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**Pregnant Women Satisfaction with Quality of Antenatal  
Care at Governmental Clinics in Gaza Strip**

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# **Pregnant Women Satisfaction with Quality of Antenatal Care at Governmental Clinics in Gaza Strip**

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**Thesis Approval**

**Pregnant Women Satisfaction with Quality of Antenatal Care at  
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## **Dedication**

To my great parents ... my father, and to the spirit of my mother....

To my beloved husband ... my sweet children ... who supported me all the time...

To my brothers and sisters ... who encouraged me all the way

To my colleagues .... Who were helpful all the time

To all the Palestinian mothers who deserve the best health care service ...

Najah Shaqaleh

## **Declaration**

I certify that this thesis submitted for the degree of Master, is the result of my 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:**

Najah Saleh Shaqaleh

16/6/2020

## **Acknowledgment**

First of all, praise to Allah, the lord of the world, and peace and blessings of Allah be upon our prophet Muhammad, all thanks for Allah who granted me the capability to accomplish this thesis.

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## Abstract

Antenatal care (ANC) is an important indicator of efficient utilization of health services because it assesses the extent to which the service meets a person's requirements and needs. This study aimed to assess pregnant women's satisfaction with the quality of antenatal care at governmental clinics in the Gaza Strip. A descriptive, cross-sectional study design was utilized. The researcher used a nonprobability convenience sample technique, and the target group was pregnant women who had at least 4 antenatal visits in the assigned governmental antenatal clinics (Al Rimal, Jabalia, Der Al Balah, Khan Younis, and Rafah). A self-administered questionnaire was used to collect the data and 311 pregnant women participated with a response rate of 97.2%. The questionnaire was tested for reliability and the alpha coefficient was with a total mean score of 0.778. Data collection took place from March 2019 to March 2020. Administrative and ethical approvals were obtained from Al-Quds University and Helsinki Committee respectively. The Donabedian model is a conceptual model that provides a framework for examining health services and evaluating the quality of health care that was adopted in the study. For statistical analysis, the researcher used SPSS version (23). The results of the study showed that the mean age of study participants was 27.3 years, 61.9% had a university education, 84.9% were housewives, 89% had income less than 1973 NIS (absolute poverty line). Also, 34.7% had three pregnancies, and more, 77.5% had normal pregnancies, 77.9% had 1 – 3 deliveries. The results indicated that 60.8% of study participants were satisfied with ANC services while 39.2% were dissatisfied. The overall satisfaction with ANC was 80.5%. The highest was in satisfaction with provided care (95.6%), followed by satisfaction with the number of visits (91.3%), satisfaction with the place of provided care (83.2%), satisfaction with provided formation (67%), and satisfaction with waiting time (66.15%). The results also showed that 32% of participants perceived the quality of ANC service as excellent and 48.7% perceived it as very good. There was no statistically significant relationship between overall satisfaction and participant's age ( $\chi^2=3.57$ ,  $P=0.167$ ), education ( $\chi^2=2.2$ ,  $P=0.520$ ), work ( $\chi^2=0.01$ ,  $P=0.560$ ), and monthly income ( $\chi^2=1.07$ ,  $P=0.580$ ). Participants from Der Al Balah expressed significantly higher satisfaction compared to participants from other antenatal clinics ( $P=0.002$ ). Besides, there was no statistically significant relationship between overall satisfaction and current and previous pregnancies ( $\chi^2=0.16$ ,  $0.30$ ;  $P=0.380$ ,  $0.850$  respectively), while there was a statistically significant relationship between overall satisfaction and time consumed in antenatal visits ( $\chi^2=3.6$ ,  $P=0.001$ ). Also, there was a statistically significant relationship between overall satisfaction and quality of antenatal care ( $\chi^2=12.1$ ,  $P=0.007$ ). The study concluded that overall satisfaction with ANC services is high. However, they evaluated the information received during consultation and the waiting time as low. The study recommended that there was a need to decrease waiting time before ANC checkup because that has a negative effect on the satisfaction of pregnant women about quality of care as well as to initiate appointment system and increasing quality face time with health care providers.

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## **List of Abbreviations**

<b>ANC</b>	Antenatal Care
<b>FP</b>	Family Planning
<b>GS</b>	Gaza Strip
<b>MM</b>	Maternal Mortality
<b>MMR</b>	Maternal Mortality Ratio
<b>MoH</b>	Ministry of Health
<b>NGOs</b>	Non-Governmental Organizations
<b>PCBS</b>	Palestinian Central Bureau of Statistics
<b>PHCCs</b>	Primary Health Care Centers
<b>SOGC</b>	Society of Obstetricians and Gynecologists of Canada
<b>SPSS</b>	Statistical Package for Social Sciences
<b>UNRWA</b>	United Nations Relief and Works Agency for the Palestinian Refugees in the Near East
<b>USA</b>	United States of America
<b>WB</b>	West Bank
<b>WHO</b>	World Health Organization

# **Chapter One**

## **Introduction**

### **1.1 Overview and background**

Antenatal care (ANC) is the cornerstone of maternal and perinatal health care. ANC helps in the early detection of high-risk pregnancies. ANC is defined as the care provided by skilled health care professionals to pregnant women and adolescent girls to ensure the best health conditions for both mother and baby during pregnancy. It is more effective in preventing adverse pregnancy outcomes when sought early in the pregnancy and continued through to delivery (World Health Organization – WHO, 2016). ANC continues to be one of the safest maternal care interventions aimed at reducing maternal and perinatal morbidities. Also, ANC utilization ensures effective management of prenatal morbidities, facility delivery, postpartum care, and managing complications to improve the health outcomes of mother and fetus (Ntambue et al., 2016; Dahiru and Oche, 2015).

Although ANC is widely used, little attention has been directed toward the system and process variables that influence the receipt of care, including satisfaction (Gregory, 2013). Satisfaction defined as the extent of an individual's experience compared with his or her expectations. Client satisfaction is a challenging issue in health care services. It is one of the commonly used outcome measures of patient care and an important indicator of the quality of healthcare performance (Chauhan and Dhadwal, 2016). Several studies revealed variations in levels of satisfaction with ANC. A study carried out by Asafo and Adoma (2019) found a high level of satisfaction as 92.7% of pregnant women were satisfied with the ANC. Lower results obtained by Asefa et al. (2020) which indicated that mothers expressed moderate satisfaction with ANC (58.1%), and Fseha (2019) found that 36.4% of mothers were very highly satisfied and 57.5% had moderate satisfaction, while 16.1% were not satisfied. Moreover, Ranabhat et al. (2019) reported that 48.2% of mothers had a low

level of satisfaction and only 24.7% had a high level of satisfaction regarding the quality of ANC.

Providing quality ANC and client satisfaction are important goals of health institutions that provide maternal care. In recent years, the importance of client satisfaction has gained considerable attention and has become one of the primary concerns of health managers (Acharya et al., 2018). Clients' satisfaction with service provision has been used for measuring the quality of service both within and outside the health system (Abodunrin et al., 2014). Several studies have indicated that good-quality services lead to higher levels of client satisfaction, which in turn can ensure continued uptake of services by clients. Thus, client satisfaction is taken as an important indicator of the quality of care in service delivery (Mehata et al., 2017; Souza et al., 2013).

Several factors affect mothers' satisfaction with ANC. Ranabhat et al. (2019) reported that factors that affect satisfaction with ANC include support and respect, information sharing, anticipatory guidance, sufficient time, approachability and availability, and Tocchioni et al. (2018) found that women's satisfaction increased with age and education. Moreover, Asifere et al. (2018) reported that several factors determine the level of satisfaction with ANC such as providers' communication, providers' support and respect, clients' marital status, educational and occupational status.

In my opinion, mothers' level of satisfaction with the ANC given in the health facility is important from the medical perspective, because satisfied mothers will have high adherence to the treatment given, they will be an active participant in the service, and consequently, will utilize the ANC services.



## **1.2 Research problem**

Globally, maternal mortality (MM) is unacceptably high. About 300,000 women died during and following pregnancy and childbirth in 2017. The vast majority of these deaths (94%) occurred in low-resource settings, and most could have been prevented (WHO, 2019). Women die as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable such as pregnancy-induced hypertension, pre-eclampsia, and eclampsia, while other complications may exist before pregnancy but are worsened during pregnancy, especially if not managed as part of the woman's ANC (Say et al., 2014).

According to the latest reports by WHO (2019), maternal mortality ratio (MMR) accounted for 11 / 100,000 live birth, while it is estimated to be 117 / 100,000 live birth in middle-income countries, and 462 / 100,000 live birth in low-income countries. ANC plays an important role in monitoring pregnancy progress and early detection of complications, and as a sequent preserving the life of mothers and their fetus. Also, there is limited research investigating ANC and patient satisfaction at governmental clinics in the GS. So, this study will highlight clients' satisfaction with ANC at governmental clinics in the GS which already have scarce resources and weakened health systems due to the long-term siege of GS.

It is worth to say that clients who are not satisfied with the quality of ANC given and whose complaints are not addressed are likely to seek care in unapproved non – governmental maternity clinics and these can lead to complications in pregnancy and increase in MMR which reach 8.6 and 5.9/ 100,000 live births in GS and West Bank (WB) respectively (MoH, 2017). The ultimate expectation of the client is to be satisfied with the services rendered to them and to get well. In light of this, the researcher decided to

undertake this study to assess pregnant women's satisfaction about the quality of ANC at governmental maternity clinics in the GS.

### **1.3 Justification of the study**

Even though it is believed that mothers' satisfaction is crucial to assure qualified ANC services available for all pregnant mothers, little is known regarding mothers' level of satisfaction in Palestine. Evaluation of mothers' satisfaction with the ANC provided is essential in improving the quality of pregnancy-related health service. Mothers' satisfaction with ANC provided has rarely been studied in the GS. Utilization of antenatal services depends on many factors, and one of these factors is the satisfaction with care provided. The evaluation of satisfaction of care will promote the process of improving the services provided (Pricilla et al., 2016). Therefore, the need to know the extent of mothers' satisfaction with ANC services is very important to provide evidence for guiding and improving the quality of ANC services. Evaluation of satisfaction with ANC services will give us information about the level of satisfaction and factors that cause satisfaction or dissatisfaction with ANC among pregnant women. Besides, the results of the study will help decision-makers in determining what aspect of services that need improvement towards a higher quality of ANC services in governmental clinics in the GS.

### **1.4 General objective**

The general objective of the study was to assess pregnant women's satisfaction with the quality of antenatal care at governmental clinics in the Gaza Strip.

### **1.5 Specific objectives**

- To assess pregnant women's satisfaction with antenatal care at governmental maternity clinics in the Gaza Strip.

- To determine the relationship between satisfaction with antenatal care and sociodemographic factors (age, education, work, clinic, income, number of pregnancies, number of antenatal visits).
- To recognize healthcare provider factors associated with women's satisfaction with antenatal care services.
- To identify infrastructures and amenities factors that may influence women's satisfaction with antenatal care services.
- To suggest recommendations that will assist in improving antenatal care services in the Gaza Strip.

### **1.6 Questions of the study**

- What is the level of pregnant women's satisfaction with antenatal care provided at governmental maternity clinics in the Gaza Strip?
- Are there statistically significant differences in the level of satisfaction with antenatal care related to selected sociodemographic variables (age, education, work, clinic, income, number of pregnancies, number of antenatal visits)?
- What are the healthcare provider's factors associated with women's satisfaction with antenatal care services?
- What are the infrastructure factors that may influence women's satisfaction with antenatal care services?
- What are the recommendations that will assist in improving antenatal care services in the Gaza Strip?

## **1.7 Definition of terms**

### **Antenatal care**

Antenatal care 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 (WH O, 2016).

### **Antenatal clinic**

The researcher defines antenatal clinic operationally as the clinic that offers prenatal health services and consultation to pregnant women at governmental primary health care centers in Gaza Strip.

### **Pregnant woman**

The researcher defines pregnant woman operationally as any woman who has a confirmed pregnancy, and visits the antenatal clinic for consultation and follows up of pregnancy.

### **Satisfaction with antenatal care**

Client's satisfaction is a reflection of the client's judgment of different domains of health care, including technical, interpersonal, and organizational aspects (Matejic et al., 2014).

The researcher defines satisfaction with antenatal care operationally as the degree of acceptance and agreement with aspects of health services provided at the antenatal clinic.

In this study, satisfaction is measured by the total scores obtained on the satisfaction scale.

### **Health care provider**

The researcher defines health care provider operationally as any skilled professional (midwife, nurse, and obstetrician) who works full time in the antenatal clinic at governmental PHCCs, and provide prenatal care and consultation to pregnant women who attend the antenatal clinic for follow up of pregnancy.

## **1.8 Context of the study**

### **1.8.1 Sociodemographic context**

Palestine lies within an area of 27,000 square kilometers (Km<sup>2</sup>), expanding from Ras al-Nakoura in the north to Rafah in the south (Annex 1). Palestinian territories are divided into three areas separated geographically; the West Bank (WB) 5.655 Km<sup>2</sup>, GS 365 Km<sup>2</sup>, and East Jerusalem. Based on reports of the Palestinian Central Bureau of Statistics (PCBS), there are about 13 million Palestinians in the world, of whom about 5 million in the State of Palestine in mid-2019; 2.53 million males and 2.45 million females. The estimated population of the WB was 2.99 million of which 1.53 million males and 1.46 million females. While the estimated population of GS was 1.99 million of which 1.01 million males and 980 thousand females. Population projections revealed that the crude birth rate in Palestine was 30.2 births /1000 of the population in 2019. The results for the WB were 27.7 births compared to 33.9 births /1000 of the population in GS. The estimated crude death rate in Palestine was 3.7 deaths/1000 of the population, where the WB result was 3.9 deaths/1000 of the population compared to 3.5 deaths/1000 of the population in GS. The mean number of children born for married women in Palestine is 4.4 births; of which 4.3 births for the women living in the WB and 4.5 births for those living in GS (PCBS, 2019). Also, 73.6% of the population is urban. The median age is 19.6 years, and the natural increase rate accounts for 2.8 (2.5 in WB and 3.3 in GS). Life expectancy for males 72.1 years and for females 75.2 years, average household size 5.2 (4.8 in WB and 5.7 in GS), total fertility rate 4.1 (3.7 in WB and 4.5 in GS), and infant mortality rate 18.2 (17.0 in WB and 19.6 in GS) (PCBS, 2018).

### 1.8.2 Primary Health Care Centers in Palestine

The number of PHCCs in Palestine reached 739, of which 587 are in WB and 152 in GS, of them, 466 PHCCs are owned by MoH, which constitutes 63.1% of the total number of PHCCs. The number of PHCCs managed by NGOs reached 189, constituting 25.6% of all Primary health care facilities. While the number of United Nations Relief and Work Agency for the Refugees of Palestine (UNRWA) centers reached 64, and the military medical centers reached to 20 centers. Classification of PHCCs according to the center level indicated that 30 centers are classified as level II, 19 centers as level III, and 7 centers as level IV (MoH, 2018).

Level I	Level II	Level III	Level IV
Preventive services: Mother and child health care and immunization.  Curative services: first aid	Preventive services: Mother and child health care and immunization.  Curative services: General Practitioner (GP) medical care. Laboratory (in some clinics)	Preventive services: mother and child health care, immunization, family planning, and dental.  Curative services: General Practitioner (GP) and medical specialist Laboratory (in some clinics) Health education	Preventive services: mother and child health care, immunization, family planning, and dental.  Curative services: General Practitioner (GP) and medical specialist care and dental care. Gynecology and obstetrics. Laboratory/ Radiology.  Health Education, Emergency Medical Services (EMS)

Source: WHO (2018). Health facilities in the Gaza Strip.

