3.1	62
lack of continuity of care	3 (8.8)	7 (20.6)	13 (38.2)	6 (17.6)	5 (14.7)	3.1	62
Non-availability of community health education activities to promote ANC	2 (5.9)	8 (23.5)	14 (41.2)	8 (23.5)	2 (5.9)	3	60
Limited laboratory equipment for ANC	1 (2.9)	9 (26.5)	15 (44.1)	9 (26.5)	0 (0.0)	2.9	58
Women do not cooperative	2 (5.9)	10(29.4)	11 (32.4)	10(29.4)	1 (2.9)	2.9	58
Lack of enough time for comprehensive education	3 (8.8)	11(32.4)	9 (26.5)	11(32.4)	0 (0.0)	2.8	56
Limited equipment's to detect complications	4 (11.8)	14(41.2)	10 (29.4)	3 (8.8)	3 (8.8)	2.6	52
Lack of Facilitative supervision and management	6 (17.6)	16(47.1)	8 (23.5)	4 (11.8)	0 (0.0)	2.3	46
Limited provider capacity to refer women with Complications	12 (35.3)	13(38.2)	5 (14.7)	1 (2.9)	3 (8.8)	2.1	42
Limited training in the field of ANC	13 (38.2)	10(29.4)	9 (26.5)	2 (5.9)	0 (0.0)	2	40
Limited staff knowledge in the field of ANC	13 (38.2)	14(41.2)	5 (14.7)	2 (5.9)	0 (0.0)	1.9	38
Limited staff skills in the field of ANC	14 (41.2)	13(38.2)	4 (11.8)	3 (8.8)	0 (0.0)	1.9	38
Lack of qualified doctor to handle complications	19 (55.9)	6 (17.6)	5 (14.7)	2 (5.9)	2 (5.9)	1.9	38
Overall						2.85	57

Table (4.14) shows the challenges face health care providers during the provision of ANC and may affect the quality of the services provided. The researcher considered that statements scores 60% and more (mean= 3 and more) to be challenges.

Most common challenges faced by health care providers in the ANC units are related to limited of incentives to staff (mean= 4), heavy workload (mean= 3.7), no feedback of women after referral of obstetric complications (mean= 3.6), and limited space for privacy (mean= 3.5), small ANC waiting area (mean= 3.3), shortage of essential ANC supplies (mean= 3.2), non-adherence to providers' recommendations regarding the schedules of visits (mean= 3.1), women's ignorance of the importance of ANC (mean= 3.1), lack of continuity of care (mean= 3), non-availability of community health education activities to promote ANC (mean= 3).

Regarding the statement "Limited of incentives to staff" the weighted mean score is 80% in that 67.6% of the participants responded with often and always in addition to 14.7% responded with sometimes. A recent study conducted in the GS in order to examine factors affecting the quality of ANC services. The result is due to health care providers not received their full salaries for long periods of time and this was consider a challenge in providing a quality ANC services in another study (Abu-El-Noor et al., 2018).

Regarding the statement "No feedback after referral" the weighted mean score is 72% in that 61.7% of the participants responded with often and always in addition to 20.6% of them responded with sometimes. Members of the healthcare team must feel comfortable relating or reporting their errors, and must also be assured that their reporting of events is linked to a system that will report and take action in order to help in managing similar conditions.

Regarding the statement "Limited space for private examination" the weighted mean score is 70% in that 64.7% of the participants responded with often and always in addition to 8.8 of them responded with sometimes. This result is in a line with Abu-El-Noor et al. (2018) that showed no private places for examining pregnant women violates her right for privacy and this affect the quality of ANC services.

With regards to the statement" Small ANC waiting area" the weighted mean score is 66% in that 47% of the participants responded with often and always in addition to 29.4% of them responded with sometimes and the finding is consistent with Kipronoh, (2009) finding that shows 21.7% of the participated health care providers in ANC units considered this point a barrier to provide a quality ANC services. Waiting room is the first chance to tell women that we care about them. Many say their time in the waiting room is the worst part of going to the doctor. Minimizing waiting time, and make it not overcrowded is a good way for healthcare practices to better satisfy pregnant women and thus make healthcare providers to work without any inconvenience from women and their companions. This finding suggests that our facilities require infrastructural adjustments.

Regarding the statement" Shortages of essential ANC supplies" the weighted mean score is 64% in that about 35.3% of them responded with often and always. In addition, 44.1% of them responded with sometimes. Also, "limited laboratory equipment for ANC", the weighted mean score is 58% in that 26.5 of the participants responded with often in addition to 44.1% of them responded with sometimes. Regarding the statement" limited equipment to detect complications" the weighted mean score is 52% in that 17.6% of the participants responded with often and always in addition to 29.4% of them responded with sometimes. Regarding the statement" lack of continuity of care" the weighted mean score is 62% in that 32.3% of the participants responded with often and always in addition to

38.2% of them responded with sometimes. All these challenges were suggested in other studies locally and globally (Simkhada et al., 2008; Abu-El-Noor et al., 2018).

Also, the statement "women do not cooperative" the weighted mean score is 58% in that over 30% of the participants responded with often and always in addition to 32.4% of them responded with sometimes. Regarding the statement "Non-adherence to providers' recommendations regarding the schedules of visits" the weighted mean score is 62% in that 32.3% of the participants responded with often and always in addition to 50% of them responded with sometimes. Women' cooperation is a vital thing for health care providers to communicate easily with the pregnant women, knowing everything about history of obstetric complications, following providers advices, commitment with appointments.....etc. All these things make the provision of care easy and with good quality.

Regarding the statement "Lack of enough time for comprehensive education" the weighted mean score is 56% in that 32.4% of the participants responded with often and 26.5% responded with sometimes. Also, the finding compatibles Kipronoh, (2009) that shows limited time to offer comprehensive health education (21.7%). Time factor is important for the provision of care in any facility. Contact time allow the health care provider to take care with the small details about pregnancy, complications, supplements use and its usefulness and planning for delivery.

Regarding the statement "Heavy workload" the weighted mean score is 74% in that 58.9% of the participants responded with often and always in addition to 32.4% responded with sometime. This finding is also consistent with Kipronoh (2009) that reported heavy workload to be a barrier to provision of quality care.

Regarding the statement "Non-availability of community health education activities to promote ANC" the weighted mean score is 60% in that 29.4% of the participants responded with often and always in addition to 41.2% of them responded with sometimes. The finding is incompatible with another study which shows that only 27.3%, and 4.5% of participants responded with sometimes and always (Kipronoh, 2009)

Regarding the statement "Women's ignorance of the importance of ANC" the weighted mean score is 62% in that 32.3% of the participants responded with often and always in addition to 41.2% of them responded with sometimes. The effect of women's knowledge about the importance on the provision of good ANC was reported in several studies. Onasoga et al. (2012) found that women's knowledge about ANC affects the utilization of the service. Also, Simkhada et al. 2008 considered it to be critical in determining pregnant women's use of antenatal service.

