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Birth Preparedness and Complication Readiness among Primigravida Women in Gaza Governorate: Nurses' and Midwives' Role and Practical Implication

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Thesis Approval

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Jerusalem – Palestine

1440 / 2019

Dedication

To my Parents

My husband,

My sons and daughters,

My colleagues

Declaration

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

Signed

Suhair Mohammad Abed

Date: / / 2019

Acknowledgment

First of all, praise to Allah, the lord of the world, and peace and blessings of Allah be upon the noblest of all Prophets and messengers, our prophet Mohammed, all thanks for Allah who granted me the help and capability to complete this thesis.

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I hope this work could be helpful for the practice and for anyone concerned.

Suhair Abed

Abstract

The principle and practice of birth preparedness and complication readiness in developing countries is very important to be considered which have its significant effect on maternal morbidity and mortality. This study aimed to assess the level of birth preparedness and complication readiness of primigravida women in Gaza governorate. The design of this study was a quantitative cross-sectional. The study participants have been selected by convenience sampling method from the randomly selected five ANC clinics in Gaza governorate, the sample consisted of 236 primigravida women. The researcher used a validated questionnaire as a study tool. Different statistical procedures operated by SPSS version 22 were used for data analysis including percentages, mean, independent sample t test, One-Way ANOVA, and Pearson correlation test.

The study results revealed that the mean percentage score of the primigravida mothers regarding birth preparedness and complication readiness is 79.82%, their mean percentage score of knowledge about key danger signs of pregnancy is 49.53%, the mean percentage score of knowledge about key danger signs of labor is 35.75%, while the mean percentage score of knowledge about key danger signs of post-partum is 38.33%. Factors associated with birth preparedness and complication readiness among women include their knowledge about key danger signs of pregnancy, labor, and post-partum, number of ANC visits, and time of initiation of visits, as well as the ANC clinic they have had their follow up.

The study concluded that the level of birth preparedness and complication readiness is satisfactory among primigravida women, but there is a weakness in the level of their knowledge regarding key danger signs of pregnancy, labor, and post-partum. The findings of this study indicated that there is a strong need for the nurses and midwives to participate efficiently in the process of health education for the mothers regarding key danger signs of pregnancy, labor and post-partum as well as encouraging the women to initiates their ANC visits as early as possible in order to maximize the level of birth preparedness and complication readiness to decrease maternal and fetal complication as much as possible.

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List of Abbreviations

ANC	Antenatal Care
CPD	Cephalopelvic Disproportion
GS	Gaza Strip
MoH	Ministry of Health
PCBS	Palestinian Central Bureau of Statistics
PHC	Primary Health Care
UK	United Kingdom
UNRWA	United Nations Relief and Works Agency
US	United States
VBAC	Vaginal Birth after Cesarean Section
WB	West Bank
WHO	World Health Organization

Chapter One

Introduction

1.1 Background

Pregnancy is a very sensitive event in which unexpected life-threatening complications may arise at any time, from conception to the postpartum period. Globally, eight hundred women die every day due to pregnancy or child birth related complications, almost all maternal deaths (99%) occur in developing countries (Berhe et al., 2018). Most maternal death is a consequence of complications during and following pregnancy and childbirth, most of which are preventable or treatable when births are assisted by skilled birth attendants (Kiataphiwasu and Kaewkiattikun, 2018).

Although a safe motherhood program is successful in reducing maternal mortality, it does not mean high utilization of maternal health services; the problem may be due to the delays in seeking, reaching and receiving adequate care; one effective strategy to prevent maternal mortality is birth preparedness and complication readiness, which will encourage pregnant women to make prompt decisions to seek care from skilled birth attendants (Say et al., 2014).

Birth preparedness and complication readiness is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, based on the theory that preparing for childbirth and being ready for complications reduces delays in obtaining this care (Gebre et al., 2015). It entails making plans prior to birth to ensure that a pregnant woman is prepared for normal birth and complications. It can positively improves preventive behaviors, influences knowledge of mothers about danger-signs, and leads to

improvement in care-seeking during obstetric emergency therefore reducing disability and death associated with child birth (Azeze et al., 2019 ; Affipunguh and Laar, 2016).

The principle and practice of birth preparedness and complication readiness in the developing world where there is prevailing illiteracy, inefficient infrastructure, poor transport system, and unpredictable access to skilled care providers have the potential of reducing the existing high maternal and neonatal morbidity and mortality rates (Ekabua et al., 2011). Birth preparedness programmes generally address three delays to care-seeking for obstetric emergencies; delay in recognition of problem, delay in seeking care, and delay in receiving care at health facility. These delays represent barriers that often result in preventable maternal deaths (Kuganab et al., 2014).

More importantly, there is limited data about birth preparedness and complication readiness of pregnant women's especially the primigravids in the Gaza Strip (GS), where maternal mortality rate is higher in the Gaza Strip [8.6/100,000 live births] than in West Bank [3.8/100,000 live births] (Health Annual Report, 2017). Therefore, the main aim of the current study was to assess the level of birth preparedness and complication readiness of primigravida women in Gaza governorate

1.2 Research Problem

A study conducted by the World health organization (WHO) indicated that more than half million of the women were dying each year from the complications of pregnancy and childbirth; with the vast majority of these deaths (99%) occurring in the developing world (Berhe et al., 2018). Also, in many societies in the world including the Gaza Strip, the cultural beliefs and lack of awareness inhibit preparation in advance for delivery and expected baby, and since no action is taken prior to the delivery, the family tries to act only when labor begins; hence the complications of the pregnancy and during the birth process

might be inevitable. This might create a huge burden on the Palestinian health care system in terms of financial and experts needed for managing these complications, the burden also might be on the mother and her fetus, in which they might have several complications during childbirth because of inadequate birth preparedness, the family also might be disorganized and confused and psychologically disturbed.

Furthermore, the majority of the pregnant women and their families do not know how to recognize the danger signs of complications during pregnancy, birth and post-partum period (Weldearegay, 2015), and there is no information regarding this issue in the Gaza Strip. So, when complications occur, the unprepared family will waste a great deal of time in recognizing the problem, getting organized, getting money, finding transport and reaching to the appropriate referral facility, thus major and fatal complications might occur due to the ideal absence of a plan for birth preparedness and complication readiness.

Moreover, the pregnant women who do not have adequate and appropriate information about pregnancy and childbirth would be ill-equipped to make choices that will contribute to their own well-being. Most of the previous studies revealed that the level of birth preparedness and complication readiness ranges from low to medium score (Berhe et al., 2018 ; Kiataphiwasu and Kaewkiattikun, 2018 ; Gebre et al., 2015). Unfortunately, there are no previous studies about this level in the Gaza Strip, where there are limited medical and economic resources.

1.3 Justification of the study

Good plans and preparations will increase utilization of skilled care and reduce delays in accessing care in case of pregnancy and delivery complications. Antenatal care should place emphasis on birth preparedness and complication readiness to improve access to skilled and emergency obstetric care which has been shown to be critical in reducing maternal and/or perinatal mortality and morbidity (Gebre et al., 2015).

The benefits from adopting the concept of birth preparedness and complication readiness might contribute to the improvement of the use of skilled nurses and midwives during pregnancy and at birth and may be the key intervention to decrease maternal mortality. To the best of researcher's knowledge, there is no previous study in the Gaza Strip which assessed the level and associated factors of birth preparedness especially among primigravida women since the women have no any experience on birth plan and complication readiness. Therefore, this study came to assess this issue in Gaza Governorate.

The findings of the current study could positively influence maternal health care delivery in Palestine (antenatal care, birth process, and post-partum) thereby reducing maternal mortality that results from the previously mentioned three main delays. The finding of this study might be also useful to identify the level of health education conducted by the nurses and midwives in primary health care centers mainly at antenatal care clinics in the Gaza Strip, hence there might be an urgent need in the modification of the process of health education given to the primigravida mothers, which in turn might have its effect on their level of birth preparedness.

Additionally, the results of this study might provide a baseline indicator for other researchers who wish to conduct similar studies and other related ones to the current

research problem. This study also may be helpful to inform policy makers at the ministry of health to come up with new policies and strategies to improve maternal and neonatal health services, thus a significant attention might be given to the problem.

1.4 Main aim of the study

The main aim of this study is to assess the level of birth preparedness and complication readiness of primigravida women in Gaza governorate.

1.5 Specific objectives of the study

1. To explore the factors associated with the birth preparedness and complication readiness among primigravida women in Gaza governorate.
2. To explore the factors associated with the key danger signs of pregnancy, labor, and labor in Gaza governorate.
3. To assess the level of primigravida women's knowledge regarding key danger signs of pregnancy.
4. To assess the level of primigravida women's knowledge regarding key danger signs of labor.
5. To assess the level of primigravida women's knowledge regarding key danger signs of pregnancy, labor and post-partum

1.6 Research questions

1. What is the level of birth preparedness and complication readiness among primigravida women in Gaza governorate?
2. Is there a significant difference in the level of birth preparedness and complication with regard to maternal age?

3. Is there a significant difference in the level of birth preparedness and complication with regard to the level of income of the mothers?
4. Is there a significant difference in the level of birth preparedness and complication with regard to the marital statuses of the mothers?
5. Is there a significant difference in the level of birth preparedness and complication with regard to the educational qualifications of the mothers?
6. What is the level of primigravida women's knowledge of key danger signs of pregnancy, labor and post-partum period?
7. What is the nature of relationship between the level of birth preparedness and complication, and the mothers' knowledge of key danger signs of pregnancy, labor and post-partum period?
8. Is there an effect of pregnant women's demographic factors on the level of their knowledge regarding key danger signs with regard to their and other factors?

1.7 Operational definition of terms

1.7.1 Birth preparedness and complication readiness

The researcher defined the term "birth preparedness and complication readiness" as the level of preparedness of pregnant women's in the Gaza governorate for the process of birth.

1.7.2 Factors associated with birth preparedness and complication readiness

It was defined as the factors that are stimulate the primigravida woman to be prepared for birth and to be ready for any complications, factors proposed in the current study include: women's age, women's occupation, women's educational level, family size, number of visits for ANC follow up, knowledge of danger signs during pregnancy, labour and post-partum period.

1.7.3 Knowledge on key danger signs of pregnancy

It is the level of knowledge of primigravida's women in Gaza governorate on key danger signs of pregnancy which are obtained from their answers on the study tool. The nearest mean score to the maximum score is considered more knowledgeable and vice versa. Those who have a score below the median one, are considered have non-satisfied score, and were considered having satisfied one if they have score above the median level.

1.7.4 Knowledge on key danger signs of labor

It is the level of knowledge of primigravida's women in Gaza governorate on key danger signs of labor which are obtained from their answers on the study tool. The nearest mean score to the maximum score is considered more knowledgeable and vice versa. Those who have a score below the median one, are considered have non-satisfied score, and were considered having satisfied one if they have score above the median level.

1.7.5 Knowledge on key danger signs of post-partum

It is the level of knowledge of primigravida's women in Gaza governorate on key danger signs of post-partum which are obtained from their answers on the study tool. The nearest mean score to the maximum score is considered more knowledgeable and vice versa. Those who have a score below the median one, are considered have non-satisfied score, and were considered having satisfied one if they have score above the median level.

1.8 Context of the study

The Palestinian territories consist of two politically separated areas West Bank and Gaza Strip. Gaza strip is a narrow zone of land bounded of the south by Egypt, on the west by the Mediterranean Sea, and on the east and north by the occupied territories in 1948. Gaza strip is very crowded place with 46 kilometers long and 5 –12 kilo-meters wide and with a

total area of 365 km^2. Gaza strip is administratively divided into five governorates: North, Gaza, Mid-zone, Khanyounis and Rafah. It consists of four cities, fourteen villages and eight refugees' camps (Palestinian central bureau of statistics {PCBS}, 2016).

1.8.1 Gaza Strip

Gaza Strip has a population of 1,899,291 people. Population density is 5,154 inhabitants per sq. km^2. Gaza Strip has an extremely high population growth rate of over 3.3% and a fertility rate of 3.8, and as a result some 44.2% of the population is under the age of 15 (PCBS, 2017).

1.8.2 Palestinian Health Care System

The Palestinian Health Care System (PHCS) is consists of four major providers: Ministry of Health (MOH), United Nation Relief and Work Agency (United Nations Relief and Works Agency [UNRWA]), Non-Governmental Organizations (NGOs) and for profit private sector. The main provider MOH is operating 27 hospitals (14 in West Bank and 13 in Gaza Strip) and 466 PHC facilities. Another main component UNRWA is operating 65 PHC facilities (Ministry of Health, 2017).

1.8.2.1 Primary Health Care Centres

Primary health care (PHC) is a major component of Palestinian health care system. PHC provides preventive, promotional, curative and rehabilitative health care to all Palestinian people especially for children and other vulnerable groups through MOH, UNRWA, non-governmental and private centers. PHC centers try to offer accessible and affordable health services for all Palestinians regardless of geographical locations. According to MOH policy, PHC centers classified from level I to level IV according to health services they provided. The total number of governmental PHC centers in the Gaza Strip is 54, and there

are 65 PHC centers operated by UNRWA, 192 operated by NGOs, while the total number of military health centers is 20 (Health Annual report, 2018).