## **Chapter Two**

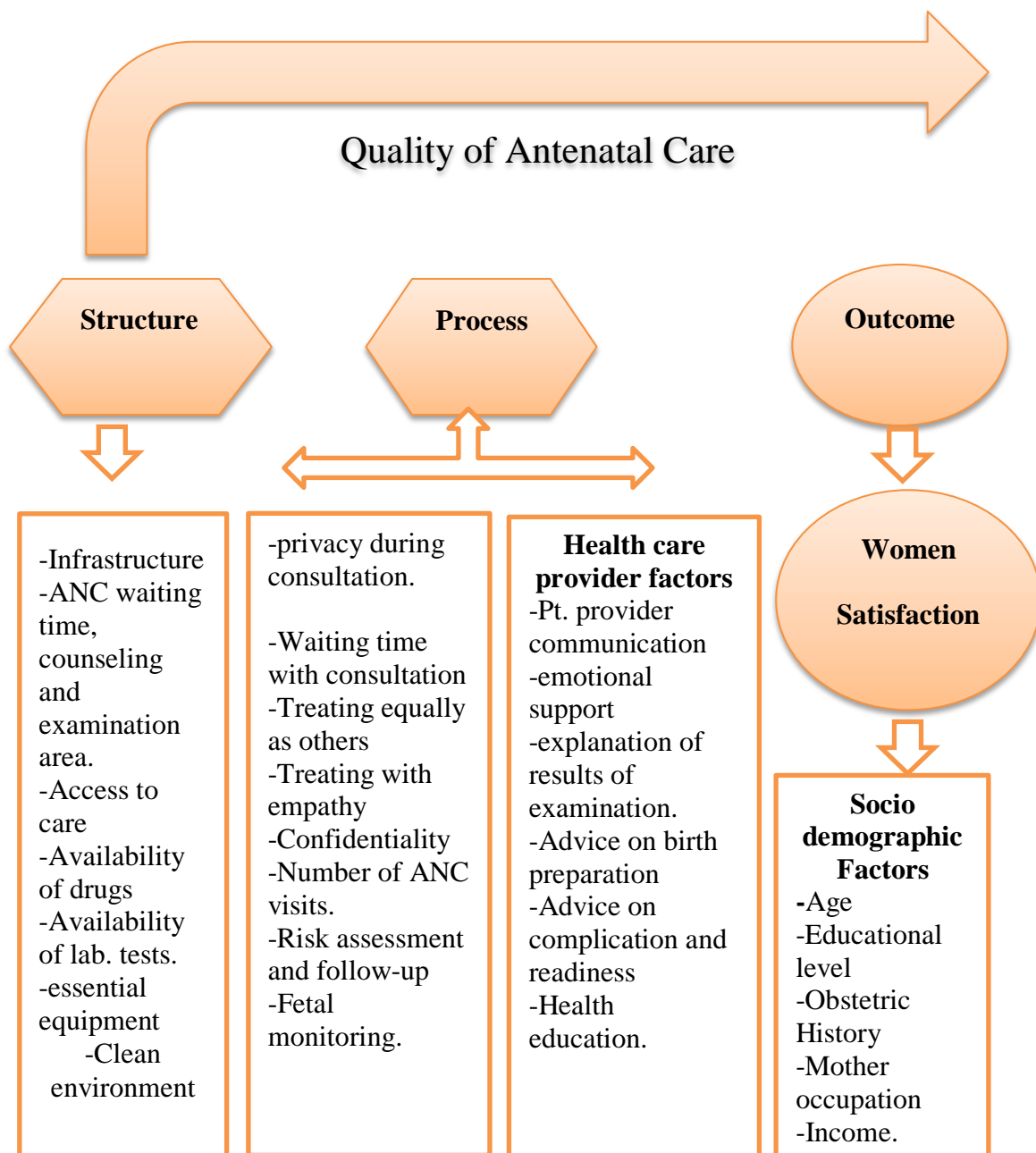
### **Conceptual framework and literature review**

This chapter consisted of two parts: In the first part, the researcher presented a diagram of the conceptual framework of the study. In the second part, the researcher presented the literature review with an in-depth inquiry of topics and previous studies related to the study variables.

#### **2.1 Conceptual framework**

The conceptual framework is the map that guides the researcher during the process of preparing the research. The diagram was designed by the researcher based on Donabedian framework for assessing the quality of care.

Avedis Donabedian was born in Beirut, Lebanon, in an Armenian family from Turkey. Donabedian received his early education at the Friends' (Quaker) school in Ramallah, Palestine, and subsequently studied medicine at the American University of Beirut. Donabedian first described the three elements of his model in 1966 article "Evaluating the Quality of Medical Care." Donabedian identified the three dimensions that can be utilized to assess the quality of care (structure, process, and outcome) that became the core domains of the Donabedian Model (Donabedian, 2005). While there are other qualities of care frameworks, including the WHO Recommended Quality of Care Framework and the Bamako Initiative, the Donabedian Model continues to be the dominant paradigm for assessing the quality of health care (McQuestion, 2006).



**Figure (2.1): Diagram of the conceptual framework**

The Donabedian model is a conceptual model that provides a framework for examining health services and evaluating the quality of health care (McDonald et al., 2007). According to the model, information about the quality of care can be drawn from three categories: structure, process, and outcomes.



The researcher chose the Donabedian's (2005) model as a framework for this study because the model identifies clearly the main components of quality of care including structure, process, and outcome. This framework is a suitable guide to obtain information that can be used to make improvements in health care facilities.

Structure is meant to include the conditions under which care is provided, including material and human resources, and organizational characteristics. Process is defined as the activities that a provider carries out, focused on interpersonal relationships, and includes contributions to care by patients themselves and their families. The outcome is defined as changes in individuals that can be attributed to health care, including changes in health status, knowledge, behavior, and satisfaction with the care received and its outcomes (Donabedian, 2005).

## **2.2 Literature review**

### **2.2.1 Background**

The perinatal period (pregnancy, childbirth, and postpartum) is considered high-risk periods for the health of mothers and their newborns, especially in developing countries. Although pregnancy is a normal physiological process, it is associated with certain risks to health and survival both for the woman and for her infant (Koppad et al., 2014). These risks are present in every society and every setting. In developed countries, they have been largely overcome because every pregnant woman has to take special care during pregnancy and childbirth. In developing countries where each pregnancy represents a journey into the unknown, many women never return home, due to lack of care provision. In this regard, approximately 300,000 women die each year during pregnancy or the postpartum period, and the vast majority of maternal deaths occur in developing countries, with most of these deaths being preventable (WHO, 2018).

Owing to considerable gaps in services, developing countries emphasize on increasing service availability and maintaining acceptable quality standards (Sapkota et al., 2018). Understanding maternal perception of care and satisfaction with services is important in this regard, as the perceived quality is a key factor of service utilization. Patient satisfaction is thus indispensable to quality improvement concerning the design and management of health care systems. At a time when global efforts to reduce maternal mortality have been stepped up, it is important to look at maternal satisfaction as a component of the quality of health care (Srivastava et al., 2015).

In my opinion, assessment and measurement of mothers' satisfaction with ANC services should be part of administrative and practical measures in the process of evaluation of ANC service and plans to improve the quality of this service.

### **2.2.2 Antenatal care**

Antenatal care is a term used to describe the medical procedures and care that are carried out during pregnancy. It is the care a woman receives throughout her pregnancy and is important in helping to ensure a healthy pregnancy state and safe childbirth (Ekabua et al., 2011). ANC has been designated as one of the four pillars of safe motherhood, along with clean and safe delivery, essential obstetric care, and family planning. These four pillars are thought to contribute to the reduction of maternal mortality (Mohamed and Refat, 2012).

Antenatal care is a vital practice for reducing maternal and infant morbidity and mortality during pregnancy and birth, by treating and monitoring complications that may encounter during pregnancy, birth, and postpartum (WHO and UNICEF, 2014). ANC involves careful, systematic assessment and follow-up of pregnant women, including education, counseling, screening, and treatments to improve pregnancy outcomes. It provides health information for recognizing pregnancy danger signs, childbirth, infant care, births spacing,

breast-feeding, and appropriate actions to be taken (Raine et al., 2010). Antenatal care is the care for a pregnant woman who receives during her pregnancy through a series of consultations with trained health care workers such as midwives, nurses, and sometimes an obstetrician (Bustreo et al., 2013).

Antenatal care is provided through several planned antenatal visits (totaling 14 visits) scheduled as follows: the initial visit takes place as soon as the woman thinks she might be pregnant. (Phelps and Hassed, 2011). The major objectives of the first visit are to introduce the woman to the maternity service, confirm or rule out a diagnosis of pregnancy, ascertain risk factors, determine the delivery date, and provide education about maintaining a healthy pregnancy. The first visit is important because it establishes baseline data relevant to planning health-promotion strategies for initial and every subsequent visit (Marshall and Raynor, 2014; Jacob, 2012).

ANC is more likely to be effective if women begin receiving care early in pregnancy (in the first trimester) and continue with regular ANC throughout pregnancy. Although recommendations about the number of visits and when they should occur in pregnancy vary (National Collaborating Centre for Women's and Children's Health, 2008; Society of Obstetricians and Gynecologists of Canada [SOGC], 2006; WHO, 2013), most guidelines recommend a visit in the first trimester. The SOGC (2006) recommends that women receive the first prenatal visit within the first 12 weeks of gestation, visits every four to six weeks until 30 weeks of gestation, visits every two to three weeks up to 36 weeks of gestation, and then visits every week until delivery. This standard of periodicity is a result of the SOGC consensus statement recommending a schedule of reduced visits.

During the first antenatal visit, the midwife/nurse assesses the pregnant woman, take a history, perform physical examination and laboratory investigation as well as health

teaching and development of a delivery plan which will be reviewed at subsequent visits. Subsequent visits take place monthly until 28 gestational weeks. Then every two weeks until 36 weeks and weekly thereafter until delivery. During these visits, the following activities are completed: measurement of weight and blood pressure, urine testing for protein, glucose, and ketones, fundal height measurement to assess fetal growth, assessment of fetal heart rate, and tetanus toxoid immunization (Hatfield, 2013; Simpson and Creehan, 2014).

Organized ANC was introduced in the United States of America (USA) by social reformers and nurses in 1900. In a 1914 study by Williams, ANC reduced fetal mortality by 40%. In the 1950s, Merkatz et al. observed that the most important factor responsible for improved maternal health was ANC. While ANC was developing in the USA, a similar movement also began in England in 1900 by the efforts of James Ballantyne (Ekabua et al., 2011).

WHO (2010) recommended four antenatal visits as the minimum accepted visits. Moreover, it emphasized the necessity of establishing clear, defined objectives to be achieved during each visit. Inadequate ANC is defined as starting care after the fifth month of pregnancy or beginning earlier but receiving fewer than half of the recommended visits.

Appropriate delivery of ANC services has positive impacts on maternal mortality and morbidity. WHO suggested that poor quality of ANC services and lack of communication between health providers and pregnant women are significant reasons why ANC may fail to improve maternal health outcomes (WHO, 2014).

### **2.2.3 The concept of satisfaction**

Satisfaction is a complex concept with multiple meanings and applications. It finds expression and widespread application in many disciplines such as sociology, economics,

religion, law, psychology, planning, marketing, music, and health services. Satisfaction in its conceptualization is generally subjective and value-laden (Sirgy, 2012), because it is based on set standards, which can be expectations, cherished values and beliefs among others as can be gleaned from literature on satisfaction.

#### **2.2.3.1 Pregnant women satisfaction with antenatal care**

Women's satisfaction with maternal health care services is integral to the current goals to decrease maternal mortality; especially in the developing world. Currently, many countries are undergoing an obstetric transition, gradually shifting from a pattern of high maternal mortality and high fertility to low maternal mortality and low fertility through the utilization of modern obstetric care and family planning services (Souza et al., 2014). Although the determination of satisfaction is a complex and dynamic process, available evidence shows that the degree of client satisfaction and its determinants in the labor and delivery process is more closely measured in the developed world than in developing countries (Redshaw and Heikkila 2010; Yohannes et al., 2013).

Client's satisfaction is defined as the individual's positive evaluation of distinct dimensions of health care, particularly when patient expectations are met. Patients' perception of service quality shapes their confidence concerning the use of the available healthcare facility, and patients with lower expectations tend to be more satisfied (Cengiz, 2010). Also, patient satisfaction can be defined as patients' judgment on the quality and goodness of care (Iloh et al., 2012). It means the best health outcomes that could be attained with the available resources, and should be consistent with patients' values and preferences. It is essential to point out that the satisfaction of patients is an integral element of health status and constitutes a measure of the outcome of care used in evaluating distinct dimensions of patients' healthcare (Odetola and Fakorede, 2018). Therefore, it is important to assess and determine clients' satisfaction with the care they receive, which will help

healthcare managers in their plans to improve the quality of care provided to their clients. Asefa et al. (2020) carried out a hospital-based cross-sectional study in Ethiopia. The sample of the study consisted of 358 mothers attending antenatal care in Jimma University Medical Center. The results showed that the mean age of the study participant was  $27.8 \pm 4.1$ . The results also showed that the overall satisfaction of mothers was low (58.1%). Another cross-sectional study carried out by Asafo and Adoma (2019) to examine the level of women's satisfaction with ANC in selected health facilities in Ghana. The results indicated a high level of satisfaction among pregnant women, as 92.7% were satisfied with the ANC they received. Another study carried out in India by Pricilla et al. (2016) found that 95% of the mothers expressed satisfaction with the number of antenatal visits and components of ANC., while only 31.8% of the mothers were satisfied with the health education on family planning.

Moreover, satisfaction is defined as the extent of an individual's experience compared with his or her expectations, and it is one of the commonly used outcome measures of patient care and an important indicator of the quality of healthcare performance (Chauhan and Dhadwal, 2016). Client's satisfaction with ANC is clinically relevant, as satisfied women more likely to comply with treatment, take an active role in their care, continue using the services, and stay with health care providers. It is considered an important indicator of efficient utilization of health services because it assesses the extent to which the service meets a person's requirements and needs (Titaley et al., 2010). A cross-sectional study aimed to assess the prevalence of women's satisfaction with ANC in Kazakhstan found that 90% of the women were satisfied with the ANC (Dauletyarova et al., 2018). A cross-sectional study carried out by Ranabhat et al. (2019) in Nepal aimed to measure pregnant women's satisfaction regarding ANC services provided by the health institution. The sample of the study consisted of 85 pregnant women via a face-to-face interview method

using modified Quality of Prenatal Care Questionnaire. The results showed that 48.20% of study participants had a low level of satisfaction and only 24.70% had a high level of satisfaction regarding the quality of ANC. Another cross-sectional study conducted in Nepal aimed to assess the quality of ANC services in selected health facilities. The sample of the study consisted of 207 participants. The results indicated that 48.3% of the respondents were satisfied with the services they received and 43% of the respondents reported that they received good quality ANC services (Bastola et al., 2018). Another cross-sectional facility-based survey aimed to assess clients' satisfaction with skilled ANC services in Ethiopia reported that 68% of women were satisfied with skilled ANC services (Lakew et al., 2018).

Traditionally, client satisfaction has been linked to the quality of services given and the extent to which specific needs are met. Satisfied clients are likely to come back for the services and recommended service to others. In general satisfaction and dissatisfaction indicate the client's judgment about the strengths and weaknesses of the service (Enabor et al., 2013).

Fseha (2019) carried out a cross-sectional study aimed to assess mothers' level of satisfaction with the ANC services in Ethiopia. The sample of the study consisted of 284 pregnant women. The results showed that 38% of study participants were 20 – 24 years age group, 34.8% were nulliparous and 36.6% were multiparous. The results also showed that overall satisfaction was 83.9%. More specifically, 36.4% were very highly satisfied, 57.5% had good satisfaction, while 16.1% were not satisfied. Another cross-sectional study aimed to assess the level of maternal satisfaction with delivery service found that level of maternal satisfaction was 30.4% (Yarinbab et al., 2019), and Acharya et al. (2018) found that 38% of clients were very satisfied with the ANC services provided. Another cross-sectional study aimed to assess and compare patients' satisfaction with the quality of ANC

services received in Nigeria. A total of 500 women were interviewed within 48 hours after delivery. The mean age of study participants was  $29.7 \pm 4.95$  years, 61.4% were primiparous. Almost all (98.4%) women were very satisfied with the quality of ANC received (Bello, 2018). Another study carried out in Palestine, showed that the midwife-led model was associated with statistically significantly higher satisfaction with care during the antenatal, intrapartum, and postnatal periods (Mortensen et al. 2019).

A descriptive study aimed to assess pregnant women's satisfaction with the quality of ANC at MCH in Egypt. The sample of the study consisted of 350 pregnant women. The results showed that 58.9 % of study participants were dissatisfied with the overall ANC services, 26.9% were moderately satisfied and only 14.2% were highly satisfied (Ismail and Essa, 2017). Besides, a cross-sectional study carried out in Iraq. The sample of the study consisted of 400 women; their mean age was 25.86 years. The results indicated that most of the women attending ANC are fairly satisfied with the care provided, 4.5% expressed dissatisfaction with the overall quality of care (Dhahi et al., 2015).