In brief, there are some challenges faced by health care providers during the provision of ANC services in the GS. These factors should be targeted in order to make the provision of care more easily and with a high quality.

Chapter5 : Conclusion and Recommendations

5.1 Conclusion

The ANC in pregnant women is a strategy to improve maternal health by making pregnancy and labor a safe and satisfying experience, thereby reducing maternal and infant morbidity and mortality, concerned mainly with prevention, early diagnosis and treatment of general medical and pregnancy associated disorders. This study was conducted to assess the level of quality of ANC provided at governmental PHC centers in the GS.

Quality of health was accessed from two aspects, quality of health care -from women and health care providers' perspectives- and women' satisfaction with the manner in which the service is delivered. The study examined the level of adherence of health care providers to national and international guidelines regarding number of ANC visits. Also, the study described the content of ANC visits, and the challenges faced by health care providers during the provision of care. Also, the study examined the level of mothers' satisfaction regarding the services provided and the differences between them according to their characteristic variables.

The study revealed that the majority of women visited ANC services as stated by national guidelines regarding initiation of ANC visits before 12 weeks of gestation, and frequency of visits in a percentages (94%), (98.5%) respectively which reflects the good utilization of ANC services in the GS.

Regarding the contents of ANC, the study revealed that information provided about health education on diet, breast feeding, iron supplements, drug use, personal hygiene, information about exercise and rest is very good in general and were given to most women during their ANC visits. However, there is weakness in information provided regarding

danger signs, afterbirth complications, and plan for delivery. More attention should be done in order to enhance the quality of the services provided.

The study revealed that women are satisfied about the services provided that the majority of them had an excellent satisfaction score. However, there is a room for further improvement in the items related to waiting time and dealing women with more respect in order to guarantee the quality of the services provided and continuity of care as well.

Inferential analysis showed that the only demographic variable affect the frequency of ANC visits is the place of residence in that Rafah city followed by Gaza city are utilized in a way less than others. Therefore, a qualitative research is required for further investigations and discussion.

With regards to early initiation of ANC services, the study revealed that this item is affected by four variables; women age, place of residency, type of parity, and type of gravida. Young women utilize the service earlier than old women, women resident in Gaza city and Khanyounis initiate their ANC services late that other cities, Primigravida and Primipara initiate their ANC service earlier than multigravida and multipara women as they experiencing the first pregnancy and delivery respectively. Much effort should be devoted in order to decrease the differences between women regarding the time of initiation and the number of visits in order to achieve equity and quality for all.

From health care providers' perspectives, the study revealed that the majority of them had good training about ANC services provision. However, there are some points that need further improvement with regards to time needed for the provision of a comprehensive education program, and referral process. This may need to increase the number of ANC units, and the number of health care providers, thus decreasing the number of visitors to centers and increase the contact time with the health care providers.

Inferential analysis showed that health care providers invite pregnant women for care more when there is enough time for provision of the services. Also, health care providers who have enough time can provide a comprehensive service more than those who had not. Time factor is an important factor in provision of health care that make health care providers more ready to provide a good and a comprehensive ANC services.

Some challenges were reported by health care providers during provision of ANC services. These challenges were related to limited incentives to staff, heavy workload, no feedback of patients after referral of obstetric complications, and limited space for privacy, small ANC waiting area, shortages of essential ANC supplies, non-adherence to providers' recommendations regarding the schedules of visits, women's ignorance of the importance of ANC, lack of continuity of care, non-availability of community health education activities to promote ANC.

Briefly, level of women' satisfactions about ANC services provided at governmental PHC centers is high in general. However, some challenges were reported by health care providers during their provision of ANC services. Further improvements were needed in order to tackle these barriers, and thus making the provision of ANC of more quality and equity.

5.2 The study recommendations

- ❖ Based on the study results the researcher has the chance to make number of recommendations for improving the ANC services. These recommendations might help care providers, managers and policy makers to set priorities, effective problem solving and quality improvement of health services.

5.2.1 Recommendations for mothers

- There is a need for further commitment of women to ANC visits appointments.
- Initiation of ANC when pregnancy starts as soon as possible.

5.2.2 Recommendations for policy makers

- Health care providers should be assured that their reporting of events is linked to a system that will report and take action in order to help in managing similar conditions.
- A monitoring system should be established to ensure smooth functioning of the referral process for mothers and to detect any problems or rights violations.
- The ANC clinics should be prepared by the required equipment, medical supplies to guarantee the provision of good ANC services
- Increase the number of ANC clinics and the number of health care providers in order to decrease waiting time and increase the provider contact time.
- Minimizing waiting time, and make the waiting area not crowded is a good way for healthcare practices to better satisfy pregnant women. This also make healthcare providers to work without any inconvenience from women and their companions

5.2.3 Recommendations for health care providers

- Much attention should be done for pregnant women especially with increasing age to conduct their ANC visits on time
- Much consideration should be given to provide information for pregnant women about danger signs, afterbirth complications, and plan for delivery
- Increase pregnant mothers' awareness by using modern means of informational media through social networks.
- There is a need to increase family planning sessions during ANC visits.
- Encourage mothers to register as early as possible to ANC.

5.2.4 Recommendations for further research

- Conduct similar research in other governmental PHC
- Conduct a prospective study to explore factors affecting the provision of antenatal care services at the time of service delivery.