1.8.2.1.1 Mother and Child Health (MCH) Services

In 2017, the total number of pregnant visits to PHC centers was 154,251. The total number of pregnant women registered (first visit) in the PHC at MoH centers was 34,032, with coverage of 43.6% of pregnant women; the average visit rate for pregnant women to the centers during pregnancy was 4.5 visits (Ministry of Health, 2017)

Moreover, in 2017, 5,597 pregnant women were referred to high risk pregnancy clinics which constituted 16.4% of total pregnant women registered in different MoH MCH clinics, while the total visits to high risk pregnancy centers amounted to 29,495 during the same period. Jericho & Al Aghwar Governorates recorded the highest rate of referral to HRP clinics, which reached 25.3% of the total number of registered pregnant women. While Al-Dhahiriya Center recorded the lowest rate of referral to HRP clinics, which amounted to 8.7% of all pregnant women registered (Ministry of Health, 2017).

Chapter Two

Conceptual Framework and Literature Review

2.1 Conceptual framework of the study

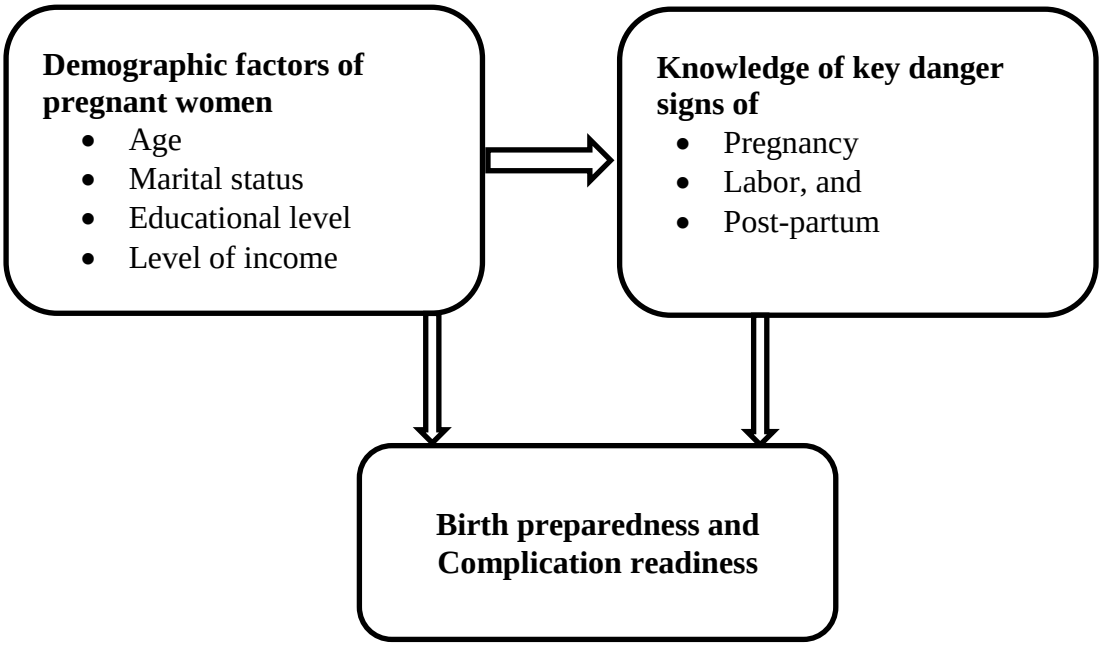

Figure 2.1: Conceptual Framework

Figure 2.1 illustrates the study conceptual framework (self-prepared). This conceptual framework consists of three main dimensions, the first and second dimension consist of independent variables which are: socio-demographic factors of the pregnant women and knowledge of key danger signs of pregnancy, labor and post-partum. The other dimension represents the dependent variable which is the birth preparedness and complication readiness of the primigravida women. Also, the framework illustrates that the socio-demographic factors of the pregnant women is independent for the variable of knowledge of key danger signs of pregnancy, labor, and post-partum.

2.2 Literature Review

2.2.1 Overview

Maternal deaths are thought to occur due to three main delays; delays in deciding to seek care, delays in reaching care, and delays in receiving care. These delays have many causes, including logistic and financial concerns, unsupportive policies, and gaps in services, as well as inadequate community and family awareness and knowledge about maternal and newborn health issues. (WHO, 2015)

Delays in deciding to seek care may be caused by failure to recognize signs of complications, failure to perceive the severity of illness, cost considerations, previous negative experiences with the health care system, and transportation difficulties. Delays in reaching care may be created by the distance from a woman's home to a facility or provider, the condition of roads, and a lack of emergency transportation. Delays in receiving care may result from unprofessional attitudes of providers, shortages of supplies and basic equipment, a lack of health care personnel, and poor skills of health care providers. The causes of these delays are common and predictable (Waiswa et al., 2010).

The Birth Preparedness framework can be critiqued for being based on the assumption that if knowledge about complications and treatment options is increased, and practical barriers, such as the availability of cash and means of transportation are removed, behaviour will change accordingly and the utilization of emergency obstetric care services will increase. In line with non-health determinants such as educational, social and economic indicators, this assumption has also been challenged in other reviews, stating that it does not take into account the complexity of behaviour change and the multitude of factors that determine and influence behaviour. From this critique, it is thought that that in order to enhance behaviour change, the implementation of a birth preparedness project

needs the continuous involvement and participation of community and health system stakeholders, so that other contributing and inhibiting factors can be recognized, accounted for and managed accordingly (Gitonga, 2014).

2.2.2 Epidemiology of Maternal Mortality

About 830 women die from pregnancy or childbirth-related complications around the world every day. It was estimated that in 2015, roughly 303 000 women died during and following pregnancy and childbirth. Almost all of these deaths occurred in low-resource settings, and most could have been prevented (Alkema et al., 2016). Developed countries have a maternal mortality rate of 12 maternal deaths per 100,000 live births and developing countries of 239 maternal deaths per 100,000 live births. Up to 20 maternal deaths per 100,000 live births are considered reasonable (WHO, 2016). In the GS, maternal mortality rate is higher [8.6/100,000 live births] than in West Bank [3.8/100,000 live births] (Health Annual Report, 2017).

2.2.3 The Concept of Birth Preparedness

Birth Preparedness is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, it is the process of planning for normal birth and anticipating the actions needed in case of an emergency (Kiataphiwasu and Kaewkiattikun, 2018). Responsibility for birth preparedness must be shared among all safe motherhood stakeholders; policy makers, facility managers, providers, communities, families, and women because a coordinated effort is needed to reduce the delays that contribute to maternal and new born deaths (Deoki, 2009).

To be able to be prepared for birth and possible complications, women, families and communities need to know about signs of onset of labour as well as danger signs during pregnancy and after birth for the woman and newborn. Birth and complications

preparedness interventions have evolved and while originally programmes focused largely on care seeking for the woman, in recent years, programmes have recognized the value of discussing care-seeking for newborn complications (World Health Organization, 2014). This recommendation was published within the 2015 WHO guideline "WHO Recommendations on Health Promotion Interventions for Maternal and Newborn Health (World Health Organization, 2015b).

2.2.4 The Role of Ante-Natal Care (ANC) in Birth Preparedness

The entry point for birth preparedness is routinely through the ante-natal services where the woman is expected to attend for comprehensive screening, prevention and care ideally at least four visits during the trimesters of pregnancy, ANC is usually provided at primary healthcare level as part of a basic package of maternal healthcare. During the first visit the mother is taken through birth preparedness concept (Gitonga, 2014).

Birth preparedness and complication readiness is an intervention included by WHO as an essential element of the antenatal care (ANC) package (World Health Organization, 2015). It is often delivered to the pregnant woman by the health care provider in antenatal care or initiated or followed up through a visit to the home of the pregnant woman by a community health worker. In addition to working with an individual pregnant woman, programmes often address efforts to her family and to the broader community to increase awareness on birth preparedness and complication readiness or to improve health workers' skills to provide birth preparedness and complication readiness as part of ANC. Programmes often provide education materials or other visual aids with birth preparedness and complication readiness information, or may implement mass media campaigns with birth preparedness and complication readiness messages (World Health Organization, 2015a).

2.2.5 Birth Preparedness and Complication Readiness and Safe Motherhood Program Approaches

Birth preparedness has been globally endorsed as an essential component of safe motherhood programs to reduce delays for care. Birth preparedness and complication readiness is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, based on the theory that preparing for childbirth and being ready for complications reduces delays in obtaining this care (Markos and Bogale, 2014). Moreover, it helps to ensure that women can reach professional delivery care when labour begins. In addition, birth preparedness can help to reduce the three main delays that occur when women experience obstetric complications, which are 1) recognizing the complication and deciding to seek care, 2) reaching a facility where skilled care is available and 3) receiving care from qualified providers at the facility (Rasha and Rasha, 2010).

2.2.6 Elements of Birth Preparedness

A birth and complications preparedness plan contains the following elements: the desired place of birth; the preferred birth attendant; the location of the closest facility for birth and in case of a complication; funds for any expenses related to birth and in case of complications; supplies and materials necessary to bring to the facility; an identified labour and birth companion; an identified support to look after the home and other children while the woman is away; transport to a facility for birth or in the case of a complication; and the identification of compatible blood donors in case of emergency (World Health Organization, 2013).

In other studies, Birth preparedness include many elements, such as: 1) Registration of pregnancy, 2) Knowledge of danger signs, 3) Plan for where to give birth, 4) Plan for a

skilled birth attendant, 5) Plan for transportation, 6) A birth companion, and 7) Identification of compatible blood donors in case of emergency (Acharya et al., 2015).

Historical evidence indicates that no country has managed to bring to bring its maternal mortality ratio below 100 per 100000 live births without ensuring that all women are attended by an appropriate skilled health professional during the perinatal period. Birth preparedness is one of the strategies to increase skilled attendance. Birth preparedness is not easy to achieve due to poverty in developing countries. The situation is worse in rural areas because of poor transport and the money to pay for it (Gitonga, 2014).

2.2.7 Birth Preparedness Awareness and Practices

There are several studies which have conducted on birth preparedness awareness and practices in developing and developed countries. A study was conducted in Thailand by Kiataphiwasu Kaewkiattikun (2018) to discover the proportion of good birth preparedness and its associated factors and predictive factors for good birth preparedness in pregnant women attending antenatal clinic among 672 pregnant women, their study revealed that the proportion of good birth preparedness was 78.6%. The association between baseline characteristics with birth preparedness status revealed that the good birth preparedness group was significantly associated with adult pregnancy, married, high education, being employed, high income, extended family, multiparity, first antenatal visit equal or more than 12 weeks and average distance to the hospital more than 2 hours. Factors associated with birth preparedness include a diploma or a bachelor's degree education, income more than 10,000 baht, extended family, and multiparity.

Another study conducted by Gebre et al. (2015) to assess birth preparedness and complication readiness and its associated factors among pregnant woman in South Ethiopia, revealed that only one tenth (10.7%) of pregnant women identified skilled

provider, only 18.1% arranged transportation to health facility, 43.6% of the women identified health facility for delivery and/or for obstetric emergencies, and more than half of families saved money for incurred costs of delivery and emergency if needed. Their study also revealed that the less than one fifth of pregnant women were well prepared. Factors associated with birth preparedness included maternal availing of antenatal services, being pregnant for the first time, having knowledge of at least two danger signs during pregnancy, and history of past obstetric complication.

Moreover, a study of Waghmare et al. (2018) revealed that the birth preparedness and complications readiness index was 46.02%, and the proportion of women who were well prepared for birth and ready for complications was still found to be low, in their study they have recommended that improving awareness of women and reinforcing counselling on obstetric care to increase level of birth preparedness and complication readiness.

Additionally, Hailu et al. (2011) in their study revealed poor comprehensive knowledge and practices of preparation for birth among 534 respondents taking into account identification of place of delivery. While Zubairu et al. (2010) in a related study revealed that only a 20.5% of the women identified a skilled provider and 8.1% identified a health facility for delivery care. Identification of means of transport to the delivery facility was also low (7.7%) and only 34.5% had saved money for delivery costs. The majority of the women were to deliver at home (87.9%), with only 8% planning to deliver in hospital and 19.5% had made arrangements for transport in the hospital.

Furthermore, Siddaharth et al., (2010) indicated that 47.8% of the women in India were prepared for birth in respect to identification of skilled attendance, place of delivery, means of transport and saving money for delivery costs. Deoki (2009) in his study found that

18.6% of the women had transportation means and 44.2% had saved money for delivery, the overall birth preparedness and complication readiness index was 47.5%.

In a study in Kenyatta National Hospital by Mutiso (2008), over 60% of the respondents were counselled by health workers on various elements of birth preparedness. The study also established that most of the respondents (84.3%) had set aside funds for transport to hospital during labour while 62.9% had funds for emergencies and found that 65.2% had identified a birth companion. Unfortunately, there were no previous studies related to the topic in Arab countries, hence the studies which have been mentioned above; were conducted outside the Arab countries.

2.2.8 Factors affecting women's birth preparedness and complications readiness

There are several factors which are considered have significant effect on the women's level of birth preparedness and complications readiness. These factors are illustrated below:

2.2.8.1 Socio-demographic and individual factors

One study conducted by Affipunguh and Laar (2016) showed that having at least a primary education and living in a rural area were significantly associated with birth preparedness, the study also revealed that identification of a potential blood donor and a skilled birth attendant were not considered crucial by the respondents. Moreover, a study conducted by Markos and Bogale (2014) the variables having statistically significant association with birth preparedness and complication readiness of women were attending up to primary education, attending up to secondary and higher level of education, the presence of antenatal care follow, knowledge about key danger signs during pregnancy, and knowledge about key danger signs during the postpartum period.