#### **2.2.4 Factors affecting clients' satisfaction with antenatal care**

The determination of satisfaction is a complex and dynamic process. Women's satisfaction with the quality of antenatal care is an important determinant of their utilization and continuation with the service. Various factors influence the client's satisfaction with health care. Srivastava et al. (2015) investigated what determines women's satisfaction with maternal healthcare, and found that being treated respectfully, in terms of courtesy and no-abuse, irrespective of socio-cultural or economic context, is especially important to women. Also, interpersonal behavior was the most prominent reported determinant of maternal satisfaction, more than structural factors as cleanliness and physical environment.



Moreover, Enabor et al. (2013) reported that several factors play a role in shaping satisfaction including the attitude of staff, cost of care, time spent at the health facility, and communication with health care providers. A cross-sectional study to assess pregnant women's perception of ANC and their satisfaction with different aspects of care in Mansoura, Egypt. The sample of the study consisted of 600 pregnant women. The results showed that high satisfaction (>90%) was reported for waiting time for laboratory results, answering inquiries and help by staff, trust the doctor followed by the cleanness of the center, privacy, most of the accessibility items, most of physician performance items. Satisfaction (<30%) reported for the location of the center, health education methods, explanation of the problems by physicians. All females who came for repeated visits confirmed the application of follow up measures in each visit by doctors. The majority of the female (>75%) received proper nutritional care and fetal examination, performed ultrasound examination and only 65% received tetanus toxoid. Moreover, <40% reported home visits, familial participation in care, had blood, and stool analysis. Pregnant women were satisfied with most of the health education messages. Information about teeth care, breast care, and clothing achieved the lowest satisfaction (Montasser et al., 2012).

Other factors that have been shown to influence satisfaction are respect for the mother and her dignity, emotional support by the staff, contact with friends and family, information and guidelines, physical comfort, trust in treatment providers, autonomy and participation in decision-making, and confidentiality (Matejic et al., 2014). Furthermore, educational level, and occupational statuses were predictors of satisfaction (Asifere et al., 2018). Another study aimed to examine the extent to which socio-demographic variables affect women's satisfaction regarding ANC in Italy. The mean age of study participants was  $34.4 \pm 4.9$ . Women's satisfaction increased significantly with age, and among highly educated women, while the number of previous pregnancies was insignificant (Tocchioni et al.,

2018). Furthermore, a cross-sectional facility-based survey conducted in Ethiopia found that the most common specific component of ANC that had good-satisfaction by the respondents was privacy during examination accounted for 81.7%. Besides, respondents who have > 2 previous ANC visits were 3 times more likely to have satisfaction with ANC services as compared to those with < 1 visit. Women whose current visit was the fourth were 9 times more likely to be satisfied with ANC services than those who were in the first visit. Women with a family monthly income of \$US 25 - 100 per month were 60% less likely to have satisfaction by skilled antenatal care services than those who had a monthly household income below \$US 25. Absence of a sonar test, no doctor, and long waiting time were the most common causes of dissatisfaction (Lakew et al., 2018).

Consumer satisfaction plays an important role in the quality of care reforms and health-care delivery (Haines et al., 2013). Patient satisfaction is a reflection of the patient's judgment of different domains of health care, including technical, interpersonal, and organizational aspects (Matejic et al., 2014). International literature suggests that satisfaction with different aspects of received ANC improves health outcomes, continuity of care, and adherence to treatment, and the relationship with the provider. The WHO recommends monitoring and evaluation of maternal satisfaction with public health care services, to improve the quality and efficiency of health care during pregnancy (Bleich et al., 2009). A cross-sectional study aimed to assess the prevalence of women's satisfaction with ANC and associated factors in Kazakhstan. The sample consisted of 1496 women. The results showed that Women who were dissatisfied had lower education. These women would have preferred more checkups, shorter intervals between checkups, more time with care providers, and shorter waiting times. The overall dissatisfaction was associated with long waiting times and insufficient information on general health in pregnancy, results of laboratory tests, and treatment during pregnancy (Dauletyarova et al., 2018). Another study

carried out in Saudi Arabia showed that satisfaction was significantly higher among women who have 4 visits. More than 50% of women said that they did not receive any information about the process of labor, breast-feeding, or contraception. The study concluded that pregnant women did not want frequent visits to antenatal clinics, and efforts should be made to provide information about labor, breast-feeding, and contraception (Kamil and Khorshid, 2013).

During ANC visit, pregnant women are educated on some important topics such as nutrition, medication, lifestyle, exercise, personal and environmental hygiene, safety in the environment, other factors include employment of the women, education of the women and spouse, household income, exposure to media, obstetrical complications, parity, age, religious belief, culture, and pre-conception of pregnancy (Africa Progress Panel, 2010).

According to the National Institute of Population Studies (NIPS) in Pakistan, different factors influence the awareness regarding the importance of ANC to include the role of education, income, support of the family, and equitable distribution of health services between different segments of the population. It has been documented that the educational status of the females is improving leading to an increase in the awareness regarding the importance of ANC. It is suggested that educated mothers make a conscious decision of availing ANC services from government or private hospitals. The estimates also support that, maternal deaths can also be reduced by capacity building of the health personals both at the government and private sector who can identify the pregnancy-related complication and at the same time providing health education to the expectant mother (NIPS, 2017). A cross-sectional study carried out by Ranabhat et al. (2019) in Nepal found that several factors that affect women's satisfaction with ANC including support and respect (34.47%) information sharing (25.16%) anticipatory guidance (24.69%) sufficient time (18.92%) approachability (15.68%), and availability (14.27%). Another study carried out in

Ethiopia among 280 women found that ANC visits, delivery at the health center, and stay at labor less than six-hours were significantly associated with maternal satisfaction (Yarinbab et al., 2019).

In the contrary, some women are dissatisfied with the received ANC services. Factors that were linked with dissatisfaction include poor attitudes of healthcare providers, ineffective communication, not explaining procedures, neglect, not attending to clients promptly, not involving clients in the care, unfriendliness, and financial factors. Dissatisfaction results in subsequent non-utilization of perinatal care in the future, resulting in increased maternal mortality (Iloh et al., 2012; Dzomeku, 2011). Other causes of dissatisfaction included dirty hospital environment, inadequate water supply, hospital facilities, a distance of hospital location, cost of materials, time-wasting, inadequate staffing, and poor attitude, and verbal and physical abuse (Odetola and Fakorede, 2018). A cross-sectional study carried out to assess clients' satisfaction with health care providers' communication and associated factors among pregnant women attending antenatal care in Ethiopia. The sample of the study consisted of 322 clients. The results showed that the overall clients' satisfaction with providers' communication accounted for 52.2%. The highest satisfaction (70.8%) was reported on providers' support and respect. Also, 54.7% and 43.5% of clients were dissatisfied with providers' information provision and clients' consultation time respectively. educational, and occupational status were predictors of satisfaction (Asifere et al., 2018).

Also, health facility-related factors such as unavailability of suitable drugs, unavailability of skilled health care providers, poor attitude and poor professional conduct, failure to respect privacy, and confidentiality of pregnant women resulted in dissatisfaction and not attending ANC services. Moreover, poor client-provider communications and unfriendly behaviors of providers are major factors that inhibit women's satisfaction (Boerleider et al.,

2013). A cross-sectional study carried out by Bello, (2018) found that health facility and mode of delivery were found to be significantly associated with the satisfaction of the ANC, and factors predicting high quality of ANC are availability and support and respect of health care workers.

Exchange of information, responding to emotions, managing uncertainty, and fostering trusting relationships are critical features of successful interpersonal communication between clients and providers, which increases client satisfaction (Kozhimannil, 2015). A study conducted in Nigeria to assess the associations between patient satisfaction and patient ratings of the provider's interactions, care processes, out-of-pocket costs, and quality of facility infrastructure. The sample of the study consisted of 1336 women who received ANC. The results showed that 90% of study participants were satisfied with ANC. Their satisfaction was positively associated with responsive service (prompt, unrushed service, convenient clinic hours and privacy during consultation), treatment-facilitation (medical care-related provider communication and ease of receiving medicines), staff empathy, non-discriminatory treatment regardless of client's socioeconomic status, provider assurance (courtesy and patient's confidence in provider's competence), and many clinical examinations received (Onyeajam et al., 2018).

Also, Asefa et al. (2020) carried out a hospital-based cross-sectional study to assess factors associated with the satisfaction of mothers with ANC in Ethiopia. The results showed that the likelihood of satisfaction from ANC service was higher among mothers who started ANC visit before 16 weeks of gestation, the routine investigation is done, respect, privacy, and waiting time are factors associated with satisfaction with ANC. Moreover, Fseha (2019) found that several factors affect the level of satisfaction as the majority (90.8%) of women were satisfied by the cleanliness of the examination area and 89% were satisfied by waiting time to see a health care provider. Another cross-sectional study carried out in

Malaysia by Rahman et al. (2016) aimed to assess the level of satisfaction among women on the quality of ANC showed that the studied women were satisfied with the antenatal care services. Respondents with a secondary level of education were less satisfied compared with respondents having a primary level of education. However, those who did not spend any money as out of pocket expenses were more satisfied with ANC.

A descriptive study aimed to assess pregnant women's satisfaction with the quality of ANC at MCH in Egypt. The sample of the study consisted of 350 pregnant women. The results showed that 58.9 % of study participants were dissatisfied with the overall ANC services, 26.9% were moderately satisfied and only 14.2% were highly satisfied (Ismail and Essa, 2017). Also, it is worth saying that structural preparedness and having adequate equipment are necessary to improve the quality of care and satisfaction of clients. In this regard, a cross-sectional study carried out in Iraq reported that to improve ANC, the mothers suggested providing the PHCCs with ultrasonography which was the prime concern by 61.25% followed by 41.25% who regard the crowdedness and reception, and 33.75% suggested provision of the dentist. Moreover, 6.25% suggested an increasing number of doctors, 3.75% suggested provision of female staff at the maternal health care unit, 2.5% mentioned the location of the health center and 5% mentioned the location of the maternal care unit within the health center (Dhahi et al., 2015).

### **2.2.5 Importance of antenatal care**

The health of future generations is to a great extent determined by the baby's growth and development during pregnancy. The success of fetal life determines not only the health of the newborn but also has a major impact on adult health and disease risk. Therefore, good perinatal health is important to individuals, society, and future generations (Barker et al., 2013). Most problems at birth are caused by prematurity, fetal growth restriction,

congenital abnormalities, or asphyxia. With access to ANC, especially in early pregnancy, many of these problems can be prevented or anticipated. Particularly relevant in this respect are modifiable lifestyle risks such as smoking, drug abuse, obesity, malnutrition, inadequate folic acid intake, and occupational exposures (Fraser, 2013).

Despite major advances in health care, about 830 women die every day due to pregnancy-related complications according to WHO estimates, and major reasons for these maternal deaths in developing countries can be avoided if the women receive quality care during pregnancy (WHO, 2019). Antenatal clinics are a key strategy to decrease maternal mortality in low-income resource settings, and it is important to pregnant women as it helps prevent maternally and child mortality as well as pregnancy complications. To achieve the full life-saving potential that ANC promises for women and babies, the mother should have a minimum of four antenatal (WHO, 2011). ANC can help women prepare for delivery and understand warning signs during pregnancy and childbirth. It can be a source for micronutrient supplementation, treatment for pregnancy-induced hypertension to prevent pre-eclampsia and eclampsia. ANC acts as a route to provide immunization against tetanus, medication to prevent mother-to-child transmission of diseases (WHO, 2014).

It is acknowledged globally that the low use of ANC and maternal health services have directly contributed to the high rate of adverse birth outcomes (Fotso et al., 2009). ANC continues to be one of the safest maternal care interventions aimed at reducing maternal and perinatal morbidities. Among other reasons, ANC utilization ensures effective management of prenatal morbidities, facilitates delivery, postpartum care and to manage complications to improve the health outcomes of mother and fetus (Ntambue et al., 2016; Dahiru and Oche, 2015). Nonetheless, the entire healthcare system arrangement with effective referrals, packages, and the quality of ANC is paramount for the satisfaction of antenatal care. Hence, there is little evidence on the satisfaction, content and quality of

antenatal care offered to pregnant mothers in developing countries (WHO, 2014). Studies have suggested that a low rate of ANC attendance and institutional delivery in most developing countries are borne by the dissatisfaction pregnant women experience from caregivers.

ANC provides numerous maternal and infant health benefits, and it is more likely to be effective if women begin receiving care early and continue their care throughout pregnancy. ANC provides comprehensive health services to the expected mother as it ensures that any complication during pregnancy will be addressed and that is why it has been an important pillar of the Safe Motherhood Initiative (Majrooh et al., 2014). According to a report by Kihara et al. (2015), anemia, hemorrhage, hypertensive disorders, and gestational diabetes are some of the major causes of maternal death during pregnancy. Antenatal checkups enhance maternal wellbeing and prevent complications by timely advice and treatment. It is important to say that early initiation of antenatal visits during the first trimester and quality ANC over the pregnancy period has been recognized as improving pregnancy outcomes and increasing newborn survival (Hawkes et al., 2013; Arunda et al., 2017). However, in developing countries, only 25% of pregnant women-initiated ANC before 14 weeks gestation and 48% of pregnant women did not complete 4 ANC visits (Ann-Beth et al., 2017). Several factors have been associated with late initiation of antenatal visits including older age, higher parity/multiparity, lower education level, hidden costs, lack of male support, pregnancy-related cultural beliefs, unplanned pregnancy, and health system-related issues such as shortages of supplies and drugs (Yaya et al., 2017; Exavery et al., 2013).

In my opinion, ANC is very important for the safety and benefit of the mother and the baby. In Palestine, ANC service is free of charge service offered by governmental Primary Health Care Centers and in UNRWA health centers. Therefore, there is no excuse for



pregnant women not making antenatal visits. Through ANC services, the nurse or midwife can assess the mother and examine the progress of the pregnancy, assess the fetus, and detect any abnormality. Early detection of pregnancy-related complications is of great benefit for the mother and her baby, and appropriate interventions will be taken to manage the detected complications. Moreover, during the antenatal visit, the nurse or midwife can take the chance for health education, give instructions for a well-balanced nutritional diet, and prepare the woman for delivery. Also, antenatal clinics either governmental or UNRWA clinics are available and accessible for all pregnant women, thus, there is no reason for pregnant women not attending antenatal clinics in GS.

### **2.3 Summary**

Clients' satisfaction with the healthcare they receive is very important for the utilization of the service. ANC is an important health service that is available in many PHCCs in GS. During antenatal visits, the midwife examines the progress of the pregnancy, and check vital signs, and other investigations such as weight, fetal heart monitoring, checking hemoglobin and giving advice and instructions to the pregnant woman. Clients' satisfaction is an important indicator of the quality of health services, which will enhance the utilization of ANC, detect complications early, and improve pregnancy outcomes. Therefore, health care providers need to provide quality ANC which in turn will have a positive impact on the well-being of the mother and her fetus.

## **Chapter Three**

### **Materials and Methods**

This part describes the methods and techniques that were used in the research process. These included the research design, population, sample and sampling method, instruments used for data collection, interventions, data collection procedure, and data analysis.

#### **3.1 Study design**

The design of this study was a descriptive cross-sectional design to assess the level of satisfaction with ANC and identify the factors associated with pregnant women's satisfaction with ANC at governmental clinics in the GS. The researcher preferred to use this design as it is appropriate for describing the status of phenomena, testing relationships among variables, and involving the collection of data during a single period of data collection (Polit and Beck, 2012).

#### **3.2 Setting of the study**

The study was conducted at the biggest five governmental antenatal clinics (level IV) in GS at the five governorates; namely North Gaza governorate, Gaza governorate, Mid-zone governorate, Khan Younis governorate, and Rafah governorate. The study included Jabalia Martyrs PHCC, El Rimal Martyrs PHCC, Der El Balah Martyrs PHCC, Khanyounis Martyrs PHCC, and Rafah Martyrs PHCC.

#### **3.3 Study population**

The study consisted of all pregnant women with at least four antenatal visits who accessed within the period of the study.

### **3.4 Eligibility criteria**

#### **3.4.1 Inclusion criteria**

All pregnant women who had attended ANC four or more times participated in the study.

#### **3.4.2 Exclusion criteria**

Pregnant women with less than four visits were excluded from the study.

Those who refuse the participation.

### **3.5 Period of the study**

This study has been conducted from March 2019 until March 2020. Data collection has been carried in about three months.