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Annexes

Annex 1: Palestine map



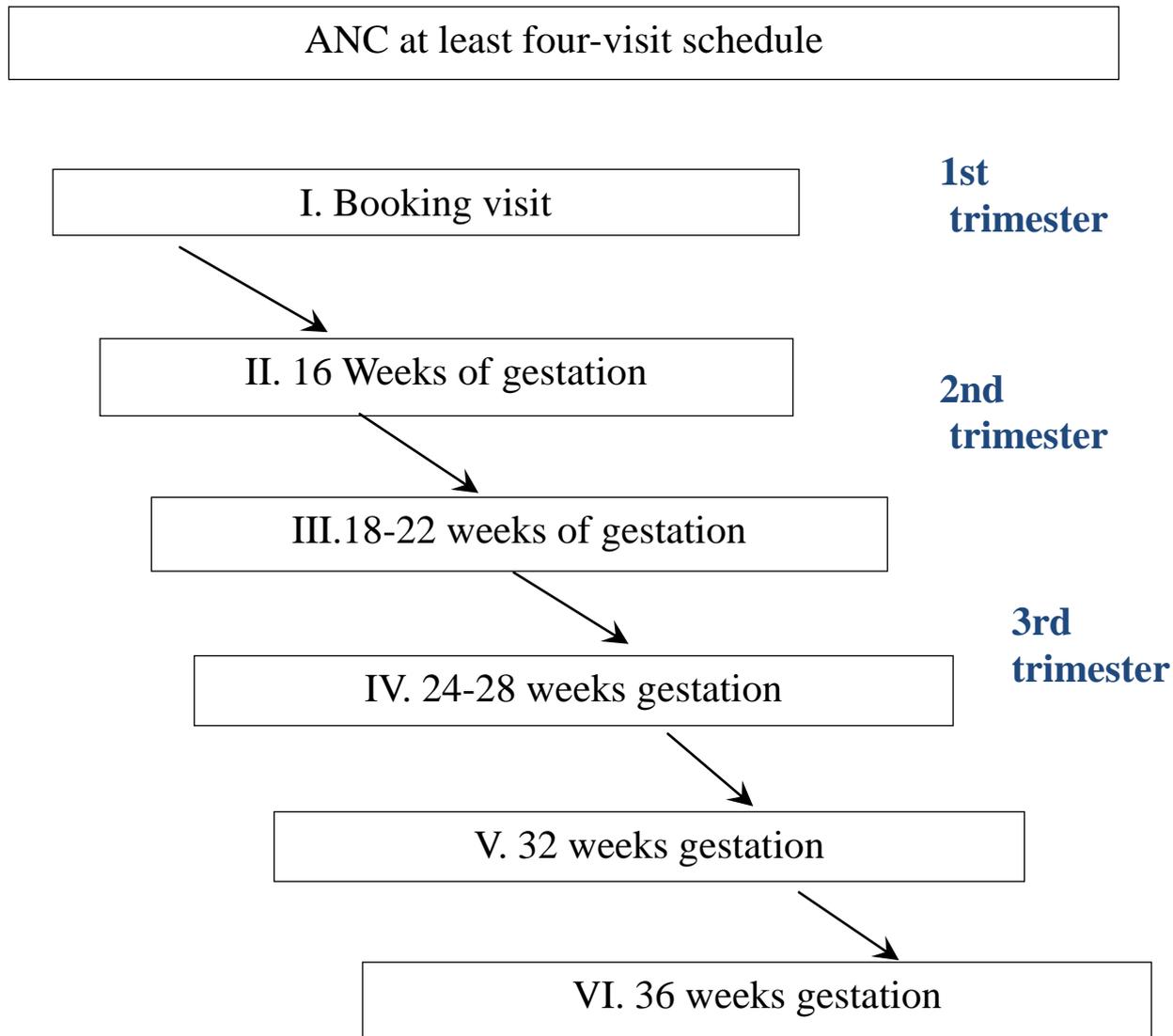
Source: Palestinian Central Bureau of Statistic

Annex 2: Gaza Strip Map



Source: <http://www.maps-of-the-world.net/maps-of-asia/maps-of-gaza-strip>

Annex 3: Antenatal care essential package- Palestinian national guidelines



Annex 4: Comparison between WHO FANC model and 2016 WHO ANC model

Box 5: Comparing ANC schedules

WHO FANC model	2016 WHO ANC model
<i>First trimester</i>	
Visit 1: 8-12 weeks	Contact 1: up to 12 weeks
<i>Second trimester</i>	
Visit 2: 24-26 weeks	Contact 2: 20 weeks Contact 3: 26 weeks
<i>Third trimester</i>	
Visit 3: 32 weeks	Contact 4: 30 weeks Contact 5: 34 weeks
Visit 4: 36-38 weeks	Contact 6: 36 weeks Contact 7: 38 weeks Contact 8: 40 weeks
Return for delivery at 41 weeks if not given birth.	

Annex 5: Sample size calculation

Population Size:	740
Confidence Level (%):	95 ▼
Margin of Error (%):	5
<hr/>	
CALCULATE	Sample Size: 254

Annex 6: Women's Consent form –English version



Dear participant

I am pleased to participate actively in the research titled ...

Factors Influencing the Quality of Antenatal Care at Governmental Clinics in Gaza Strip

I am Ayda Nassar, a student in the Master of Maternal and Child Health Program, Faculty of Health Professions, Al-Quds University .

This research is a necessary part of my study to obtain a master's degree in health professions at maternal and child health. You have been selected as a group of recipients of antenatal care services in governmental clinics to answer on the terms contained therein, if you agree to participate in this study, please read the following statements carefully and answer them objectively as this has a significant impact on the validity of the results and tips that the researcher will reach. With the assurance that these data will be used for scientific research purposes only and will be treated with strict confidentiality.

Note: The time required to fill in the complete questionnaire takes only 15 minutes.

Thank you for your cooperation

Researcher

Ayda Fathy Nassar

0599488495



عزيزتي المشاركة

يسعدني مشاركتك الفاعلة في بحث بعنوان

Factors Influencing the Quality of Antenatal Care at Governmental Clinics in Gaza Strip

"العوامل المؤثرة على جودة الرعاية المقدمة للسيدات في مرحلة ما قبل الولادة في مراكز الرعاية الأولية الحكومية في قطاع غزة"

أنا الباحثة عايدة نصار طالبة في برنامج ماجستير صحة الأم والطفل بكلية المهن الصحية - جامعة القدس أبو (أبوديس).

إن هذا البحث يشكل جزء ضروري من دراستي للحصول على درجة الماجستير في المهن الصحية مسار صحة الأم والطفل .

وقد تم اختياري ضمن مجموعة متلقين خدمات رعاية الحوامل في العيادات الحكومية للإجابة على العبارات الواردة فيها ، إذا كنت موافقة على المشاركة في هذه الدراسة، يرجى التكرم بقراءة العبارات التالية بدقة والإجابة عنها بموضوعية لما في ذلك من أثر كبير على صحة النتائج والنصائح التي سوف يتوصل إليها الباحث. مع التأكيد بأن هذه البيانات سوف تستخدم لأغراض البحث العلمي فقط، وسيتم التعامل معها بسرية تامة.

ملاحظة / الوقت اللازم لتعبئة الاستبانة كاملة يستغرق 15 دقيقة فقط.

أشركم على حسن تعاونك

الباحثة:

عايدة فتحي نصار

0599488495

Annex 8: Care Provider consent form – English version



بسم الله الرحمن الرحيم

Dear colleagues

I have a special questionnaire for Master degree of Maternal and Child Health Program
Faculty of Health Professions, Al-Quds University, which I am currently conducting a
thesis entitled:

**Factors Influencing the Quality of Antenatal Care at Governmental Clinics in Gaza
Strip**

Please answer all questionnaires paragraphs as honestly as possible, your answer expresses
your own opinion. The collected information will be used for research purposes only, in
order to ensure that all information will remain confidential, please do not include your
name.

