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Knowledge, Attitude, and Utilization of the Partograph among Nurses and Midwives at Labour Departments in Governmental Maternal Hospitals in Gaza Strip

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Dedication

To my great husband who supported me all the way

To my lovely children

To my father and mother, who prayed for me all the time, may God bless them.

To my beloved brothers and sisters

To all my colleagues, the midwives and nurses at labour departments.

To all my friends, who encouraged and helped me during the preparation of this thesis.

Yasmin Ahmed

Declaration

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

Signed:

Yasmin Nasr Ahmed

30/12/2020

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

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Abstract

Partograph is a useful tool for monitoring the progress of labour. This study aimed to assess knowledge, attitude, and utilization of partograph at labour departments. The study utilized a descriptive, cross-sectional embedded design. The sample of the study consisted of 105 midwives and nurses (census) from the maternity governmental hospitals in Gaza Strip namely; Kamal Odwan, Al Shifa, Shohada Al Aqsa, Nasser, and Al Emaratey hospital. Adopted modified questionnaire was used to measure knowledge, attitude, and utilization of partograph. A pilot study was conducted on 30 subjects and Cronbache alpha was 0.809. The results showed that mean age of participants was 31.47 years, 65.7% have bachelor degree in midwifery, mean years of experience was 7.66 years, 69.5% received training about partograph. The results indicated that the study participants had high knowledge about the partograph with average correct answers 87.7%, above moderate attitude with mean percent 78%, and high utilization of partograph with average correct practices 89.9%. The results also showed that there were no statistically significant differences in knowledge, attitude, and utilization of partograph related to participants' age, qualification, and years of experience. Participants from Al Shifa hospital showed statistically significant higher attitude towards partograph compared to participants from other hospitals. The results also reflected that participants who received training about partograph had significant higher knowledge and attitude towards partograph. Qualitative results indicated that most of respondents believed that the partograph was effective tool for monitoring the progress of labour, and beneficial for early recognition of complications. Higher number of admission women to labour room and shortage of qualified midwives were the main barriers to partograph utilization. The results also showed that uncooperating of obstetricians and mothers were the main challenges that face the midwives. To improve utilization of partograph, participants suggested periodic training about partograph, increase the number of midwives, and close supervision by managers and supervisors. The study concluded that midwives and nurses had high knowledge, above moderate attitude, and high utilization of the partograph. The study recommends the need to increase the number of midwives each shift to be in line with high flow of mothers in labour.

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List of Abbreviations

GS	Gaza Strip
MCH	Mother and Child Health
MDs	Maternal Deaths
MMR	Maternal Mortality Rate
MoH	Ministry of Health
NGOs	Non-Governmental Organizations
OCs	Obstetric Caregivers
PBAs	Professional Birth Attendants
PCBS	Palestinian Central Bureau of Statistics
PHCCs	Primary Health Care Centers
SPSS	Statistical Package for Social Sciences
UNICEF	United Nations International Emergency Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNRWA	United Nations Relief and Work Agency for the Palestinian Refugees in the Near East
USAID	United States Agency for International Development
WB	West Bank
WHO	World Health Organization

Chapter One
Introduction

To reduce maternal and neonatal morbidity and mortality due to obstructed and prolonged labour especially in developing countries, the World Health Organization (WHO) recommends universal and routine partograph utilization (Maphasha et al., 2017). The partograph is a graphical record used to monitor progress of women during labour, provides a pictorial overview of labour, alerts midwives and obstetricians to any deviations in maternal or fetal well-being and the progress of labour. It also assists in early decision making on transfer, augmentation or immediate delivery (Lavender et al., 2013). The partograph is recommended as a means to monitor and record maternal and fetal well-being as it can identify maternal or fetal distress, and abnormalities in the progress of labour that require further action, including referral (Shinde et al., 2012).

Globally, 810 women died from preventable causes related to pregnancy and childbirth in 2019, and 94% of maternal deaths (MDs) occur in low and lower middle-income countries (WHO, 2019). From 2000 to 2017, the global maternal mortality ratio (MMR) decreased from 342 deaths to 211 deaths per 100,000 live births with a decline estimated to be 38% (United Nations International Emergency Fund - UNICEF, 2019). This significant achievement could be attributed in part to the use of the partograph to improve labour management.

Palestine like other developing countries has unacceptably MMR. In Gaza Strip (GS), MMR increased from 8.6 per 100,000 live births in 2017, to 19.1 per 100,000 live births in 2018 (WHO, 2019b), and to 30.8 per 100,000 live births in 2019 (Ministry of Health – MoH, 2020).

The partograph is an effective tool to monitor the progress of labour and recognize complications that may occur during labour, therefore, having adequate knowledge of components and utilization of partograph is an important challenge for midwives. Furthermore, evidence shows that good knowledge of partographs and proper application of this knowledge results in a remarkable reduction in the incidence of and outcomes from prolonged and obstructed labour and reduces maternal mortality (Opiah et al., 2012). Several studies reflected that obstetric caregivers (OCs) had inadequate knowledge on the proper use of the partograph (Maphasha et al., 2017; Konlan et al., 2016; Asibong et al., 2014; Prem and Smitha, 2013). Moreover, Githae et al. (2019) reported that negative attitude and lack of training on partograph use impose negative effect on utilization of partograph. On the other hand, in-service training is significantly associated with good level of knowledge, and health professionals who had in-service training about the partograph, and who had positive attitude towards the partograph were significantly associated with utilization of the partograph (Mezmur et al., 2017).

Despite the benefits of partograph, its utilization is either poor, inconsistent or used incorrectly. several factors affect the proper utilization of partograph. Among these factors lack of knowledge, lack of training of OCs on the use of partographs, lack of positive attitudes towards the utilization of partographs, lack of protocols on the use of partograph and an absence of guidelines on partograph use (Yisma et al., 2013). Other factors that impact the utilization of partograph included being unsure how to use it, unavailability of partograph charts, partograph is time consuming, and being too busy with clients (Maphasha et al., 2017).

According to the researcher's knowledge, there are no previous studies carried out to assess knowledge, attitudes, and utilization of partograph in GS, therefore, this study was

conducted in the purpose of identifying the level of knowledge, attitudes, and extent of utilizing partograph and associated factors that influence its utilization.

1.2 Research Problem

Maternal mortality resulting from poor intrapartum care can be prevented by the proper use of partograph which gives the nurses and midwives the opportunity to monitor the progress of labour and prompt their action (WHO, 2019).

In GS, with long years of siege and lack of resources in health facilities, the MMR increased considerably in the recent years. Reports from MoH in GS indicated that MMR was 10.2 per 100,000 live births in 2017, increased to 19.1 in 2018, and increased to 30.8 in 2019 (MoH, 2020). This increase in MMR raised the question of appropriate and effective utilization of partograph.

From my experience in labour wards, I noticed that some midwives do not fill the partograph completely, and they think it is time consuming. This could be attributed to lack of knowledge about the importance of utilizing the partograph appropriately. In this context, having detailed knowledge and positive attitude is a pre-requisite for proper utilization of partograph.

1.3 Justification of the study

Maternal mortality resulting from prolonged and obstructed labour is preventable, and there are convincing reports that acquisition of adequate knowledge and proper utilization of the partograph would reduce the incidence of MDs. The appropriate utilization of the partograph is one of the core skills of a trained midwife. When partograph is used effectively, it prevents obstructed labor, which accounts for about 8% of MDs worldwide (Haile et al., 2020).

On the other hand, GS is characterized by young population and women in the reproductive age (15 – 49 years) accounted for 22.5% of the total population in GS and 49.1% of the total females, and fertility rate 3.3 / woman. In addition, there are about 60,000 deliveries in GS yearly and about 80% of these deliveries take place at governmental hospitals (MoH, 2020). These numbers reflect the heavy load on maternity departments with higher risk for complications that may occur as a result of work pressure and lack of resources. Therefore, the need to use a cost-effective tool such as partograph is essential to monitor the progress of labour and early detection of abnormalities. However, the challenges to the implementation of the partograph, including insufficient knowledge, low attitude, and workload pressure, can all be addressed as factors that may hinder appropriate utilization of partograph.

Therefore, this study is coming to assess the level of knowledge, attitude and utilization of the partograph among nurses and midwives in labour wards at governmental maternity hospitals in GS, and the obtained results will help decision-makers in designing plans to improve the maternity services in the study locality.

1.4 Purpose of the study

The purpose of the study is to assess knowledge, attitude and utilization of the partograph among nurses and midwives at labour wards on governmental maternity hospitals in Gaza strip.

1.5 Objectives of the study

1. To assess the nurses' and midwives' knowledge about partograph at labour wards on governmental maternity hospitals in Gaza strip.
2. To determine the nurses' and midwives' attitude towards partograph at labour wards on governmental maternity hospitals in Gaza strip.

3. To assess the nurses' and midwives' utilization of partograph at labour wards on governmental maternity hospitals in Gaza strip.
4. To identify the differences in knowledge, attitude, and utilization of partograph in relation to the selected nurses' and midwives' sociodemographic characteristics and work factors.
5. To suggest recommendations for decision-makers assist in improving knowledge, attitude, and utilization of partograph among nurses and midwives.

1.6 Research questions

1. What is the level of the nurses' and midwives' knowledge about partograph at labour wards on governmental maternity hospitals in Gaza strip?
2. What are the nurses' and midwives' attitudes towards partograph at labour wards on governmental maternity hospitals in Gaza strip?
3. To what extent the nurses and midwives utilize partograph at labour wards on governmental maternity hospitals in Gaza strip?
4. Are there statistically significant differences in knowledge, attitude, and utilization of partograph in relation to selected nurses' and midwives' sociodemographic characteristics and work factors?
5. What are the suggested recommendations to improve knowledge, attitude, and utilization of partograph among nurses and midwives?

1.7 Theoretical and operational definitions

Knowledge

Knowledge refers to theoretical or practical understanding of a subject. It can be implicit or explicit, formal or informal, systematic or particular (Stanford Encyclopedia of Philosophy, 2020). The researcher defines knowledge of partograph operationally as

measured by the total scores obtained by respondents on the knowledge scale. The level of knowledge was divided into three levels:

- Low level of knowledge (total score less than 60%).
- Moderate level of knowledge (total score 60 – 80%).
- High level of knowledge (total score more than 80%).

Attitude

Attitude is an individual's state of mind regarding value and is accelerated by a responsive expression by expressing honesty or dissatisfaction with mothers' access to reproductive health services, which has been reported as positive or negative (Richard, 2016). The researcher defines attitudes operationally as measured by the total scores obtained by respondents on the attitude scale. The level of attitude was divided into three levels:

- Low level of attitude (total score less than 60%).
- Moderate level of attitude (total score 60 – 80%).
- High level of attitude (total score more than 80%).

Utilization

Utilization is the act of using something in an effective way (Cambridge Dictionary, 2020). The researcher defines utilization of partograph operationally as measured by the total scores obtained on the utilization scale. The level of utilization was divided into three levels:

- Low level of utilization (total score less than 60%).
- Moderate level of utilization (total score 60 – 80%).
- High level of utilization (total score more than 80%).

Partograph

Partograph is a Greek word meaning labour curve. The partograph is a graphical record used to monitor progress of women during labour. The partograph provides a pictorial

overview of labour, alerts midwives and obstetricians to any deviations in maternal or fetal well-being and the progress of labour (Githae et al., 2019). The researcher defines partograph operationally as the pre-printed chart designed to monitor the progress of labour including cervical dilation and fetal heart rate.

Midwives and nurses

The researcher defines midwives and nurses operationally as a skilled professionals who works full time in any governmental maternity hospital, and provide care and assistance to women during childbirth.

1.8 Boundaries of the study

Conceptual boundary: The conceptual boundary is limited to assessing the knowledge, attitude, and utilization of partograph.

Setting boundary: The study was conducted at labour wards on governmental hospitals in Gaza strip.

Temporal boundary: The study was carried out during the period from February to the end of December 2020.

Population boundary: The population of the study consisted of midwives and nurses.