Another study conducted by Kuganab et al. (2014) showed that age, educational level and socio-economic status of respondents were significantly associated with the use of skilled delivery services, and the other factors that were found to influence birth preparedness and complication readiness include; number of deliveries, wealth index, level of education, marital status, number of ANC visits and knowledge of danger signs. Also, 79.0% of the respondents were aware of the possibility of severe bleeding during pregnancy while 72.8% mentioned eclampsia as one of the dangers or risks during labour. Only 23% of the respondents met or followed the steps of birth preparedness and complication readiness plan.

Also, a community based cross-sectional study showed that significant predictors for being well-prepared were maternal availing of antenatal services, being pregnant for the first time, having knowledge of at least two danger signs during pregnancy, and history of past obstetric complication (Gebre et al., 2015). Also, Ekabua et al. (2011) showed that the educational status was the best predictor of awareness of birth preparedness, but not a good predictor of intention to attend four antenatal clinic sessions. Parity was a better predictor of knowledge of severe vaginal bleeding as a key danger sign during pregnancy than educational level. Plan to identify a means of transport to the place of childbirth was related to greater awareness of birth preparedness. Also, parity was a highly significant predictor of planning to save money. Planning to save money for childbirth was associated with greater awareness of community financial support system. Access to skilled birth attendance should be promoted.

Another study revealed that maternal education was a strong predictor in preparation for birth and complication. Literate mothers were about two times more likely to be prepared for birth and complication than illiterate women, marital status was another factor that was strongly associated with birth preparedness and complications readiness, in which married

women were more likely to be prepared for birth/complication than non-married and there was a statistically significant association between parity and preparation for birth and its complication. Women with parity range of 2 to 4 were more likely to prepare for birth and its complication than grand multiparas (more than 4 deliveries) and primiparous women (first time delivery). Also, the women who had history of still birth were also more likely to prepare for birth and its complication than those who did not have still birth (Mihret et al., 2006).

Additionally, advice given on preparation for birth and its complication during ANC follow up was also significantly associated with preparation for birth/complication. Women who were advised about where to give birth and arrangements for money and transportation during their ANC follow up were more likely to be prepared for birth and its complication than those that were not given such advice (Mihret et al., 2006). A cross sectional study on birth preparedness among slum women in India found that literacy, availability of ante-natal services, literate husband, better knowledge about maternal/newborn danger signs suggestive for seeking referral were associated with well preparedness (Siddaharth, et al., 2010).

In a study in Kenyatta National Hospital found that the level of education positively influenced birth preparedness (Mutiso, 2008). In a study in Uganda, parity, age of spouse, education level, occupation of spouse, presence of pregnancy complications and the anticipated mode of delivery were associated with having a birth plan. Educated women have better pregnancy outcome compared with uneducated women, possibly since they are better informed, are likely to make better choices, are more likely to develop and implement a birth plan, and are more socially or financially empowered to make the necessary decisions in case of obstetric emergencies. Information, education and counselling plays a vital role in prevention of maternal death. This it does by making the

pregnant women (and their partners) aware of the sequence of events from late recognition of danger signs, through delays in seeking care to delays in receiving prompt care (Kakaire et al., 2011).

More importantly, women's education has been found to be one of the key determinants of maternal healthcare utilization (Celik and Hotchkiss, 2000; Navaneetham and Dharmalingham, 2002; Pallikadavath et al., 2004). Chakraborty et al. (2003) confirms the importance of women's education in the utilization of health care services in developing countries. In India for example, women with high school education and above were 11 times more likely to use antenatal care compared to illiterate women (Navaneetham and Dharmalingham, 2002). In Mali, low maternal women's education has also been found to be an obstacle to the improvement of maternal healthcare utilization (Gage, 2007).

Education of women likely enhanced autonomy so that women could develop confidence and capabilities to make decisions regarding their own health (Navaneetham and Dharmalingham, 2002). Educated women were more aware of health problems, knew more about the availability of health care services, and used information to achieve good health status (Chakraborty et al., 2003).

Other studies revealed that the woman's age, number of pregnancies carried, and whether or not she was married were factors that also play an important role in the utilization of maternal health care services (Chakraborty et al., 2003; Pallikadavath et al., 2004). Women carrying their first child were probably more susceptible to difficulties during labour and were more cautious than women who have had several births (Raj et al., 2009). Therefore, women who were pregnant for the first time were more motivated to utilize maternity care because they did not know what to expect from the process (Pallikadavath et al., 2004; Singh et al., 2012).

Subsequently, as a woman endured more pregnancies, she would rely on her experience and draw from that knowledge (Singh et al., 2012). In a study conducted in India, there were no significant differences in the likelihood of receiving antenatal care between first and second order birth, but it was an important predictor for women who had four or more births. In this later group the probability of receiving antenatal care was reduced by 60 % (Navaneetham and Dharmalingham, 2002).

Age was highly correlated with parity and, in some settings, with educational level (Gabrysch and Campbel, 2009). The mothers' age may serve as a proxy for the woman's accumulated knowledge of health care services, which would have a positive influence on the use of health services. Older women were more likely to seek maternal healthcare than younger women (Chakraborty et al., 2003).

Babalola and Fatusi (2009) found that in Nigeria, women in the middle child bearing ages were more likely to use maternal health services than women in early and late child bearing, and so being of older age at marriage is positively associated with the use of healthcare services. One study in rural India reported that utilization of antenatal care was higher among women married at 19 or older compared to those married at less than 19 years (Pallikadavath et al., 2004).

Moreover, Babalola and Fatusi (2009) found that the girls in Africa may be restricted from seeking healthcare services because of fear or need for permission from a spouse or in-laws. Other studies also revealed that ethnicity and religion are often considered markers of cultural background and are thought to influence beliefs, norms, and values in relation to childbirth, service use, and women's status (Gabrysch and Campbel, 2009).

A woman's age, number of pregnancies carried, and whether or not she was married were factors that also play an important role in the utilization of maternal health care services

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Whether or not a woman is employed is one of the most important factors that positively influenced the use of maternal healthcare (Chakraborty et al., 2003). Women who were working and earning money may have been able to save and decided to spend it on a facility delivery (Gabrysch & Campbel , 2009).

2.2.8.2 Knowledge about Complication Readiness or Danger Sign of Pregnancy

The danger signs are not the actual obstetric complications, but symptoms that are easily identified by non-clinical personnel. Every pregnancy faces risks; the women should be made aware of danger signs of obstetric complications during pregnancy, delivery and the postpartum. The knowledge will ultimately empower them and their families to make prompt decisions to seek care from skilled birth attendants (Gebrehiwo et al., 2014). Obstetric danger signs include persistent vomiting, severe persistent abdominal pain, vaginal bleeding during pregnancy and delivery, severe vaginal bleeding after delivery, swelling of face, fingers and feet, blurring of vision and fits of pregnancy severe recurrent frontal headache, high grade fever, marked change in fetal movement, awareness of heart

beats, high blood pressure, sudden escape of fluid from the vagina, dysuria, oliguria or anuria, prolonged labour, loss of consciousness and retained placenta (Rasha and Rasha, 2010).

In some of the countries in the developing world, home birth remains a strong preference and often the only option, for many women in the developing world, and a large proportion of these home deliveries take place without professional attendants (Agbodohu, 2013). Provision of a health worker with midwifery skills at every birth is considered a crucial intervention for safe motherhood, yet the WHO estimates that 47% of births in the developing world are assisted only by traditional birth attendants, family members, or no one (WHO, 2015).

Usually, all pregnant women have to be screened for antenatal syphilis, anemia, preeclampsia and other common complications of pregnancy. However, Myer and Harrison (2003) noted that none of the women demonstrated any understanding of the potential benefits of such programs in their study. In these circumstances, the possible benefits associated with antenatal services appear to be of secondary importance to the necessity of procuring an antenatal attendance card. Orinda et al. (2005) believe that women in some developing countries like Africa are poorly informed about the risks of pregnancy and the importance of antenatal care, while being coerced by the structure of the health care system into using facility-based services for labor and delivery. This scenario, high-lighted by poor communication between lay women and providers, sharply influences pregnant women's perceptions of antenatal care services and helps to shape their service utilization, reinforcing views of antenatal care as a nuisance and of labour and delivery as requiring facility-based care. In Palestine, these figures are not preset especially the ANC services are free, and most of the women are careful about utilizing antenatal care is good especially the percentage of coverage with antenatal care is 99.5%, and the delivery with

the assistance of qualified health professional is 99.4%, a network of NGOs also works on raising awareness, increasing number of referral to mammography and support women in need with means and resources for transportation to diagnosis and treatment facilities (United Nations Population Fund [UNFPA], 2017).

While these approaches to antenatal care provision and utilization may help contribute to safer childbearing through facility-based delivery, they also serve to limit women's understandings of health and health risks during pregnancy. Women's understandings of health in pregnancy contribute to late antenatal health seeking and inadequate attendance partners, which contribute in turn to avoidable prenatal deaths. Findings from a previous study by Kabakyenga et al. (2011) revealed that knowledge of obstetric danger signs and birth preparedness are strategies that enhance the utilization of skilled care during low-risk births and emergency obstetric care in complicated cases in low income countries. The presence of skilled attendants at births and availability of emergency obstetric care have been shown to greatly reduce maternal deaths that occur due to obstetric complications (Kabakyenga et al., 2011).

2.2.8.3 Traditional Beliefs

Tradition in its technical sense means truths or principles of a divine origin revealed or unveiled to mankind (Marty, 2004). Traditional knowledge or belief was defined as knowledge of local people and their everyday life. Traditional cultural practices reflected values and beliefs held by members of a community for periods often spanning generations. Every social group in the world has specific traditions, cultural practices, and beliefs. Some are based on religious beliefs and probing into religions further will provide an understanding of a particular culture (Agbodohu, 2013). Traditional culture played a major role in the way a woman perceived and prepared for her birthing experience - this

may positively or negatively affect the use of health care in general and maternal health in particular (Greene, 2007).

Religious beliefs within the community may act as a barrier for seeking care (Yousuf et al., 2011). Also, Syed et al. (2008) found that religious beliefs were a barrier for ANC utilization in Bangladesh. Husbands and mothers in-law were usually the decision makers about ANC and some women also found the idea of ANC to be shameful, especially if they felt they would be examined by a male worker. A similar study was done among Ethiopian Afar, where women stated during a focus group that only God and their husband could see them naked (Yousuf et al., 2011). Religious beliefs can also be the main reason for delayed referral to health services and preference for home delivery (Yousuf et al., 2011).

Pregnant women may prefer consultation with local religious leaders, traditional healers, and traditional birth attendants over seeking care from qualified health providers. In rural Gambia, older women in menopause are seen as experts on pregnancy and childbirth. When consulted, they usually decide what should be done and their advice is taken. For example, an older woman may advise a woman in labor to wait until the next Muslim praying time before seeking care (Agbodohu, 2013).

Another example is a study among Uganda women who felt embarrassed to give birth in a health facility because other members of the community would think they were not brave enough to give birth on their own (Ndyomugyenyi et al., 1998). In a study among the women of Benin, birth represented a rare opportunity for a woman to demonstrate pride, courage, and bring honor to her and her husband's families by her stoic demeanor. The woman who managed to deliver without indication that she was in labour and without calling for assistance until the child was born was especially esteemed (Kyomuhendo, 2003).

Other harmful traditional practices that impact maternal health include female genital mutilation, early marriage, early pregnancy, traditional birth practices such as pushing on the abdomen to hasten delivery, and the use of certain surgical procedures. For example in northern Nigeria, traditional healers make an incision in the vagina on women who are not making progress in labour (Agbodohu, 2013).

The practice is also in Ghana, though for other reasons. Some ethnic groups in Sierra Leone discourage pregnant women from eating meat and eggs, because it is believed that eating meat during pregnancy will cause her to give birth to a witch (Offor, 2010). There were however, some traditional practices that were beneficial to the mother and baby (Raven et al., 2007). For example, among many cultures in Africa, women were encouraged to breastfeed their infant for over a year, thus encouraging the practice of spacing between pregnancies (Offor, 2010).

In Palestine, the Palestinian social customs and traditions are similar to those of other Arab countries and date back to when Palestine was a rural, agricultural society and life centered on the village and the farming calendar. There were a few small cities, like Jerusalem, Nablus, Hebron and Gaza, that specialized in the production of goods. With modernization and increased education levels, social customs began to change as well. Cities and the professional class grew, weakening somewhat the traditional strength of clans, or extended families that lived and worked the village land together. One study revealed that 48.0% of WB deliveries took place in crowded and understaffed governmental hospitals and there were no available statistics from the Gaza Strip. Reported practices were not consistently in line with evidence-based care and the lack of knowledge and structural barriers were reasons for this gap (Wick et al., 2005).

Chapter Three

Methodology

3.1 Introduction

The chapter of methodology illustrates the issues related to methodologies used to answer the research questions, the chapter commences with study design, study population, study setting, period of the study, sample size, sampling and statistical methods that were used.

3.2 Study design

The design of this study was a quantitative cross-sectional. This design was chosen because it is less expensive, suitable in terms of time and costs, and meets the study objectives in short time.

3.3 Study setting

The study was conducted at governmental primary health care centers mainly at antenatal care clinics in Gaza governorate.

3.4 Study population

The study population consisted of the primigravida women who attended governmental primary health care centers mainly antenatal care clinic in the Gaza governorate for antenatal care follow up. The number of primigravida women who attended governmental primary health care centers mainly antenatal care clinic in the Gaza governorate is 812, and the number of antenatal care clinics in the Gaza governorate is 13 (Health Annual Report, 2017).