Researcher

Ayda Fathy Nassar

0599488495

Annex 9: Care Provider consent form – Arabic version



زميلاتي العزيزات:

السلام عليكم ورحمة الله وبركاته

بين يديك استبيان خاص للحصول على درجة الماجستير في برنامج صحة الأم والطفل - كلية المهن الصحية ، جامعة القدس أبو ديس، والتي أقوم حالياً بإجراء دراسة بعنوان:

"العوامل المؤثرة على جودة الرعاية المقدمة للسيدات في مرحلة ما قبل الولادة في مراكز الرعاية

الأولية الحكومية في قطاع غزة"

يرجى الإجابة على جميع فقرات الاستبيانات بأمانة قدر الإمكان ، وتعبير إجابتك عن رأيك الخاص. سيتم استخدام المعلومات التي تم جمعها لأغراض البحث فقط ، لضمان أن تظل جميع المعلومات سرية ، يرجى عدم إدراج اسمك...

الباحثة:

عايدة فتحي نصار

جوال : 0599488495

Annex 10: Questionnaire for Mothers

"Factors Influencing the Quality of Antenatal Care at Governmental Clinics in Gaza Strip"

Serial Number			
Part one: Socio demographic characteristics of the pregnant women			
Mother's age Years			
Place of residence	<input type="checkbox"/> North Gaza	<input type="checkbox"/> Gaza	
	<input type="checkbox"/> Middle area	<input type="checkbox"/> Khanyounis	<input type="checkbox"/> Rafah
Current marital status	<input type="checkbox"/> Married	<input type="checkbox"/> Widow	<input type="checkbox"/> Divorced
Level of education	<input type="checkbox"/> Illiterate	<input type="checkbox"/> Primary/Preparatory	
	<input type="checkbox"/> Secondary	<input type="checkbox"/> University	<input type="checkbox"/> Higher education
Occupational status	<input type="checkbox"/> Employed		<input type="checkbox"/> Not employed
Level of income	..... NIS		
Gravida	<input type="checkbox"/> Primigravida	<input type="checkbox"/> Multigravida	
Parity	<input type="checkbox"/> Primipara	<input type="checkbox"/> Multipara	
Gestational age (weeks)	.....	
Number of alive born infants			
Abortions	<input type="checkbox"/> No	<input type="checkbox"/> Yes, Number	
Stillbirths	<input type="checkbox"/> No	<input type="checkbox"/> Yes, Number	
Where did you deliver during your last delivery (Not of this child)			
<input type="checkbox"/> Governmental hospital		<input type="checkbox"/> Home	<input type="checkbox"/> Private hospital
Medical risks during pregnancy		<input type="checkbox"/> No	<input type="checkbox"/> Yes
Part Two: Content of Antenatal Care (ANC) Provided			
Antenatal care provider	<input type="checkbox"/> Physician	<input type="checkbox"/> Midwife	<input type="checkbox"/> Nurse
Place of ANC	<input type="checkbox"/> Governmental	<input type="checkbox"/> UNRWA	<input type="checkbox"/> Private
Number of visits in the entire pregnancy			

Initiation of Antenatal care visits.....		
<input type="checkbox"/> 12 weeks of gestation or less	<input type="checkbox"/> more than 12 weeks of gestation	
If the initiation of antenatal care visits was conducted after the 28th week of gestation, why did not you go earlier?		
<input type="checkbox"/> Lack of money for transport	<input type="checkbox"/> I chose to attend at that time	
<input type="checkbox"/> Too busy	<input type="checkbox"/> Facility is far from my place of residence	
<input type="checkbox"/> Did not think necessary to go that early	<input type="checkbox"/> Other, -----	
<input type="checkbox"/> Do not know		
Part three: ANC Services provided during the antenatal visits		
Questions	Yes	No
Asked history of previous delivery, complications and health condition?		
Asked history of current pregnancy?		
Was your blood pressure measured?		
Did you give urine sample?		
Did you give blood sample?		
Were you given an injection in the arm?		
Were you given or told about iron/folic acid?		
Were you given an appointment for a return ANC visit?		
Were you assisted to calculate the expected date of delivery?		
Were you advised on diet?		
Were you advised on rest?		
Were you advised on exercise?		
Were you counseled on family planning methods?		
Were you given information or counseled about breastfeeding?		
Were you told about danger signs/complications in pregnancy?		
Were you told where to go in-case of these complications?		
Were you told about child birth complications?		
Were you told where to deliver the baby?		
Were you advised on practices of personal hygiene?		
Were you advised on practices of harmful habits?		
Were you counseled on the use of drugs during pregnancy?		
Were you assessed by ultrasound before 24 weeks of gestation?		

Part four: Satisfaction of mothers regarding ANC during your ANC visits with this pregnancy, describe your level of satisfaction with the following components of care

Statement	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Waiting time before seen by the healthcare provider is appropriate					
Time taken with the health care provider is enough					
I was treated by healthcare provider with respect					
healthcare providers handled your information with confidentiality					
Time given by healthcare provider to ask questions is enough					
healthcare provider treating and dealing with your questions with empathy					
Privacy was kept during consultation					
Examination services and information provided are adequate					
Examination area was clean					

Part five: Rate the quality of ANC services including treatment by healthcare provider during pregnancy?