### **3.6 Study variables**

#### **3.6.1 Dependent variable**

Pregnant women satisfaction

#### **3.6.2 Independent variables**

They were educational status, socio-economic status, waiting time, contact time, the attitude of health workers, cleanliness of the environment, clarity of diagnosis and treatment, health educational talks, safety of clients", willingness to recommend the facility, willingness to comply with treatment and return for follow-ups.

### **3.7 Sample size and sampling process**

Sample size calculated by the Epi-Info program by using population size 1540, Expected frequency 50%, confidence limited (margin of error) 5% at 95% confidence level. As illustrated in (Annex 7), the result of the sample size according to the Epi-Info program was 307 participants and the researcher increased the sample size to 320 to cover non-respondents and withdrawals.

Convenience sampling method employed in this study to recruit pregnant women for the study.

From Jabaliya Martyrs PHCC the number of participants was 57 pregnant women.

From El Rimal Martyrs PHCC the number of participants was 137 pregnant women.

From Der El Balah Martyrs PHCC the number of participants was 51 pregnant women.

From Khan Younis Martyrs PHCC the number of participants was 46 pregnant women.

From Rafah Martyrs PHCC the number of participants was 29 pregnant women.

#### **3.7.1 Sampling procedure**

Participants were identified by conducting a non-probability convenience sample of pregnant women visiting governmental antenatal clinics during the data collection period. 311 pregnant women participated in the study with a response rate of 97.2%.

To overcome the weakness of convenience sampling, the researcher visited each clinic three times on different days (Sunday, Tuesday, and Thursday). Clients who met inclusion criteria were asked to participate in the study, and those who agreed were included in the study.

### **3.8 Instrument of the study**

A self-administered questionnaire was formulated in both Arabic and English versions (Annex 4 & 8). Arabic version used for this study. The quantitative data was collected through a structured pre-tested questionnaire. The questionnaire translated into the Arabic language to facilitate understanding of the items of the questionnaire. The questionnaire included the following domains:

- Sociodemographic characteristics: includes the age of mothers, educational level, work, income, and parity.
- Satisfaction with antenatal visits: consisted of 9 items.
- Satisfaction with provided information: consisted of 8 items.
- Satisfaction with provided care: consisted of 5 items.
- Satisfaction with place: consisted of 15 items.

The questionnaire contained questions which required (yes or no) answer. Rating of satisfaction with services provided at the ANC on a 5-point Likert scale:

Very dissatisfied (1) dissatisfied (2) neutral (3) satisfied (4) very satisfied (5).

The responses of each item about quality of ANC were ranked on a 5-point Likert scale:

Strongly disagree (1) disagree (2) neutral (3) agree (4) strongly agree (5).

### **3.9 Data collection technique**

Data was collected by the researcher during the study period. The time estimate for questionnaire filling is 15 - 20 minutes. The purpose of the study was explained to the participants after obtaining their permission to participate in the study. The procedure of data collection was consistent for each subject.

### **3.10 Validity and reliability**

#### **3.10.1 Face and content validity**

The questionnaire was evaluated by a panel of experts in the field of MCH and research methodology (Annex 2) to evaluate the adequacy of the instrument and to identify whether the questions agreed with the scope of the items and the extent to which these items reflect the concept of the research problem.

#### **3.10.2 Reliability of the instrument**

The reliability of an instrument is the degree of consistency of the questionnaire. For this purpose, the reliability coefficient measured using Cronbach's coefficient alpha; that a result was above 0.70 so it was accepted for a pilot sample as well as for the actual study (Polit and Beck, 2012).

The researcher performed a pilot study on 30 subjects to test the reliability of the questionnaire by using the Cronbach's alpha method, as the value of alpha for the domains and the total scores of the items was 0.778, which means that the questionnaire has good reliability and no changes made on the questionnaire. The questionnaires that were used in the pilot study included in the actual sample of the study.

**Table (3.1): Cronbach's alpha coefficient for reliability**

<b>Item</b>	<b>Cronbach's Alpha</b>	<b>No. of Items</b>
Satisfaction with the provided information	0.810	8
Satisfaction with the provided care	0.723	5
Satisfaction with the place of provided care	0.803	5
Total score	0.778	

### **3.11 Data entry and statistical analysis**

The researcher used Microsoft Excel and Statistical Package for Social Sciences (SPSS) version 23.0 programs for statistical analysis. The first stage of data entry was through constructing the entry base and coding of variables, followed by actual data entry. At the analysis stage, data cleaning and data management for the variables of interest were performed. Descriptive analysis including figures, frequency tables, and cross-tabulation were used to describe the main features of the data. Two points scale (Statements with yes and no answers) were recoded into one for yes and zero for no answers. Three points scale questions recoded into one for disagree to three points for strongly agree. Five points Likert scale questions recoded into one point for strongly disagree to five points for strongly agree. Satisfaction domains were calculated by summation of all gained points for the questions in one domain multiply by 100 over the highest score for the domain. Then, overall satisfaction is calculated as a percentage mean by summation of satisfaction score for all domains divided by 5 (number of satisfaction domains). The researcher adopted the mean of the satisfaction scores (80.5%) as a cut point below which the women were considered to be dissatisfied about ANC service. A Chi-square test was used to examine the relationship between satisfaction categories and independent variables. Fisher's exact test was used in case of violation of assumption Chi-square (one or more cells have expected count less than 5). Women about ANC service provided. We used binary logistic regression to predict variables affecting the satisfaction of women about the service. Confidence interval considered at 95% and p-value  $\leq 0.05$  is statistically significant.

The content analysis method was used to analyze the open-ended question "suggestions about the services provided" by categorization of related ideas to gain the most frequent suggestions.

### **3.12 Ethical and administrative considerations**

Before conducting the study, the researcher obtained approval from the College of Health Professions at Al-Quds University. Ethical approval obtained from the Helsinki Committee in Gaza Strip (Annex 5) then the researcher obtained approval from MoH (Annex 6).

Every participant in the study received an explanation of the research purposes, they informed about the voluntary participation in the study, and confidentiality was given and maintained (Annex 3).



## Chapter Four

### Results and discussion

This chapter illustrates the main findings of the study and discusses them. Descriptive analysis of demographic characteristics of study participants was performed. Then, the distribution of participants according to factors related to the previous and current pregnancy. Furthermore, the distribution of women according to their perspectives about the services provided during the current pregnancy. Inferential analysis was performed; the main findings were interpreted and discussed to achieve the study objectives.

#### 4.1 Descriptive results

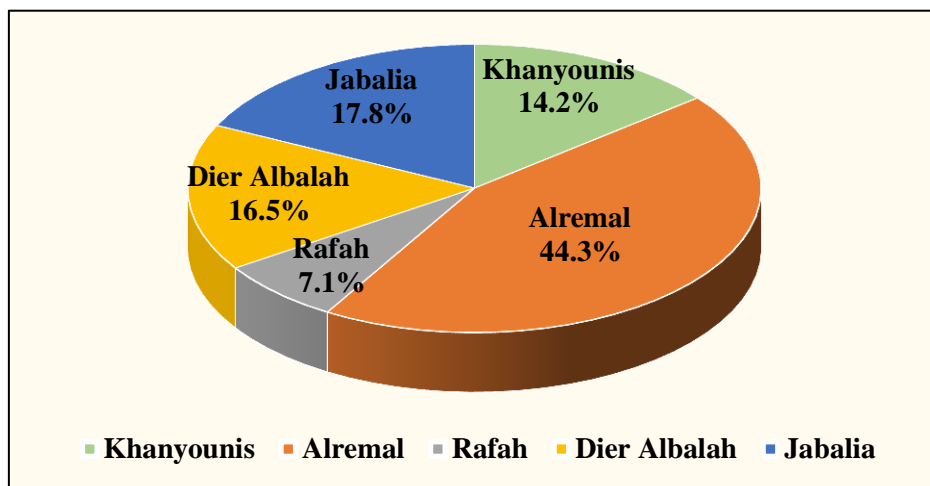
##### 4.1.1 Sociodemographic characteristics of study participants

**Table (4.1): Sociodemographic characteristics of study participants**

Variable	Categories	n (%)
Age  n= 305	17- 25 years	129 (42.3)
	26- 30 years	96 (31.5)
	More than 30 years	80 (26.2)
	Mean± SD (Min- Max)	27.3± 5.8 (17- 45)
Level of education  n= 307	Illiterate	6 (2)
	Less than high school	101 (32.9)
	University	190 (61.9)
	Master / PhD	10 (3.3)
Women working status	Does not work	264 (84.9)
	Working	47 (15.1)
Husband working status	Does not work	94 (30.3)
	Working	216 (69.7)
Income  n= 299	Less than 1973 NIS	266 (89)
	Between 1973 and 2740	24 (8)
	More than 2740 NIS	9 (3)

Demographic characteristics demonstrates in Table (4.1). Three hundred and eleven women participated in this study with a mean age of 27.3 years old (range: 17- 45) Years and this reflect the reproductive age of Palestinian women as it was previously reported by PCBS (PCBS, 2015). The majority of participants (61.9%) holding a bachelor's degree and

not work (84.9%). Regarding their husband's work, more than two thirds (69.7%) are working in different specialties and disciplines. The majority of them (89%) lie within the income category less than 1973 NIS which was stated as a deep poverty line by the Palestinian Central Bureau of Statistics (PCBS, 2017). This mainly reflects the deteriorated economical Palestinians situation especially in the GGs as an impact of the Israeli-imposed blockade and the several attacks on GG in the recent years



**Figure (4.1): Distribution of study participants by a health center**

Figure (4.1) shows the distribution of participants according to their follow up centers. Forty-four percent are followed at the Alremal clinic. Other participated clinics are Jabalia, Dier Albalah, Khan Younis, and Rafah in percentages 17.8%, 16.5%, 14.2%, and 7.1% respectively.

**Table (4.2): Distribution of study participants by obstetric history**

Variable	Categories	n (%)
Number of normal pregnancies	Less than or equal 3	203 (65.3)
	More than 3	108 (34.7)
Mean± SD (Min- Max)	3.14± 2.09 (0-11)	
Number of risk pregnancies N=311	NO	241 (77.5)
	1-2 risk pregnancy	55 (17.7)
	3 and more	15 (4.8)
Mean± SD (Min- Max)	0.27± 0.54 (0-2)	
Number of births	Less than or equal 3	240 (77.9)
	More than 3	68 (22.1)
Mean± SD (Min- Max)	2.3±2.0 (0- 10)	
First visit	Before 12 weeks of pregnancy	102 (33.3)
	After 12 weeks of pregnancy	204 (66.7)
Number of visits n= 3011	1	292 (93.9)
	2	19 (6.1)
Pregnancy period (weeks) n= 296	25 weeks and less	46 (15.5)
	26- 30 weeks	92 (31.1)
	more than 31 weeks	158 (53.4)
Mean± SD (Min- Max)	30.8± 5.2 (16-40)	
Sources of information n= 308	Primary care center	259 (84.1)
	Your physician	45 (14.6)
	Other sources	4 (1.3)

Table (4.2) illustrates the distribution of study participants by the previous and current pregnancy.

Sixty percent of the study participants had experienced less than or equal to three pregnancies. About 78% did not previously classify as risk pregnancy, and 77.9% have three births and less.

More than two thirds (66.7%) registered after 12 weeks of pregnancy which is inconsistent with the WHO recommendation 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, 2016).

Also, the result is inconsistent with the previous study which showed the majority of its participants (94%) registered before 12 weeks of pregnancy (Nassar, 2018). The discrepancy between the two results may be because the different methodology as the current study considered a cross-sectional one while the compared study was a retrospective, which may be exposed to recall bias.

The majority of participants (93.9%) have one visit a month. 15.5% of the participants are at their 25 weeks and less of their pregnancy. Also, about a third (31.1%) are 26- 30 weeks of pregnancy, and more than half (53.4%) are more than 30 weeks of pregnancy. The generality 84.1% have primary health care as their source of information. However, the minority depend on their physicians or other sources (14.6, and 1.3%) respectively.

#### 4.1.2 Perspective about antenatal care services

**Table (4.3): Women perspectives about ANC services provided during the current pregnancy**

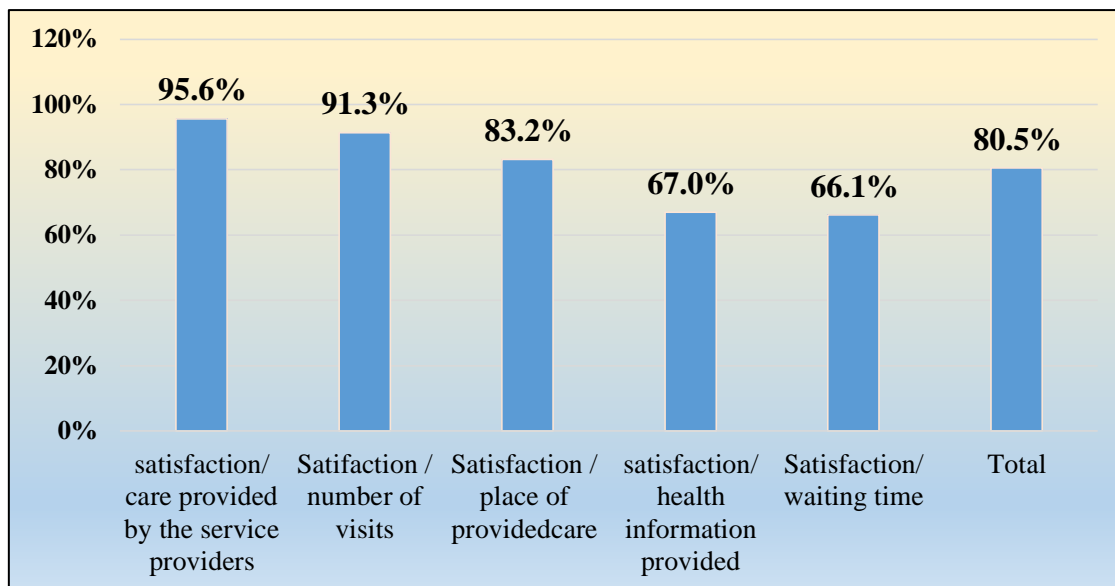
Variable	Categories	n (%)
Are you satisfied with the number of visits during this pregnancy? N= 310	No	27 (8.7)
	Yes	283 (91.3)
If the answer is No n= 27	Need more visits	23 (85.2)
	Need less visits	4 (14.8)
Number of examinations by the midwife or doctor during pregnancy (n= 309)	More than expected	12 (3.9)
	Less than expected	41 (13.3)
	As expected,	256 (82.8)
The time between checks by the midwife or doctor n= 310	A little bit	21 (6.8)
	Very long	10 (3.2)
	Appropriate	279 (90)
How long do you wait in the clinic before being examined by the midwife? n= 297	Less than 60 minutes	184 (62)
	60 minutes and more	113 (38)
Are you satisfied with the waiting time? n= 307	No	104 (33.9)
	Yes	203 (66.1)
Time spends with midwives n= 311	Less than 10 minutes	146 (46.9)
	10 minutes and more	165 (53.1)
Perception about the time spend with midwives n= 311	Time is too short	41 (13.2)
	Time is too long	8 (2.6)
	Time is appropriate	262 (84.2)
Women preference to being checked by	Physician	164 (53.1)
	Midwife	145 (46.9)

Table (4.3) demonstrates the distribution of the participants according to their visits during the current pregnancy. The majority 91.3% are satisfied with the number of visits, and only

8.7% are dissatisfied with the number of visits in that 85.2% of them need more visits and 14.8% needless. Regarding the number of examinations by the midwife or doctor during pregnancy, 82.8% see that it is as expected. Also, 90% of the participants perceived that the time between checks by the midwife or doctor is appropriate. Two-thirds of the women wait less than 60 minutes before examined by the midwife. However, about third wait 60 minutes and more. The perceived long waiting time from this study is related to the reality of imbalance in the doctor-patient ratio as only a few doctors and other health care providers are available to attend to patients where patients will have to wait a long time before seeing a healthcare provider. Sixty-six percent of women are satisfied with the waiting time in contrast to 34% are dissatisfied. This figure is low than that of another study that showed 40% of women were dissatisfied with the waiting time during their ANC visits (Ofoegbu et al., 2018).

The mean of the time spend with the midwives is 16 minutes and more than half of the participants (53.1%) spend 10 minutes and more with the midwives and 84.2% of the participants see that the time spend is appropriate. Compared to another study, 59% of the participants were more satisfied when their providers spent more time with them and engaged them by listening to their problems (Ofoegbu et al., 2018).

Finally, 53% of the participated women prefer to be examined by the physician and about 47% preferred the midwives.