1.9 Context of study

1.9.1 Sociodemographic context

Palestine occupies an area of 27,000 square kilometers (Km^2), expanding from Ras Al-Nakoura in the north to Rafah in the south. The Palestinian territories is divided into three areas separated geographically; the West Bank (WB) 5.655 Km^2, GS 365 Km^2 and East Jerusalem. GS is a narrow zone of land bounded by Egypt at south, at west by the Mediterranean Sea, and at the east and north by the occupied territories in 1948. GS has a

total area of 365 sq. km with 46 kilometers length and 5 to 12 kilometers wide and representing 6.1% of the total area of the Palestine land (Palestinian Central Bureau of Statistics-PCBS, 2018). At end of 2019, the total population is estimated to be about 5,039 million, of them 3,020 in WB and 2,019 million in GS with a ratio of 50.7 males and 49.3 females, median age 19.2 years, and population growth 2.9. Women in reproductive age estimated to be 488,413 (49%) of the total females in GS. In 2019, the total births were 55,212 live births (27.7 per 1000 population), and fertility rate 3.3 (MoH, 2020).

1.9.2. Economic context

The economic status in the GS is very low, and suffers from continuous pressure caused by long-term siege imposed by Israeli occupation for more than 14 years. Because of this siege, a significant increase in poverty rates has occurred in GS from 38.8% in 2011 to 53% by the end of 2017 (United Nations Office for the Coordination of Humanitarian Affairs - UNOCHA, 2019). In GS, there are three main types of localities of residence; urban, rural and camps. About 1.4 million (69%) of the total population in GS are refuges living in 8 camps. Moreover, the socio-economic status in the GS is severely suppressed by high population density, limited land access, effects of Israeli occupation military operations and restriction on labor and trade access across the border by the siege imposing since 2007. These factors have dramatically increased the rates of unemployment and poverty in GS. The average unemployment rate is well over 41.7 % – one of the highest in the world, according to the World Bank. The number of Palestinian refugees relying on UNRWA for food aid has increased from fewer than 80,000 in 2000 to almost one million today which accounted about half of the population of GS (United Nations Relief and Work Agency for Palestine Refugees in the Near East - UNRWA, 2019).

1.9.3 Health care system

The Palestinian health system is a complex mix of different sectors. The five major groups of health providers are the MoH, Palestinian nongovernmental organization (NGOs), UNRWA, Palestinian military medical services (MMS) and the private sector. MoH bears the heaviest burden, as it has the responsibility. UNRWA provides primary care services, only for refugee and purchase secondary care services for the hardship cases. Non-governmental organizations provide primary, secondary and some tertiary services. Private for-profit sector provides the three level of care through a variety of specialized hospitals and investigation centers (MoH, 2017).

The total hospitals in GS are 34 hospitals with total 3049 beds, of these hospitals 13 hospitals are owned by MoH with 2343 beds, and 17 hospitals for NGOs, 2 hospitals for MMSs, and 2 hospitals for private sector. In addition, there are 158 primary health care centers (PHCCs), of them 52 owned by MoH, 22 owned by UNRWA, 80 for NGOs, and 5 PHCCs for MMSs (MoH, 2020).

1.9.3.1 Maternity services at governmental hospitals

Governmental hospitals in the GS provide healthcare have the capacity for 113 newborns, and 100 women in need of obstetric surgeries. Hospitals in GS are already over-stretched, with a bed occupancy rate of over 90%. Under-resourced hospitals also face severe shortages in medicines and medical supplies with about 40% of the essential drugs were completely depleted (MOH, 2018).

Maternity and obstetric services provided mainly in six governmental hospitals (Al Shifa, Kamal Odwan, Shohada Al Aqsa, Al Tahreer, and Al Emaraty hospital). From the total deliveries in GS, about 70% of deliveries take place in the governmental hospitals. In 2019, the total deliveries were about 52,477 deliveries, of them 36,707 were in

governmental hospitals (25,927 vaginal deliveries and 10,780 cesarean section). The total number of neonatal deaths during childbirth or immediately after delivery was 247, of them 230 deaths were in governmental hospitals, and the total maternal mortality was 17 women, of them 14 deaths were in governmental hospitals. The total midwives who are working in governmental maternity hospitals was 244 midwives (MoH, 2020).

Chapter Two

Conceptual framework and literature review

2.1 Conceptual framework

A conceptual framework is the outlined map that guide the researcher in the application of the research steps from choosing the research title, objectives, literature review, methodology, results to finishing with the conclusion and recommendation of the study. The following framework demonstrate the knowledge, attitude and utilization of the partograph among nurses and midwives, and associated factors that affecting it.

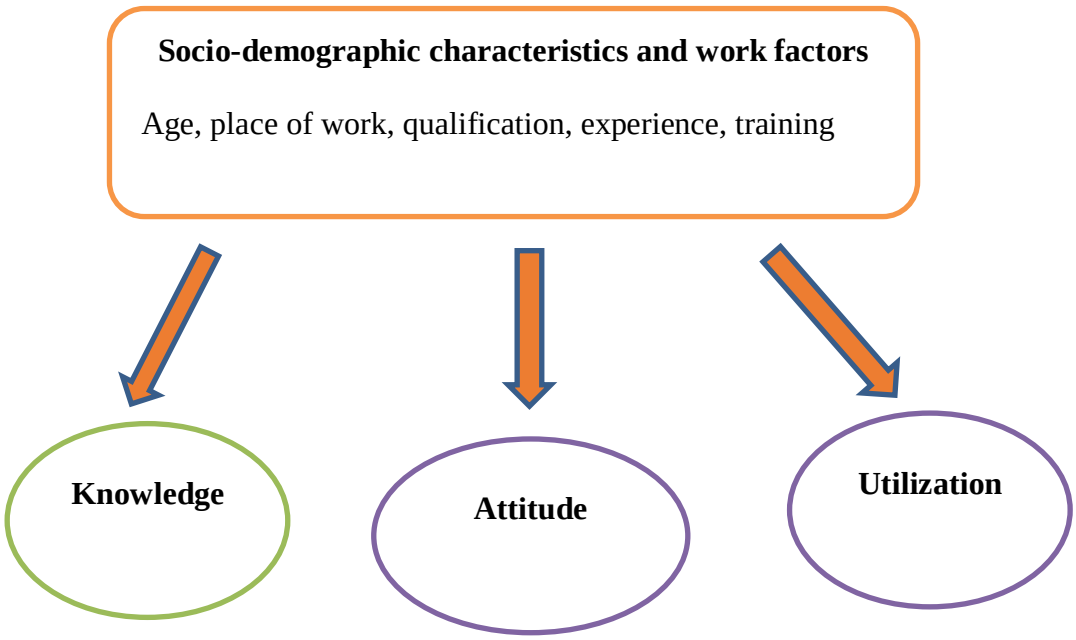

Figure (2.1): Conceptual framework (Self-developed)

The above diagram represents the conceptual framework of the study. It demonstrates how the study variables interrelate to filling of partograph in maternity departments at governmental hospitals.

Sociodemographic and work factors: These factors affect knowledge, attitudes, and utilization of partograph by midwives. Several studies indicated that age of midwives, qualification, and experience in maternity departments will affect their knowledge and

attitudes towards partograph, and that will be reflected in their utilization of the partograph (Gebreslassie et al., 2019; Kidest and Tamru, 2019; Eshetu et al., 2017; Maphasha et al., 2017).

In addition, midwives who received training about partograph gain knowledge, and that will be reflected in positive attitudes and utilization of partograph (Haile et al., 2020; Bedada et al. 2020; Markos and Bogale 2016; Wakgari et al., 2015).

Knowledge and attitude: act as mediating factors that will shape the manner of filling the partograph completely and accurately. These factors are inter-related and interact in the process of using partograph. First of all, knowledge is a pre-requisite factor as midwives need to have adequate knowledge about partograph to increase their awareness and understanding about how to fill the partograph and what are the benefits of partograph for the mother and her baby. In addition, attitude also has an important role in enhancing the use of partograph, as positive attitude will act as a motivator in two sides; encourage the midwife to gain knowledge and in the other side encourage better use of partograph, and that will lead to better utilization of partograph by midwives (Konlan et al., 2016; Wakgari et al., 2015).

Partograph utilization: As illustrated in the above diagram, the demographic factors play an important role in determining the level of knowledge and attitude regarding the utilization of partograph. In fact, being knowledgeable, along with positive attitudes and good utilization of partograph will be reflected in appropriate partograph service, which in turn will be reflected in early detection of abnormal progress of labour, and achieve good maternal outcome for the mother and her baby (Wakgari et al., 2015).

2.2 Literature review

2.2.1 Background

Partograph is a simple chart for recording information about the progress of labour, the condition of the woman as well as her baby during labour. Partograph is a graphic representation of labour, consisted of three components; maternal and fetal condition and progress of labour, which is used by health professionals for monitoring labour progress, fetal and maternal wellbeing (Haile, 2020). The partograph or labour graph is used to map the cervical dilatation against time, and thus unsatisfactory progress of labour can be identified and managed promptly (United States Agency for International Development, 2015).

Prolonged labour and obstructed labour are the most common causes of maternal and neonatal illness and death in developing countries because of inadequacy and poor quality of obstetric care including poor utilization of partograph in monitoring of labour, thus, early detection of complicated labour by using a simple and inexpensive tool such as partograph is a key predictor for reduction of maternal and prenatal morbidity and mortality (Bedwell et al., 2017; Tayade and Jadhao, 2012). Therefore, adequate knowledge and consistent use of the partograph by healthcare professionals is critical in the early detection of prolonged labour and prevention of associated complications (Yisma et al., 2013).

2.2.2 Evolution of partograph

The partograph has been established as the gold standard labour monitoring tool universally. The development of partograph provided health workers a pictorial overview of labour, which can identify pathological labour to allow early intervention (Dalal and Purandare, 2018). Most guidelines for normal labor progress are derived from Friedman's

clinical observations of women in labour. In the year of 1954, Friedman introduced the first concept of partograph by graphically plotting cervical dilatation against time. The curve obtained was a sigmoid curve. He divided the first stage of labour into latent phase and active phase. Active phase was further divided into acceleration, maximum slope and deceleration.

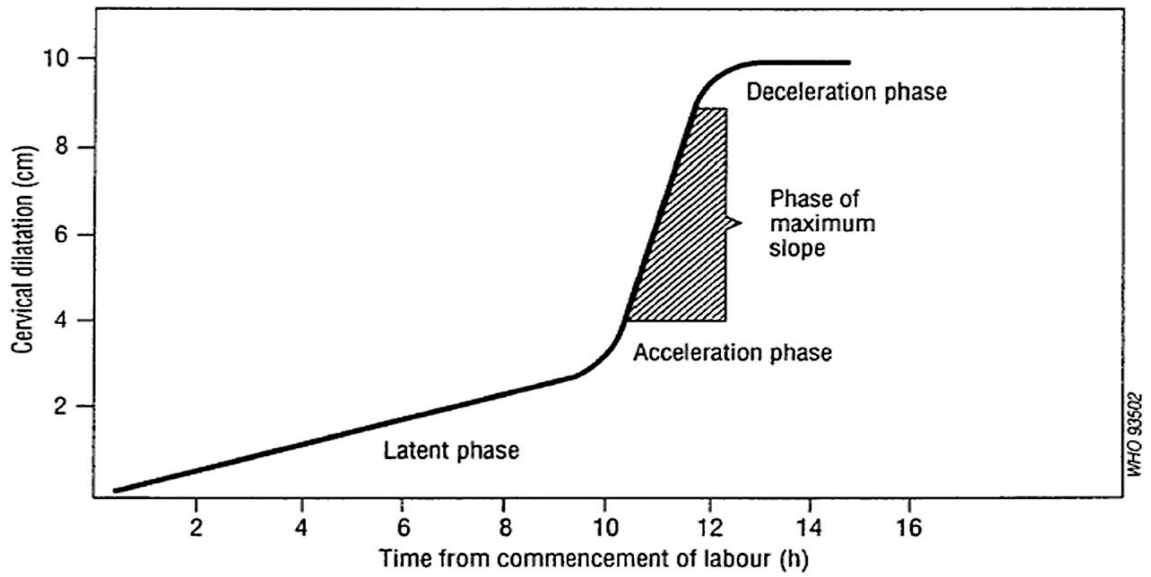

Figure (2.2): Friedman curve (1954)

Philpott and Castle introduced the concept of alert and action lines. Alert line was drawn at a slope of one centimeter/hour for nulliparous women starting at zero time "time of admission". The action line was subsequently drawn two hours to the right of the alert line enabling the transfer of the patient to a specialized tertiary care center (Ghanghoriya et al., 2018).