3.5 Sample size and Sampling process

The sample size calculation was determined by a single population proportion formula for cross sectional study, based on the margin of error and confidence interval was taken to be 0.05 and 0.95 respectively, and 0.8 power sample.

$$\boxed{n = \frac{N \times p(1-p)}{\left[\left[N-1\times\left(d^2 \div z^2\right)\right] + p(1-p)\right]}}$$

$$n = \frac{812\text{x } 0.50(1-0.50)}{812 - 1\text{x}\left(\frac{0.0025}{3.84}\right) + 0.50(1-0.50)}$$

Sample size after calculation was 261. After consultations with some experts, it was suggested to select five antenatal care clinics. Simple random sampling method was applied to select the governmental ANC clinics in the Gaza governorate. After the application of simple random sampling, the selected clinics were: Al-Sourani, Al-daraj, Remal, Zaytoon, and Sabha primary health care centres. Regarding the collected samples , 236 (90.4%) of the questionnaires have been considered as valid for statistical analysis, in which the rest of these questionnaires do not have complete data.

3.6 Inclusion criteria

- Primigravida women
- Women in the third trimester
- Interested to participate in the study

3.7 Exclusion criteria

- Women with mental or psychological problems.
- Women who have specialty related to medical / health related field (physician, nurse, etc).

3.8 Study instrument and measurements

In this study, an interview questionnaire was conducted and adopted after some modification from the medical outcomes study social support survey modified by Agbodohu (2013). The questionnaire consisted of the following sections (annex 1):

3.8.1 Socio-demographic factors

Socio-demographic factors of the women included theit age, marital status, income, working status, and educational qualification, etc.

3.8.2 Pregnancy related information

This section consists of several questions related to the presence of other diseases such as heart, renal, and hypertension disease, number of times attending ANC visits, and time of initiation of ANC.

3.8.3 Birth preparedness and complication readiness

Birth preparedness and complication readiness consisted of 19 questions, the first 16 questions were closed ended with yes or no answer, in which the answer of yes took a score of (1) and the answer of no took the score of (0), meaning that the score of (1) indicates that the woman is prepared for the mentioned item and vice versa for the answer of no (0). The rest of questions which are 17, 18, and 19 have score from 1 (less prepared) to 4 more prepared.

The total score of this section was 28 calculated as (16 scores for the first 16 questions + 12 scores for the last three questions). Moreover, median score was calculated and considered as a cut of point to distinguish the women who were prepared from those who were not. The median score for this section was 23.0.

3.8.4 Knowledge on key danger Signs of Pregnancy

The level of knowledge on key danger signs of pregnancy consisted of 13 questions, they were closed ended with yes, no, or do not know, in which the answer of yes took a score of (1) and the answer of no and "do not know" took the score of (0), meaning that the score of (1) indicates that the woman has the correct answer about the mentioned key danger sign of pregnancy and vice versa for the answer of no and for "do not know" (0).

The total score of this section was 13 (1 score for each item). Moreover, median score was calculated and considered as a cut of point to distinguish the women who have satisfactory level of knowledge about key danger signs of pregnancy from those who did not. The median score for this section was 7.0.

3.8.5 Knowledge on key danger signs of labor

The level of knowledge on key danger signs of labor consisted of 8 questions, they were closed ended with yes, no, or do not know, in which the answer of yes took a score of (1) and the answer of no and "do not know" took the score of (0), meaning that the score of (1) indicates that the woman has the correct answer about the mentioned key danger sign of labor and vice versa for the answer of no and for "do not know" (0).

The total score of this section was 8 (1 score for each item). Moreover, median score was calculated and considered as a cut of point to distinguish the women who have satisfied

level of knowledge about key danger signs of labor from those who did not. The median score for this section was 3.0.

3.8.6 Knowledge on key danger signs of post-partum

The level of knowledge on key danger signs of post-partum consisted of 12 questions, they were closed ended with yes, no or do not know, in which the answer of yes took a score of (1) and the answer of no and "do not know" took the score of (0), meaning that the score of (1) indicates that the woman has the correct answer about the mentioned key danger sign of post-partum and vice versa for the answer of no and for "do not know" (0).

The total score of this section was 12 (1 score for each item). Moreover, median score was calculated and considered as a cut of point to distinguish the women who have satisfied level of knowledge about key danger signs of post-partum from those who did not. The median score for this section was 5.0.

3.9 Data collection

The process of data collection was conducted by the researcher's herself after obtaining approval from Helsinki and MoH in the Gaza Strip, in which an interview was done with the pregnant women in the preceded governmental PHC centers. The process of data collection took three one month for completion.

3.10 Ethical consideration

All ethical considerations required to conduct a research were followed, an approval was obtained from Alquds University and Helsinki Committee. Moreover, a formal letter was obtained from the ministry of health in the Gaza Strip to start data collection. Also, an informed consent was obtained from all the women to participate in the study. There was

no risk for the women to participate in the current study, also the issue of privacy was considered.

3.11 Validity of the instrument

The questionnaire was submitted to five experts (annex 2) in the field of mother and child health and in the field of gynaecology and obstetrics to give their opinions about it. There were some minor changes after receiving the comments from the experts.

3.12 Period of the study

The study was conducted during the period from May (2018) till March (2019).

3.13 Statistical management

Statistical package for the Social Sciences version 22 was used to analyse data using statistical procedures such as:

Descriptive statistics: it was used to describe the study demographic variables such as mothers' age, education, marital status, the level of birth preparedness, level of mothers' knowledge about key danger signs of pregnancy, labor and post-partum.

Independent sample *t* test: it was used to detect the differences in the level of birth preparedness and key danger signs with regard to presence of diseases during pregnancy, and working status.

Analysis of variance (ANOVA): it was used to detect the differences in the level of birth preparedness and key danger signs with regard to marital statuses, educational qualifications, and ANC clinic.

Pearson correlation test: it was used to quantify the relationship between the mean level of birth preparedness and quantitative variables such as family size, maternal age, number of times for ANC visits, and initiation of visits in months, the results were presented in the

value of *r* relationship and its p value, positive *r* value indicates a direct relationship, and the negative one indicates an inverse relationship.

The strength of *r* value was measured as the following (Norsa'adah, 2011):

< 0.25	Weak relationship
0.25 – 0.50	Fair Relationship
0.51 – 0.75	Good Relationship
> 0.75	Excellent relationship

Chapter Four

Results and Discussion

4.1 Introduction

This chapter illustrates the results of statistical analysis of the data, including descriptive of socio -demographic characteristics of the study sample as well as answers to the study questions. The researcher used simple statistics including frequencies, means and percentages, also independent sample *t* test, One-way ANOVA, and Pearson correlation test.

4.2 Socio-Demographic Characteristics of the Sample

Table 4.1: Sample Distribution According to the Participants' Marital Status, Level of Education for them and for their Husbands (n=236)

Variables	Number	Percentage (%)
Marital status		
Married	219	92.8
Divorced	6	2.5
Widowed	11	4.7
Mother's Education		
Below secondary	63	26.7
Secondary	126	53.4
University	47	19.9
Husband's Education		
Below secondary	86	36.5
Secondary	99	41.9
University	48	20.3
Pot Graduate	3	1.3
Total	236	100.0

Table 4.1 shows the distribution of study participants according to their marital status, mother's education, and husband's education. The table shows that the majority (92.8%) of the study participants are married, while 4.7% are widowed. The table also shows that

53.4% of the study participants have secondary school, 26.7% have below secondary school, while 19.9% have university degree. Moreover, the table shows that 41.9% of the study participants have husbands with secondary school, 36.5% have husbands with below secondary school, while 20.3% of them have husbands with university degree.

4.2.1 Sample Distribution According to the Participants' Working Status

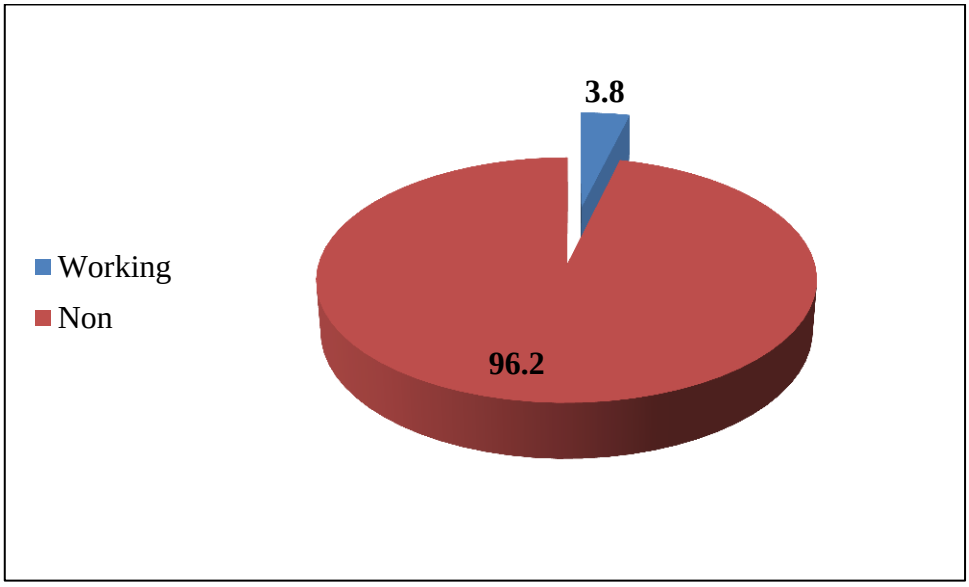

Figure 4.1: Sample Distribution According to the Participants' Working Status

Figure 4.1 shows that the vast majority (96.2%) of the study participants are not working, while only 3.8% of them are working. This could be attributed to the current status of the Gaza strip, in which the majority of the population do not have employment.

4.2.2 Sample Distribution According to the ANC included in the Study

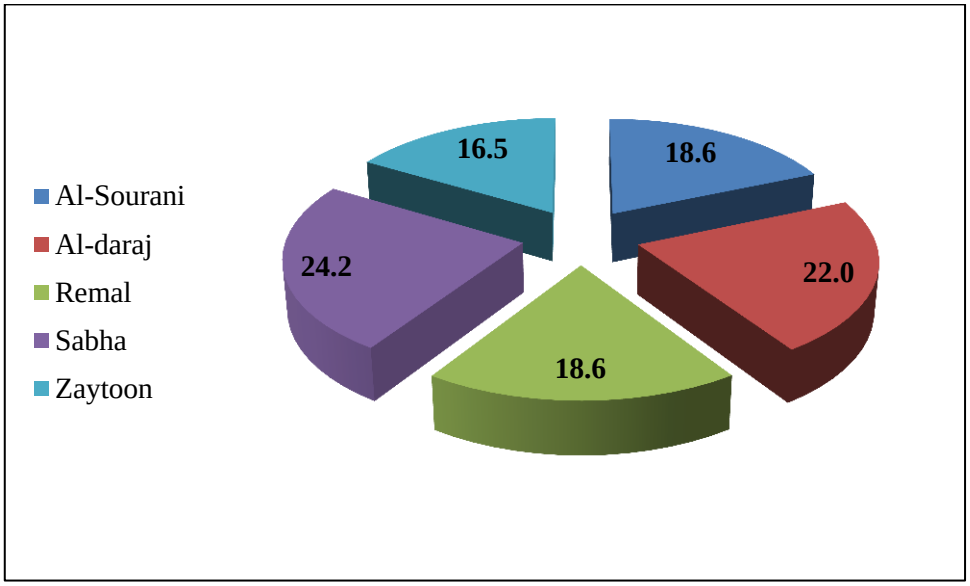

Figure 4.2: Sample Distribution According to the ANC

Figure 4.2 shows that 24.2% of the study participants were from Sabha primary health care cenetr, 22.0% of them were from Aldraj primary health care cenetr, 18.6% of them were from Remal primary health care cenetr with the same percentage to Al-Sourani primary health care cenetr, While 16.5% were from Alzaytoon primary health care cenetr.

4.2.3 Sample Distribution According to the Participants' Age, Level of Income, and Number of Family Members

Table 4.2: Sample Distribution According to the Participants' Age, Level of Income, and Number of Family Members (n=236)

Variables	Number	Percentage (%)	Mean ± SD
Age groups			
≤ 20 years	64	27.1	23.52 ± 4.27
21 – 29 years	152	64.4	
≥ 30 years	20	8.5	
Family income			
≤ 1000 Shekel	198	83.9	763.55 ± 707.54
>1000 – ≤1500 Shekel	23	9.7	
>1500 Shekel	15	6.4	
Family members			
< 4 members	106	44.9	5.09 ± 3.92
4 – 6 members	71	30.1	
> 6 members	59	25.0	
Total	236	100.0	

The table shows that 64.4% of the study participants are 21 – 29 years old, and 27.1% are 20 years and below, this could be attributed to the fact that this study was conducted among primigravida women, in which they have pregnancy for the first time, thus only 8.5% of them have their pregnancy for the first time. The table also shows that 83.9% of the study participants have income of 1000 Shekel and less, 9.7% have income between 1001 and 1500 Shekel. Also, the table shows that 44.9% of the study participants have less than four family members, 30.1% have 4 – 6 family members, and 25.0% have more than six family members.

4.3 Pregnancy Related Information

Table 4.3: Medical Conditions During Pregnancy, number of ANC Visits, and Time Initiation of ANC Visit (n=236)

Variables	Number	Percentage (%)
Hypertension		
No	229	97.0
Yes	7	3.0
Heart Disease		
No	236	100.0
Yes	0	0.0
Renal Disease		
No	236	100.0
Yes	0	0.0
Times attended ANC clinics in the current pregnancy (months)	Mean ± SD 5.93 ± 2.75	
Month started visits to ANC	Mean ± SD 4.02 ± 4.10	

The table shows that the vast majority (97.0%) of the study participants do not have hypertension, all of them do not have either heart diseases nor renal diseases. Also, the mean of the number of times attended ANC clinics in the current pregnancy is 5.93 times, while the mean of the first month in which they started ANC visits is 4.02 (the 4^{th} month).