**Figure (4.2): Percentage mean scores for the satisfaction domains**

Figure (4.2) illustrates the percentage mean scores for the satisfaction domains; the total percentage mean score is 80.5%. Consistent with this finding, a study reported the overall satisfaction score is 83.9% (Fseha, 2019). Also, 89.2% in Ethiopia (Tesfaye et al., 2017), but it is higher than that of Nigeria 56.7% (Nwaeze et al., 2013)

The highest mean score (95.6%) is for the item "satisfaction about the services providers". The second-high score is satisfaction with the number of visits (91.3%). The participants responded 83.2% about the place of providing care. Generally, satisfaction with antenatal care services is high. Regarding satisfaction about the provided health information, the score gained is 67%. Also, a study reported that 54.7% of their respondents were dissatisfied with the information provided during antenatal care visits (Asifere et al., 2018). The provision of information on signs of problems, postpartum care, breastfeeding, and appropriate action to take in emergencies during pregnancy, are important issues for safe pregnancy and a better outcome.

The lowest mean score (66.1%) is reported for the domain "waiting time". The results are consistent with another study that showed a low satisfaction of pregnant women about the

information provided and waiting time during antenatal care service (Galle et al., 2015). Other studies, reported the effect of waiting time on the women's satisfaction about provided antenatal care (Matejić et al., 2014; Ofoegb et al., 2018; Wati and Sudana, 2019). Locally, Nassar. (2018) reported a low satisfaction of the pregnant women about the waiting time during their ANC visits in the Gaza Strip. Waiting time is an important factor affecting the ANC provided as the participants are housewives and are usually very busy with work at home. This domain should be considered in improving the ANC services provided at our governmental clinics.

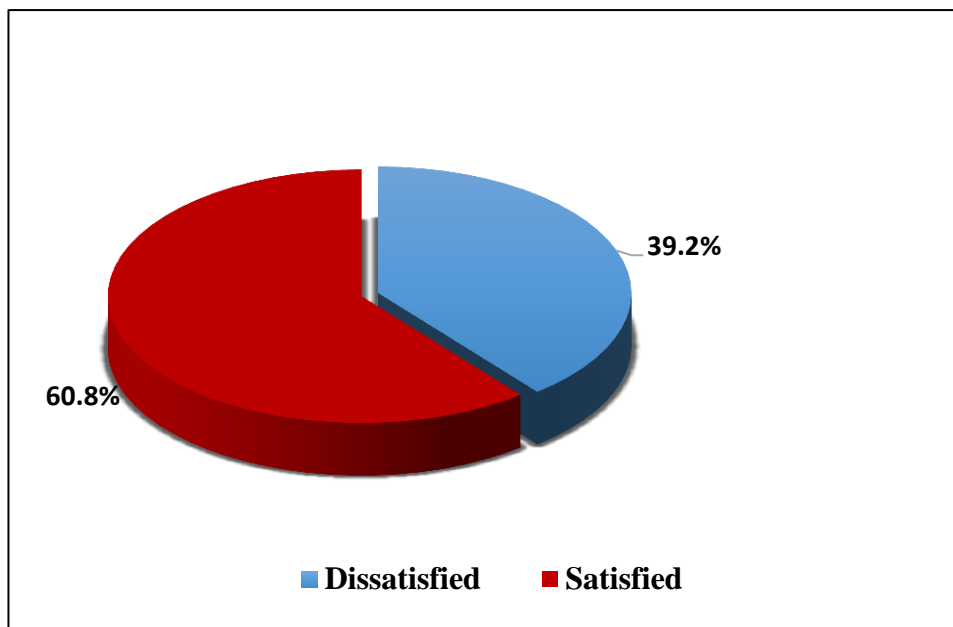
The Percentage mean of the participants' satisfaction score is 80.5 (range: 18.6- 100). The researcher used the mean as a cut point to divide the participants into satisfied and not satisfied.

**Table (4.4): Descriptive analysis of participants' overall satisfaction**

<b>Variable</b>	<b>Mean <math>\pm</math> SD (min-max)</b>
Overall Satisfaction	80.5 $\pm$ 14.1 (18.6- 100)

Table (4.4) clarifies the descriptive analysis of participants' overall satisfaction. The percentage mean of the participants' satisfaction score is 80.5 (range: 18.6- 100). The researcher used the mean as a cut point to divide the participants into satisfied and not satisfied.





**Figure (4.3): Distribution of participants according to satisfaction categories**

Satisfaction categories presented in Figure (4.3), about two-thirds of the participants (60.8%) are satisfied with the service provided. While 39.2% of them are not satisfied with the service provided. In comparison, about 51.7 % of participated women are dissatisfied about provided ANC services (Bastola et al., 2018). The difference between the two studies could be interpreted by the cut point as we adopted the mean as a cut point while another study adopted the median.

#### 4.1.3 Satisfaction with the information provided at antenatal visit

**Table (4.5): Distribution and percentages of participants regarding satisfaction with the provided information**

<b>Domain Satisfaction with the provided medical</b>	<b>N</b>	<b>Not Satisfied n (%)</b>	<b>Satisfied n (%)</b>	<b>Very Satisfied n (%)</b>	<b>Mean</b>	<b>Mean %</b>
Breastfeeding	309	24 (7.8)	124 (40.1)	161 (52.1)	2.4	80.0
Good and healthy nutrition for	311	8 (2.6)	174 (55.9)	129 (41.5)	2.4	80.0
Mechanism for dealing with dizziness and fatigue during pregnancy	307	61 (19.9)	213 (69.4)	33 (10.7)	1.9	63.3
Serious problems that may occur	311	64 (20.6)	218 (70.1)	29 (9.3)	1.9	63.3
Signs of amniotic membrane rupture	302	64 (21.2)	214 (70.9)	24 (7.9)	1.9	63.3
The mechanism of dealing in case of bleeding	306	68 (22.2)	212 (69.3)	26 (8.5)	1.9	63.3
If fever occurs during pregnancy	307	82 (26.7)	187 (60.9)	38 (12.4)	1.9	63.3
Signs and symptoms of bleeding	306	76 (24.8)	203 (66.3)	27 (8.8)	1.8	60.0
Total					2.0	67.0

Table (4.5) clarifies the distribution and percentages of the women regarding their satisfaction with the health / medical information domain. The mean score for their

satisfaction is 2 and the percentage mean score is 67%. A low satisfaction score (54.7%) about this domain (Asifere et al., 2018). Also, another study showed a low satisfaction of women about the information provided during their counseling in that their satisfaction with all the items of this domain did not exceed 60% (Tsfamichael et al., 2016). However, another study showed a higher level of satisfaction was related to sharing information (Ranabhat et al., 2019)

The highest percentage mean scores 80% is for two items “breastfeeding” as 40.1%, and 52.1% of the participants responded with satisfied and very satisfied respectively. Also, the other item “Good and healthy nutrition for pregnant woman” as 55.9%, and 41.5% of the participants responded with satisfied and very satisfied respectively. The result is concurrent with a master thesis study conducted at Al- Quds University, Gaza showed that the excellent information was provided about breastfeeding (94.4%), healthy diet (96.3%) and less satisfaction about information provided about the danger signs and symptoms as it did not exceed 88% (Nassar, 2018).

Also, the respondents have equal percentage mean score (63.3%) about four items, mechanism for dealing with dizziness and fatigue during pregnancy, serious problems that may occur during pregnancy, signs of amniotic membrane rupture, the mechanism of dealing in case of bleeding, if fever occurs during pregnancy. The lowest percentage mean score (60%) at this domain is for the item “Signs and symptoms of bleeding” as 66.3%, and 8.8% responded with satisfied and very satisfied respectively. The result is in line with the literature where most health workers in public facilities did not educate women on topics like danger signs and birth plans during pregnancy (Nawal, 2015).

#### 4.1.4 Satisfaction with provided care during an antenatal visit

**Table (4.6): Distribution and percentages of participants regarding satisfaction with the care provided by the service providers**

<b>Domain</b> <b>Satisfaction with the care</b> <b>provided by the service</b> <b>providers</b>	<b>N</b>	<b>Yes</b> <b>n (%)</b>	<b>No</b> <b>n (%)</b>	<b>Mean</b>	<b>Mean %</b>
Privacy is guaranteed during the scan	310	301 (97.1)	9 (2.9)	0.97	97.0
Are they listening well for the inquiries you need during the examination?	309	296 (95.8)	13 (4.2)	0.96	96.0
Sufficient information is taken on the medical history of all previous pregnancies	311	297 (95.5)	14 (4.5)	0.95	95.0
I am well treated during providing care and during the examination	310	296 (95.5)	14 (4.5)	0.95	95.0
Are you welcome to checkup?	311	295 (94.9)	16 (5.1)	0.95	95.0
Total				0.956	95.6

Table (4.6) demonstrates the distribution of participants regarding their responses about “satisfaction with the care provided by the service providers”. The total percentage of the mean score is 95.6%. The highest percentage mean score (97%) is for the item “Privacy is guaranteed during the scan” as 301 participants responded with yes.

The percentage mean score is 96% about the second item “Are they listening well for the inquiries you need during the examination?” as 296 participants responded with yes. Finally, the participants responded equally (95%) about three items “Sufficient information

is taken on the medical history of all previous pregnancies”, I am well treated during providing care and during the examination” and “Are you welcome to check up”?

Consistent with these results, the result of a recent study showed that high percentages (96.3%) of participated women were satisfied with the attitude of healthcare providers, about (94.9%) were satisfied with the advice given (Mekonnen and Asefa, 2018). About 83.2% of pregnant mothers are convinced that they treated respectfully during their ANC visits (Asefa et al., 2020). In her study, Nassar found that 88% of the participants were treated with respect during their antenatal care visits (Nassar, 2018). Also, the level of privacy during ANC service is 76.7% in another study (Fseha, 201).

#### 4.1.5 Satisfaction with the place of antenatal care

**Table (4.7): Distribution and percentages of participants regarding satisfaction with the place of care provided**

<b>Domain Satisfaction with the place of care provided</b>	<b>n</b>	<b>Strongly disagree n (%)</b>	<b>Disagree n (%)</b>	<b>Neutral n (%)</b>	<b>Agree n (%)</b>	<b>Strongly agree n (%)</b>	<b>Mean</b>	<b>Mean %</b>
The educational and occupational level of the health center working in the center was high	310	0 (0)	3 (1)	18 (5.8)	192 (61.9)	97 (31.3)	4.2	84.0
The environment was clean	311	1 (0.3)	1 (0.3)	16 (5.1)	201 (64.6)	92 (29.6)	4.2	84.0
The level of service provided for care during pregnancy on these visits was satisfactory	311	3 (1)	2 (0.6)	13 (4.2)	199 (64)	94 (30.2)	4.2	84.0
The examination room with its contents was suitable for examination	311	2 (0.6)	12 (3.9)	15 (4.8)	195 (62.7)	87 (28)	4.1	82.0
The place was ready to serve	311	1 (0.3)	14 (4.5)	18 (5.8)	197 (63.3)	81 (26)	4.1	82.0
Total							4.1	83.2

Table (4.7) shows the distribution of participants regarding their responses about “Satisfaction with the place of care provided”. The total percentage of the mean score is 83.2%. The highest percentage mean score (84%) is for three items “The educational and occupational level of the health center working in the center was high” as 61.9% and 31.3% responded with agreeing and strongly agree respectively. Similarly, the majority of

the women expressed satisfaction with the level of expertise and basic technical competence of their care providers in another study (Manzoor et al., 2019).

For the item “the environment was clean” as 64.6% and 29.6% of the participants, responded with agreeing and strongly agree respectively. In a line with this result, another study reported the appropriateness and cleanliness of the examination room among 90.8% of its participants (Fseha, 2019).

Similarly, the participants have a high score (84%) for the item “The level of service provided for care during pregnancy on these visits was satisfactory” as 64% and 30.2% responded with agreeing and strongly agree respectively. It was previously reported that 90% of the participants in another study were examined by skilled personnel (Asefa et al., 2020).

The participants responded equally (82%) about the two items. “The examination room with its contents was suitable for examination” as 62.7% and 28% responded with agreeing and strongly agree respectively. The other item “the place was ready to serve” as 63.3% and 26% responded with agreeing and strongly agree respectively.

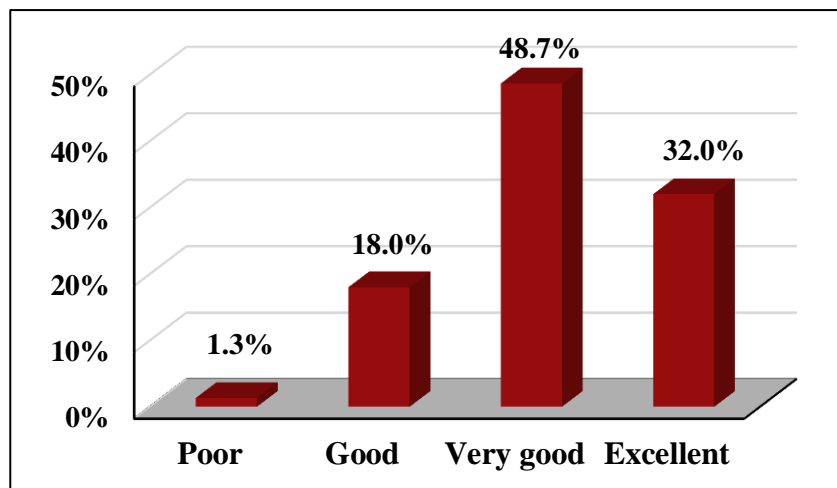
#### 4.1.6 Measurements and lab tests

**Table (4.8): Participants responses towards measurements and laboratory tests**

Variable	n	Yes	No
Weight is measured every visit	311	293 (94.2)	18 (5.8)
blood pressure measured every visit	311	283 (91)	28 (9)
The height was measured at the first visit	311	264 (85.4)	45 (14.6)
Heartbeat pulse is heard every visit	311	147 (47.4)	163 (52.6)
The abdomen is examined every visit	311	137 (44.3)	172 (55.7)

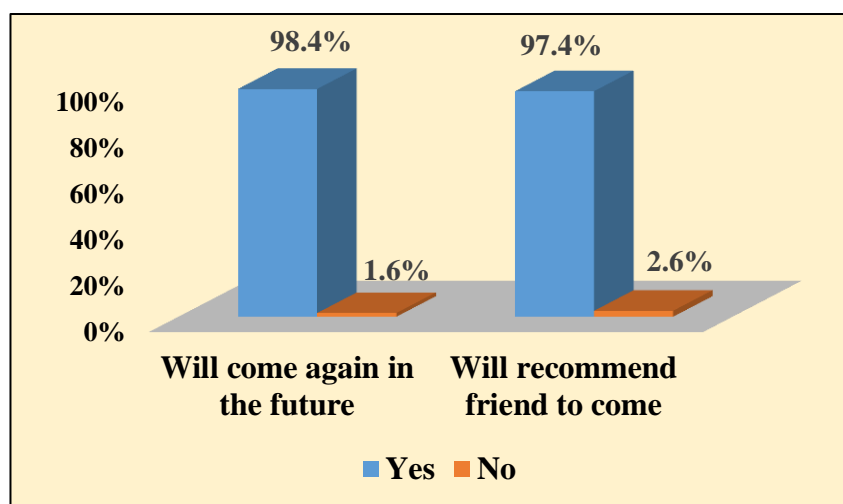
Table (4.7) demonstrates the participants' responses regarding the measurements and laboratory tests performed for the women during their ANC visits. Participants said that their weight and blood pressure were measured every visit during their ANC visits. Also, the majority of them (85.4%) said that their height was measured at the first visit. Of them, 47.4% 44.3% measured the heartbeat and abdomen every visit. Urine analysis was measured every visit in 39.9%.The routine laboratory investigation recommended for pregnant mother were conducted, even though sometimes there is a service interruption. A previous study showed healthcare service laboratory and diagnosticcare, are positively and significantly associated with patients' satisfaction (Manzoor et al., 2019).





**Figure (4.4): Quality of antenatal care services from participants' perspectives**

The majority of the participants perceived excellent and very good quality of the services provided in percentages 32%, and 48.7% respectively. However, participants perceived good and poor quality in percentages of 18% and 1.3% respectively. The results indicated in the figure (4.4). In comparison to a previous study, only 4.5% of the participants perceived a low level of quality of ANC services (Dhahi et al., 2015)



**Figure (4.5): Follow up in this center**

The majority of participants give a good impression of the centers, as they will come again to this center in a new pregnancy (98.4%). Besides, the majority (97.4%) will recommend a friend to come for the center, See figure (4.5).