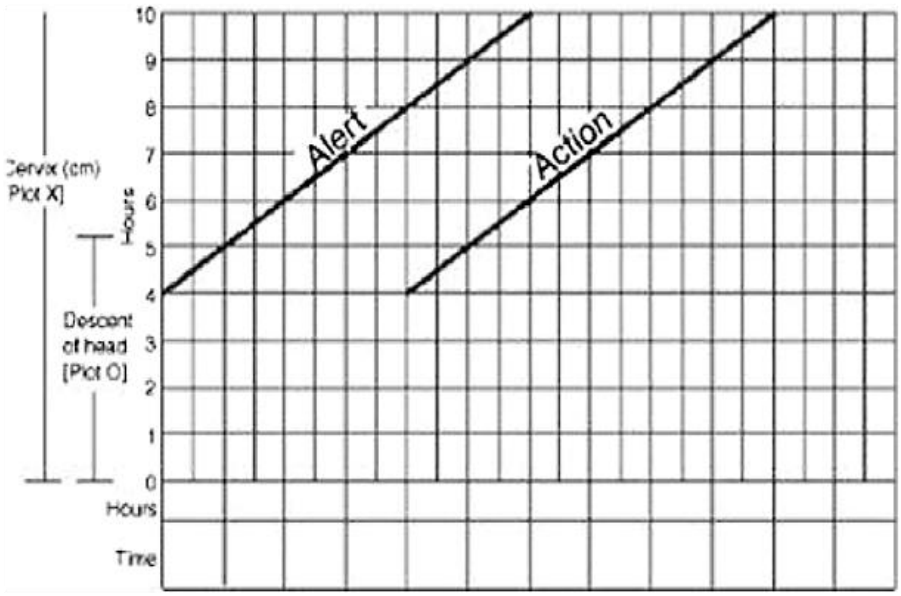

Figure (2.3): Alert and action lines (Philpott and Castle 1954)

In 1987, WHO launched the safe motherhood initiative, since then WHO has published three different types of partographs. The first of these partographs also known as composite partograph includes latent phase of 8 hours and an active phase starting at 3-cm cervical dilatation. It has an alert line with a slope at 1 cm/h and the action line 4 h to the right and parallel to alert line. It also provides space for recording descent of fetal head, maternal condition, fetal condition and medicines administered. WHO modified the partograph in 2000, the latent phase was excluded, and the active phase commenced at 4-cm cervical dilatation (WHO, 2000).

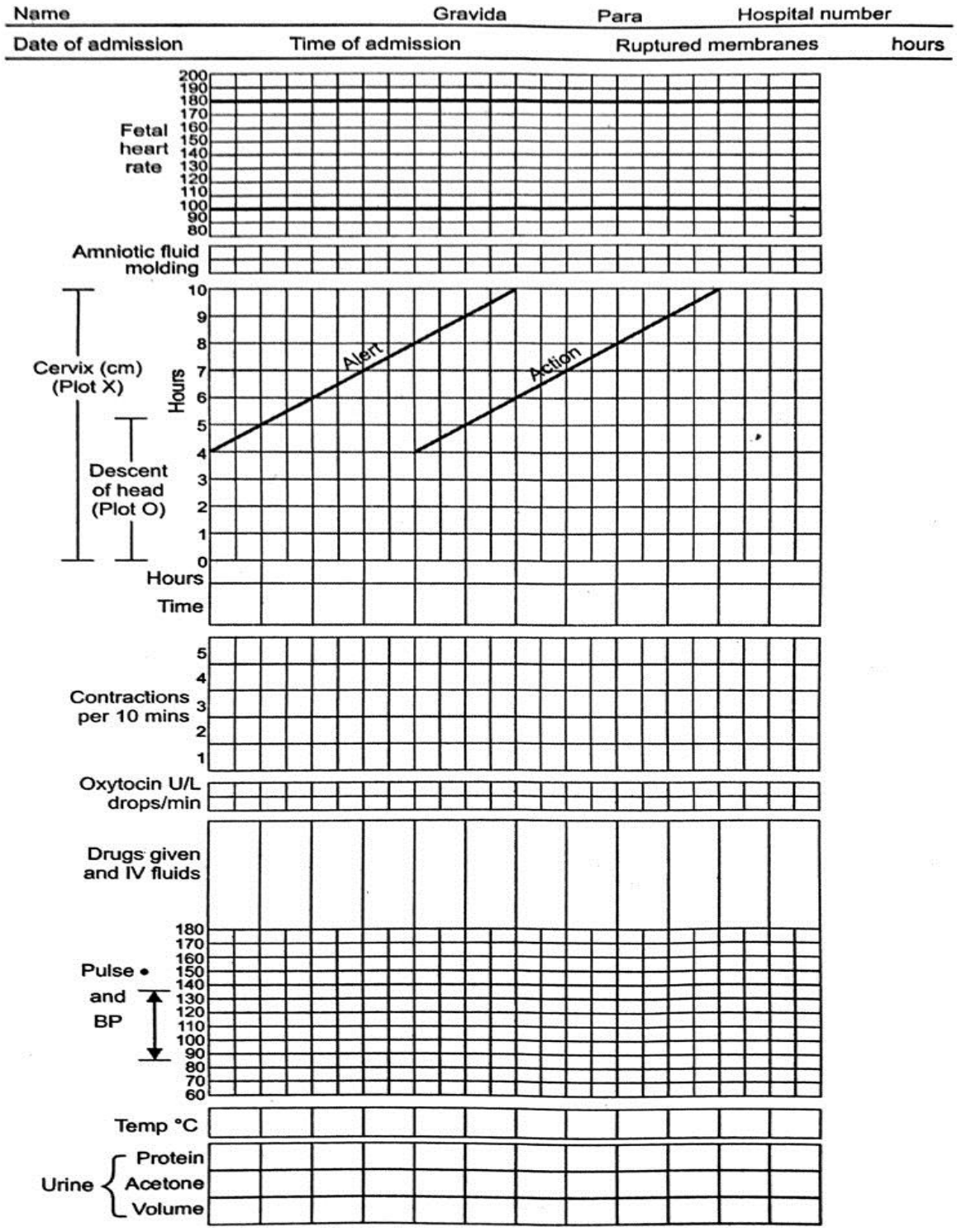

Figure (2.4): Modified partograph (Bhat et al., 2000)

WHO further modified the partograph for the third time. This simplified partograph is color-coded. The area to the left of the alert line is colored green representing the normal progress. The area to the right of action line is colored red indicating dangerously slow

progress. The area between the alert and action line is colored amber indicating the need for greater vigilance (Magon, 2011).

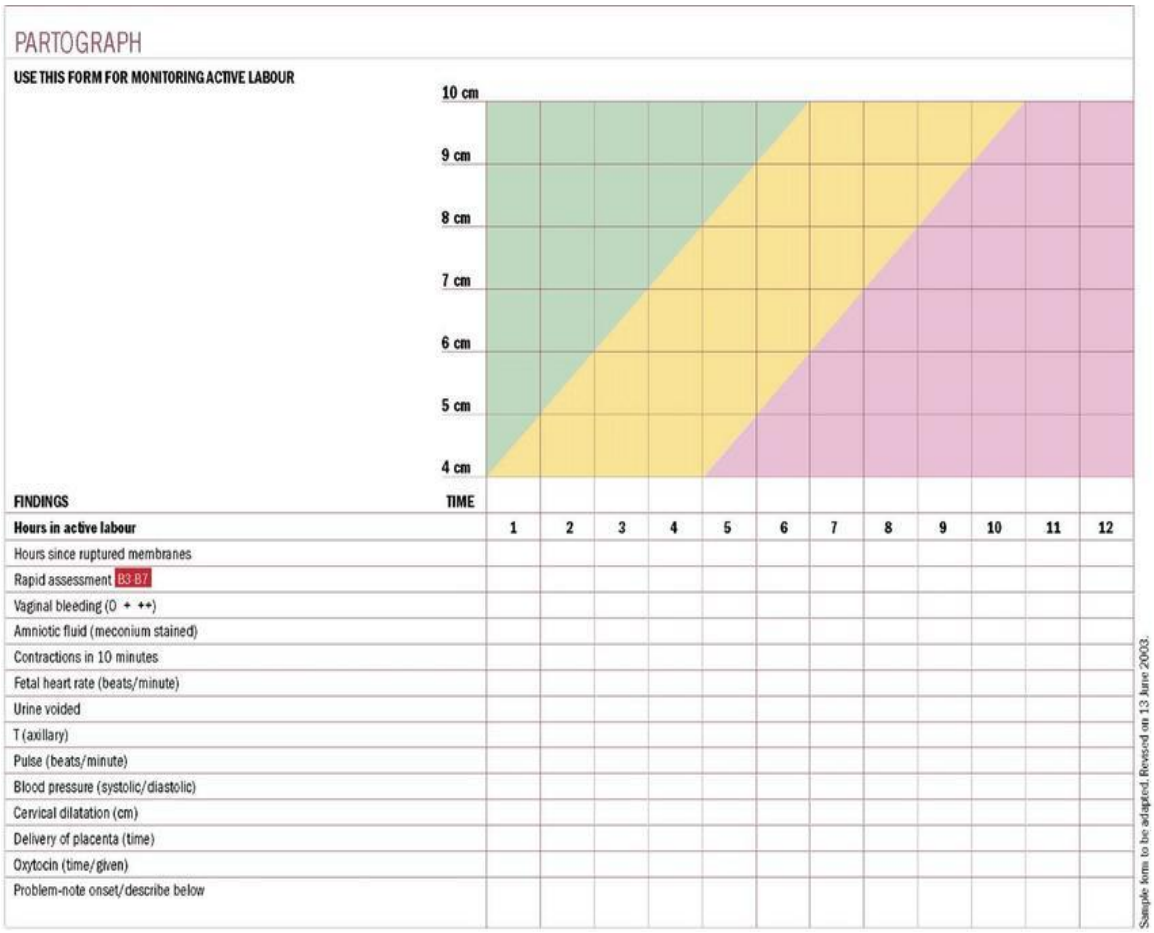

Figure (2.5): WHO simplified colored partograph (Kwast et al., 2008)

2.2.3 Components of partograph

A partograph is a simple, low-cost monitoring tool for intrapartum care which has the potential to identify obstetric complications by graphically presenting the critical events of labour progression, including the condition of both the woman and the fetus. The WHO partograph begins only in the active phase of labour, when the cervix is 4 cm or more dilated. However, it is a tool which is only as good as the health-care professional keep using it as part of their health care activities. The observations that are recorded will document the following:

2.2.3.1 Maternal well-being& patient identification

Including name of mother, gravida, parity, date of admission, time of rupture, record pulse rate every 30 minutes, blood pressure and temperature 4-hourly, urine output and dipstick testing for protein, ketones (if available) and glucose after voiding, and record all fluids and drugs administered. If the findings become abnormal, increased frequency of observation and testing will be required, and intervention may be implemented (Olorunmowaju, 2016).

2.2.3.2 Fetal well-being

Regarding fetal condition, the fetal heart rate must be recorded every 15 to 30 minutes after a contraction in the first stage, and every 5 minutes in the second stage. If abnormalities are noted, urgent delivery can be considered. Record the liquor for clearance, meconium stained 11 (thick or thin), bloody or absent. Thick meconium suggests fetal distress, and closer monitoring of the fetus is indicated (Olorunmowaju, 2016).

2.2.3.3 Progress of labour

Progress of labour consists of frequency, duration and strength of uterine contractions (assessed by palpation): record every 30 minutes. Abdominal examination will be done to assess descent of the fetal head. The central feature of the partograph is a graph where cervical dilatation is plotted. Along the left side, there are squares from 0 to 10, each representing 1-cm dilatation. Along the bottom of graph are numbers 0–24 each presenting 1 hour. The first stage of labour is divided into latent and active phase. The latent phase is from 0 to 3 cm, and it lasts up to 8 h. The active phase is from 3 to 10 cm (full cervical dilatation). The dilatation of cervix is plotted with "x". When a woman is admitted in the active phase, the cervical dilatation is plotted on the alert line. If progress of labour is

satisfactory, the plotting of cervical dilatation will remain on the left of alert line (Dalal and Purandare, 2018).