Excellent
 Good
 Average
 Poor
 Very poor

Part six: Open ended questions

1. What difficulties did you encounter while receiving the ANC service?

2. What facilities did you encounter while receiving the ANC service?

Thanks for your cooperation

Researcher/ Ayda Nassar

Annex 11: Mothers interviewed questionnaire – Arabic version

استبانة الأمهات

العوامل المؤثرة على جودة رعاية الحوامل في العيادات الحكومية في قطاع غزة

الرقم التسلسلي					
الجزء الأول: البيانات الخاصة بالأم، والخاصة بالحمل والولادة					
عمر الأم					سنة
مكان الإقامة		<input type="checkbox"/> شمال غزة	<input type="checkbox"/> غزة	<input type="checkbox"/> الوسطى	
		<input type="checkbox"/> خان يونس	<input type="checkbox"/> رفح		
الحالة الاجتماعية		<input type="checkbox"/> متزوجة	<input type="checkbox"/> مطلقة	<input type="checkbox"/> أرملة	
المؤهل العلمي		<input type="checkbox"/> لست متعلمة	<input type="checkbox"/> ابتدائي/إعدادي	<input type="checkbox"/> ثانوية	<input type="checkbox"/> جامعية
		<input type="checkbox"/> دراسات عليا			
المهنة		<input type="checkbox"/> لا أعمل	<input type="checkbox"/> أعمل		
معدل الدخل		شيكل شهريا			
الحمل		<input type="checkbox"/> أول مرة	<input type="checkbox"/> متعددة		
الولادة		<input type="checkbox"/> أول مرة	<input type="checkbox"/> متعددة الولادات		
مدة الحمل		..... أسبوع			
عدد المواليد الأحياء		.....		
عدد مرات الإجهاض		<input type="checkbox"/> أبدا	<input type="checkbox"/> نعم	عدد المرات	مرة
عدد مرات موت الجنين داخل الرحم		<input type="checkbox"/> أبدا	<input type="checkbox"/> نعم	عدد المرات	مرة
مكان ولادة آخر طفل		<input type="checkbox"/> مستشفى حكومي	<input type="checkbox"/> مستشفى خاص	<input type="checkbox"/> البيت	
هل تعرضت لمخاطر خلال الحمل الحالي		<input type="checkbox"/> لا	<input type="checkbox"/> نعم		
الجزء الثاني: محتوى رعاية ما قبل الولادة					
الشخص الذي قدم الرعاية الصحية لكي والخاصة بمرحلة ما قبل الولادة					
<input type="checkbox"/> ممرضة		<input type="checkbox"/> قابلة	<input type="checkbox"/> طبيب/ة		
عدد زيارات متابعة الحمل قبل الولادة					

في أي مرحلة من الحمل بدأتى مراجعة عيادة رعاية الحمل		
<input type="checkbox"/>	12 أسبوع منذ بداية الحمل أو أقل	<input type="checkbox"/>
<input type="checkbox"/>	أكثر من 12 أسبوع	
إذا بدأت في متابعة الحمل بعد 28 أسبوع من الحمل، فما هو السبب وراء ذلك		
<input type="checkbox"/>	عدم توفر المال لركوب المواصلات	<input type="checkbox"/>
<input type="checkbox"/>	أنا اخترت للبدء في التاريخ المحدد	
<input type="checkbox"/>	لأنني مشغولة جداً	<input type="checkbox"/>
<input type="checkbox"/>	المركز بعيد جداً عن مكان سكني	
<input type="checkbox"/>	لا أعتقد أنه من الضروري البدء مبكراً لمتابعة الحمل	<input type="checkbox"/>
<input type="checkbox"/>	لا أعرف	
<input type="checkbox"/> أسباب أخرى،		
الجزء الثالث: تقييم خدمات رعاية ما قبل الولادة المقدمة خلال الزيارة للمركز الصحي		
السؤال	نعم	لا
هل سألتك مقدم الرعاية عن الولادة السابقة والمضاعفات والوضع الصحي لديك؟		
هل سألتك مقدم الرعاية عن وضع الحمل الحالي؟		
هل تم قياس ضغط الدم لك؟		
هل تم أخذ عينة بول للتحليل؟		
هل تم سحب عينة دم؟		
هل تم إعطاؤك حقنة في الذراع؟		
هل تم إعطاؤك الحديد / حمض الفوليك أو هل تم إبلاغك عنه؟		
هل تم إعطاؤك موعداً للزيارة القادمة؟		
هل تم حساب التاريخ المتوقع للولادة؟		
هل قدمت لك النصيحة بشأن النظام الغذائي؟		
هل قدمت لك النصيحة بشأن الراحة؟		
هل قدمت لك النصيحة بشأن ممارسة الرياضة بالشكل الصحيح؟		
هل قدمت لك المشورة بشأن وسائل تنظيم الأسرة؟		
هل قدمت لك معلومات بشأن الرضاعة الطبيعية؟		
هل تم إخبارك عن علامات الحمل الخطرة؟		
هل تم إخبارك عن مضاعفات الحمل الخطرة؟		
هل تم إخبارك أين تذهبين في حالة حدوث هذه المضاعفات؟		
هل قدمت لك معلومات عن مضاعفات الولادة؟		
هل قدمت لك معلومات بشأن مكان الولادة؟		
هل قدمت لك النصيحة بشأن النظافة الشخصية؟		
هل قدمت لك النصيحة بشأن ممارسات العادات الضارة؟		
هل قدمت المشورة بشأن تعاطي الادوية أثناء الحمل؟		

الجزء الرابع: يرجى من حضرتك تحديد مستوى رضاك عن المكونات التالية التابعة لرعاية ما قبل الولادة خلال هذا الحمل

الجملة	غير راضي جدا	غير راضي	محايد	راضي	راضي جدا
وقت الانتظار قبل الدخول لمقدم الرعاية الصحية مناسباً لي					
الوقت المستغرق مع مقدم الرعاية الصحية كافياً					
العلاج المقدم من قبل مقدم الرعاية الصحية يتخلله الاحترام					
تعامل مقدم الرعاية الصحية مع معلوماتك بسرية تامة					
أمضيت وقت كاف مع مقدم الرعاية الصحية لطرح الأسئلة					
يقوم مقدم الرعاية الصحية بالإجابة على أسئلتني والتعاطي معها					
تم الحفاظ على الخصوصية أثناء تقديم المشورة					
الخدمات والمعلومات المقدمة كافية					
مكان الفحص نظيفاً					

الجزء الخامس: من فضلك ما هو نسبة رضاك عن خدمات رعاية الحمل التي قدمت لكي بشكل عام

ممتاز
 جيد
 متوسطة
 غير مقبولة
 غير مقبولة عالاطلاق

الجزء السادس : الأسئلة المفتوحة

1. ما هي المعوقات التي واجهتك أثناء تلقي الخدمة؟

2. ما هي التسهيلات التي يساعدتك على تلقي خدمة جيدة؟

شكراً لتعاونك معنا

الباحثة/ عايدة نصار

Annex 12: Health care providers interviewed questionnaire – English version

Serial number _____			
Part one: Healthcare Provider Characteristics			
Age .....Years			
Gender	<input type="checkbox"/> Male		<input type="checkbox"/> Female
Specialty	<input type="checkbox"/> Physician	<input type="checkbox"/> Nurse	<input type="checkbox"/> Midwife
Place of work	<input type="checkbox"/> North Gaza	<input type="checkbox"/> Gaza	<input type="checkbox"/> Middle area
	<input type="checkbox"/> Khanyounis	<input type="checkbox"/> Rafah	
Name of clinic	.....	
Years of experience	.....Years		
Average salary	.....NIS		
Level of education	<input type="checkbox"/> Diploma	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Master
	<input type="checkbox"/> PhD	<input type="checkbox"/> Board	
Part Two: Characteristics of working in ANC			
Question	Yes	No	
Did you receive training regarding providing ANC?			
Do you have enough time to give comprehensive health education to pregnant women?			
When a pregnant woman comes to this facility for ANC, are you able to provide all the care she needs?			
Do you often refer women with complications in this facility?			
Do you think the referral services are adequate?			
How many appointments do you give your ANC mothers for ANC?	.....	
What is the average number of women do you see for ANC in one day?	.....	
Part Three: Pleas rate the challenges Faced by the Healthcare Providers of Antenatal			