#### **4.1.7 Women's suggestions about the service developments**

In this section, an open-ended question was asked for the women to express their feeling about the things that they need it to make them more satisfied about the services provided during pregnancy and the following are the most common suggestions.

- Increase room size and increasing number of health care providers to decrease crowd to increase the number of visits and to decrease the period between visits
- Increase awareness by distributing brochures to present information about the antenatal care period, safe births, health diet, and potential complications.
- Minimizing the waiting time.
- more welcoming from the doctors and midwives.
- To increase women's privacy during the examination.
- Give more information, advice about healthy diet exercises before delivery, potential complications.
- Using developed instruments such as laboratory testing, U/S in each visit.
- More dental examinations during pregnancy.
- Continuity of care, providing more medications, and multivitamins for pregnant women.
- More privacy during the examination.

## 4.2 Univariate analysis

### 4.2.1 Relationship between satisfaction and sociodemographic factors

**Table (4.9): Relationship between overall satisfaction and sociodemographic factors**

Variable	Categories	Satisfaction categories		Total	$\chi^2$	p-value
		Dissatisfied	Satisfied			
Age categories	17- 25 years	54 (42.9)	72 (57.1)	126(100.0)	3.57	0.167
	26- 30 years	29 (30.9)	65 (69.1)	94 (100.0)		
	More than 30 years	33 (41.3)	47 (58.8)	80 (100.0)		
Level of education n=302	Illiterate	3 (50.0)	3 (50.0)	6 (100.0)	2.2	0.52
	Less than high school	38 (38.4)	61 (61.6)	99 (100.0)		
	University	71 (38.0)	116 (62.0)	187 (100.0)		
	More than university	6 (60.0)	4 (40.0)	10 (100.0)		
Working status N= 306	Yes	102 (39.2)	158 (60.8)	260 (100.0)	0.00	0.56
	No	18 (39.1)	28 (60.9)	46 (100.0)		
Husband working status N= 305	40 (43.0)	53 (57.0)	93 (100.0)	40 (43.0)	0.75	0.22
	80 (37.7)	132 (62.3)	212(100.0)	80 (37.7)		
Monthly income	Less than 1973 NIS	101 (38.7)	160 (61.3)	261 (100.0)	1.07	0.58
	Between 1973 and 2740 NIS	9 (37.5)	15 (62.5)	24 (100.0)		
	More than 2740 NIS	5 (55.6)	4 (44.4)	9 (100.0)		

Table (4.9) demonstrates the relationship between participants' overall satisfaction and their sociodemographic characteristics. Chi-square test reveals that there is no relationship between the examined sociodemographic variables and participants' overall satisfaction as  $P\text{-value} < 0.05$

Consistent with this result, another study reported no differences between its participants concerning their demographic characteristics; age, education, and wealthy index

(Onyeajam et al., 2018; Ranabhat et al., 2019). In comparison, previous studies showed women's education levels negatively affected their satisfaction with maternal care (Dzomeku, 2011; Rahman et al., 2016)

#### 4.2.2 Relationship between satisfaction and organizational factors

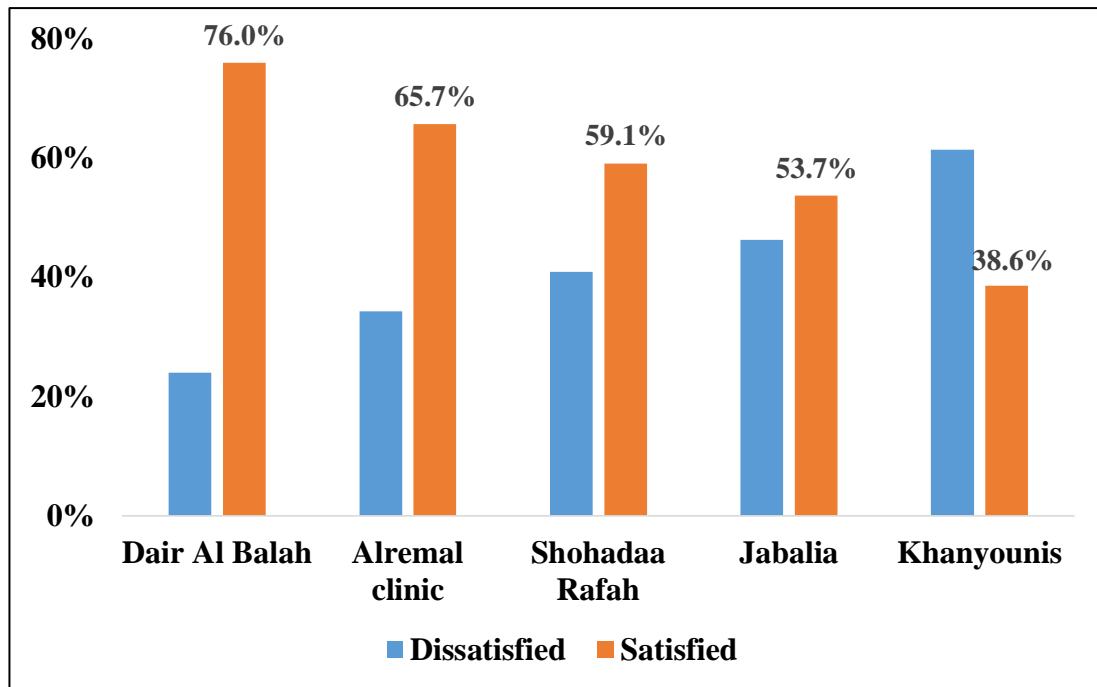
**Table (4.10): Relationship between overall satisfaction and organization factors**

Variable	Categories	Satisfaction categories		Total	$\chi^2$	p-value
		Dissatisfied	Satisfied			
Center	Khan Younis	27 (61.4)	17 (38.6)	44 (100.0)	16.4	0.002*
	Al Rimal	46 (34.3)	88 (65.7)	134 (100.0)		
	Rafah	9 (40.9)	13 (59.1)	22 (100.0)		
	Der Al Balah	12 (24.0)	38 (76.0)	50 (100.0)		
	Jabalia	25 (46.3)	29 (53.7)	54 (100.0)		
Number of visits each month	1	112 (38.9)	176 (61.1)	288 (100.0)	0.6	0.407
	2	8 (44.4)	10 (55.6)	18 (100.0)		
Sources of advice	Primary care center	100 (39.4)	154 (60.6)	254 (100.0)	0.23	0.88
	Your own physician	17 (37.8)	28 (62.2)	45 (100.0)		
	Other sources	2(50.0)	2 (50.0)	4 (100.0)		

\*Statistically significant at  $\leq 0.05$

Table (4.10) demonstrates the relationship between participants' satisfaction and organization factors. Chi-square test reveals a statistically significant relationship between the centers and the overall satisfaction ( $\chi^2 = 16.4$ , P-value = 0.002). That 76% of women that follow up their pregnancy at Dair Al Balah center are satisfied with the service provided. 65.7% of women that follow up their pregnancy at Alremal center are satisfied with the service provided. Regarding women at Shohadaa Rafah and Jabalia

centers, 59.1% and 53.7% of them are satisfied with the provided ANC services. The lowest percentage of women satisfied the service are at Khanyounis center as only 38.6% of them are satisfied with the service, figure (4.6). The lower satisfaction about the service provided at Khan Younis center could be interpreted by the long time the women wait to see the service provider which will be examined later on in the chapter.



**Figure (4.6): Satisfaction categories by centers**

Consistent with a previous study, it found that women followed at the primary health care centers have differences in their satisfaction level according to their centers (Nassar, 2018). This result may be attributed to the high waiting time, the number of examination rooms at the clinics.

Another factor is the number of visits, the chi-square test reveals that there is no statistically significant relationship between women's satisfaction concerning the number of their visits ( $P\text{-value} < 0.05$ ). More than half (55.6%) of women who have two visits every month are satisfied with the service provided, and 61.1% of women who received

one visit every month are satisfied with the service provided. In comparison, the number of women visits did not affect their satisfaction in another study (Ranabhat et al., 2019).

The third examined factor attributed to the organization is the sources of advice. Chi-square test reveals no statistically significant between women's satisfaction with the source of advice ( $P\text{-value} < 0.05$ ). In that, 60.6% of women who have advice from the primary health care center are satisfied with the service provided. Besides, 62.2% of women who have advice from her physician are satisfied with the service provided.

#### 4.2.3 Relationship between satisfaction and obstetric history

**Table (4.11): Relationship between overall satisfaction and factors related to previous and current pregnancy**

Variable	Categories	Satisfaction categories		Total	$\chi^2$	p-value
		Dissatisfied	Satisfied			
<b>Number of previous normal pregnancy</b>	$\leq 3$ pregnancies	76 (38.4)	122 (61.6)	198 (100.0)	0.16	0.38
	$>3$ pregnancies	44 (40.7)	64 (59.3)	108 (100.0)		
<b>Previous risk pregnancy</b>	No	95 (39.9)	143 (60.1)	238 (100.0)	0.305	0.85
	1-2 pregnancies	19 (35.8)	34 (64.2)	53 (100.0)		
	more than 2	6 (40.0)	9 (60.0)	15 (100.0)		
<b>First visit</b>	Before 12 weeks of gestation	41 (41.4)	58 (58.6)	99 (100.0)	0.52	0.27
	After 12 weeks of gestation	75 (37.1)	127 (62.9)	202 (100.0)		
<b>Number of births</b>	$\leq 3$ Births	91 (38.7)	144 (61.3)	235 (100.0)	0.13	0.40
	$> 3$ Births	28 (41.2)	40 (58.8)	68 (100.0)		
<b>Number of weeks pregnancy</b>	$\leq 25$ weeks	20 (44.4)	25 (55.6)	45 (100.0)	0.93	0.62
	26- 30 weeks	35 (38.9)	55 (61.1)	90 (100.0)		
	$>30$ years	57 (36.5)	99 (63.5)	156 (100.0)		

Table (4.11) examine the relationship between satisfaction and factors related to current pregnancy and the previous and chi-square test does not show a relationship with the examined variables.

#### 4.2.4 Relationship between satisfaction and time consumed

**Table (4.12): Relationship between women perspectives about the time consumed visits and women satisfaction**

Variable	Categories	Satisfaction categories		Total	$\chi^2$	p-value
		Dissatisfied	Satisfied			
Satisfaction about number of visits N= 306	Yes	94 (33.6)	186 (66.4)	280 (100.0)	44	0.000*\$
	No	26 (100.0)	0 (0.0)	26 (100.0)		
Number of examinations n= 304	More than expected	5 (41.7)	7 (58.3)	12 (100.0)	6.66	0.036*
	Less than expected	23 (57.5)	17 (42.5)	40 (100.0)		
	As expected,	91 (36.1)	161 (63.9)	252 (100.0)		
Time between midwife and doctor examination by n= 305	A little bit	15 (75.0)	5 (25.0)	20 (100.0)	11.6	0.003*
	Very long	3 (30.0)	7 (70.0)	10 (100.0)		
	Appropriate	102 (37.1)	173 (62.9)	275 (100.0)		
Waiting time before examination	less than 60 minutes	50 (27.3)	133 (72.7)	183 (100.0)	30.6	0.000*
	60 minutes and more	66 (60.0)	44 (40.0)	110 (100.0)		
Time spent with the midwife	<10 minutes	67 (46.9)	76 (53.1)	143 (100.0)	3.6	0.007*
	≥10 minutes more	53 (32.5)	110 (67.5)	163 (100.0)		
Patients' impression about the time spent during midwife examination	time is too long	3 (37.5)	5 (62.5)	8 (100.0)	14.1	0.001*
	Time is too short	26 (66.7)	13 (33.3)	39 (100.0)		
	A very good time	91 (35.1)	168 (64.9)	259 (100.0)		

\*Statistically significant at  $\leq 0.05$ , \$ fishers exact test

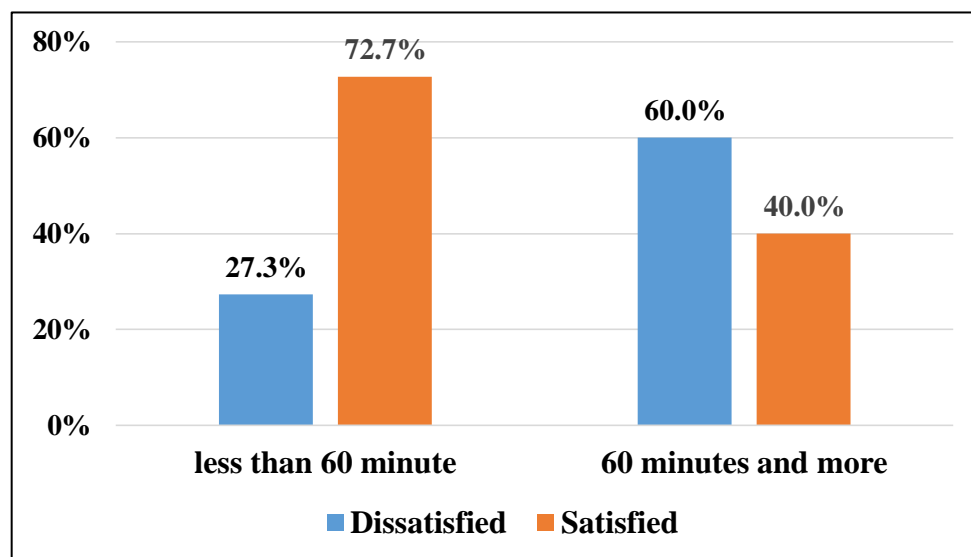
Table (4.12) illustrates the relationship between satisfaction and some variables related to visits. Regarding women's satisfaction with the number of visits, Fishers' exact chi-square test shows a statistically significant relationship between their satisfaction with the number of visits and the overall satisfaction. In that, 66% of participants satisfied with the number of visits are generally satisfied with the service and all participants that are not satisfied with the number of visits are generally not satisfied ( $\chi^2 = 44$ , P-value = 0.000). In a study by Asafo and Adoma, showed a strong association between pregnant women's



satisfaction with the ANC services at health facilities and their regular visits (four visits) to those facilities (Asafo and Adoma, 2019).

Regarding the number of examinations done, there is a statistically significant relationship between their perception of the number of examinations received and overall satisfaction ( $\chi^2= 6.6$ , P- value= 0.036).

Also, waiting time is another factor affecting women's satisfaction with ANC services. 62.9% of women perceived the time between doctor and midwives' examinations is appropriate are satisfied with the service whereas 37% are dissatisfied ( $\chi^2= 11.6$ , P- value= 0.003). Also, 72.7% of women who wait less than 60 minutes are satisfied with the service in contrast 60% of those wait 60 minutes and more are dissatisfied about the service ( $\chi^2= 30.6$ , P- value= 0.000), this is illustrated at figure (4.7)



**Figure (4.7): Relationship between waiting time and women satisfaction**

Regarding time spent with the midwife, 67.5% of those spent 10 minutes and more are satisfied with the service provided. In contrast, only 53.1% of those who spend less than 10 minutes are satisfied with the service provided ( $\chi^2= 3.6$ , P- value= 0.007).Also, patients'

impression about the time spent during midwife examination affect their satisfaction in that 64.9% of those perceived the time spend with the midwives is appropriate are satisfied with the service ( $\chi^2 = 14.1$ , P-value = 0.001).

#### 4.2.5 Relationship between satisfaction and waiting time

**Table (4.13): Relationship between waiting time and centers**

Variable	Categories	Waiting time		Total	$\chi^2$	p-value
		< 60 minutes	$\geq 60$ minutes and more			
Center	Khan Younis	15 (34.1)	29 (65.9)	44 (100.0)	38.2	0.000*
	Al Rimal	67 (53.2)	59 (46.8)	126 (100.0)		
	Rafah	14 (70.0)	6 (30.0)	20 (100.0)		
	Der Al Balah	38 (76.0)	12 (24.0)	50 (100.0)		
	Jabalia	48 (87.3)	7 (12.7)	55 (100.0)		

\* Statistically significant at  $\leq 0.05$

Table (4.13) demonstrates the relationship between waiting time and center, Chi-square test reveals a statistically significant difference between waiting time categories and center. In that, 65.9% of women followed at Khan Younis center wait 60 minutes and more during their visits. Besides, 46.8% of women followed at Alremal clinic wait 60 minutes and more. Also, the percentage of women wait 60 minutes and more at Rafah, Dier Albalah, and Jabalia in percentages 30%, 24%, and 12.7% respectively.