2.2.4 Benefits of partograph

The partograph serves as an early warning system and assists in early decision on transfer, augmentation and termination of labour. It also increases the quality and regularity of all observations on the fetus and the mother in labour, and aids early recognition of problems thereby preventing complications in both (Tayade and Jadhao, 2012). The partograph on its own does not address all aspects of quality of care, but it can play an important role in labour management. For instance, the partograph can enhance communication among providers, increase interaction between providers and the laboring women, promote continuity of care across providers, and encourage teamwork (Orhue et al., 2012).

The partograph provides a graphical record of the progress of labour and it is considered to be a valuable tool in the management of women in labour. The usefulness of a partograph includes: it depicts the progress of labour at a glance, it enables failure to progress to be readily recognized, it is simple to use, provides a practical teaching aid, and it is an efficient means of exchange of technical information about labour progress between teams of caregivers (Enkin et al., 2013).

The partograph is one of the most important advances in modern obstetric care. In under-resourced settings, prolonged labour and delay in decision-making are important causes of adverse obstetric outcomes. Owing to resource constraints in such settings, it is usually not possible to monitor each woman continuously throughout the duration of labor. In such settings, the partograph serves a simple and inexpensive tool to monitor labor in a cost-effective way (Dalal and Purandare, 2018).

A systematic review conducted in Ethiopia included 18 health facility based maternal mortality studies were conducted between 1980 and 2012 found that 36% of maternal deaths caused by obstructed labour, and the use of partograph with the alert line and action line are good measures to allow labour to be managed appropriately at the right time to ensure efficient correction of the abnormalities and improve delivery outcome (Berhan and Berhan, 2014). It is recommended to use of the modified WHO partograph in all maternity units because when used appropriately, neonatal and maternal morbidity and rate of caesarean section were reduced (Tayade and Jadhao, 2012). Another study conducted by Khonje (2012) on the use and documentation of the partograph in urban health centers of Malawi showed that chances of delivering a dead fetus were significantly reduced; 59.5% when monitoring of fetal heart rate was done and 32.4% in monitoring molding. If liquor was not monitored the chances of fetus dying increased by 53.5% while monitoring descent reduced the odds of fetal death by 99.7%.

2.2.5 Knowledge and attitude of nurses and midwives about partograph

Knowledge and attitude about partograph face a major challenge among obstetric care givers in the delivery units of health facilities. Even though obstetric care givers have fair knowledge of the partograph and why it is necessary to use it in the management of labour, it is not used completely by obstetric care givers to monitor mothers in labour (Mottey, 2015). A cross-sectional descriptive study conducted on 140 midwives in Ghana found that respondents had inadequate knowledge on the proper use of the partograph (Konlan et al., 2016). Another study was conducted in Nigeria to evaluate the obstetric caregivers' knowledge and attitude towards partograph use, found that the majority of the respondents (70.8%) had good general knowledge of the partograph but lacked detailed and in-depth knowledge of the component parts of the partograph, and Knowledge of partograph, and partograph availability had a significant relationship with its utilization (Asibong et al.,

2014). Another study carried out in Gambia found that the knowledge level of the midwives about the utilization of the partograph was good (80%), and on average 78% of the midwives were utilizing the partograph to monitor women in labour (Burama et al., 2013), and the results obtained by Kidest and Tamru (2019) indicated that knowledge of obstetrics care provider about partograph was 72.6%.

The attitude of midwives towards the use of partograph could be positive or negative depending on the workplace circumstances. A positive attitude towards the use of partograph generally would enhance better use of partograph while negative attitude would lead to poor utilization of the partograph (Mottey, 2015). In a study was conducted in South Africa to assess the level of knowledge and attitude towards partograph amongst doctors and midwives. The study included 69 doctors and midwives, and the results showed that the overall knowledge of partograph was insufficient, resulting in inadequate use of partograph (Maphasha et al., 2017). Another cross-sectional study carried out in South Sudan aimed to assess midwives' knowledge and use of partographs in the maternity wards. The study included 30 midwives, and the results showed that 67% of midwives knew the components of a partograph, and 93% could differentiate between normal and abnormal labour with the use of a partograph (Alfred and Abdallah, 2017). Moreover, a study conducted in Cameroon reported that about two-thirds (65%) of the midwives had poor knowledge regarding partograph (Prem and Smitha, 2013). In addition, the results obtained by Yisma et al., (2013) reflected that more than half (53.3%) of obstetric care givers have fair knowledge of partograph and its importance in the management of labour. An institution based cross-sectional quantitative study was carried out among health professionals who were working in public health institutions in Ethiopia found that more than half of health professionals (53.7%) had a good level of knowledge about the partograph and 45.4% had fair knowledge of partograph (Mezmur et al., 2017).

Furthermore, a cross-sectional study carried out in Kenya found that 80% of the study respondents were able to define a partograph, 67.2% knew the meaning of alert line, 75.5% knew how frequent to monitor fetal heart rate during active phase of labour, 93.6% knew the frequency of monitoring cervical dilatation during labour, 84.5% were knowledgeable on detection of maternal distress, 85% were able to detect fetal distress during labor. Generally, 70% of the respondents knew when and what to use a partograph for. The results also showed that 67.2% of respondents had positive attitude towards partograph, but only 21.8% of them properly used the partograph (Githae et al., 2019).

Partograph is an economical tool designed to provide a continuous pictorial overview of labour and has been shown to improve outcomes when used to monitor and manage labour because it includes all important information about progress of labour, fetal condition and maternal condition. Thus, gaining adequate knowledge about partograph is an important issue for midwives who are working in maternity departments. A cross-sectional study carried out to assess knowledge and utilization of partograph among birth care givers in public health institution in Southern Ethiopia found that 94.3% of respondents knew what a partograph is and 58.6% defined it correctly. Only 42.9% and 55% of respondents correctly explained the function of alert line and action line respectively. Also, only 43.9% had good knowledge on appropriate use of partograph (Eshetu, Hussen**,** Dulla, 2017).

A descriptive cross-sectional study involving 80 healthcare providers in Cameron found that partograph was used in 35% of labour cases, 46.3% of healthcare providers had a fair knowledge on the use of the partograph, and the majority of healthcare providers (97.5%) knew that the partograph was a useful tool (Nyiawung et al., 2018).

A cross-sectional study conducted to assess the acceptability and usage of WHO modified partograph by midwives in some selected delivery centers in Ghana showed that the

majority of midwives (89.0%) said that partograph use in monitoring labour is very good and that it should be made compulsory. The results also showed that midwives see it necessary to use partograph (Mottey, 2015).

In Iraq, a case-control study carried out to assess the effectiveness of a teaching program about partograph found that at baseline, 88% of midwives have poor knowledge regarding partograph in the study group and 92% in control group, 12% have fair knowledge in study group and 20% in control group. After implementation of the teaching program regarding partograph, 80% of midwives have good knowledge in study group (Yasir et al., 2016). Another study found that knowledge of obstetrics care provider in the study area is 72.6%. Age, formal education, health facility and on job training were the variables which shows significant association with knowledge of partograph use (Melese and Bekiru, 2019).

2.2.6 Utilization of partograph by nurses and midwives

The partograph is considered as one of the most important advances in modern obstetric care, as WHO advocates its use as a necessary tool in the management of labour and recommends its universal use during labour. In under-resourced settings, prolonged labour and delay in decision-making are important causes of adverse obstetric outcomes. Owing to resource constraints in hospitals, it is usually not possible to monitor each woman continuously throughout the duration of labour. In such settings, the partograph serves a simple and inexpensive tool to monitor labour in a cost-effective way (Dalal and Purandare, 2018).

The Partograph is recommended by the WHO as a means to monitor and record maternal and fetal well-being as it can identify maternal or fetal distress, and abnormalities in the progress of labour that require further action (Opiah et al., 2012). In Cameroon, a study was conducted to assess utilization of the partograph, showed that the obstetric care

providers' knowledge and utilization of the partograph in monitoring labour was generally poor (Sama et al., 2017).

In addition, in their study, Bazirete et al., (2017) found that a large percentage of participants reported poor use of the partograph. Moreover, a study was conducted to assess utilization of partograph among obstetric care givers in Ethiopia found that more than half of the obstetric care givers reported that they used the partograph to monitor mothers in labour (Yisma et al., 2013). Another cross-sectional quantitative study was carried out among health professionals who were working in public health institutions in Ethiopia found that the proportion of the partograph utilization to follow labor progress by health professionals was 92.6% (Mezmur et al., 2017).

The appropriate utilization of the partograph is one of the core skills of a trained midwife, which can reduce complications from prolonged labour for the mother and for the infant (Mukisa et al., 2019). A retrospective, descriptive study carried out in Ghana to assess the proportion and correct use of the partograph in monitoring labour. The results indicated that about half of deliveries (54.6%) were monitored with partograph. The highest recorded parameter was contractions (60.2%) while the least recorded parameter was moulding (32.5%), fetal heart rate was recorded to standard in 50% of cases, partially recorded in 24% and not recorded at all in 25% of cases. In about 44% of cases cervical dilatation was not recorded to standard, and standard recordings of contractions were done in 60% of cases. Descent was properly charted in 55% of cases and not charted at all in 25% of cases. Maternal blood pressure and pulse were properly charted in 40% of cases. In about 12% of cases APGAR scores were not recorded at all, and in 12% of cases the action line of the partograph was crossed (Opoku and Nguah, 2015).

A cross-sectional study conducted in Ethiopia found that the overall magnitude of partograph utilization was found to be 54.4%, and only 10 parameters were recorded completely out of 18 parameters (Haile et al., 2020). Another study carried out in Uganda reported that 79.1% of observed records had incomplete documentation of age, 52.7% had incomplete documentation of gravidity, and 3.2% had incomplete documentation of parity. Also, in about 61% of records, the specific parameters for fetal monitoring, maternal monitoring and labour progress were incomplete (Mukisa et al., 2019). Another institution based cross-sectional study was conducted by Wakgari et al. (2015) found that 40.2% of obstetric care providers utilized partograph during labour. Another cross-sectional study aimed to evaluate the utilization of the partograph in Ethiopia reported that 83% of obstetric care providers utilized partograph to monitor labour, but most of them were using it incorrectly (Gebreslassie et al., 2019). Moreover, a cross-sectional study conducted in Ghana indicated that the majority of midwives (89.0%) said that partograph use in monitoring labour was very good and that it should be made compulsory. The results further showed that midwives see it necessary to use partograph. However, it will require effective monitoring to ensure that entries are complete and that there is regular utilization. Also, partograph that are filled are incomplete. The result further showed insufficient in-service training and refresher courses for midwives on the use of Partograph (Mottey, 2015).

In Egypt, a cross-sectional descriptive study was conducted on 103 professional birth attendants (PBAs) including nurses and physicians from health centers and district hospitals in Port-Said and Ismailia cities. The results showed that the majority of nurses (91.3%) had an unsatisfactory score of knowledge regarding using of partograph, while more than half of physicians (55.9%) had a satisfactory score. The great majority of physicians (97.1%) and nurses (91.3%) had positive attitude toward partograph. About

two-thirds of physicians and one-fifth of the nurses reported that they may use the partograph to manage selected cases. The absence of obligation from health settings policy to perform the partograph was the most reason that limits its utilization as described by PBAs. In relation to the PBAs' accuracy in recording and plotting the data on partographs, there were incomplete and poor monitoring of parameters on the partograph against the recommended standards; that reflects poor skills of PBAs on the use of a partograph (Salama, Abd Allah, I., Heeba, 2010).

In Gaza Strip, a descriptive, analytical, cross-sectional study carried out to assess the quality of midwifery care in labour room at the governmental hospitals in the GS. The sample of the study consisted of 295 mother who underwent normal vaginal delivery, in which 246 (83.3%) agreed to participate in the study. The researcher used a validated questionnaire as a tool for data collection. Different statistical procedures were used for data analysis including percentages, mean, independent sample t test, and Pearson correlation. The results showed that 94.7% of midwives utilized the partograph to monitor the progress of labour. The results also revealed that the presence of companion, lack of augmentation, delivery in none-supine position, and skin to skin contact have been applied in 38.6%, 53.7%, 20.7%, 82.9% of the total deliveries in the current study respectively. The total mean score of the Bologna score is 2.90 out of 5.0 (58.0%) (Alnajjar, 2019).