Care during the Provision of Care					
Challenges	Not at all	Rarely	Sometimes	often	Always
Shortage of essential ANC supplies					
Limited laboratory equipment for ANC					
Small ANC waiting area					
Limited space for private examination					
women do not cooperative					
Lack of enough time for comprehensive education					
Limited provider capacity to refer women with complications					
Lack of facilitative supervision and management					
Limited staff knowledge in the field of ANC					
Limited staff skills in the field of ANC					
Limited training in the field of ANC					
Heavy workload					
Limited of incentives to staff					
Non-adherence to providers' recommendations regarding the schedules of visits					
Non-availability of community health education activities to promote ANC					
Lack of qualified doctor to handle complications					
Limited equipment's to detect complications					
No feedback after referral					
Women's ignorance of the importance of ANC					
lack of continuity of care					

Thank you for your cooperation
Researcher/ Aydah Nassar

Annex 13: Health care providers interviewed questionnaire – Arabic version

الرقم التسلسلي						
الجزء الأول: البيانات الديموغرافية الخاصة بمقدم الرعاية الصحية						
العمر					سنة	
الجنس			ذكر <input type="checkbox"/>	أنثى <input type="checkbox"/>		
المهنة		طبيب/ة <input type="checkbox"/>	ممرضة <input type="checkbox"/>	قابلة <input type="checkbox"/>		
مكان العمل		شمال غزة <input type="checkbox"/>	غزة <input type="checkbox"/>	الوسطى <input type="checkbox"/>	خان يونس <input type="checkbox"/> رفح <input type="checkbox"/>	
إسم المركز الصحي					.....
عدد سنوات العمل					سنة	
معدل الدخل					..... شيكل شهريا
المؤهل العلمي		دبلوم <input type="checkbox"/>	بكالوريوس <input type="checkbox"/>	ماجستير <input type="checkbox"/>	دكتوراه <input type="checkbox"/> بورد <input type="checkbox"/>	
الجزء الثاني: خصائص العمل الخاص برعاية ما قبل الولادة						
السؤال		نعم	لا			
هل تلقيت تدريباً بشأن تقديم الرعاية الصحية الأولية لرعاية قبل الولادة؟						
هل لديك ما يكفي من الوقت لإعطاء التنقيف الصحي الشامل للنساء الحوامل؟						
هل أنت قادرة/ على توفير الرعاية الخاصة بفترة ما قبل الولادة والتي تحتاجها المرأة القادمة لهذا المركز بشكل كامل؟						
هل تقوم/ين بإجراءات التحويل للأُم التي تعاني من مضاعفات خلال الحمل؟						
هل تعتقد أن خدمات الرعاية الصحية المقدمة بفترة ما قبل الولادة في المركز كافية؟						
كم عدد مواعيد الزيارات التي تعطىها للأُم للحضور لهذا المركز لتلقي الرعاية الخاصة بفترة ما قبل فترة الولادة؟				.....	
ما هو متوسط عدد الامهات المراجعات اللواتي تقدم لهن الرعاية الخاصة بفترة ما قبل فترة الولادة في اليوم الواحد؟				.....	
الجزء الثالث: التحديات التي قد تواجه مقدمي الرعاية الصحية أثناء تقديمهم للرعاية ما قبل الولادة						
الفقرة		مطلقا	نادرا	أحيانا	غالبا	دائما
هناك نقص في المستلزمات الأساسية الخاصة برعاية فترة ما قبل الولادة						

					محدودية أجهزة ومعدات المختبرات والفحص الخاصة برعاية فترة ما قبل الولادة
					صغر حجم منطقة انتظار الأمهات لتلقي الرعاية الخاصة بفترة ما قبل الولادة
					صغر حجم منطقة الفحص
					عدم وجود تعاون من قبل السيدات
					نقص الوقت اللازم لتلقي التعليم والتدريب الخاص بالرعاية الخاصة بفترة ما قبل الولادة
					محدودية القدرة والأهلية لمقدم الرعاية لإجراء تحويل السيدات واللواتي يعانين من مضاعفات خلال فترة الحمل
					عدم وجود تسهيلات إدارية وإشرافية من قبل المركز الصحي
					قلة المعرفة العلمية لمقدمي الرعاية الصحية في مجال الرعاية قبل الولادة
					نقص في مهارات مقدمي الرعاية الصحية في مجال الرعاية قبل الولادة
					نقص في التدريب اللازم في مجال الرعاية قبل الولادة
					ضغط العمل الشديد
					قلة الحوافز المقدمة للعاملين
					عدم التزام الأمهات بتوصيات مقدمي الرعاية فيما يتعلق بمواعيد الزيارات
					عدم توفر أنشطة التثقيف الصحي المجتمعي لتعزيز الرعاية قبل الولادة
					عدم وجود طبيب مؤهل للتعامل مع المضاعفات
					عدم توفر الاجهزة الكافية للكشف عن المضاعفات
					لا نتلقى تغذية راجعة بعد تحويل الأم إلى مستشفى
					تجاهل الأمهات لأهمية تلقي الرعاية الصحية قبل الولادة
					عدم استمرارية الامهات لتلقي الرعاية الصحية قبل الولادة

شكرا على حسن تعاونكم

الباحثة/ أ. عايدة نصار

Annex 14: Semi structured in- depth interviews questions - English version

Introduce and explain research purpose and the scenario of the interview.

- Quantitative data revealed that most of governmental ANC clinics adopt the old WHO model regarding the number of visits in that the majority of women booked less than 8 visits during their pregnancy period, what is your opinion regarding this point in particular?
- From your point of view, what are the main challenges in providing a good and a high quality ANC in the governmental ANC clinics- GGs? (Electricity cuts, equipment, specialized doctors.....etc.)
- The quantitative data revealed that women resident in Gaza and Rafah cities utilize the ANC services in a number of visits less than other cities. What do you think about that?
- The study revealed that women resident at Gaza and Khanyounis cities initiate the ANC services late (after 12 weeks of gestation), Why do you think that?
- The quantitative data revealed that satisfaction level for women utilized Sorani clinic is much lower than that of the other clinics, why from your point of view?
- A pregnant women come with others to ANC clinics, to what extent does this affect the provision of good ANC from you point of view? And what are the negative and positive sides of this phenomenon?
- The quantitative part of the study shows the providers are not completely able to provide comprehensive health education to pregnant women, and to provide all ANC services for the pregnant women, in your opinion what are factors hinder their provision of care?
- The study revealed that 50 % of participated women started their ANC visits after 12 weeks of gestation are resident at Khanyounis city with a clear difference if compared to other clinics, what are the causes from your point of view?