4.4 Birth Preparedness and Complication Readiness

Table 4.4: Birth Preparedness and Complication Readiness among Primigravida Mothers

No	Area	Yes (%)	No (%)	Total (%)
1.	Did the health worker discuss with you birth preparedness during any of your ante natal visits?	69.9	30.1	100.0
2.	Know your expected date of delivery	86.0	14	100.0
3.	Identify place of delivery	76.7	23.3	100.0
4.	Save money	83.5	16.5	100.0
5.	Prepare essential items for clean delivery & post-partum period	74.2	25.8	100.0
6.	Being aware of the signs of an emergency & the need to act immediately	88.6	11.4	100.0
7.	Designating decision maker on her	86.9	13.1	100.0
8.	Arranging a way to communicate with a source of help	94.5	5.5	100.0
9.	Arranging emergency funds	83.9	16.1	100.0
10.	Identify a mode of transportation	82.2	17.8	100.0
11.	Arranging blood donors	88.6	11.4	100.0
12.	Prepare clean items for birth	62.7	37.3	100.0
13.	Have you identified an individual who will help you care for the baby after he/ she is born?	89.8	10.2	100.0
14.	Do you have someone to give you good advice when you notice a danger sign?	89.4	10.6	100.0
15.	Do you have someone to help you if you were confined to bed?	93.2	6.8	100.0
16.	Do you have someone to take you to the doctor if you needed it?	97.5	2.5	100.0

The table shows that the highest item for birth preparedness is “have someone to take you to the doctor if you needed it” (97.5%), followed by “Arranging a way to communicate with a source of help” (94.5%). The least one is the item “Prepare clean items for birth” (62.7%).

Table 4.4: Birth Preparedness and Complication Readiness (Continued)

Time	Frequency	Percentage
Time Consumed to reach the nearest delivery health facility		
Less than one hour	207	87.7
1 - 2 hours	29	12.3
3 - 5 hours	0	0.0
More than 5 hours	0	0.0
The identified home caretaker during the time of delivery		
Not identified	113	47.9
Others	123	52.1
Spouse	0	0.0
Relative	0	0.0
The one who will take care of the home during the time of delivery (coking, home arrangement, etc)		
Spouse	113	47.9
Relative	123	52.1
Other	0	0.0
Nor identified	0	0.0

The table shows that 87.8% of the primigravida women consume less than one hour to reach the nearest delivery health facility and 12.3% consume 1 – 2 hours to reach the nearest delivery health facility. Also, more than half (52.1%) of the primigravida women have home caretaker during the time of delivery other than spouse and relatives, and 47.9% do not know who will take care of the home during the time of delivery.

4.5 Women Knowledge about Key Danger Signs of Pregnancy

Table 4.5: Percentages of Women Knowledge about Key Danger Signs of Pregnancy

No	Area	Yes (%)	No (%)	Total (%)
1.	Do you know any danger signs in pregnancy	13.1	86.9	100.0
2.	Bleeding	75.0	25.0	100.0
3.	Swollen hands/face	50.8	49.2	100.0
4.	Blurred vision	49.2	50.8	100.0
5.	Convulsions	28.4	71.6	100.0
6.	Severe headache	72.0	28.0	100.0
7.	High fever	51.7	48.3	100.0
8.	Loss of consciousness	28.4	71.6	100.0
9.	Difficulty breathing	58.9	41.1	100.0
10.	Severe weakness	72.0	28.0	100.0
11.	Severe abdominal pain	75.8	24.2	100.0
12.	Accelerated/ reduced fetal movement	28.2	71.8	100.0
13.	Watery vaginal discharge	40.3	59.7	100.0

The table shows that 86.9% of the women in the current study do not know the key danger signs of pregnancy before giving them the answer choices. After giving the mothers the choices to select the suitable answer, the most key danger sign of pregnancy as mentioned by the women is “Severe abdominal pain” (75.8%), followed by “bleeding” (75.0%). While the least one is “Accelerated/ reduced fetal movement” (28.2%).

4.6 Women Knowledge about Key Danger Signs of Labor

Table 4.6: Number of Percentage of Women Knowledge about Key Danger Signs of Labor

No	Area	Yes (%)	No (%)	Total (%)
1.	Do you know any danger signs of labor	6.4	93.6	100.0
2.	Severe vaginal bleeding	70.8	29.2	100.0
3.	Prolonged labor (> 12 hours)	35.6	64.4	100.0
4.	Convulsions	22.9	77.1	100.0
5.	Severe headache	23.8	76.2	100.0
6.	High fever	46.6	53.4	100.0
7.	Loss of consciousness	30.5	69.5	100.0
8.	Retained placenta beyond 30 minutes	19.5	80.5	100.0

The table shows that the majority (93.6%) of the women in the current study do not know the key danger signs of labor before giving them the answer choices. After giving the mothers the choices to select the suitable answer, the most key danger sign of labor as mentioned by the women is “Severe vaginal bleeding” (70.8%), followed by “high fever” (40.6%). While the least one is “Retained placenta beyond 30 minutes” (19.6%).

4.7 Women Knowledge about Key Danger Signs of Post-Partum Period

Table 4.7: Number of Percentage of Women Knowledge about Key Danger Signs of Post-Partum Period

No	Area	Yes (%)	No (%)	Total (%)
1.	Do you know any danger signs of post-partum	9.3	90.7	100.0
2.	Sever vaginal bleeding	73.7	26.3	100.0
3.	Foul-smelling vaginal discharge	37.3	62.7	100.0
4.	Swollen hands/face	19.5	80.5	100.0
5.	Blurred vision	25.0	75.0	100.0
6.	Convulsions	19.1	80.9	100.0
7.	Severe headache	58.1	41.9	100.0
8.	High fever	53.4	46.6	100.0
9.	Loss of consciousness	26.7	73.3	100.0
10.	Difficulty breathing	52.1	47.9	100.0
11.	Severe weakness	66.5	33.5	100.0
12.	Dep vein thrombosis (DVT)	19.5	80.5	100.0

The table shows that the majority (90.7%) of the women in the current study do not know the key danger signs of post-partum before giving them the answer choices. After giving the mothers the choices to select the suitable answer, the most key danger sign of post-partum as mentioned by the women is “Severe vaginal bleeding” (73.3%), followed by “Severe weakness” (66.5%). While the least one is “Convulsions” (19.1%).

4.8 Summary of Birth Preparedness and Complication Readiness among Primigravida Women

Table 4.8: Mean and Mean Percentage of Birth Preparedness and Complication among Primigravida Women

Variable	Number of items	Maximum Mean Score	Mean±SD	Mean %[1]
Birth Preparedness and Complication Readiness	19	28	22.35±2.37	79.82
Knowledge about Key Danger Signs of Pregnancy	13	13	6.44±2.64	49.53
Knowledge about Key Danger Signs of Labor	8	8	2.86±1.70	35.75
Knowledge about Key Danger Signs of Post-Partum Period	12	12	4.60±2.32	38.33

Table 4.8 shows the mean and mean percentage of the primigravida mothers regarding birth preparedness and complication readiness. The maximum score of birth preparedness and complication readiness is 28.0 (100.0%). The maximum score of knowledge about key danger signs of pregnancy is 13.0 (100.0%), the maximum score of knowledge about key danger signs of labor is 8.0 (100.0%), while the maximum score of knowledge about key danger signs of post-partum is 12.0 (100.0%). The table shows that the mean of primigravida mothers regarding birth preparedness and complication readiness is 22.35 out of 28 (79.82%), their mean score of knowledge about key danger signs of pregnancy is 6.44 out of 13 (49.53%), the mean score of knowledge about key danger signs of labor is 2.86 out of 8 (35.75%). Also, the mean score of knowledge about key danger signs of post-partum is 4.60 out of 12 (38.33%).

[1] Calculated by dividing the total mean score for each domain on the max score for each domain

Table 4.9: Classification of Birth Preparedness and the Knowledge about Key Danger Signs

Variable	Frequency	%
Birth Preparedness and Complication Readiness		
Not prepared	105	44.5
Prepared	131	55.5
Knowledge about Key Danger Signs of Pregnancy		
Not satisfied	113	47.9
Satisfied	123	52.1
Knowledge about Key Danger Signs of Labor		
Not satisfied	107	45.3
Satisfied	129	54.7
Knowledge about Key Danger Signs of Post-Partum Period		
Not satisfied	104	44.1
Satisfied	132	55.9

The table shows that 55.5% of the primigravida women in the current study are prepared for birth, while 44.5% are not. Also, 52.1% of the primigravida women have satisfied level of knowledge about key danger signs of pregnancy, and 47.9% do not. Moreover, 54.7% of the women have satisfied level of knowledge about key danger signs of labor, and 45.3% do not. Also, 55.9% of the women have satisfied level of knowledge about key danger signs of post-partum, and 44.1% do not.

4.9 Differences in Birth Preparedness and Complication Readiness with Regard to Medical Conditions during Pregnancy

Table 4.10: Differences in Birth Preparedness and Complication Readiness with Regard to Medical Conditions during Pregnancy

Variable	Mean (SD)		*t* statistics (df)	*p* value*
	HTN	No		
Birth Preparedness and Complication Readiness	22.14 (2.26)	22.35 (2.38)	-0.235 (234)	0.814
Knowledge about Key Danger Signs of Pregnancy	7.28 (2.69)	6.41 (2.64)	0.854 (234)	0.394
Knowledge about Key Danger Signs of Labor	2.85 (2.21)	2.86 (2.71)	-0.005 (234)	0.996
Knowledge about Key Danger Signs of Post-Partum Period	5.14 (2.03)	4.58 (2.33)	0.624 (234)	0.533

*Independent sample *t* test

Table 4.9 shows that there is no significant difference in the mean level of birth preparedness and complication readiness between the mothers who have hypertension and those who do not ($p>0.05$). Also, there is no significant difference in the mean level of knowledge about key danger signs of pregnancy between the mothers who have hypertension and those who do not ($p>0.05$). Moreover, there is no significant difference in the mean level of knowledge about key danger signs of labor between the mothers who are working and those who do not ($p>0.05$), and there is no significant difference in the mean level of knowledge about key danger signs of post-partum period between the mothers who have hypertension and those who do not ($p>0.05$).

4.10 Differences in Birth Preparedness and Complication Readiness with Regard to Mothers' Working Status

Table 4.11: Differences in Birth Preparedness and Complication Readiness with Regard to Mothers' Working Status

Variable	Mean (SD)		*t* statistics (df)	*p* value*
	Working	Non		
Birth Preparedness and Complication Readiness	21.33 (2.95)	22.39 (2.35)	-1.312 (234)	0.191
Knowledge about Key Danger Signs of Pregnancy	6.88 (2.36)	6.42 (2.65)	0.513 (234)	0.608
Knowledge about Key Danger Signs of Labor	3.55 (2.87)	2.83 (1.64)	0.749 (8.208)	0.475
Knowledge about Key Danger Signs of Post-Partum Period	4.66 (3.39)	4.59 (3.28)	0.085 (234)	0.932

*Independent sample *t* test

Table 4.10 shows that there is no significant difference in the mean level of birth preparedness and complication readiness between the mothers who are working and those who do not ($p>0.05$). Also, there is no significant difference in the mean level of knowledge about key danger signs of pregnancy between the mothers who are working and those who do not ($p>0.05$). Moreover, there is no significant difference in the mean level of knowledge about key danger signs of labor between the mothers who are working and those who do not ($p>0.05$), and there is no significant difference in the mean level of knowledge about key danger signs of post-partum period between the mothers who are working and those who do not ($p>0.05$).

4.11 Differences in Birth Preparedness and Complication Readiness with Regard to Mothers' Educational Level

Table 4.12: Differences in Birth Preparedness and Complication Readiness with Regard to Mothers' Educational Level

Variable	N	Mean	SD	F (df)	*P* value*
Birth Preparedness and Complication Readiness					
Below secondary	63	22.0	2.70	1.125 (2, 319)	0.326
Secondary	126	22.41	2.36		
University	47	22.65	1.90		
Knowledge about Key Danger Signs of Pregnancy					
Below secondary	63	5.98	2.07	4.317 (2, 233)	0.014
Secondary	126	6.31	2.81		
University	47	7.40	2.66		
Knowledge about Key Danger Signs of Labor					
Below secondary	63	2.57	1.64	2.197 (2, 233)	0.113
Secondary	126	2.85	1.68		
University	47	3.25	1.77		
Knowledge about Key Danger Signs of Post-Partum Period					
Below secondary	63	4.55	2.12	0.231 (2, 233)	0.794
Secondary	126	4.54	2.29		
University	47	4.80	2.69		

*One way ANOVA

The table shows that there is no significant difference in the mean level of birth preparedness and complication readiness among different levels of mothers' educational qualifications ($p>0.05$). Also, there is a significant difference in the mean level of knowledge about key danger signs of pregnancy among different levels of mothers educational qualifications ($p<0.05$). Post hoc test using Tamhane's test was conducted to reveal the difference is between which group, this test was conducted because the homogeneity of variances was not assumed ($p<0.05$). Tamhane's test shows that the difference is between the mothers who have below secondary school and those who have university degree in favor of those who have university degree.

Moreover, there is no significant difference in the mean level of knowledge about key danger signs of labor among different levels of mothers' educational qualifications ($p>0.05$), and there is no significant difference in the mean level of knowledge about key danger signs of post-partum period among different levels of mothers' educational qualifications ($p>0.05$).