Waiting time emerged as an important predictor of satisfaction and long waiting time had been associated with dissatisfaction with care in many studies. A previous related study reported a longer waiting time associated with a low level of satisfaction, those who waited more than 120 minutes constituted 14.5% are dissatisfied with the service provided (Dhahi et al., 2015). In another study, waiting time has a relative contribution to the satisfaction of women about ANC service (Wati et al., 2019). In another study, waiting time is a contribution to women's satisfaction, 58.6% of participants were satisfied with the waiting

time before seeing a doctor. In another study, patients who were satisfied with waiting time for tests to be done and to get test results were 51.8% and 66.6% respectively (Ofoegbu et al., 2018).

#### 4.2.6 Relationship between satisfaction and quality of care

**Table (4.14): Relationship between the quality of ANC service and the overall satisfaction**

Variable n= 295	Categories	Satisfaction categories		Total	$\chi^2$	p-value
		Dissatisfied	Satisfied			
Perceived quality of ANC services	Poor	2 (50.0)	2(50.0)	4(100.0)	12.1	0.007* #
	Good	31 (58.5)	22 (41.5)	53 (100.0)		
	Very good	55 (38.2)	89 (61.8)	144 (100.0)		
	Excellent	28 (29.8)	66 (70.2)	94 (100.0)		

\*Statistically significant at  $\leq 0.05$ , # Cramer's  $v = 0.203$

Table (4.14) shows the relationship between the quality of ANC services provided and the women's satisfaction with the service. Chi-square test reveals a statistically significant relationship between quality and satisfaction ( $\chi^2 = 12.1$ , P-value = 0.007). Also, the value of Cramer's  $v$  shows a moderate relationship as Cramer's  $v = 0.203$ . More than two thirds (70%) of the participants that have an excellent perception of the provided ANC and only 30% are dissatisfied. Further, 61.8% of very good perceived quality is satisfied with the service. Forty-one of good perceived quality are satisfied and 50% of poor quality are satisfied. A previous study reported a strong relationship between service quality and patient satisfaction (Zarei et al., 2015).

In a line with this result, another study reported the quality of ANC services pregnant women satisfaction had a positive Pearson's correlation coefficient of 0.322 and a P-value of 0.00 (Eebolawala, 2018). On the other hand, the result of the current study is inconsistent with another study that showed no statistically significant relationship between

the quality of the services provided and women's satisfaction (Bastola et al., 2018). The difference between studies might be due to the subjective nature of the subject matter because the measure of quality level needs standardized scales and tools for accurate measurement.

### 4.3 Multivariate analysis

**Table (4.15): Factors predict women satisfaction (Binary logistic regression)**

Variable	B	Wald	p-value	OR	CI	
					UL	LL
Waiting time before midwives' examination						
less than 60 minutes	1.495	26.358	0.000*	4.46	2.52	7.895
60 minutes and more	Reference					
Time spent with the midwife						
<10 minutes	-.308	1.157	0.282	0.735	0.41	1.288
≥10 minutes more	Reference					
Center						
Khan Younis	0.315	0.435	0.509	1.370	0.53	3.487
Al Rimal clinic	1.225	9.903	0.002*	3.403	1.58	7.295
Rafah	0.491	0.726	0.394	1.634	.528	5.056
Der Al Balah	1.353	8.729	0.003*	3.867	1.57	9.486
Jabaliala	Reference					

\*Statistically significant at  $\leq 0.05$ , CI= 95%

Table (4.15) illustrates findings of binary logistic regression analysis that show the model consisting of three important variables has a significant association on women's satisfaction with ANC services provided at PHC centers in the Gaza Strip. Independent variables that include a low count (less than 5) were excluded from the model. Nagelkerke R-value equals 0.208 for the proposed model which means 20.8% of the variability in the

dependent variable (women satisfaction) is explained by the included independent variables in the model. The model reveals two important predictors (Center, waiting time before examination) affecting women's satisfaction. Being at the waiting time group (less than 60 minutes before examination) will increase the likelihood of women's satisfaction by 4.46 regarding another group holding all other variables constant (Wald= 26.3, P-value= 0.000). Besides, being followed at Alremal clinic will increase the likelihood of women's satisfaction by 3.4 times if compared to those followed at Jabalia clinic holding all other variables constant (Wald= 9.9, P-value= 0.002). Further, being followed at Dair Al Balah clinic increase the likelihood of women's satisfaction by 3.8 times if compared to women followed at Jabalia clinic holding all other variables constant (Wald= 8.7, P-value= 0.003).

## **Chapter Five**

### **Conclusion and Recommendations**

#### **5.1 Conclusion**

This study used a descriptive, cross-sectional approach to assess pregnant women's satisfaction with the quality of ANC at governmental clinics in the GS. The study was conducted in the biggest clinics offering ANC in GS, namely, Al Rimal martyrs' clinic, Jabalia martyrs' clinic, Der El Balah martyrs' clinic, Khan Younis martyrs' clinic, and Rafah martyrs' clinic, the study period was from March 2019 to March 2020. The researcher collected the data through self-administered questionnaires by using a convenience sample and 311 pregnant women participated in this study. The mean age of participated women was 27.3 years old, which reflects the reproductive age of Palestinian women. The results reflected that 60.8% of study participants were satisfied with ANC services, and the overall satisfaction with ANC was 80.5%. The highest was in satisfaction with provided care (95.6%), followed by satisfaction with the number of visits (91.3%). The results also showed that 32% of participants perceived the quality of ANC service as excellent and 48.7% perceived it as very good. There was no statistically significant relationship between overall satisfaction and participant's age, education, work, and monthly income, while participants from Der Al Balah expressed significantly higher satisfaction compared to participants from other antenatal clinics. Moreover, there was no statistically significant relationship between overall satisfaction and current and previous pregnancies, while there was a statistically significant relationship between overall satisfaction and time consumed in antenatal visits and quality of antenatal care. The study recommended that there was a need to decrease waiting time at antenatal clinics because

that has a negative effect on the satisfaction of pregnant women about quality of care as well as to initiate the appointment system.

## **5.2 Recommendations**

**In light of the study results, the researcher recommends the following:**

### **For policy makers:**

- Increase the number of physicians and midwives allocated in antenatal clinics to meet the needs and expectations of their clients.
- Establish an appointment system with a specific date and time to decrease waiting time at antenatal clinics.

### **For healthcare providers:**

- Increase awareness of the importance of antenatal registration in the first trimester before 12 weeks gestation.
- Increase the time spent with pregnant women to engage them by listening to their problem, that will increase the percentage of satisfaction of care, and quality of care.
- To provide more information about her pregnancy, and health status, that all questions for pregnant women the answers are clear.

### **For pregnant women:**

- The importance of commitment to follow up and maintain antenatal visits to monitor the progress of the pregnancy.
- To follow the instructions and commands given by the healthcare providers to have a safe pregnancy and childbirth.

### **5.3 Suggestion for further studies**

- Conduct further studies about factors that affect the quality of care at governmental clinics in GS.



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**Annex (2): List of experts**

<b>Name</b>	<b>Place of work</b>
Dr. Ahmad A.Najim	Al-Azhar University-Gaza
Dr. Hamza Abdeljawad	Palestine College of Nursing
Dr. Samira Abo Al-Shiekh	Palestinian Ministry of Health
Dr. Mohammed Lulu	Al-Azhar University-Gaza
Dr. Mohammed Tabash	Al-Azhar University-Gaza

### Annex (3): Consent form



أنا الطالبة نجاح شقليه، أقوم بعمل استبانة خاصة برسالة الماجستير بجامعة القدس - أبو ديس بعنوان: "مدى رضا السيدة الحامل عن جودة الرعاية الصحية المقدمة ما قبل الولادة في عيادات الرعاية الأولية الحكومية في قطاع غزة" في تمرير صحة الأم والطفل وهي تهدف إلى التعرف عن مدى رضا السيدة الحامل عن جودة الرعاية الصحية المقدمة ما قبل الولادة في عيادات الرعاية الأولية الحكومية في قطاع غزة.

يرجى الإجابة على جميع فقرات الاستبانة بشكل صادق، مع العلم انه لا توجد إجابات خاطئة ولكن إجابتك تعبر عن رأيك الشخصي، كما أن المعلومات التي سيتم جمعها سوف تستخدم لأغراض البحث العلمي فقط وستحفظ بسرية تامة، ونلفت انتباهك بأنه لا داعي لكتابة اسمك الشخصي. سوف تستغرق تعبئة هذه الاستبانة من الوقت ما بين 15-20 دقيقة لسؤالك عن الرعاية التي تتلقاها خلال فترة الحمل، وجهة نظرك سوف تساعدنا لتحسين رعاية الحمل لك ولل سيدات الأخريات، مشاركتك في هذه الدراسة طوعية، لذا لديك الحق الكامل في رفض المشاركة أو الانسحاب منها اذا شعرت بعدم الارتياح بأي شكل من الأشكال خلال تعبئه الاستبانة.

أوافق أنا الموقع أدناه على المشاركة في الدراسة:

التوقيع:- ..... التاريخ:- .....

ولك جزيل الشكر

الباحثة : نجاح شقليه



**Annex (4): Satisfaction with antenatal care (Arabic version questionnaire)**

**المحور الأول: الخصائص الإجتماعية الديمغرافية**

1.	العمر	.....
2.	الحالة الاجتماعية	<input type="checkbox"/> متزوجة <input type="checkbox"/> مطلقة <input type="checkbox"/> أرملة
3.	مستوى التعليم	<input type="checkbox"/> أمي <input type="checkbox"/> أقل من ثانوية عامة <input type="checkbox"/> جامعة <input type="checkbox"/> فما فوق
4.	مهنة الزوجة	<input type="checkbox"/> تعمل <input type="checkbox"/> لا تعمل
5.	طبيعة عمل الزوجة	.....
6.	مهنة الزوج	<input type="checkbox"/> يعمل <input type="checkbox"/> لا يعمل
7.	طبيعة عمل الزوج	.....
8.	مركز الرعاية الأولية الذي تتابعي فيه الحمل	.....
9.	عدد مرات الحمل الطبيعي	.....
10.	عدد مرات الحمل الخطر	.....
11.	موعد اول زيارة	<input type="checkbox"/> بعد 12 اسبوع من الحمل <input type="checkbox"/> قبل 12 اسبوع من الحمل
12.	عدد الولادات	.....
13.	الدخل الشهري	<input type="checkbox"/> أقل من 1973 شيقل <input type="checkbox"/> بين 1973 و 2740 شيقل <input type="checkbox"/> أكثر من 2740 شيقل
14.	عدد الزيارات متضمنة هذه الزيارة	..... زيارة في الشهر
15.	عدد أسابيع الحمل	.....
16.	مصدر النصائح والارشادات والمعلومات عن الحمل	<input type="checkbox"/> مركز الرعاية الأولية <input type="checkbox"/> طبيبك الخاص <input type="checkbox"/> مصادر أخرى <input type="checkbox"/> حدد

**المحور الثاني: مدى رضا السيدة الحامل عن الزيارات التي قامت بها خلال هذا الحمل**

17.	هل انت راضية عن عدد الزيارات التي قمت بها اثناء الحمل؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
18.	اذا كانت الاجابة لا فيما يتعلق بعدد الزيارات التي قمت بها للفحص خلال الحمل <input type="checkbox"/> احتاج زيارات اكثر <input type="checkbox"/> احتاج زيارات اقل
19.	عدد الفحوصات من قبل القابلة او الطبيب خلال فترة الحمل <input type="checkbox"/> أكثر من المتوقع <input type="checkbox"/> أقل من المتوقع <input type="checkbox"/> كما هو متوقع
20.	الوقت بين الفحوصات من قبل القابلة او الطبيب <input type="checkbox"/> قليل جداً <input type="checkbox"/> طويل جداً <input type="checkbox"/> مناسب
21.	كم من الوقت تنتظرين في العيادة قبل أن يتم فحصك من قبل القابلة <input type="checkbox"/> .....ساعة <input type="checkbox"/> .....دقائق
22.	هل أنت راضية عن وقت الإنتظار <input type="checkbox"/> نعم <input type="checkbox"/> لا
23.	كم من الوقت تقضيه مع القابلة خلال الفحص <input type="checkbox"/> .....ساعة <input type="checkbox"/> .....دقيقة
24.	برأيك الوقت الذي تقضيه مع القابلة خلال الفحص <input type="checkbox"/> الوقت طويل جداً <input type="checkbox"/> الوقت قصير جداً <input type="checkbox"/> الوقت مناسب جداً
25.	لو كان لديك الخيار تفضلين الفحص من قبل <input type="checkbox"/> طبيب <input type="checkbox"/> قابلة

**المحور الثالث: مدى رضا السيدة الحامل عن المعلومات الصحية/الطبية التي تلقتها خلال الزيارات**

مستوى رضاك عن المعلومات التي تلقيتها عن:	
26.	المشاكل الخطيرة التي قد تحدث خلال الحمل <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
27.	علامات فض الغشاء الأمينوسي <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
28.	علامات و أعراض النزيف <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
29.	آلية التعامل في حالة حدوث نزيف <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
30.	آلية التعامل مع الدوخة والإعياء خلال الحمل <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
31.	حالة حدوث حرارة خلال الحمل <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
32.	التغذية السليمة و الصحية للسيدة الحامل <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية
33.	الرضاعة الطبيعية <input type="checkbox"/> راضية جدا <input type="checkbox"/> راضية <input type="checkbox"/> غير راضية

المحور الرابع: مدى رضا السيدة الحامل عن الرعاية المقدمة من قبل مقدمي الخدمة

34.	هل يتم الترحيب عند الحضور للفحص <input type="checkbox"/> نعم <input type="checkbox"/> لا
35.	هل يتم ضمان الخصوصية لديكي اثناء الفحص <input type="checkbox"/> نعم <input type="checkbox"/> لا
36.	هل يتم الإصغاء جيداً لما تحتاجينه من استفسارات خلال الفحص <input type="checkbox"/> نعم <input type="checkbox"/> لا
37.	هل يتم أخذ المعلومات الكافية عن التاريخ المرضي لكل الحملات السابقة <input type="checkbox"/> نعم <input type="checkbox"/> لا
38.	معاملة مقدمي الرعاية خلال تقديم الرعاية وأثناء الفحص معاملة جيدة <input type="checkbox"/> نعم <input type="checkbox"/> لا

### المحور الخامس: مدى رضا السيدة الحامل عن مكان الرعاية المقدمة

39.	كانت البيئة المحيطة ومكان الفحص نظيفان: <input type="checkbox"/> موافق بشدة <input type="checkbox"/> موافق <input type="checkbox"/> محايد <input type="checkbox"/> غير موافق <input type="checkbox"/> غير موافق بشدة
40.	غرفة الفحص بما تحتويه كانت مناسبة للفحص <input type="checkbox"/> موافق بشدة <input type="checkbox"/> موافق <input type="checkbox"/> محايد <input type="checkbox"/> غير موافق <input type="checkbox"/> غير موافق بشدة
41.	كان المكان جاهز لتقديم الخدمة <input type="checkbox"/> موافق بشدة <input type="checkbox"/> موافق <input type="checkbox"/> محايد <input type="checkbox"/> غير موافق <input type="checkbox"/> غير موافق بشدة
42.	كان المستوى التعليمي والمهني للفريق الصحي العامل في المركز عالي <input type="checkbox"/> موافق بشدة <input type="checkbox"/> موافق <input type="checkbox"/> محايد <input type="checkbox"/> غير موافق <input type="checkbox"/> غير موافق بشدة
43.	مستوى الخدمة المقدمة للرعاية أثناء الحمل في هذه الزيارات كان مرضياً <input type="checkbox"/> موافق بشدة <input type="checkbox"/> موافق <input type="checkbox"/> محايد <input type="checkbox"/> غير موافق <input type="checkbox"/> غير موافق بشدة
44.	هل لو حدث حمل مرة أخرى سوف تأتي للفحص بهذا المركز <input type="checkbox"/> نعم <input type="checkbox"/> لا
45.	هل توصي أي سيدة حامل من الصديقات بالفحص بهذا المركز <input type="checkbox"/> نعم <input type="checkbox"/> لا
46.	هل يتم قياس الوزن كل زيارة ؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
47.	هل يتم قياس ضغط الدم كل زيارة؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
48.	هل يتم فحص البول كل زيارة ؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا

49.	هل تم قياس الطول الزيارة الاولى؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
50.	هل يتم فحص البطن كل زيارة ؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
51.	هل يتم سماع نبض الجنين كل زيارة ؟ <input type="checkbox"/> نعم <input type="checkbox"/> لا
52.	ما مدى رضاكي بشكل عام عن مستوى الخدمة المقدم <input type="checkbox"/> ممتاز <input type="checkbox"/> جيد جداً <input type="checkbox"/> جيد <input type="checkbox"/> ضعيف
53.	ماهي الأشياء التي ترغبين في تطويرها أثناء الرعاية الصحية للحوامل؟ ..... -..... .....