- A significant difference between number of ANC visits for patients resident at Rafah city in that it has the lowest number of visits followed by Gaza city then For North Gaza, while it is (high for Khanyounis city and Middle area, What are main reasons from your point of view?

Annex 15: Semi structured in-depth interviews questions- Arabic version

Introduction and explaining research purpose and the scenario of the interview

- تشير النتائج الكمية إلى أن عيادات رعاية ما قبل الولادة تستند إلى القواعد الإرشادية والبروتوكول القديم لمنظمة الصحة العالمية بالنسبة لعدد الزيارات، حيث أن معظم السيدات قد حضرن أقل من 8 زيارات أثناء فترة الحمل، ما رأيكم في هذه النتيجة على وجه الخصوص؟
- من رأيكم ما هي أهم الصعوبات التي تؤثر على تقديم خدمة ما قبل الولادة في عيادات رعاية ما قبل الولادة في الرعاية الأولية الحكومية في قطاع غزة؟ (الكهرباء- المعدات، أطباء ذوي كفاءة)
- تشير النتائج الكمية أن النساء سكان مدينتي رفح وغزة يأتين لزيارات لعيادات ما قبل الولادة أقل من النساء سكان المحافظات الأخرى، ما رأيكم؟
- تشير النتائج أن السيدات سكان مدينتي غزة وخانيونس تبدأ زيارات رعاية ما قبل الولادة بشكل متأخر (بعد 12 أسبوع من بداية الحمل)، ماذا تعتقدن؟
- تشير النتائج الكمية أن مستوى الرضا لدى السيدات اللواتي تابعن الحمل في عيادة الصوراني أقل من مستوى الرضا لدى السيدات اللواتي تابعن الحمل في باقي العيادات الأخرى، ما السبب من وجهة نظركم؟
- تأتي السيدات إلى عيادات ما قبل الولادة باصطحاب أخريات ، إلى أي مدى يؤثر هذا على تقديم خدمة جيدة من وجهة نظركم؟ وما هي الجوانب السيئة والحسنة لقدم مرافقات؟
- تشير النتائج الكمية إلى أن مقدمي خدمة رعاية ما قبل الولادة غير قادرين على اعطاء برنامج تعليمي متكامل للسيدات الحوامل، وتقديم كل خدمات رعاية ما قبل الحمل، من وجهة نظركم ما هي الأسباب التي تعيق ذلك؟
- نتجت الدراسة أن 50% من النساء المشاركات واللواتي بدأت زيارات رعاية ما قبل الولادة بعد 12 أسبوع من بداية الحمل يقطنون مدينة خانيونس مع وجود فروقات واضحة اذا ما قورنت مع عيادات أخرى، ما هي الأسباب التي أدت إلى تلك الظاهرة برأيكم؟
- هناك فروقات كبيرة في عدد الزيارات المرضى لعيادات رعاية ما قبل الولادة حيث وجدت الدراسة أن أقل عدد لسكان مدينة رفح، يليها سكان مدينة غزة، ثم سكان شمال غزة، في حين أن عدد الزيارات أعلى بالنسبة لسكان مناطق خانيونس والشمال، ما هي الأسباب من وجهة نظركم؟

Annex 16: Administrative approval- MoH

State of Palestine
Ministry of health



دولة فلسطين
وزارة الصحة

التاريخ: 19/02/2018
رقم المراسلة 244546

السيد : رامي عيد سليمان العبادله المحترم

مدير عام بالوزارة /الإدارة العامة لتنمية القوى البشرية - /وزارة الصحة

السلام عليكم ،،،

الموضوع/ تسهيل مهمة الباحثة// عايدة نصار

التفاصيل //

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحثة/ عايدة فتحي نصار
الملتحقه ببرنامح ماجستير صحة الأم والطفل - كلية المهن الصحية - جامعة القدس أبوديس في إجراء بحث بعنوان:-
"Factors Influencing the Quality of Antenatal Care at Governmental Clinic in Gaza Strip"
حيث الباحثة بحاجة لتعبئة استبانة من عدد من مقدمي الخدمات الصحية للحوامل في مراكز الرعاية الأولية في قطاع غزة، وكذلك
من عدد من الحوامل المراجعات ذات المراكز.
نأمل توجيهاتكم لذوي الاختصاص بضرورة الحصول على الموافقة المستتيرة من الحوامل اللاتي لديهن استعداد للمشاركة في
البحث ومن ثم تمكين الباحثة من التواصل معهن، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي، ودون تحمل
الوزارة أي أعباء أو مسئولية.
وتفضلوا بقبول التحية والتقدير،،،
ملاحظة/ البحث حصل على موافقة لجنة اخلاقيات البحث الصحي
ملاحظة/ تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 3 شهر من تاريخه.

محمد ابراهيم محمد السرساوي

مدير دائرة/الإدارة العامة لتنمية القوى البشرية -



التحويلات

إجراءتكم بالخصوص(19/02/2018)	← رامي عيد سليمان العبادله(مدير عام بالوزارة)	■ محمد ابراهيم محمد السرساوي(مدير دائرة)
إجراءتكم بالخصوص(19/02/2018)	← ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)	■ رامي عيد سليمان العبادله(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← نهله صقر سليمان حلس(مدير دائرة)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← عبدالكريم سعيد العبد التجار(مدير دائرة)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← خليل محمد محمود صيام(مدير دائرة)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← ناهض عبد حسن جوده(مدير دائرة)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← صلاح الدين علي عبدالحفيف الرنتيسي(مدير دائرة)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← فواز ادريس محمد ابوزياده(طبيب مدير)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)
لعمل اللازم(19/02/2018)	← جهاد محمد محمد مطر(مدير دائرة)	■ ماهر محمود عبدالهادي شامية(مدير عام بالوزارة)

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غزة

Annex 17: Helsinki committee approval



المجلس الفلسطيني للبحوث الصحية Palestinian Health Research Council

تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار

Developing the Palestinian health system through institutionalizing the use of information in decision making

Helsinki Committee For Ethical Approval

Date: 05/02/2018

Number: PHRC/HC/309/18

Name: AYDA F. NASSAR

الاسم:

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم
حول:

Factors influencing the quality of antenatal care at governmental clinics in Gaza Strip.