2.2.7 Factors affecting the use of partograph

Despite the benefits of partograph, its utilization is either poor, inconsistent or used incorrectly. Different factors may contribute to the usage of partograph. The most important factors that act as barriers to use of the partograph are low-resource settings, shortage of human resources, low competence, lack of on-going facilitative supervision, acceptability of the tool and lack of functioning referral mechanisms present major challenge to effective use of the partograph (Desmond Tutu Center, 2011).

A cross-sectional study carried out by Maphasha et al., (2017) found that despite 83.8% of study participants had some form of training on the partograph, only 79.4% routinely used it. Reasons for not using the partograph included being unsure how to use it (13%), partograph charts not available (8.7%), partograph takes too long time (21.7%), being too busy (26.1%), and a feeling that the partograph was not the doctor's responsibility. Another cross-sectional study carried out by Mezmur et al., (2017) reported that working in the health center, being a midwife, and in-service training were significantly associated with good level of knowledge. Also, health professionals who had in-service training about the partograph, and who had positive attitude about the partograph were significantly associated with utilization of the partograph. A cross-sectional study carried out by (Githae et al., 2019) aimed to determine the level of utilization of the partograph, and nurses related factors influencing the utilization of the partograph. The study included 110 nurses, and the results showed that nurses related factors influencing utilization of the partograph included negative attitude and lack of training on partograph use. Majority of nurses working in labor ward felt that partograph use is time consuming and needed supervision on partograph use. In addition, majority of the nurses were not trained on partograph use from the time they graduated from college. Another study carried out in Ethiopia reported that participants who received on-the-job training on partograph, who are working in a hospital, who are knowledgeable about partograph, and who have favorable attitude toward partograph use were factors affecting partograph use positively (Haile et al., 2020). In a focus group discussion, the healthcare providers reported being unable to complete the partographs due to the overwhelming numbers of expectant mothers and other staff responsibilities. Congestion in the maternity ward reduced the partograph completion rates. The availability of other monitoring tools, limitation in skills, inadequate equipment and

supplies, and the state of the mother at the presentation to the hospital all made partograph use and completion challenging (Mukisa et al., 2019).

Partograph use has shown to increase frequency and regularity of monitoring and overall quality of care during labour. Despite this, the use of partograph is very low among healthcare providers in developing countries, as poor knowledge and skills in plotting partograph, shortage of staff, and non-availability of printed partograph sheets are common reasons for under-utilization of partograph (Abebe et al., 2013, Chaturvedi et al., 2015). Across-sectional study carried out by Eshetu et al., (2017) found that 51% of respondents used partograph routinely, 38.2% used it sometimes, and 5.7% of the respondents used partograph occasionally. Also, diploma graduates had 3.7 times good level of knowledge compared to graduates of bachelor of nursing, and there was statistically significant relationship between the years of experience and knowledge of partograph.

An institution based cross-sectional study assessed factors associated with the use of partograph reported that midwives were about 8 times more likely to have a consistent utilization of the partograph than general practitioners, getting on job training, being knowledgeable on partograph, and having favorable attitude towards partograph were positively associated with partograph utilization (Wakgari et al., 2015). A cross-sectional study conducted to identify factors associated with utilization of partograph showed that age, gender, level of education, years of experience were the factors that showed association with the utilization of the partograph (Gebreslassie et al., 2019). Another study assessed knowledge of obstetrics care providers on partograph and associated factors in Ethiopia found that age, formal education, health facility and on job training were the variables which shows significant association with knowledge of partograph use (Kidest and Tamru, 2019).

A cross-sectional study aimed to evaluate factors that impede utilization and those that promote the utilization partograph by nurses/midwives in monitoring labour in primary/secondary health facilities in Enugu metropolis. The results revealed that majority of the nurses/ midwives face a lot of challenges in utilizing the partograph. Some of the major factors that impede the utilization include lack of knowledge of the partograph 54% and inability to interpret findings correctly after assessment with the partograph (73.8%). The major factors that can promote the utilization of partograph include provision of necessary resources such as observation tools (83.3%) like sphygmomanometer, fetoscope and provision of partograph charts in the labour wards (69%). It was concluded that the major factors in the nurses/ midwives that impede the utilization of partograph includes lack of knowledge, inability to interpret findings correctly after assessment with the partograph and that partograph is an additional time-consuming task for the inadequate staff. It is recommended that all nurses/ midwives should work towards self-development through education to increase knowledge and skill on partograph use. Management should stand up for their responsibility to encourage and sponsor seminars/workshops as well as conferences on partograph use for quality client care (Nwaneri et al., 2017).

Chapter Three

Material and Methods

3.1 Study design

This study utilized a descriptive, cross-sectional embedded design, that include quantitative and qualitative methods of data collection. This design is suitable to assess knowledge, attitude and utilization of the partograph among nurses and midwives at maternity hospitals. It is useful to gather quantitative and qualitative data about important health-related aspects at relatively short period of time (Polit and Beck, 2017).

3.2 Population of the study

The population of the study consisted of all nurses and midwives who are working at the labour wards on governmental hospitals in Gaza Strip. Their total number was 125 nurses and midwives.

3.3 Sampling method and sample size

The sample of the study consisted of all the nurses and midwives who are working in labour wards on governmental hospitals in Gaza Strip that they were selected by census sampling method. Their total number of eligible nurses and midwives was 105 participants (15 nurses and 90 midwives).

3.4 Setting of the study

This study was carried out at the labour wards on the governmental hospitals that provide maternity services namely; Al Shifa maternity hospital in Gaza, Kamal Odwan hospital in North Gaza, Shohada Al Aqsa hospital in Mid Zone, Nasser Medical Complex in Khanyounis, and Al Emaratey hospital in Rafah.

3.5 Period of the study

This study took place during the period from February to October 2020. Data were collected during the period from June to July 2020.

3.6 Eligibility criteria

3.6.1 Inclusion criteria

– All the nurses and midwives who are working at the labour wards including the reception room, and first stage department.
– Full-time contract.
– Willing to participate in the study.

3.6.2 Exclusion criteria

– Volunteer nurses and midwives.
– Nurses and midwives with temporary contracts, job creation program.
– Student nurses and midwives who are under training.

3.7 Instrument of the study

A structured, modified questionnaire was used in this study. After reviewing previous literature, the researcher adopted and modified the questionnaire (Dohbit et al., 2010) and (Sama et al., 2017). The questionnaire was designed to measure the knowledge, attitude and utilization of partograph (Annex 1, 2). The questionnaire consisted of the following:

- Sociodemographic factors.
- Quantitative part: knowledge about partograph (14 items), attitudes towards partograph (10 items), utilization of partograph (10 items).
- Qualitative part: Four open-ended questions.

Response on items of the questionnaire as the following:

- Knowledge questions: (2) Yes, (1) No

- Attitude questions: (5) Strongly agree, (4) Agree, (3) Neutral, (2) Disagree, (1) Strongly disagree.
- Utilization questions: (2) Done, (1) Not done.

Criteria for measurements of variables

Weighted percent	Interpretation
Less than 60%	Low
60 – 80%	Moderate
Above 80%	High

3.8 Pilot study

The researcher carried out a pilot study on 30 participants from all the maternity hospitals that were included in the study before starting the actual data collection in order to determine reliability of the questionnaire, and to identify the clarity or ambiguity of questionnaire statements. The piloted questionnaires were included in the sample of the study as there were no changes on the contents of the questionnaire were done.

3.9 Validity and reliability

3.9.1 Validity

a. Face validity and content validity

Validity expresses the degree to which a measurement measures what it is intended to measure (Bolarinwa, 2015). Face validity evaluates the appearance of the questionnaire in terms of feasibility, readability, consistency of style and formatting, and the clarity of the language used (Taherdoost, 2016). The researcher distributed the questionnaire to a group of experts in the field of MCH and research methodology (Annex 3) in order to evaluate adequacy of the questionnaire items to measure the study questions, which will give the questionnaire confidence in its results.

b. Construct validity

Construct validity is the degree to which an instrument measures the trait or theoretical construct that it is intended to measure. It does not have a criterion for comparison rather it utilizes a hypothetical construct for comparison. It is the most valuable and most difficult measure of validity. Basically, it is a measure of how meaningful the scale or instrument is when it is in practical use (Wong et al., 2012). To test construct validity, the researcher used Pearson Correlation test to examine the correlation between the total score of each domain and the total score of the questionnaire as presented in table (3.1).

Table (3.1): Construct validity of the questionnaire (Pearson correlation test)

No.	Domain	Correlation value
1	Knowledge	0.667 **
2	Attitude	0.666 **
3	Utilization	0.614 **

**Significant at 0.01

As shown in table (3.1), all the domains have statistically significant correlation at ≤ 0.01 with the total score of the questionnaire.

3.9.2 Reliability

Reliability is concerned with how consistently the measurement technique measures the concept of interest, a measure is considered reliable if it gives the same results each time the situation is measured (Polit and Beck, 2017). To test reliability, the researcher used Cronbach alpha method as presented in table (3.2).

Table (3.2): Reliability of the questionnaire

No.	Domain	No. of items	Alpha coefficient
1	Knowledge	14	0.801
2	Attitude	10	0.728
3	Utilization	10	0.871
Total score		**34**	**0.809**

As shown in table (3.2), the value of alpha for each domain and the total scores of the items was above 0.80, which means that the questionnaire has good reliability according to the recommendations of Polit and Beck, (2017).

3.10 Data collection

Data were collected by the researcher and other assistance from three midwives from the selected hospitals. The assistant midwives received explanation and training on appropriate filling of the questionnaires. The questionnaire was self-administered questionnaire, and estimated time for filling each questionnaire was about 15 minutes. All the questionnaire forms were prepared, organized, and given a serial number for each questionnaire form.

The researcher informed the participants about the purpose of the study, and obtained their consent to participate in the study. The researcher gave instructions to the participants about proper filling of the questionnaire, any unclear information was simplified to ensure appropriate filling of questionnaires. Data was collected during the morning, evening, and night shifts

3.11 Data entry and analysis

For quantitative part: data has been analyzed by using the SPSS program version 22. The stages of data analysis included: Coding the questionnaires, data entry, and data cleaning. Data cleaning has been performed by reviewing frequency tables, random selection of questionnaire to ensure accurateness of data entry.

The results were expressed as descriptive statistics including frequencies, means and percentages to identify participants' characteristics, and to determine levels of knowledge, attitude, and utilization of partograph.

Inferential statistic included Fisher's Exact test, and One-way ANOVA, to find out the significance of differences between variables (age, place of work, qualification, years of experience, and training).

For qualitative part: Participants' responses to questions were categorized, then presented in narrative form.

3.12 Ethical and administrative considerations

The ethical and administrative considerations are important conditions in applying the research. All of the ethical procedures have to be followed without ignoring any of them. An official letter of approval was obtained from Al- Quds University to conduct the study (Annex 4). An official letter of approval was obtained from Helsinki Committee in Gaza Strip (Annex 5). An official letter was obtained from MoH to conduct the study (Annex 6). Every participant was provided with an explanatory form about the study including the purpose of the study, confidentiality of information and some instructions.

3.13 Limitation of the study

This study was limited to the nurses and midwives who are working at governmental hospitals. The researcher faced some limitations during conduction of this study including lack of previous studies about knowledge and utilization of the partograph in Palestine and Arab countries. Long hours cut-off electricity which delayed internet searching and typing of research paper, and financial constraints which interfered with the research being accomplished in designated time.

Chapter Four

Results and discussion

This chapter presents the results and discussion of statistical analysis of data. Description of demographic characteristics of participants was illustrated as well as the results of different variables were identified and discussed.

4.1 Descriptive results

4.1.1 Sociodemographic characteristics and work factors of the study participants

The sample of the study consisted of 105 nurses and midwives who participated in the study and filled the questionnaire. Their sociodemographic characteristics are illustrated in the following tables.