4.12 Differences in Birth Preparedness and Complication Readiness with Regard to Husband's Educational Level

Table 4.13: Differences in Birth Preparedness and Complication Readiness with Regard to Husband's Educational Level

Variable	N	Mean	SD	F (df)	*P* value*
Birth Preparedness and Complication Readiness					
Below secondary	86	22.33	2.49	0.059 (3, 232)	0.981
Secondary	99	22.32	2.35		
University	48	22.45	2.32		
Post graduate	3	22.00	1.73		
Knowledge about Key Danger Signs of Pregnancy					
Below secondary	86	6.32	2.24	3.659 (3, 232)	0.013
Secondary	99	6.35	2.72		
University	48	6.54	2.96		
Post graduate	3	11.33	0.57		
Knowledge about Key Danger Signs of Labor					
Below secondary	86	2.63	1.64	2.338 (3, 232)	0.074
Secondary	99	2.88	1.56		
University	48	3.06	2.00		
Post graduate	3	5.00	1.00		
Knowledge about Key Danger Signs of Post-Partum Period					
Below secondary	86	4.68	2.46	1.353 (3, 232)	0.258
Secondary	99	4.59	1.98		
University	48	4.31	2.66		
Post graduate	3	7.0	2.64		

*One way ANOVA

The table shows that there is no significant difference in the mean level of birth preparedness and complication readiness among different levels of husbands' educational qualifications ($p>0.05$). Also, there is a significant difference in the mean level of knowledge about key danger signs of pregnancy among different levels of husbands' educational qualifications ($p<0.05$). Post hoc test using Tamhane's test was conducted to reveal the difference is between which groups. Tamhane's test shows that the difference is between the husbands who have below secondary school and those who have post graduate degree education in favor of those who have post graduate degree education.

Also, the test shows that the difference is between the husbands who have secondary school and those who have post graduate degree education in favor of those who have post graduate degree education. Moreover, the test shows that the difference is between the husbands who have university degree and those who have post graduate degree education in favor of those who have post graduate degree education

Moreover, there is no significant difference in the mean level of knowledge about key danger signs of labor among different levels of husbands' educational qualifications ($p>0.05$), and there is no significant difference in the mean level of knowledge about key danger signs of post-partum period among different levels of husbands' educational qualifications ($p>0.05$).

4.13 Differences in Birth Preparedness and Complication Readiness with Regard to Mothers' Marital Status

Table 4.14: Differences in Birth Preparedness and Complication Readiness with Regard to Mothers' Marital Status

Variable	N	Mean	SD	F (df)	*P* value*
Birth Preparedness and Complication Readiness					
Married	219	22.36	2.37	0.126 (2, 319)	0.882
Divorced	6	22.33	1.21		
Widowed	11	22.00	3.00		
Knowledge about Key Danger Signs of Pregnancy					
Married	219	6.46	2.67	0.103 (2, 233)	0.902
Divorced	6	6.50	2.07		
Widowed	11	6.09	2.38		
Knowledge about Key Danger Signs of Labor					
Married	219	2.91	1.67	4.224 (2, 233)	0.016
Divorced	6	3.33	1.86		
Widowed	11	1.45	1.69		
Knowledge about Key Danger Signs of Post-Partum Period					
Married	219	4.69	2.29329	4.698 (2, 233)	0.010
Divorced	6	5.00	1.67332		
Widowed	11	2.54	2.50454		

*One way ANOVA

The table shows that there is no significant difference in the mean level of birth preparedness and complication readiness among different marital statuses of the mothers ($p>0.05$). Also, there is no significant difference in the mean level of knowledge about key danger signs of pregnancy among different marital statuses of the mothers ($p>0.05$).

On the other hand, there is a significant difference in the mean level of knowledge about key danger signs of labor among different marital statuses of the mothers ($p<0.05$). Post hoc test using Tukey test was conducted because the homogeneity of variances was assumed. Tukey test shows that the difference is between the mothers who are married and those who are widowed in favor of those who are married.

Moreover, there is a significant difference in the mean level of knowledge about key danger signs of post-partum period among different marital statuses of the mothers ($p<0.05$). Post hoc Tukey test shows that the difference is between the mothers who are married and those who are widowed in favor of those who are married.

4.14 Differences in Birth Preparedness and Complication Readiness with Regard to ANC Clinic

Table 4.15: Differences in Birth Preparedness and Complication Readiness with Regard to ANC Clinic

Variable	N	Mean	SD	F (df)	*P* value*
Birth Preparedness and Complication Readiness					
Al-Sourani	44	20.70	3.07	7.866 (4, 231)	<0.001
Al-daraj	52	22.59	2.27		
Remal	44	23.04	1.89		
Sabha	57	22.87	2.18		
Zaytoon	39	22.33	1.42		
Knowledge about Key Danger Signs of Pregnancy					
Al-Sourani	44	5.61	2.99	9.927 (4, 231)	<0.001
Al-daraj	52	6.44	2.95		
Remal	44	8.18	2.11		
Sabha	57	5.75	2.29		
Zaytoon	39	6.43	1.87		
Knowledge about Key Danger Signs of Labor					
Al-Sourani	44	2.18	1.96	6.511 (4, 231)	<0.001
Al-daraj	52	2.96	1.53		
Remal	44	4.11	1.64		
Sabha	57	2.50	1.45		
Zaytoon	39	2.58	1.25		
Knowledge about Key Danger Signs of Post-Partum Period					
Al-Sourani	44	3.31	3.09	1.353 (4, 231)	<0.001
Al-daraj	52	4.53	2.34		
Remal	44	5.63	2.06		
Sabha	57	4.52	1.91		
Zaytoon	39	5.07	1.26		

*One way ANOVA

The table shows that there is a significant difference in the mean level of birth preparedness and complication readiness among different ANC clinic ($p<0.05$). Post hoc test using Tamhane's test was conducted and shows that the difference is between Remal and (Al-Sourani, Al-Zaytoon, Al-daraj, and Sabha ANC clinic) in favor of Remal ANC clinic.

Also, there is a significant difference in the mean level of knowledge about key danger signs of pregnancy among different ANC clinic ($p<0.05$). Post hoc test using Tamhane's test was conducted and shows that the difference is between Al-Sourani and Al-daraj ANC clinic in favor of Al-daraj ANC clinic.

Additionally, there is a significant difference in the mean level of knowledge about key danger signs of labor among different ANC clinic ($p<0.05$). Post hoc test using Tukey test was conducted and shows that the difference is between Al-Sourani and Remal ANC clinic in favor of Remal ANC clinic

Moreover, there is a significant difference in the mean level of knowledge about key danger signs of post-partum among different ANC clinic ($p<0.05$). Post hoc test using Tamhane's test was conducted and shows that the difference is between Al-Sourani and Remal ANC clinic in favor of Remal ANC clinic. Also, the difference is between Al-Sourani and Al-Zaytoon ANC clinic in favor of Al-Zaytoon ANC clinic

4.15 Correlation between Birth Preparedness and Complication Readiness and other Variables

Table 4.16: Correlation between Birth Preparedness and Complication Readiness and other Variables

Variables	Birth Preparedness and Complication Readiness	
	r	p value
Maternal age	0.043	0.507
Level of income	0.033	0.616
Family size	0.042	0.520
Number of times attended ANC	0.253	<0.001
Month started attending ANC	-0.253	<0.001

The table shows that there is a weak significant direct correlation between the number of times attended antenatal care clinic, and the mothers' level of birth preparedness and complication readiness ($p<0.001$). With increase in the number of times of attending antenatal care clinic; the mothers' level of birth preparedness and complication readiness is significantly increased.

Also, there is a weak significant inverse correlation between the month of starting of attending antenatal care clinic (initiation of visits), and the mothers' level of birth preparedness and complication readiness ($p<0.001$). With early attending visits to antenatal care clinic as much as possible, the mothers' level of birth preparedness and complication readiness is significantly increased. On the other hand, there no significant correlation between the mothers' level of birth preparedness and complication readiness, and maternal age , level of income, and family size ($p>0.05$).

4.16 Correlation between Knowledge about Key Danger Signs of Pregnancy and other Variables

Table 4.17: Correlation between Knowledge about Key Danger Signs of Pregnancy and other Variables

Variables	Knowledge about Key Danger Signs of Pregnancy	
	r	p value
Maternal age	0.276	<0.001
Level of income	0.102	0.118
Family size	0.053	0.421
Times attended ANC	0.124	0.057
Month started attending ANC	0.072	0.271

The table shows that there is a fair significant direct correlation between maternal age, and the mothers' level of knowledge about key danger signs of pregnancy ($p<0.001$). With increase in the age of the mother; the mothers' level of knowledge about key danger signs of pregnancy is significantly increased. On the other hand, there no significant correlation between the mothers' level of knowledge about key danger signs of pregnancy, and their level of income, family size, times attending visits to ANC clinic, and the month started attending ANC ($p>0.05$).

4.17 Correlation between Knowledge about Key Danger Signs of Labor and other Variables

Table 4.18: Correlation between Knowledge about Key Danger Signs of Labor and other Variables

Variables	Knowledge about Key Danger Signs of Labor	
	r	p value
Maternal age	0.158	0.015
Level of income	0.030	0.650
Family size	0.043	0.513
Times attended ANC	0.216	0.001
Month started attending ANC	-0.043	0.507

The table shows that there is a week significant direct correlation between maternal age, and the mothers' knowledge about key danger signs of labor ($p<0.05$). With increase in the age of the mother; the mothers' level of knowledge about key danger signs of labor is significantly increased.

Also, there is a weak significant direct correlation between the number of times attending antenatal care clinic, and the mothers' level of knowledge about key danger signs of labor ($p<0.05$). With increase in the number of times attending antenatal care clinic, the mothers' knowledge about key danger signs of labor is significantly increased.

On the other hand, there is no significant correlation between the mothers' level of knowledge about key danger signs of labor, and their level of income, family size, and the month started attending ANC ($p>0.05$).

4.18 Correlation between Knowledge about Key Danger Signs of Post-Partum and other Variables

Table 4.19: Correlation between Knowledge about Key Danger Signs of Post-Partum and other Variables

Variables	Knowledge about Key Danger Signs of Post-Partum	
	r	p value
Maternal age	0.155	0.017
Level of income	-0.081	0.215
Family size	0.038	0.560
Times attended ANC	0.295	<0.001
Month started attending ANC	-0.203	0.002

The table shows that there is a week significant direct correlation between maternal age, and the mothers' knowledge about key danger signs of post-partum ($p<0.05$). With increase in the age of the mother; the mothers' level of knowledge about key danger signs of post-partum is significantly increased.

Also, there is a fair significant direct correlation between the number of times attending antenatal care clinic, and the mothers' level of knowledge about key danger signs of post-partum ($p<0.05$). With increase in the number of times attending antenatal care clinic, the mothers' level of knowledge about key danger signs of post-partum is significantly increased.

Moreover, there is a week significant inverse correlation between the month of starting of attending antenatal care clinic (initiation of visits), and the mothers' level of knowledge about key danger signs of post-partum ($p<0.05$). With early attending (initiating) visits to antenatal care clinic as early as possible, the mothers' level of knowledge about key danger signs of post-partum is significantly increased. On the other hand, there is no significant correlation between the mothers' level of knowledge about key danger signs of post-partum, and their level of income, and family size ($p>0.05$).

4.19 Correlation between Birth Preparedness and Knowledge about Key Danger Signs

Table 4.20: Correlation between Birth Preparedness and Knowledge about Key Danger Signs

Variables	Birth Preparedness and Complication Readiness	
	r	p value
Knowledge about key danger signs of pregnancy	0.365	<0.001
Knowledge about key danger signs of labor	0.342	<0.001
Knowledge about key danger signs of post-Partum	0.390	<0.001

The table shows that there is a fair significant direct correlation between the mothers' level of knowledge about key danger signs of pregnancy, labor, and post-partum and their level of birth preparedness and complication readiness ($p<0.05$). With increase in the mothers' level of knowledge about key danger signs of pregnancy, labor, and post-partum, their level of birth preparedness and complication readiness is significantly increased.

4.20 Discussion of the Study Results

4.20.1 Introduction

The following paragraphs illustrate the discussion of the study results in all domains of the study results, they include: primigravida women's level of birth preparedness and complication readiness, knowledge of the key danger signs, and the associated factors of the preparedness and complication readiness. The current study results are compared to the previous studies; also the personal opinion of the researcher is illustrated based on her experience in the field.

4.20.2 Birth Preparedness and Complication Readiness among Primi Pregnant Women

Birth preparedness and complication readiness is the process of planning for normal birth and anticipating the actions needed in case of an emergency, the responsibility for birth preparedness and complication readiness must be shared among all safe motherhood stakeholders policymakers, facility managers, providers, communities, families, and women because a coordinated effort is needed to reduce the delays that contribute to maternal and newborn complications and deaths.

Women and newborns need timely access to skilled care during pregnancy, childbirth, and the postpartum/newborn period. Too often, however, their access to care is impeded by delays in deciding to seek care, delays in reaching care, and delays in receiving care. These delays have many causes, including logistical and financial concerns, unsupportive policies, and gaps in services, as well as inadequate community and family awareness and knowledge about maternal and newborn health issues (Ekabua et al., 2011). This study focused on the primigravida mothers' level of birth preparedness and complication readiness in Gaza governorate

The study results revealed that the mean of primigravida mothers regarding birth preparedness and complication readiness is 22.35 out of 28 (79.82%), their mean score of knowledge about key danger signs of pregnancy is 6.44 out of 13 (49.53%), the mean score of knowledge about key danger signs of labor is 2.86 out of 8 (35.75%). Also, the mean score of knowledge about key danger signs of post-partum is 4.60 out of 12 (38.33%).