شكراً جزيلاً على وقتك والمشاركة في هذه الدراسة

## Annex (5): Approval from Helsinki Committee



### 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: 2019/10/7

Number: PHRC/HC/615/19

Name: Najah Saleh Shaqaleh

الاسم:

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

نقدمكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

#### Pregnant Women Satisfaction with Quality of Antenatal Care at Governmental Clinics in Gaza Strip

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/615/19 in its meeting on 2019/10/7

وقد قررت الموافقة على البحث المذكور عليه بالرقم والتاريخ المذكوران عليه

#### Signature

Member  
Signature  
7/10/2019

Member

Chairman

Signature

Signature

Signature

#### General Conditions:-

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

#### Specific Conditions:-



E-Mail: pal.phrc@gmail.com

Gaza - Palestine

غزة - فلسطين

شارع النصر - مفترق العيون

## Annex (6): Approval from MoH

State of Palestine  
Ministry of Health



دولة فلسطين  
وزارة الصحة

التاريخ: 16/12/2019  
رقم المراسلة: 409647

السيد : رامي عيد سليمان العبادلة المحترم

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

السلام عليكم ...

### الموضوع/ تسهيل مهمة الباحثة/ نجاح شقليه

التفاصيل //

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحثة/ نجاح صالح شقليه  
الملتحقة ببرنامج ماجستير التمريض - تخصص صحة الأم والطفل - كلية الصحة العامة - جامعة القدس أوديس في  
إجراء بحث بعنوان: -

**"Pregnant Women Satisfaction with Quality of Antenatal Care at Governmental Clinics in  
Gaza Strip"**

حيث الباحثة بحاجة للعينة استبانة من عدد من النساء الحوامل المترددات على عيادات النساء في مراكز الرعاية الصحية  
الأولية (م. شهداء الرمال، م. شهداء رفح، م. شهداء خان يونس، م. شهداء جباليا، م. شهداء دير البلح).  
نأمل توجيهاتكم لنظري الاختصاص بضرورة الحصول على الموافقة المستنيرة من النساء اللاتي هن على استعداد  
 للمشاركة في الدراسة ومن ثم تمكين الباحثة من التواصل معهن، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات  
 البحث العلمي، وبدون تحمل الوزارة أي أعباء أو مسئولية.  
وتفضلوا بقبول التحية والتقدير،،،  
ملاحظة /

1. تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 4 أشهر من تاريخه.
2. البحث المذكور حصل على موافقة لجنة أخلاقيات البحث الصحي (لجنة هلسنكي)

محمد إبراهيم محمد السرساوي

مدير دائرة الإدارة العامة لتنمية القوى البشرية -



### التصاريقات

إجراء باتكم بالخصوص (16/12/2019)	← رامي عيد سليمان العبادلة (مدير عام بالوزارة)	■ محمد إبراهيم محمد السرساوي (مدير دائرة)
إجراء باتكم بالخصوص (16/12/2019)	← مدحت عباس خضر حسن (مدير عام بالوزارة)	■ رامي عيد سليمان العبادلة (مدير عام بالوزارة)
لعمل اللازم (16/12/2019)	← عبد الكريم سعيد العبد النجار (مدير دائرة)	■ مدحت عباس خضر حسن (مدير عام بالوزارة)
لعمل اللازم (16/12/2019)	← تهلة صقر سليمان الأعرج (مدير دائرة)	■ مدحت عباس خضر حسن (مدير عام بالوزارة)
لعمل اللازم (16/12/2019)	← فواز ادريس محمد أبو زياده (طبيب مدير)	■ مدحت عباس خضر حسن (مدير عام بالوزارة)
لعمل اللازم (16/12/2019)	← ناعض عبد حسن جردة (مدير دائرة)	■ مدحت عباس خضر حسن (مدير عام بالوزارة)
لعمل اللازم (16/12/2019)	← خليل محمد محمود صيام (مدير دائرة)	■ مدحت عباس خضر حسن (مدير عام بالوزارة)

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غزة



## Annex (7): Sample size calculation

StatCalc

StatCalc - Sample Size and Power

Population survey or descriptive study using random (not cluster) sampling

Population size:

Expected frequency:  %

Confidence limits:  %

Confidence Level	Sample Size
80%	148
90%	230
95%	307
97%	361
99%	464
99.9%	636
99.99%	763

**Annex (8): Satisfaction with antenatal care (English version questionnaire)**

**The first axis: socio-demographic characteristics**

1.	Age	.....
2.	Learning level	<input type="checkbox"/> illiterate <input type="checkbox"/> Less than highschool <input type="checkbox"/> university <input type="checkbox"/> more than university
3.	Work	<input type="checkbox"/> work <input type="checkbox"/> does not work
4.	Wife natural work	.....
5.	Husband work	<input type="checkbox"/> work <input type="checkbox"/> does not work
6.	Husband natural work	.....
7.	The primary care centre that tracks pregnancy	.....
8.	The number of times a normal pregnancy	.....
9.	The number of times a risky pregnancy	.....
10.	The date of the first visit	<input type="checkbox"/> After 12 weeks of pregnancy <input type="checkbox"/> 12 weeks before pregnancy
11.	Number of births	.....
12.	Monthly income	Less than 1973 shekels <input type="checkbox"/> Between 1973 and 2740 shekels <input type="checkbox"/> <input type="checkbox"/> More than 2,740 shekels
13.	The number of visits including This visit	Visit per month .....
14.	The number of weeks of pregnancy	.....
15.	Source of tips, advice and information about pregnancy	<input type="checkbox"/> Primary care centres <input type="checkbox"/> Your own physician <input type="checkbox"/> <input type="checkbox"/> Other sources <input type="checkbox"/> determine

**The second axis: the extent of the pregnant woman's satisfaction with the visits she made during this pregnancy**

16.	Are you satisfied with the number of visits you made during pregnancy <input type="checkbox"/> yes <input type="checkbox"/> no
17.	If the answer is not in relation to the number of visits that you made for examination during pregnancy <input type="checkbox"/> i need less visit <input type="checkbox"/> I need more visit
18.	The number of checks by the midwife or doctor during pregnancy <input type="checkbox"/> As expected <input type="checkbox"/> Less than expected <input type="checkbox"/> More than expected
19.	The time between checks by the midwife or doctor <input type="checkbox"/> Appropriate <input type="checkbox"/> Very long <input type="checkbox"/> A little bit
20.	How long do you wait in the clinic before being examined by the midwife? minutes.... <input type="checkbox"/> hour..... <input type="checkbox"/>
21.	Are you satisfied with the waiting time? <input type="checkbox"/> no <input type="checkbox"/> yes
22.	How much time do you spend with the midwife during the examination? minute.... <input type="checkbox"/> hour..... <input type="checkbox"/>
23.	In your opinion, the time you spend with the midwife during the examination <input type="checkbox"/> A very good time <input type="checkbox"/> Time is too short <input type="checkbox"/> The time is too long
24.	If you have the option, you prefer to check before <input type="checkbox"/> midwife <input type="checkbox"/> physician

**The third axis: the extent of the pregnant woman's satisfaction with the health / medical information she received during the visits**

Your level of satisfaction with the information you received on	
25.	Serious problems that may occur during pregnancy <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied    Very satisfied" <input type="checkbox"/>
26.	Signs of amniotic membrane rupture <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied    Very satisfied" <input type="checkbox"/>
27.	Signs and symptoms of bleeding <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied    " <input type="checkbox"/> Very satisfied

28.	The mechanism of dealing in case of bleeding <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied      " <input type="checkbox"/> Very satisfied
29.	Mechanism for dealing with dizziness and fatigue during pregnancy <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied      " <input type="checkbox"/> Very satisfied
30.	If fever occurs during pregnancy <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied <input type="checkbox"/> Very satisfied
31.	Good and healthy nutrition for pregnant woman <input type="checkbox"/> <input type="checkbox"/> not satisfied      satisfied <input type="checkbox"/> Very satisfied"
32.	Breastfeeding <input type="checkbox"/> <input type="checkbox"/> not satisfied <input type="checkbox"/> satisfied <input type="checkbox"/> Very satisfied

**The fourth axis: the extent of the pregnant woman's satisfaction with the care provided by the service providers**

33.	Are you welcome to check up? <input type="checkbox"/> yes <input type="checkbox"/> no
34.	Is your privacy guaranteed during the scan? <input type="checkbox"/> yes <input type="checkbox"/> no
35.	Are you listening well for the inquiries you need during the examination? <input type="checkbox"/> no <input type="checkbox"/> yes
36.	Is sufficient information taken on the medical history of all previous pregnancies? <input type="checkbox"/> yes <input type="checkbox"/> no
37.	Carers are well treated during care and during examination <input type="checkbox"/> yes <input type="checkbox"/> no

**The fifth axis: the extent of the pregnant woman's satisfaction with the place of care provided**

38.	:The environment was clean Strongly Agree Agree <input type="checkbox"/> neutral <input type="checkbox"/> not agree <input type="checkbox"/> Strongly <input type="checkbox"/> Disagree
39.	The examination room with its contents was suitable for examination Strongly Agree <input type="checkbox"/> Agree <input type="checkbox"/> neutral <input type="checkbox"/> not agree <input type="checkbox"/> Strongly <input type="checkbox"/> Disagree

40.	The place was ready to serve <input type="checkbox"/> Strongly Agree <input type="checkbox"/> Agree <input type="checkbox"/> neutral <input type="checkbox"/> not agree <input type="checkbox"/> Strongly <input type="checkbox"/> Disagree
41.	The educational and occupational level of the health centre working in the centre was high <input type="checkbox"/> Strongly Agree <input type="checkbox"/> Agree <input type="checkbox"/> neutral <input type="checkbox"/> not agree <input type="checkbox"/> Strongly <input type="checkbox"/> Disagree
42.	The level of service provided for care during pregnancy on these visits was satisfactory <input type="checkbox"/> Strongly Agree <input type="checkbox"/> Agree <input type="checkbox"/> neutral <input type="checkbox"/> not agree <input type="checkbox"/> Strongly <input type="checkbox"/> Disagree
43.	If a pregnancy occurs again will you come to the examination at this centre Yes <input type="checkbox"/> No <input type="checkbox"/>
44.	Would any pregnant women friend recommend checking this centre? <input type="checkbox"/> no <input type="checkbox"/> yes
45.	Is weight measured every visit? <input type="checkbox"/> no <input type="checkbox"/> yes
46.	Is blood pressure measured every visit? <input type="checkbox"/> Yes <input type="checkbox"/> No
47.	Is urine analysed every visit? <input type="checkbox"/> no <input type="checkbox"/> yes
48.	Was the length of the first visit measured? <input type="checkbox"/> no <input type="checkbox"/> yes
49.	Is the abdomen examining every visit? <input type="checkbox"/> no <input type="checkbox"/> yes
50.	? Do you hear the heartbeat pulse every visit? <input type="checkbox"/> no <input type="checkbox"/> yes
51.	What are the things that you want to develop during the health care of pregnant women.....? ..... - .....

***Thank you very much for your time and participating in this study***

## عنوان الدراسة: مدى رضا السيدات الحوامل عن جودة الرعاية الصحية المقدمة في عيادات رعاية الحوامل الحكومية في قطاع غزة.

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تعتبر خدمات رعاية الحوامل مؤشراً هاماً لمعرفة مدى الاستفادة من الرعاية الصحية، حيث تحدد تلك الرعاية مدى مقابلة الخدمة الصحية لاحتياجات الأفراد المستفيدين من تلك الخدمة. هدفت الدراسة إلى معرفة مدى رضى السيدات الحوامل عن جودة الخدمة الصحية المقدمة لهن في عيادات رعاية الحوامل الحكومية في قطاع غزة. وقد تم استخدام المنهج الوصفي في هذه الدراسة. وقد استخدمت الباحثة طريقة العينة غير الاحتمالية لاختيار عينة الدراسة حيث شاركت في الدراسة 311 سيدة حامل بمعدل استجابة 97.2% و هؤلاء من المترددات على عيادات رعاية الحوامل الحكومية في قطاع غزة بحد أدنى أربع زيارات في جميع محافظات غزة (جباليا، غزة، دير البلح، خان يونس، رفح). لجمع البيانات قامت الباحثة بإعداد استبانة لقياس مدى رضى السيدات عن خدمات رعاية السيدات الحوامل، وقد تم اجراء دراسة استطلاعية لقياس ثبات الاستبانة حيث بلغ متوسط قيمة ألفا لكل فقرات الاستبانة 0.778. واستمرت الدراسة من مارس 2019 حتى مارس 2020. وقد تم الحصول على الموافقة الإدارية والأخلاقية من كل من جامعة القدس ولجنة هلسنكي، وقد تبنت الباحثة نموذج دونابيديان لتقييم جودة الخدمة الصحية كإطار مرجعي في هذه الدراسة. ولتحليل البيانات إحصائياً تم استخدام برنامج الرزم الإحصائية (SPSS 23). وقد أظهرت نتائج الدراسة أن متوسط عمر المشاركات في الدراسة بلغ 27.3 سنة، كما أن 61.9% من المشاركات في الدراسة حاصلات على الدرجة الجامعية الاولى، 84.9% منهن ربات بيوت، 89% لديهن دخل شهري أقل من 1973 شيكل (حد الفقر المدقع). كما بينت النتائج بان 34.7% من السيدات المشاركات في الدراسة كان لديهن ثلاث حمولات فأقل، 77.5% من المشاركات كان لديهن حمل طبيعي، و 77.9% من المشاركات كان لديهن 1 - 3 مرات ولادة.

وأظهرت نتائج الدراسة ايضا بان 60.8% من المشاركات في الدراسة كن راضيات عن خدمة رعاية الحوامل في حين أن 39.2% كن غير راضيات، وأظهرت النتائج ايضا وجود مستوى مرتفع من الرضا العام عن خدمة رعاية الحوامل بلغت 80.5%، وكانت أعلى المستويات في الرضا عن الرعاية المقدمة حيث بلغت 95.6%، يليها الرضا عن عدد زيارات عيادة رعاية الحوامل حيث بلغت 91.3%، يليها الرضا عن مكان تقديم الرعاية الصحية حيث بلغت 83.2%، يليها الرضا عن المعلومات المقدمة حيث بلغت 67%، ثم الرضا عن الوقت المستفد في الزيارات حيث بلغ

66.15%. وبينت النتائج أن 32% من المشاركات في الدراسة يرين أن الخدمة المقدمة في عيادات رعاية الحوامل كانت ممتازة في حين أن 48.7% يرين أن الخدمة المقدمة كانت جيدة جداً. وعلاوة على ذلك، أظهرت النتائج عدم وجود علاقة ذات دلالة إحصائية بين الرضا العام عن خدمات رعاية الحوامل وكل من العمر، والحالة الاجتماعية، والمستوى التعليمي، والعمل، والدخل الشهري، وحالة الحملات السابقة والحمل الحالي. وأظهرت المشاركات في الدراسة من عيادة دير البلح مستوى أعلى من الرضا مقارنة بنظرائهن من العيادات الأخرى، كما تبين وجود علاقة ذات دلالة إحصائية بين الرضا العام والوقت المستنفذ في الزيارات لعيادات رعاية الحوامل، كما تبين وجود علاقة ذات دلالة إحصائية بين الرضا العام وجودة الخدمة المقدمة في عيادات رعاية الحوامل.

وخلصت الدراسة الحالية بوجود مستوى عال من الرضا عن خدمات الرعاية الصحية المقدمة للسيدات الحوامل، بالمقابل فقد كانت أدنى مستويات الرضا في كل من المعلومات المقدمة ووقت الانتظار في عيادات رعاية الحوامل. وأوصت الدراسة بالحاجة إلى تقليل فترة الانتظار في عيادات الحوامل لأن طول فترة الانتظار لها آثار سلبية على جودة الخدمة الصحية، كما أوصت الدراسة بالحاجة إلى تفعيل نظام الحجز المسبق الذي بدوره يزيد من جودة المقابلة الشخصية مع مقدمي الرعاية الصحية.