Table (4.1): Distribution of study participants by age and hospital (n= 105)

Variables		n	Percent
Age	21 – 25 years	17	16.2
	> 25 – 30 years	40	38.0
	> 30 – 35 years	24	22.9
	> 35 years	24	22.9
	Total	105	100.0
	Mean age = 31.470 SD = 6.626		
Hospital	Al Shifa	49	46.8
	Nasser	14	13.3
	Shohada Al Aqsa	14	13.3
	Kamal Odwan	14	13.3
	Al Emaraty	14	13.3
	Total	105	100.0

Table (4.1) showed that more than one-third (40, 38%) of study participants are from the age group > 25 – 30 years and (17, 16.2%) participants from the age group 21 – 25 years, and the mean age of the sample was 31.47 years. This result reflected that the majority of

study participants were from the young and middle age group. Similar results obtained by Salama et al. (2010) which indicated that most of nurses were younger than 30 years old and their mean age was 29.6 years. Another study conducted by Mottey, (2015) reported that 43.8% of study participants were from the age group 20 – 29 years. In addition, the results of Githae et al. (2019) reported that the mean age of study participants was 26 years and 52.7% were within the age group 25 – 30 years.

The majority of study participants were from Al Shifa hospital accounted for (49, 46.8%) of the study population. Other hospitals have an equal number of midwives and nurses (14, 13.3%) were participated in the study. The maternity hospital at Al Shifa Medical Complex is the largest maternity hospital in Gaza Strip, with the largest number of nurses and midwives. Therefore, the largest number of participants in this study was from Al Shifa hospital.

Table (4.2): Distribution of study participants by qualification, experience, and training (n= 105)

Variables		n	Percent
Qualification	Diploma nursing	7	6.7
	Diploma midwifery	17	16.2
	Bachelor nursing	8	7.6
	Bachelor midwifery	69	65.7
	Postgraduate	4	3.8
	Total	105	100.0
Experience	<5 years	36	34.3
	5 – 10 years	40	38.1
	> 10 years	29	27.6
	Total	105	100.0
	Mean = 7.660 SD = 5.289 years		
Received training about partograph	Yes	73	69.5
	No	32	30.5
	Total	105	100.0

Table (4.2) showed that the majority of study participants (69, 65.7%) have bachelor degree in midwifery and 17 (16.2%) have diploma in midwifery. Most of study participants (40, 38.1%) have 5 – 10 years of experience in maternity departments while (29, 27.6%) have more than 10 years of experience in maternity departments, the mean years of experience was 7.66, SD = 5.289 years. In addition, (73, 69.5%) of study participants received training about partograph. These results were inconsistent with the results of Salama et al. (2010) in Egypt, which indicated that about two-thirds of study participants have diploma in nursing, about two-thirds have an experience less than 10 years (mean= 11.1 years), only 20.3% of participants received training about partograph, and 79.7% never used partograph. Another study conducted by Mottey, (2015) showed that 56.9% of respondents have diploma certificate, and about two-thirds have an experience less than 10 years and one-third have an experience between 10 – 19 years. In addition, the results of Githae et al. (2019) indicated that 82.5% of participants have diploma certificate in community health, 10% had diploma in midwifery, and 7.5% had bachelor degree in nursing, and 84.5% of participants had worked in labour ward for less than six years, and 42.6% received training about partograph.

4.2 Inferential results

4.2.1 knowledge about partograph

Question 1: What is the level of the nurses' and midwives' knowledge about partograph at labour wards on governmental maternity hospitals in Gaza strip?

To answer this question, the researcher calculated frequencies, and percentage in order to determine the level of knowledge among participants as illustrated in table (4.3).

Table (4.3): Knowledge of study participants about partograph (n= 105)

No.	Item	Right answer		False answer		Rank
		n	%	n	%	
1	Partograph is a graphic record of progress of labor by hours	105	100.0	0	0	1
2	Partograph decrease maternal morbidity rate during labour	99	94.3	6	5.7	2
3	Partograph decrease the maternal mortality rate during labour	83	79.0	22	21	13
4	Partograph decrease fetal morbidity rate during labour	95	90.5	10	9.5	6
5	Partograph decrease fetal mortality rate during labour	94	89.5	11	10.5	8
6	Plotting on action line indicate decision making for delivery	87	82.9	18	17.1	9
7	Plotting on alert line indicate for continue monitoring progress	87	82.9	18	17.1	10
8	Partograph starts in the active stage of labour	99	94.3	6	5.7	3
9	Partograph filling by a midwife in low-risk deliveries	95	90.5	10	9.5	7
10	Normal uterine contraction 3-4 times in 10 minutes	96	91.4	9	8.6	5
11	Strong intensity of uterine contraction is 40 second as minimum	87	82.9	18	17.1	11
12	Start plotting on partograph on 6 cm dilation	98	93.3	7	6.7	4
13	Duration of labor in multiparous is 14 hours	80	76.2	25	23.8	14
14	Primiparous labor duration is 20 hours	84	80.0	21	20.0	12
Overall		**87.70**		**12.30**		

Table (4.4): Level of knowledge about partograph

Level of knowledge	Range of scores	n	%
Low	Less than 60 %	7	6.7
Moderate	60 – 80 %	25	23.8
High	More than 80 %	73	69.5

Table (4.3) showed that all the participants know that partograph is a graphic record of progress of labor by hours, 94.3% know that partograph decrease maternal morbidity rate during labour, and 94.3% of participants know that partograph starts in the active stage of labour. The lowest score was in knowing that duration of labor in multiparous is 14 hours (76.2%), followed by knowing that partograph decrease the maternal mortality rate during labour (79%). The overall average correct answers were 87.7%, which indicated that midwives and nurses have high knowledge about partograph.

Table (4.4) showed that 7 (6.7%) expressed low knowledge about partograph, 25 (23.8%) had moderate knowledge, and 69.5% of participants showed high knowledge about partograph.

These results were consistent with the results of Mottey, (2015) which showed that 79.2% of respondents stated that a partograph is a graphical presentation of labour, 55.6% indicated that the partograph is a labour guide, all respondents knew that fetal condition is a component of partograph, 98.6% knew that progress of labour is a component of partograph, 97.2% knew that maternal condition is a component of partograph, and all the respondents knew that fetal heart rate will be plotted in the partograph. Also, the results of Maphasha et al. (2017) indicated high knowledge about partograph as all the study participants knew that the partograph is a universal tool for monitoring labour, 98.6% knew that use of the partogram in monitoring labour helps to identify abnormal progress, and 89.9% knew that start using partogram once the woman is in labour. In addition,

Eshetu et al. (2017) found that 94.3% of respondents knew what a partograph is, and 58.6% defined it correctly, while 42.9% of respondents correctly explained the function of alert line and 55% of respondents correctly explained the action line, and 43.9% had good knowledge on appropriate use of partograph. Also, Yisma et al. (2013) found that 96.6% of respondents correctly mentioned at least one component of the partograph, 53.3% correctly explained the function of alert line, and 82.6% correctly explained the function of action line. Moreover, the results of Wakgari et al. (2015) showed that 70.5% of the respondents were knowledgeable about partograph.

In contrary, this study results were inconsistent with the results of Githae et al. (2019) which showed that 80% of respondents were able to define a partograph, out of these, 44.5% had duly completed the partograph charts, 87.3% of respondents were able to tell when to start plotting a partograph, 67.2% knew the meaning of alert line, and 72.7% of the respondents knew the function of an action line and were able to explain its meaning on a partograph. In addition, Burama et al. (2013) found that the knowledge level of the midwives about the utilization of the partograph was good (80%), and the results obtained by Kidest and Tamru (2019) indicated that knowledge of obstetrics care provider about partograph was 72.6%. Furthermore, Asibong et al. (2014) found that 70.8% of respondents had good general knowledge of the partograph but lacked detailed and in-depth knowledge of the component parts of the partograph.

Lower results obtained by Haile et al. (2020) which indicated that 54.1% of participants were knowledgeable about partograph, and Mezmur et al. (2017) found that 53.7% of study participants had good knowledge about partograph and 45.4% had fair knowledge. Moreover, Markos and Bogale, (2016) reported that 38.5% of study participants had poor knowledge and 61.5% had good knowledge about partograph, while Salama et al. (2010) found that 11.4% of nurses have satisfactory knowledge about partograph. In addition,

Konlan et al. (2016) found that midwives had inadequate knowledge on the proper use of the partograph, and the results of Prem and Smitha, (2013) indicated that about two-thirds (65%) of the midwives had poor knowledge regarding partograph.

From the researcher's opinion, having adequate knowledge about partograph is an important issue for midwives who are taking care of mothers in labour. The partograph is simple tool that includes all the important information about progress of labour, fetal condition and maternal condition. It is designed to monitor the progress of labour and it proves to improve outcomes when used properly for all the mothers who are in labour.

4.2.2 Attitude about partograph

Question 2: What are the nurses' and midwives' attitudes towards partograph at labour wards on governmental maternity hospitals in Gaza strip?

To answer this question, the researcher calculated frequencies, mean score, and mean percent in order to identify the level of attitude among participants as shown in table (4.5).

Table (4.5): Attitude of study participants towards partograph (n= 105)

No.	Item	Mean	SD	Mean %	t	P value*	Rank
1	I think the partograph is very important as part of the quality of care for the mother	4.57	0.758	91.4	61.819	< 0.001	3
2	I think correctly filling of partograph reduce complication for mother and fetus	4.68	0.596	93.6	80.345	< 0.001	1
3	I believe the partograph help in early detection of surgical intervention during labor	4.61	0.672	92.2	70.269	< 0.001	2
4	I feel comfort when use the partograph	4.53	0.735	90.6	63.229	< 0.001	5
5	I think most labor cases don't require partograph	4.56	0.619	91.2	75.519	< 0.001	4
6	I think the filling of partograph done by doctors only	3.12	1.567	62.4	20.426	< 0.001	7
7	I think the use of partograph consuming more time	2.81	1.606	56.2	17.928	< 0.001	10
8	I think partograph ineffective tool	3.10	1.510	62.0	21.008	< 0.001	8
9	I think partograph is from hospital protocols	2.84	1.777	56.8	16.370	< 0.001	9
10	I think the partograph is very important as part of the quality of care for the mother	4.44	1.018	88.8	44.658	< 0.001	6
Overall		**3.925**	**0.632**	**78.0**	**63.573**	**< 0.001**	

One sample t-test *significant level at 0.05

Table (4.6): Level of attitude about partograph

Level of attitude	Range of scores	n	%
Low	Less than 60 %	2	1.9
Moderate	60 – 80 %	57	54.3
High	More than 80 %	46	43.8

Table (4.5) showed that the highest score obtained in believing that correct filling of partograph reduces complication for mother and fetus with mean score 4.68 and mean percent 93.6%, followed by believing that the partograph helps in early detection of surgical intervention during labor with mean score 4.61 and mean percent 92.2%. The lowest score was in thinking that partograph is part of hospital protocols with mean score 2.84 and mean percent 56.8%, followed by thinking that the use of partograph consuming more time with mean score 2.81 and mean percent 56.2%. The overall average score was 3.92 with mean percent 78.4%, which indicated that midwives and nurses have above moderate attitude towards partograph.

Table (4.6) showed that 2 (1.95) of participants had low attitude towards partograph, 57 (54.3%) had moderate attitude, and 46 (43.8%) had high attitude towards partograph.

These results were consistent with the results of Salama et al. (2010) which indicated that 97.1% of nurses believed that partograph is an important tool to monitor labour, 92.8% believed that partograph helps early identification of cases for surgery, 88.4% believed that the use of partograph decreases risks on mother and infant, and overall, 91.3% of nurses have positive attitude towards partograph. In addition, the results of Mottey, (2015) showed that 75.3% of respondents use partograph regularly, 89% of respondents ranked the importance of partograph as very good, 76.7% believed that partograph usage is not time consuming, and 89.0% of respondents believed that partograph usage should be made compulsory, and Wakgari et al. (2015) found that 83.6% of respondents had a favorable attitude towards partograph.