These results indicate that the issue of birth preparedness and complication redness among primi pregnant women in the current study was satisfactory. The current study results also showed that 44.5% of the mothers were not prepared for birth, and 55.5% are prepared.

The most planned aspect for birth process were “have someone to take you to the doctor if you needed” (97.5%) followed by “Arranging a way to communicate with a source of help” (94.5%) and the least was “prepare clean items for birth” (62.7%). These results are not consistent with the results of Gitonga (2014) which revealed that the most planned aspect was source of money (74.0%) followed by place of delivery (69.0%) and the least was mode of transport (35.0%).

The current study results also are not consistent with the results of Gitonga (2014) which revealed that only 20.0% of the mothers were prepared for birth process. The current study results are also not consistent with the results of Agbodohu (2013) which revealed that the aspects of birth preparedness include: knowledge of expected date of delivery which had 89.2%, the possibility of labour to start before due date to which 86.1%, identifying the facility one will give birth (96.2%).

Furthermore, the current study results are not consistent with the results of Bitew et al. (2016) which revealed that only 24.1% of the pregnant women were prepared for delivery and obstetric emergency. On the other hand, the current study results are somewhat consistent with the results of Siddaharth et al. (2010) which revealed that 47.8% of the women were prepared for birth. Also, the results of Deoki (2009) found a higher proportion of preparedness (47.5%) in Adrigat, while the study of Jerome et al., (2012) in Mbarara district in Uganda found that the level of preparedness was 35%.

The differences between the current study results and the previously mentioned study results could be attributed to the setting of the study, in which there are differences in the health care system and the system of birth process which is different from other birth process in the other countries. The differences could be also explained by the culture of the participants included in the study, the culture could affect the birth preparedness of the

woman in which the mother in the Gaza Strip should have someone to accompany her for birth process, that it is why this item took the highest percentage.

Additionally, the least aspect of birth preparedness in the current study was “prepare clean items for birth”, this could be explained by the fact that the majority of the study participants have limited level of income, this might lead to limited preparation for clean items for birth, in which the mothers may not be able to buy these items, they used to prepare it from the previous deliveries from other women like her friends and etc., thus this is a culture for some of the women’s in the Gaza Strip.

More importantly, the level of birth properness in the current study which is 79.82% is higher than most of the previous studies, this could be explained by the fact that the Gaza Strip is a narrow area, have closest healthcare facilities to the mothers’ residence, making them well prepared in case of emergency, in which there are several hospitals (governmental and private) in the Gaza governorate which are intended for birth process, as well as even the delivery in the private hospitals in the Gaza strip became mostly paid by the UNRWA, making this issue more easy for the mothers, thus they are more prepared for birth.

4.20.3 Key Danger Signs of Pregnancy, Labor, and Post-Partum

Regarding key danger signs of pregnancy, labor, and post-partum, the level of knowledge regarding key danger signs of pregnancy, labor, and even post-partum period was not satisfactory, indicating that these women might at risk for developing complications during pregnancy, labor, or at post-partum.

The knowledge of key danger signs of pregnancy revealed that there is a severe abdominal pain which has been the most frequently mentioned complication by women in the current

study followed by vaginal bleeding, while the sign of severe vaginal bleeding has been the most frequently mentioned key danger sign of labor and post-partum period.

The current study results are consistent with the results of Ekabua et al. (2011), which revealed that the knowledge of danger signs was rated to be poor. Also, the current study results are somewhat consistent with the results of Bitew et al. (2016) severe vaginal bleeding has been the most frequently mentioned complication by women during the following phases: pregnancy (37.4%), labor and delivery (44.6%), and postpartum period (32.1%), but the percentage of mothers' knowledge regarding key danger signs of pregnancy, labor, and post-partum were 23.2%, 22.6%, and 9.6%, respectively, these percentages are not consistent with the current study results.

Moreover, the current study results are not consistent with the results of Smitha et al. (2011) which revealed that the knowledge levels of key danger signs in all the three stages very extremely poor i.e.; pregnancy (7.2%), labor and child birth (1%) and post-partum period (4.8%). The process of childbirth and the postpartum period can be a time of great risk for both mother and newborn. Therefore this knowledge has an essential role to play in reducing both maternal and neonatal mortality. The current study results are also higher than what have been revealed by the study of Nandan et al. (2009) which was conducted in the Rewa district of Madhya Pradesh among pregnant woman and revealed that the knowledge levels of the danger signs were around 18.6%.

Despite the overall low levels of knowledge of danger signs of pregnancy, labor, and post-partum, most of the mothers in the current study knew that the bleeding as a danger sign and also that it was life threatening. This suggests that they were aware of scenarios which were routinely seen, but did not know enough about danger signs which are unpredictable but equally life threatening which were mentioned in the questionnaire such as

convulsions, loss of consciousness, and retained placenta beyond 30 minutes. This indicates that there is a need to focus on practical knowledge especially on identifying danger signs during antenatal care and in the hospital settings.

Low level of knowledge regarding key danger signs of pregnancy, labor and post-partum in the current study could be explained by the educational qualifications of the mothers included in the study, in which 80.1% of them have secondary or less, making their understanding of some issues related to pregnancy different from those who have university. It could be attributed also to the antenatal care clinic they make their follow up, some of these clinics do not conduct health education for the mothers due to the work overload and other reasons.

Another issue for this low level of knowledge, it could be explained by the fact that the mothers included in the current study are primi, they are new for the issue of pregnancy and delivery, thus their experience related to these issues are limited in comparison to those who have experience more than one delivery.

4.20.4 Factors Associated with Birth Preparedness and Complication Readiness, and Knowledge about Key Danger Signs

In the current study, there are several factors which were significantly associated with the level of birth preparedness and complication readiness, these factors include mothers' knowledge about key danger signs of pregnancy, labor, and post-partum, the antenatal care clinic the mothers have their follow up, time initiated of antenatal care visits, and the number of visits.

The results of the study of Bitew et al. (2016) revealed that the factors associated with birth preparedness included: educational status of secondary education and above, previous history of lifetime stillbirth, history of ANC follow-up for last childbirth, the third

trimester, women's participation in birth preparedness community meetings and/or pregnant women's group discussion, and current ANC follow-up of two and above visits, and partner involvement in birth preparedness counseling during women's ANC follow-up.

The current study results are not consistent with the results of Hiluf and Fantahun (2008) in Ethiopia which revealed that the woman who faced a lifetime history of stillbirth was about 6 times more likely than women's who did not. The current study results also are consistent with the results of Kabakyenga et al. (2011) which revealed that the mothers attending two - three ANC visits, were more likely prepared for birth preparedness practice by 6 times and 7.6 times, respectively, as compared to non-ANC attendant mothers and mothers attending only one ANC visit. The factor of the number of ANC visits was also revealed by the study of Bitew et al. (2016).

In the current study, knowledge about key danger signs is significantly associated with birth preparedness, this issue is considered the first step of motivating women to seek timely, skilled birth attendance care at appropriate health facility. Every woman should be made aware of the likelihood of complications during pregnancy, childbirth, and the post-partum periods. The study of Pembe et al. (2009) revealed that the women and their husbands should be given all the information on danger signs to be well prepared for birth process.

In the current study also, more number of visits is significantly correlated with the level of birth preparedness, this could be explained by the fact that regular attendance to antenatal care in the course of pregnancy is important in monitoring the physical status of the women and the fetus, detecting diseases and complications, and providing appropriate treatment and care. It also provides an opportunity to inform and educate pregnant women

about pregnancy, childbirth, and care of the newborn and therefore enable pregnant women acquire information on danger signs of pregnancy or childbirth. Furthermore, it gives an opportunity for the woman to be counseled and make an appropriate plan for delivery (WHO, 2015).

Also, World health organization recommends at least four ANC visits during pregnancy for follow up, and in the current study the mean of ANC visits was 5 times (above the recommended level), thus this factor was revealed as a significant one to be correlated with birth properness. Though birth preparedness and complication readiness plan is known as a fundamental component of all antenatal care programs to decrease maternal mortality as well.

Additionally, the results of the current study were not consistent with the results of Ekabua et al. (2011) which revealed that the factors which contribute significantly to birth preparedness are: age, educational status, marital status, and parity.

On the other hand, the study results of Gitonga (2014) revealed that the level of mothers' education, occupation, and the level of income, parity, maternal or neonatal complications and awareness of birth preparedness, perceptions on birth preparedness, history of a stillbirth, and ANC attendance of 4 or more visits were associated with birth preparedness. Some of these factors were revealed in the current study results.

More importantly, initiation of the ANC visits (early initiation) was considered as a factor which affect the level of mother' birth preparedness in the current study, this could be explained by the fact that the chances of more health workers attention which may lead to education on birth preparedness and follow up. In addition ante natal care is the entry point to birth preparedness, early booking for ANC visits might lead to receiving more information about the issues of birth about pregnancy. This agrees with a study of Hailu et

al. (2011) in southern Ethiopia which revealed that early utilization of ante natal services was positively influenced birth preparedness.

The current study results are also consistent with the results of Urassa et al. (2012) which revealed that the women who knew three or more danger signs were three times more likely to be prepared for birth and complications.

In the current study, it was expected that the level of education might be one of the factors which may affect the level of birth preparedness, but this was not revealed and this could be attributed to the educational qualifications included in the current study, in which the majority (80.1%) of the mothers have secondary school or less, compared to 19.9% of them who have university degree, this issue of education was not investigated as a factor.

However, the factor of education was revealed as a factor which associated significantly with knowledge about key danger signs of pregnancy and labor, in other studies; a higher level of education is the most important factor for increased awareness of birth preparedness and danger signs as stated by and Pembe et al. (2009). Moreover, the study of Urassa et al. (2012) revealed that education was a strong predictor of birth preparedness and knowledge about key danger signs of pregnancy, this could attributed to the mothers' ability to better understand health messages and search for more information regarding health issues. Also, better educated women are more aware of health problems, know more about the availability of health care services and use this information more effectively to maintain or achieve good health status.

Additionally, Kabakyenga et al. (2011) revealed that there is a relationship between high education and awareness of danger signs of pregnancy in Tanzania. Also, the current study results is consistent with the results of Ekabua et al. (2011), which revealed that marital status was not a good predictor for birth preparedness.

On the other hand, Remal ANC clinic was revealed in the current study which has the highest mean score of birth preparedness, and knowledge about key danger signs. This could be explained by the fact the this primary health care clinic is considered as the centered one in the Gaza governorate, which may have more health care providers such as physicians, nurses and other health care workers, and have more resources, hence it provides more effective services for the pregnant women than other primary health care clinics in the Gaza governorate.

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

The main aim of this study was to assess the level of birth preparedness and complication readiness of primigravida women in Gaza governorate. This study adopted a cross-sectional design. The study population consisted of the primigravida women attending governmental primary health care centres in Gaza governorate for antenatal care follow up. Sample size was 260, in which 236 (90.4%) have responded to participate in the current study.

In this study, an interview questionnaire was conducted and adopted after some modification from the medical outcomes study social support survey (2013). The questionnaire consisted of: socio-demographic factors, birth preparedness and complication readiness, knowledge on key danger signs of pregnancy, knowledge on key danger signs of labor and knowledge on key danger signs of post-partum.

The study results revealed that the mean of primigravida mothers regarding birth preparedness and complication readiness is 22.35 out of 28 (79.82%), their mean score of knowledge about key danger signs of pregnancy is 6.44 out of 13 (49.53%), the mean score of knowledge about key danger signs of labor is 2.86 out of 8 (35.75%). Also, the mean score of knowledge about key danger signs of post-partum is 4.60 out of 12 (38.33%).

These results indicate that the issue of birth preparedness and complication redness among primi pregnant women in the current study was satisfactory. The current study results also showed that 44.5% of the mothers were not prepared for birth, and 55.5% are prepared. Factors associated with birth preparedness and complication readiness among primigravida

women include their knowledge about key danger signs of pregnancy, labor, and post-partum, number of ANC visits, and time of initiation of visits, as well as the name of the ANC clinic they have had their follow up.

We can conclude that the level of women's birth preparedness and complication readiness was not satisfactory in the current study, the women's knowledge about key danger signs of pregnancy, labor and post-partum was not satisfactory as well.

5.2 Recommendations

The ministry of health should strengthen efforts of initiating all pregnant women in getting quality and optimum numbers of ANC visits and involving their husband in birth preparedness and complication readiness counseling during women's ANC follow-up period and strengthen the community level of birth preparedness and complication readiness with pregnant women group discussion, families, and communities and strengthen efforts of taking appropriate decision in case of complications to reach health facilities for normal or complicated childbirth.

Also, focused ANC is strongly needed to improve the process of health education which will enhance knowledge of danger signs of pregnancy, labor and post-partum period among pregnant women. Health education and health promotional talks should be intensified by the nurses and midwives on important topics such as: danger signs of pregnancy especially convulsions, deep vein thrombosis, loss of consciousness, and reduced fetal heart movements. Birth companions as it is part of birth preparedness and complication readiness.

More importantly, activating birth preparedness and complication readiness program should be conducted by the ministry of health to ensure that all of the women are well

prepared for the birth process to reduce maternal complications as much as possible. Also, the activation of this program should be conducted in other primary health care centers which have lower score of birth preparedness and complication readiness.