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/309/18 in its meeting on 05/02/2018

و قد قررت الموافقة على البحث المذكور عاليه
بالرقم والتاريخ المذكوران عاليه

Signature

Member

Member

Chairman

Specific Conditions:-

General Conditions:-

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

E-Mail: pal.phrc@gmail.com

Gaza - Palestine

فلسطين

القطاع الشمالي - غزة

Annex 18: Results of Bonferroni - Post hoc test

Bonferroni

(I) center name	(J) center name	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Sorani	Jabalia	-.61749*	.20515	.043	-1.2252-	-.0097-
	Khanyounis	-.62099*	.19839	.029	-1.2087-	-.0333-
	Rafah	-.77205*	.23206	.015	-1.4595-	-.0846-
	Dair Al Balah	-.64206-	.25467	.184	-1.3965-	.1124
	Remal	-.64095*	.20444	.029	-1.2466-	-.0353-
Jabalia	Sorani	.61749 ⁺	.20515	.043	.0097	1.2252
	Khanyounis	-.00350-	.17322	1.000	-.5167-	.5097
	Rafah	-.15456-	.21095	1.000	-.7795-	.4704
	Dair Al Balah	-.02457-	.23560	1.000	-.7225-	.6734
	Remal	-.02346-	.18012	1.000	-.5571-	.5101
Khanyounis	Sorani	.62099 ⁺	.19839	.029	.0333	1.2087
	Jabalia	.00350	.17322	1.000	-.5097-	.5167
	Rafah	-.15106-	.20438	1.000	-.7565-	.4544
	Dair Al Balah	-.02107-	.22974	1.000	-.7016-	.6595
	Remal	-.01996-	.17238	1.000	-.5306-	.4907
Rafah	Sorani	.77205 ⁺	.23206	.015	.0846	1.4595
	Jabalia	.15456	.21095	1.000	-.4704-	.7795
	Khanyounis	.15106	.20438	1.000	-.4544-	.7565
	Dair Al Balah	.13000	.25936	1.000	-.6384-	.8984
	Remal	.13110	.21025	1.000	-.4918-	.7540
Dair Al Balah	Sorani	.64206	.25467	.184	-.1124-	1.3965
	Jabalia	.02457	.23560	1.000	-.6734-	.7225
	Khanyounis	.02107	.22974	1.000	-.6595-	.7016
	Rafah	-.13000-	.25936	1.000	-.8984-	.6384
	Remal	.00110	.23498	1.000	-.6950-	.6972
Remal	Sorani	.64095 ⁺	.20444	.029	.0353	1.2466
	Jabalia	.02346	.18012	1.000	-.5101-	.5571
	Khanyounis	.01996	.17238	1.000	-.4907-	.5306
	Rafah	-.13110-	.21025	1.000	-.7540-	.4918
	Dair Al Balah	-.00110-	.23498	1.000	-.6972-	.6950

*. The mean difference is significant at the 0.05 level.

Annex 19: List of experts (arbitrators)

No.	Name	Affiliation
1.	Dr. Akram Abu Salah	Palestine College of Nursing
2.	Dr. Ahmed El- Shaaer	Islamic University- Gaza
3.	Dr. Areefa Alkaseeh	Islamic University- Gaza
4.	Dr. Samer Alnawajha	University College of Applied Sciences
5.	Dr. Soha Balousha	MoH

Annex 20: List of experts (interviewees)

No.	Health care provider	Affiliation
1	Dr. N. H.	Director of maternal health department
2	Dr. K. S.	Al- Sorani clinic
3	Mrs. M. W	Al- Sorani clinic
4	Mrs. S. A.	Al- Sorani clinic
5	Mrs. F. H.	Rafah clinic
6	Mrs. R. SH	Rafah clinic
7	Mrs. M. Gh	Khanyounis clinic

Abstract in Arabic

"العوامل المؤثرة على جودة الرعاية المقدمة للسيدات في مرحلة ما قبل الولادة في مراكز الرعاية الأولية الحكومية في قطاع غزة"

إعداد : عايدة نصار

إشراف: د. أحمد نجم

تعتبر رعاية ما قبل الولادة للسيدات الحوامل استراتيجية مهمة للتقليل من الأمراض والوفيات لدى المواليد والأمهات.

هدف الدراسة:

أجريت هذه الدراسة لدراسة العوامل التي تؤثر على جودة الرعاية المقدمة للسيدات الحوامل في مرحلة ما قبل الولادة في مراكز الرعاية الأولية الحكومية في قطاع غزة من وجهة نظر الأمهات و العاملين.

الطريقة ومنهجية الدراسة:

الدراسة هي دراسة تحليلية نفذت بطرق كمية ونوعية لتحديد العوامل التي من الممكن أن تؤثر على جودة الخدمات المقدمة لرعاية ما قبل الولادة للسيدات الحوامل في مراكز الرعاية الأولية، شملت الدراسة ستة مراكز رعاية أولية حكومية وهي (جباليا، الصوراني، الرمال، دير البلح خانينوس، رفح). تم جمع بيانات الدراسة الكمية باستخدام استبانات مع مقابلة. شاركت في الدراسة (267) امرأة أقل من شهر واحد بعد الولادة مباشرة و كانت تتابع في مراكز رعاية ما قبل الولادة و قد تم اختيارهن بشكل عشوائي لتعبئة الاستبانة بنسبة استجابة 98.9% وتم تعبئة استبانة أخرى مع كل العاملين في المراكز الحكومية المشاركة في الدراسة وعددهم (34) بنسبة استجابة 100%. و تم جمع البيانات النوعية من خلال مقابلات مع العاملين في المراكز ذاتها.

نتائج الدراسة:

أظهرت الدراسة أن السيدات لهم وصول جيد للخدمة المقدمة، وذلك أن معظمهم (94%) بدئوا رعاية الحمل خلال 12 أسبوع الأولى من بداية الحمل وفد زاروا مراكز الرعاية الأولية بناءً على القواعد الإرشادية الوطنية. غالبية السيدات (92.1%) كانوا راضيين عن الخدمة المقدمة لهم. ولكن هناك مجال للتحسين في البنود المتعلقة بوقت الانتظار و التعامل مع النساء باحترام أكثر. وأظهرت الدراسة أيضا أن العاملين في مجال رعاية ما قبل الولادة يواجهن صعوبات أثناء تقديم الخدمة. هذه الصعوبات تتعلق بقلة المحفزات للعاملين، أعباء العمل، عدم وجود تغذية راجعة عن الحالات المحولة بسبب المضاعفات، مساحات غير كافية للحفاظ على خصوصية النساء الحوامل، مساحة صالة الانتظار صغيرة، ونقص في اللوازم المهمة لتقديم خدمات رعاية الحمل.

الخلاصة والتوصيات:

وخلصت الدراسة إلي أن هناك حاجة إلى مزيد من التحسينات لمعالجة معوقات تقديم خدمات رعاية الحمل، وهذا سيساهم في تقديم خدمات رعاية ما قبل الولادة بجودة ومساواة أكثر.