Lower results obtained by Githae et al. (2019) which indicated that 18.2% of respondents believed that partograph is important in monitoring labor, 16.4% strongly agreed and 60.9% agreed that partograph should be used in all the mothers in labour, 29.1% strongly

agreed and 26.4% agreed that partograph can reduce newborn and maternal morbidity and mortality, 33.6% strongly agreed and 15.5% agreed that using partograph was time consuming, and generally, more than half of respondents had negative attitude towards the use of partograph. In addition, Haile et al. (2020) found that 52.1% of study participants had favorable attitude toward partograph.

It is obvious that the attitude of midwives towards the use of partograph could be positive or negative depending on the workplace circumstances. A positive attitude towards the partograph generally would enhance better use of partograph while negative attitude would lead to poor utilization of the partograph. Therefore, leaders of maternity departments have to pay attention regarding improvement of midwives' attitudes towards partograph and explain their benefits for monitoring the progress of labour and early identification of complications that may encounter during labour and taking interventions to help the mother to reach safe birth.

4.2.3 Utilization of partograph

Question 3: To what extent the nurses and midwives utilize partograph at labour wards on governmental maternity hospitals in Gaza strip?

To answer this question, the researcher calculated frequencies, and percentage in order to identify the level of utilization of partograph among participants as illustrated in table (4.6).

Table (4.7): Utilization of partograph by study participants (n= 105)

No.	Item	Not done		Done		Rank
		n	%	n	%	
1	I use the partograph with all cases in ward	6	5.7	99	94.3	2
2	I document fetal heart rate correctly	3	2.9	102	97.1	1
3	I document cervical dilation correctly	9	8.6	96	91.4	4
4	I document on partograph every 1 hour	17	16.2	88	83.8	10
5	I document the head station correctly	15	14.3	90	85.7	9
6	I plot the suitable symbol for liquor condition	11	10.5	94	89.5	5
7	I document maternal blood pressure every 4 hours	14	13.3	91	86.7	7
8	I document uterine contraction correctly	11	10.5	94	89.5	6
9	I document maternal information (age, admission time and GA)	14	13.3	91	86.7	8
10	I document signature and time in place	6	5.7	99	94.3	3
Overall		**10.1**		**89.9**		

Table (4.8): Level of utilizing partograph

Level of utilization	Range of scores	n	%
Low	Less than 60 %	8	7.6
Moderate	60 – 80 %	5	4.8
High	More than 80 %	92	87.6

Table (4.7) showed that 97.1% of study participants document fetal heart rate correctly, 94.3% use the partograph with all cases in ward, and 94.3% document signature and time in place. In contrary, 83.8% of study participants document on partograph every one hour, and 85.7% document the head station correctly. Overall, the results showed that 89.9% of participants utilize partograph, which indicated that nurses and midwives expressed high utilization of partograph.

Table (4.8) showed that 8 (7.6%) of study participants exhibited low utilization of partograph, 5 (4.8%) exhibited moderate utilization of partograph, and 92 (87.6%) of study participants exhibited high utilization of partograph.

These results were consistent with the results of Mottey, (2015) which showed that 91.5% of respondents stated that they use the partograph to monitor primiparous women with cephalic presentation, 98.6% stated that they use partograph when cervical dilation is 4 cm and more, 95.8% stated that they use the partograph to monitor multiparous women with previous SVD, and 76.1% stated that they use the partograph to monitor women with previous PPH or retained placenta. Moreover, the results of Alnajjar (2019) indicated that 94.7% of midwives and nurses use the partograph to monitor the progress of labour, and Mezmur et al. (2017) found that the proportion of the partograph utilization to follow labour progress by health professionals was 92.6%.

The results of this study were inconsistent with the results of Burama et al. (2013) which indicated that about 78% of the midwives were utilizing the partograph to monitor women in labour. In addition, the results of Eshetu et al. (2017) reflected that almost half (51%) of respondents used partograph routinely, 38.2% used it sometimes, and 5.7% of the respondents used partograph occasionally, while Yisma et al. (2013) found that 57.3% of study participants utilized the partograph to monitor mothers in labour. Moreover, the results of Opoku and Nguah (2015) showed that partograph use for labour monitoring averaged 54%. Demographics were fully recorded in 79.4% of partographs, fetal heart rate was fully recorded in 50.7% of partographs, nature of liquor was fully recorded in 33.9% partographs, moulding was fully recorded in 32.5% of partographs, cervical dilation was fully recorded in 55.6% of partographs, BP and pulse were fully recorded in 40% of partographs, and action line was crossed in 11.9% of partographs.

In addition, low results obtained by Githae et al. (2019) which indicated that 44.5% of participants completed the partograph, and Haile et al. (2020) found that the overall

magnitude of routine utilization of partograph among participants to monitor labor for all laboring mothers was found to be only 54.4%. The results also indicated that only 15.4% of partograph charts were filled completely, and 55.5% of the parameters which are presented in the partograph charts were filled correctly and completely.

Moreover, the results of Mukisa et al. (2019) showed that more than 50% of reviewed partographs were incomplete in key parameters; in 79.1% of partographs the mothers' age was not documents, in 52.7% gravidity was not documented, and in 53.2% parity was not documented. Also, fetal monitoring was documented in 33.7% of partograph charts, fetal heart rate was documented in 39.4% of charts, liquor was completely documented in 32.4% of charts, and moulding was completely documented in 29.3% of charts. Labour progress was completely documented in 30.6% of charts, cervical dilation was completely documented in 42% of charts, contraction was completely documented in 36.9% of charts, descent was completely documented in 37.7% of charts, and alert line was completely documented in 5.6% of charts. Maternal monitoring was completely documented in 25.7% of charts, BP was documented in 37.2% of charts, pulse was documented in 28.2% of charts, and temperature was documented in 11.8% of charts.

Another study carried out by Bedada et al. (2020) found that the level of partograph utilization was 31.1%, and only 3% of the reviewed partograph charts were recorded according to the recommended standard, and Nyiawung et al. (2018) found that partograph was used in 35% of labour cases.

The results of this study and the results of Alnajjar (2019) reflected high utilization of partograph in maternity hospitals in GS, and that could be attributed to awareness about the benefits of partograph for both the mother and her fetus, along with supervision by the in-charge midwives and supervisors.

Even though the use of partograph is beneficial for monitoring the progress of labour, but several previous studies revealed that its utilization is poor, or used incorrectly. Poor

utilization of the partograph could be attributed to lack of training, shortage of qualified, skillful midwives, and lack of supervision. Therefore, periodic training, and training of newly employed midwives about the use of partograph, along with good supervision would improve the utilization of partograph, and the overall quality of care at maternity departments.

4.2.3 Differences in Knowledge, attitudes, and utilization of partograph related to sociodemographic factors

Question 4: Are there statistically significant differences in knowledge, attitude, and utilization of partograph in relation to selected nurses' and midwives' sociodemographic characteristics and work factors?

Table (4.9): Differences in Knowledge, attitudes, and utilization of partograph related to age (n= 105)

Variable	Age (years)				χ^2	P value
	21 - 25 n (%)	26 – 30 n (%)	31 – 35 n (%)	≥ 36 n (%)		
Level of knowledge						
Low	0	4 (10%)	0	3 (12.5%)	10.498	0.072 †
Moderate	7 (41.2%)	6 (15%)	4 (16.7%)	8 (33.3%)		
High	10 (58.8%)	30 (75%)	20	13 (54.2%)		
Total	17 (100%)	40	24 (100%)	24 (100%)		
Level of attitude						
Low	1 (5.9%)	0	0	1 (4.2%)	5.591	0.411 †
Moderate	10 (58.8%)	19	13	15 (62.5%)		
High	6 (35.3%)	21	11	8 (33.3%)		
Total	17 (100%)	40	24 (100%)	24 (100%)		
Level of utilization						
Low	1 (5.9%)	5 (12.5%)	0	2 (8.3%)	5.993	0.363 †
Moderate	0	3 (7.5%)	2 (8.3%)	0		
High	16 (94.1%)	32 (80%)	22	22 (91.7%)		
Total	17 (100%)	40	24 (100%)	24 (100%)		

Statistical testing using chi-square test † Fisher's exact test * Difference is significant at the 0.05 level (2-tailed)

Table (4.9) showed that there were no statistically significant differences in knowledge (P= 0.072), attitude (P= 0.411), and utilization of partograph (P= 0.363) related to age of nurses and midwives, which indicated that age have no impact on knowledge, attitude, and utilization of partograph. This result was consistent with the results of Maphasha et al. (2017) which indicated that there were no significant differences in general knowledge about partograph related to age of participants. In contrary, our result disagreed with the result of Gebreslassie et al. (2019) which indicated that age was a significant factor associated with utilization of partograph, and the result of Kidest and Tamru, (2019) which showed that age was a significant factor association with knowledge about partograph.

It is assumed that as nurses and midwives getting older, they became more experienced, and gain more knowledge and use of partograph. In our study, the results did not indicate significant effect on knowledge, attitude, and utilization of partograph. This result could be attributed to the fact that the use of partograph is obligatory in maternity departments in GS, as it is part of the protocol of maternity care. Therefore, nurses and midwives from all ages have no choice of ignoring the partograph, and they have to use it and fill it for each mother in labour.

Table (4.10): Differences in Knowledge, attitudes, and utilization of partograph related to hospital (n= 105)

Variable	Hospital					χ^2	P value
	Al Shifa n (%)	Nasser n (%)	Shohada Al Aqsa n (%)	Kamal Odwan n (%)	Al Emaraty n (%)		
Level of knowledge							
Low	1 (2%)	1 (7.1%)	0	3 (21.4%)	2	10.337	0.170 †
Moderate	14	4	4	2 (14.3%)	1 (7.1%)		
High	34	9	10	9 (64.3%)	11		
Total	49	14	14	14	14		
Level of attitude							
Low	0	1 (7.1%)	0	0	1 (7.1%)	41.162	0.000 †
Moderate	13	9	11	11	13		
High	36	4	3	3 (21.4%)	0		
Total	49	14	14	14	14		
Level of utilization							
Low	6 (12.2%)	0	0	0	2	10.050	0.117 †
Moderate	2 (4.1%)	0	0	3 (21.4%)	0		
High	41	14	14	11	12		
Total	49	14	14	14	14		

Statistical testing using chi-square test † Fisher's exact test * Difference is significant at the 0.05 level (2-tailed)

Table (4.10) showed that there were no statistically significant differences in knowledge (P= 0.170) and utilization of partograph (P= 0.117) related to place of work, while there statistically significant differences in attitudes (P= 0.000) in favor of Al Shifa hospital.

From the researcher's opinion, nurses and midwives who are working in governmental maternity departments utilize the partograph for mothers in labour because the partograph is part of the rules and regulations, and the admission guidelines include the partograph as an essential document that should be included in the mothers' files. Therefore, there were no significant differences in knowledge and utilization of the partograph between the different hospitals as these hospitals follow the same regulations of the MOH.

Table (4.11): Differences in Knowledge, attitudes, and utilization of partograph related to qualification (n= 105)

Variable	Qualification					χ^2	P value
	Diploma nursing n (%)	Diploma midwifery n (%)	Bachelor nursing n (%)	Bachelor midwifery n (%)	Post Graduate n (%)		
Level of knowledge							
Low	0	2 (11.8%)	0	5 (7.2%)	0	7.822	0.354
Moderate	3 (42.9%)	3 (17.6%)	2 (25%)	14 (20.3%)	3 (75%)		
High	4 (57.1%)	12	6 (75%)	50 (72.5%)	1 (25%)		
Total	7 (100%)	17 (100%)	8 (100%)	69 (100%)	4 (100%)		
Level of attitude							
Low	0	0	1 (12.5%)	1 (1.4%)	0	10.885	0.202
Moderate	1 (14.3%)	9 (52.9%)	4 (50%)	40 (58%)	3 (75%)		
High	6 (85.7%)	8 (47.1%)	3 (37.5%)	28 (40.6%)	1 (25%)		
Total	7 (100%)	17 (100%)	8 (100%)	69 (100%)	4 (100%)		
Level of utilization							
Low	1 (14.3%)	0	1 (12.5%)	5 (7.2%)	1 (25%)	7.504	0.342
Moderate	1 (14.3%)	1 (5.9%)	0	3 (4.3%)	0		
High	5 (71.4%)	16	7 (87.5%)	61 (88.4%)	3 (75%)		
Total	7 (100%)	17 (100%)	8 (100%)	69 (100%)	4 (100%)		

Statistical testing using chi-square test † Fisher's exact test * Difference is significant at the 0.05 level (2-tailed)

Table (4.11) showed that there were no statistically significant differences in knowledge (P= 0.354), attitude (P= 0.202), and utilization of partograph (P= 0.342) related to qualification of midwives and nurses. This result disagreed with the results of Gebreslassie et al. (2019) which indicated that qualification was a significant factor associated with utilization of partograph, and the result of Kidest and Tamru, (2019) which showed that formal education was a significant factor associated with knowledge about partograph. In addition, Salama et al. (2010) found that there was statistically significant relationship between knowledge about partograph and qualification of nurses, while the relationship with attitude was not significant. In addition, the results of Eshetu et al. (2017) showed that

diploma graduates had significant higher good level of knowledge compared to graduates of bachelor of nursing. Furthermore, the results of Wakgari et al. (2015) found that midwives utilized partograph more than nurses and participants who have diploma certificate utilized the partograph significantly more than participants who have bachelor degree and postgraduate degree.