5.2.1 Recommendations for future research

Exploring other factors which may affect birth preparedness and complication readiness among women through new studies is strongly needed. A research can also be done to investigate the association between the level of education and the level of birth preparedness. The nurses should be regarded as the focus of these research studies.

5.3 Implications for Nurses and Midwives

The nurses and midwives re considered the first line of contact with the client, they are the backbone of healthcare system in the Palestinian ministry of health, they should focus their education on making the women especially the primigrvida women; oriented about her key danger signs of pregnancy, labor and post-partum. The nurses and midwives should organize health talks and giving enough time for the women to disuccs with them and make everything about key danger signs clear.

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Annexes

Annex 1: Helsinki Approval

المجلس الفلسطيني للبحث الصحي

Palestinian Health Research Council

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

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

Helsinki Committee
For Ethical Approval

Date: 05/02/2018 **Number:** PHRC/HC/343/18

Name: SUHAIR M. ABED الاسم:

We would like to inform you that the committee had discussed the proposal of your study about: نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

Birth Preparedness and Complication Readiness among Primigravida Women in Gaza Governorate: Nurses' and Midwives' Role and Practical Implication.

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/343/18 in its meeting on 05/02/2018 و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

Signature

Member Member

Chairman

Genral Conditions:-

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

Specific Conditions:-

E-Mail:pal.phrc@gmail.com

Gaza - Palestine غزة - فلسطين

Annex 2: MoH Approval

State of Palestine
Ministry of health

دولة فلسطين
وزارة الصحة

السيد : رامي عيد سليمان العبادله المحترم

التاريخ:2/2019

رقم المراسلة 25(

مدير عام بالوزارة /الإدارة العامّة لتنمية القوى البشرية ـ /وزارة الصحة

السلام عليكم ,,,

الموضوع/ تسهيل مهمة الباحثة// سهير نعيم

التفاصيل //
بخصوص الموضوع أعلاه، يرجي تسهيل مهمة الباحثة/ سهير محمد نعيم
الملتحقة ببرنامج ماجستير التمريض -- تخصص صحة الأم والطفل – كلية الصحة العامة- جامعة القدس أبوديس في إجراء بحث بعنوان:-

Birth Preparedness and Complication Readiness among Primigravida Women in Gaza" "Governorate: Nurses' and Midwives' Role and Practical Implication

حيث الباحثة بحاجة لتعبئة استبانة من عدد النساء الحوامل –اول حمل- في الجزء الثالث من العمل المراجعات لعيادات الحوامل في مراكز الرعاية الأولية في مدينة غزة، وكذلك عدد من الممرضات والقابلات المقدمات للخدمات الصحية لهن. نأمل توجيهاتكم لذوي الاختصاص بضرورة الحصول على الموافقة المستنيرة من النساء اللاتي هن على استعداد لمشاركة في الدراسة ومن ثم تمكين البّاحثة من التواصل معهن، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي، ودون تحمل الوزارة أي أعباء أو مسئولية.
وتفضلوا بقبول التحية والتقدير،،،
ملاحظة / تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 6 شهر من تاريخه.

محمد أبرأهيم محمد السرساوي
مدير دائرة/الإدارة العامة لتنمية القوى البشرية ـ

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Annex 3: Study Questionnaire

الرقم التسلسلي .....

أختي الفاضلة .. حفظكي الله

السلام عليكم ورحمة الله وبركاته

تقوم الباحثة أدناه بإعداد رسالة ماجستير بعنوان

الاستعداد للولادة ومضاعفاتها بين النساء البكر في محافظة غزة: دور الممرضات والقابلات والانعكاسات العملية

إن هذا البحث يشكل جزء ضروري من دراستي كمتطلب أساسي للتخرج من جامعة القدس تخصص ماجستير تمريض صحة الأم والطفل - وقد تم اختياركم ضمن مجموعة الأخوات المشاركات في هذه الدراسة للإجابة على العبارات الواردة فيها.

إذا كنتي توافقين على المشاركة في هذه الدراسة، يرجى التكرم بقراءة العبارات التالية بدّقة والإجابة عنها بموضوعية لما في ذلك من أثرٍ كبير على صحة النتائج والتوصيات التي سوف تتوصل إليها الباحثة مع التأكيد بأن هذه البيانات سوف تستخدم لأغراض البحث العلمي فقط، وسيتم التعامل معها بسرية تامة.

☐ **أوافق** ☐ **لا أوافق**

ملاحظة / الوقت اللازم لتعبئة الاستبانة كاملة لا يستغرق أكثر من 20 دقيقة.

نشكركم على حسن تعاونكم معنا

الباحثة

سهير عابد

Part 1: Socio-demographic characteristics

• **Age**	……. years		
• **Educational level of the mother**	□ Illiterate	□ Primary	□ Preparatory
	□ Secondary	□ University	□ Post graduate
• **Educational level of the husband**	□ Illiterate	□ Primary	□ Preparatory
	□ Secondary	□ University	□ Post graduate
• **Marital status**	□ Married	□ Divorced	□ Widow
• **Occupational status**	□ Yes, specify ……		□ No
• **Residence**	…….		
• **Family income**	……. NIS		
• **ANC clinic**	……		
• **Family size**	…… members		

Part 2: Current pregnancy related information

• **Hypertension**	□ Yes	□ No	□ Do not know	
• **Heart disease**	□ Yes	□ No	□ Do not know	
• **Renal disease**	□ Yes	□ No	□ Do not know	
• **Other diseases**	□ Yes	□ No	□ Do not know	
• **If yes, mention**	……..			
• How many times did you attend ante-natal clinics in this pregnancy ……				
• At what month of pregnancy did you start attending ante natal clinic…….				

Part 3: Birth preparedness and complication readiness

	Item		
1.	Did the health worker discuss with you birth preparedness during any of your ante natal visits?	□ Yes	□ No
2.	Know your expected date of delivery	□ Yes	□ No
3.	Identify place of delivery	□ Yes	□ No
4.	Save money	□ Yes	□ No
5.	Prepare essential items for clean delivery & post-partum period	□ Yes	□ No
6.	Being aware of the signs of an emergency & the need to act immediately	□ Yes	□ No
7.	Designating decision maker on her	□ Yes	□ No
8.	Arranging a way to communicate with a source of help	□ Yes	□ No
9.	Arranging emergency funds	□ Yes	□ No
10.	Identify a mode of transportation	□ Yes	□ No
11.	Arranging blood donors	□ Yes	□ No
12.	Prepare clean items for birth	□ Yes	□ No
13.	Have you identified an individual who will help you care for the baby after he/ she is born?	□ Yes	□ No
14.	Do you have someone to give you good advice when you notice a danger sign?	□ Yes	□ No
15.	Do you have someone to help you if you were confined to bed?	□ Yes	□ No
16.	Do you have someone to take you to the doctor if you needed it?	□ Yes	□ No

17. How long does it take to reach your nearest delivery health facility using your common means of transport?			
□ Less than one hour	□ 1 - 2 hours	□ 3 - 5 hours	□ More than 5 hours

18. Who will the identified home caretaker during the time of delivery?			
□ Spouse	□ Relative (not spouse)	□ Others, specify …….	□ Not identified

19. Who will take care of your home during the time of delivery?			
□ Spouse	□ Relative (not spouse)	□ Others, specify …….	□ Not identified

Part 4: Key Danger Signs of Pregnancy

20. Do you know any danger signs in pregnancy?	□ No	□ Yes

Do you know that the following are danger signs of pregnancy?

	Item			
21.	**Bleeding**	□ Yes	□ No	□ Do not know
22.	**Swollen hands/face**	□ Yes	□ No	□ Do not know
23.	**Blurred vision**	□ Yes	□ No	□ Do not know
24.	**Convulsions**	□ Yes	□ No	□ Do not know
25.	**Severe headache**	□ Yes	□ No	□ Do not know
26.	**High fever**	□ Yes	□ No	□ Do not know
27.	**Loss of consciousness**	□ Yes	□ No	□ Do not know
28.	**Difficulty breathing**	□ Yes	□ No	□ Do not know
29.	**Severe weakness**	□ Yes	□ No	□ Do not know
30.	**Severe abdominal pain**	□ Yes	□ No	□ Do not know
31.	**Accelerated/ reduced fetal movement**	□ Yes	□ No	□ Do not know
32.	**Watery vaginal discharge**	□ Yes	□ No	□ Do not know

Part 5: Key Danger Signs of Labor		
33. Do you know any danger signs of labor?	□ No	□ Yes

Do you know that the following are danger signs of labor?

	Item			
34.	**Severe vaginal bleeding**	□ Yes	□ No	□ Do not know
35.	**Prolonged labor (> 12 hours)**	□ Yes	□ No	□ Do not know
36.	**Convulsions**	□ Yes	□ No	□ Do not know
37.	**Severe headache**	□ Yes	□ No	□ Do not know
38.	**High fever**	□ Yes	□ No	□ Do not know
39.	**Loss of consciousness**	□ Yes	□ No	□ Do not know
40.	**Retained placenta beyond 30 minutes**	□ Yes	□ No	□ Do not know

Part 6: Key Danger Signs of Post-partum		
41. Do you know any danger signs of Post-partum period?	□ No	□ Yes

Do you know that the following are danger signs of Post-partum?

	Item			
42.	**Sever vaginal bleeding**	□ Yes	□ No	□ Do not know
43.	**Foul-smelling vaginal discharge**	□ Yes	□ No	□ Do not know
44.	**Swollen hands/face**	□ Yes	□ No	□ Do not know
45.	**Blurred vision**	□ Yes	□ No	□ Do not know
46.	**Convulsions**	□ Yes	□ No	□ Do not know
47.	**Severe headache**	□ Yes	□ No	□ Do not know
48.	**High fever**	□ Yes	□ No	□ Do not know
49.	**Loss of consciousness**	□ Yes	□ No	□ Do not know
50.	**Difficulty breathing**	□ Yes	□ No	□ Do not know
51.	**Severe weakness**	□ Yes	□ No	□ Do not know
52.	**Dep vein thrombosis (DVT)**			

Annex 4: Control Panel

No	Name	Affiliation
1	Dr. Hamza Abdel-jawwad	Al-Quds University
2	Dr. Ahmad Nejm	Al-Azhar University
3	Dr. Waleed Abu-hatab	Obstetrics and Gynecology -Nasser Medical Complex
4	Dr. Hani Mahdi	Obstetrics and Gynecology -Shifa Medical Complex
5	Dr. Areefa Albahri	Islamic University of Gaza

عنوان الدراسة: الاستعداد للولادة ومضاعفاتها بين النساء البكر في محافظة غزة: دور الممرضات والقابلات والانعكاسات العملية

إعداد: سهير محمد عابد

إشراف: د.سامر خضر النواجحة

ملخص:

يعتبر مبدأ ممارسة الاستعداد للولادة ومضاعفاتها أمراً هاماً خاصةً في البلدان النامية حيث توجد الأمية السائدة، والبنية التحتية والمهنية الغير الفعالة، لقد هدفت هذه الدراسة إلى تقييم مستوى الاستعداد للولادة ومضاعفاتها لدى النساء البكر في عيادات الرعاية الأولية الحكومية في محافظة غزة، وقد تكون مجتمع الدراسة من الامهات الحوامل البكر اللواتي يتابعن في عيادات الرعاية الأولية الحكومية في محافظة غزة، حيث بلغت عينة الدراسة 236 واللواتي قد تم اختيارهم بطريقة العينة الملائمة من خمس عيادات تم اختيارهم بطريقة عشوائية بسيطة من أصل 13 عيادة من عيادات الرعاية الاولية الحكومية في محافظة غزة وقد استخدمت الباحثة الاستبانة كأداة لجمع البيانات، حيث تم استخدام الأساليب الإحصائية مثل النسب المئوية والمتوسط الحسابي، واختبار ت لعينتين مستقلتين، واختبار التباين الأحادي، واختبار بيرسون.

لقد أظهرت نتائج الدراسة أن متوسط النسبة المئوية لاستعداد النساء البكر للولادة ومضاعفاتها قد بلغ 79.82%، وقد بلغ متوسط النسبة المئوية لمعرفة الأمهات بعلامات الخطر الرئيسية للحمل هو 49.53%، وقد بلغ متوسط النسبة المئوية لمعرفة الأمهات بعلامات الخطر الخاصة بالولادة 35.75%، في حين أن متوسط النسبة المئوية لمعرفة الأمهات حول علامات الخطر الخاصة فيما بعد الولادة هي 38.33%، وقد أظهرت نتائج الدراسة أيضاً أن العوامل المرتبطة إحصائياً بالتأهب للولادة والاستعداد المضاعفات بين النساء البكر هي: معرفة الأمهات بعلامات الخطر الرئيسية للحمل والولادة وما بعد الولادة، عدد زيارات المتابعة لعيادات ما قبل الولادة، وقت بدء هذه الزيارات، بالإضافة إلى عيادات الرعاية قبل الحمل.

وقد خلصت نتائج الدراسة إلى أن هناك ضعف عام في معرفة الأمهات الحوامل البكر بعلامات الخطر الرئيسية للحمل والولادة وما بعد الولادة، تشير نتائج هذه الدراسة إلى أن هناك حاجة ماسة للممرضات والقابلات للمشاركة في عملية التثقيف الصحي للأمهات فيما يتعلق بعلامات الخطر الرئيسية للحمل والولادة وما بعد الولادة، وكذلك تشجيع النساء على البدء بالزيارات الخاصة بمتابعة الحمل في أقرب وقت ممكن من أجل زيادة مستوى الاستعداد للولادة والاستعداد للمضاعفات لتقليل المضاعفات التي قد تحدث للام والجنين قدر الإمكان.