From the researcher's opinion, this result is logic, because most of the nurses and midwives (diploma and bachelor) received training about the partograph regardless of their qualification. Therefore, there were no significant differences in knowledge, attitude, and utilization of partograph. In addition, when complications occurred, part of investigations for the cause of complications is looking back in the mother's file to see the progress of labour. Therefore, nurses and midwives make sure that they documented the partograph in order to monitor the progress of labour and not to be blamed for not using the partograph.

Table (4.12): Differences in Knowledge, attitudes, and utilization of partograph related to experience (n= 105)

Variable	Experience (years)			χ^2	P value
	<5 years n (%)	5 – 10 years n (%)	> 10 years n (%)		
Level of knowledge					
Low	1 (2.8%)	3 (7.5%)	(10.3%)	6.371	0.190
Moderate	11 (30.6%)	5 (12.5)	9 (31%)		
High	24 (66.7%)	32 (80%)	17 (586%)		
Total	36 (100%)	40 (100%)	29 (100%)		
Level of attitude					
Low	1 (2.8%)	0	1 (3.4%)	2.658	0.657
Moderate	17 (47.2%)	23 (57.5%)	17 (58.6%)		
High	18 (50%)	17 (42.5%)	11 (37.9%)		
Total	36 (100%)	40 (100%)	29 (100%)		
Level of utilization					
Low	5 (13.9%)	1 (2.5)	2 (6.9%)	5.255	0.229
Moderate	2 (5.6%)	3 (7.5%)	0		
High	29 (80.6%)	36 (90%)	27 (93.1%)		
Total	36 (100%)	40 (100%)	29 (100%)		

Statistical testing using chi-square test † Fisher's exact test * Difference is significant at the 0.05 level (2-tailed)

Table (4.12) showed that there were statistically no significant differences in knowledge (P= 0.190), attitude (P= 0.657), and utilization of partograph (P= 0.229) related to work experience of midwives and nurses, which reflected that years of experience did not make significant differences in knowledge, attitude, and utilization of partograph. This result disagreed with the result of Eshetu et al. (2017) which indicated that there was statistically significant relationship between the years of experience and knowledge about partograph. In addition, Maphasha et al. (2017) reported that clinical application of the partograph improves with years of experience in the maternity unit, and participants with clinical experience of over 6 years were significantly more knowledgeable in the application of the partograph than those with less experience. Furthermore, the results of Gebreslassie et al. (2019) reflected that years of experience was a significant factor associated with utilization of partograph.

The researcher believes that by experience nurses and midwives become more knowledgeable and skillful in performing their tasks and duties. These results did not exhibit significant differences in knowledge, attitude, and utilization of partograph, and this result is logic as the majority of nurses and midwives have been trained on components and use of partograph. In addition, the managers and supervisors focus on the partograph and insist on using it for every mother in labour as part of monitoring and quality of maternal care. Thus, all the nurses and midwives regardless of their experience will utilize the partograph.

Table (4.13): Differences in Knowledge, attitudes, and utilization of partograph related to training (n= 105)

Variable	Received training		Statistics value	P value
	No n (%)	Yes n (%)		
Level of knowledge				
Low	3 (9.4%)	4 (5.5%)	5.797	0.045
Moderate	3 (9.4%)	22 (30.1%)		
High	26 (81.3%)	47 (64.4%)		
Total	32 (100%)	73 (100%)		
Level of attitude				
Low	0	2 (2.7%)	26.164	0.000
Moderate	6 (18.8%)	51 (69.9%)		
High	26 (81.3%)	20 (27.4%)		
Total	32 (100%)	73 (100%)		
Level of utilization				
Low	5 (15.6%)	3 (4.1%)	4.497	0.079
Moderate	2 (6.3%)	3 (4.1%)		
High	25 (78.1%)	67 (91.8%)		
Total	32 (100%)	73 (100%)		

Statistical testing using chi-square test † Fisher's exact test * Difference is significant at the 0.05 level (2-tailed)

Table (4.13) showed that there were statistically significant differences in knowledge (P= 0.045), and attitude (P= 0.000) which indicated that midwives and nurses who received training expressed higher knowledge and positive attitudes towards partograph, while there were statistically no significant differences in utilization of partograph (P= 0.079).

This result was inconsistent with the results of Githae et al. (2019) which indicated that lack of training contributed to lack of utilization of the partograph. Among nurses who received training, 78.2% reported improvement on the use of partograph while 21.8% had no improvement, and the nurses who had undergone on job training were 5.5 times more

likely to have more knowledge on use of a partograph than those who had not been trained. Moreover, Mezmur et al. (2017) found that in service training was significantly associated with good knowledge and utilization of partograph. Several studies indicated that receiving training about partograph have statistically significant association with partograph utilization (Haile et al., 2020; Bedada et al. 2020; Markos and Bogale 2016; Wakgari et al., 2015).

This result is logic as training will increase nurses' and midwives' awareness about the importance of partograph, and increase their skills about the proper use of partograph. Therefore, nurses and midwives who received in job training will be more knowledgeable and exhibit more positive attitude towards the partograph as a tool to monitor the progress of labour and fetal condition.

4.3 Results extracted from the open-ended questions

The researcher asked the participants four open-ended questions to clarify their opinions about issues concerning the utilization of partograph. The results are presented below.

Concerning the question about how the use of partograph contribute to reducing fetal and maternal complications, the majority of respondents stated that the use of partograph help them in monitoring and evaluating the progress of labour, and the condition of the mother and her fetus, more than one-third stated that the use of partograph enable the midwife to early recognition of complications, and about one-fourth mentioned that the use of partograph helped in taking the right decision at the right time. These results were inconsistent with the results of Zelellw and Tegegne (2018) which reflected that there was misperception about partograph as some midwives said that the partograph was a difficult tool to use, and the partograph should be used in primary care units.

Concerning the barriers to partograph utilization, the majority of respondents said that they use the partograph for every mother in labour, about two-thirds mentioned that high patient flow was a barrier, more than one-third stated that shortage of qualified midwives was a barrier, about one-fifth reported that inadequate time was a barrier, few respondents stated that unavailability of partograph sheets was a barrier, and very few said that they do not use the partograph due to work overload.

Consistent results obtained by Zelellw and Tegegne (2018) who found that barriers to partograph utilization included work overload, lack of time, shortage of midwives compared to patient flow, and lack of motivation, along with skill incompetency and knowledge gaps. In addition, the results of Wakgari et al. (2015) showed that 41.2% of respondents stated that shortage of staff was barrier for not utilizing partograph routinely during labour. According to Haile et al. (2020) the main factors that were reported as barriers to routine use of the partograph include unavailability of partograph in the labour ward, absence of on-the-job training, lack of supervision, using partograph is time-consuming, and lack of trained human power. Moreover, the results of Eshetu et al. (2017) indicated that little or no knowledge and skills of using the partograph, unavailability of partograph charts, and heavy work load were reasons for not using the partograph.

Concerning the challenges that face midwives in using the partograph, few of respondents said that uncooperation of some doctors was a challenge, few of them mentioned that some mothers were uncooperative during assessment and exams, few of them stated that some cases arrive too late, fully dilated, and ready to delivery, and very few reported that cases with fast normal progress was another challenge. The results of Nwaneri et al. (2017) identified several factors that were considered as challenges that facilitate partograph utilization such as provision of necessary resources and observation tools, availability of

partograph charts, integration of management policy and guidelines, and elimination of nonprofessional tasks in order to create time for partograph use.

Concerning the suggestions to improve the use of partograph, more than one half of respondents suggested periodic in-service training about the partograph especially for newly employed midwives, more than one-third suggested close supervision by the team leader and the supervisor, about one-fourth suggested increase the number of qualified midwives, few respondents suggested to have a unified protocol for the use of partograph in all the hospitals, and very few suggested the use of colored partograph papers to identify risky indicators easily. Similar results obtained by Wakgari et al. (2015) which reflected that obstetric care providers who received on job training on partograph were more likely to utilize partograph than who haven't received on-job training. Furthermore, Hagos et al. (2020) reported that received training, supportive supervision, and increase the number of midwives per shift were positively associated with partograph utilization. In addition, Sama et al. (2017) found that regular in-service training of obstetric care providers superimposed with periodic workshops and seminars about partograph, provision of reasonable staff numbers, and mandatory institutional policies on routine use of the partograph are recommended as vital first steps towards ensuring the safety of women in labour.

In summary, these results reflected that the study participants believed that the use of partograph during labour and delivery is a good tool for close monitoring of the progress of labour and prevented maternal and fetal mortality and morbidity, but shortage of qualified midwives compared to the high flow of patients was a major barrier for the appropriate utilization of the partograph. In order to improve the utilization of the partograph, the study participants suggested periodic training, and afford adequate number of qualified midwives.

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

Partograph is a useful tool for monitoring the progress of labour, as well as monitoring the condition of the mother and her fetus. This study aimed to assess knowledge, attitude, utilization of partograph at maternity governmental hospitals in Gaza Strip. The sample of the study consisted of 105 midwives and nurses from the main maternity governmental Odwan in the North, Al Shifa in Gaza city, Shohada Al Aqsa in the mid zone, Nasser in Khanyounis, and Al Emaratey in Rafah. Their mean age was 31.47 years, about two-thirds of them have bachelor degree in midwifery, mean years of experience was 7.66 years, and most of them received training about partograph.

The results indicated that the study participants expressed high knowledge about the partograph with mean percent 85%, above moderate attitude with mean percent 78.4%, and high utilization of partograph with mean percent 91%.

The results also showed that there were no statistically significant differences in knowledge, attitude, and utilization of partograph related to age of midwives and nurses, qualification, years of experience. In addition, there were no statistically significant differences in knowledge and utilization of partograph, but participants from Al Shifa hospital exhibited statistically significant higher attitude towards partograph compared to their colleagues from other hospitals. Furthermore, participants who received training about partograph expressed significant higher attitude and higher utilization of partograph compared to those who did not receive training, while there were no significant differences in knowledge between the two groups.

Results obtained from the open-ended questions reflected that most of respondents believed that the partograph is a useful tool for monitoring and evaluating the progress of labour, mother and fetus, about two-thirds of them stated that high flow of patients compared to the number of midwives was a common barrier for utilization of partograph, respondents thought that uncooperation of doctors and mothers were the common challenges for utilization of partograph, and to improve utilization of the partograph, participants suggested to have periodic in service training especially for newly employed midwives, close supervision, and increase the number of qualified midwives.

In general, the results revealed high knowledge, above moderate attitude, and high utilization of the partograph at governmental maternity hospitals in Gaza Strip.

5.2 Recommendations

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

For supervisors and unit managers

- The need to provide adequate partograph sheets in the labour departments so, the midwives and nurses can use the partograph for every mother in labour.
- To design action plan for periodic training (every 4 months) to refresh and update midwives' knowledge and proper utilization of the partograph.
- Close supervision and review of partographs to ensure appropriate utilization of the partograph by the midwives and nurses in the labour department.
- Providing adequate number of qualified midwives and nurses each shift comparable to the work load in labour departments.
- Regular audits should be scheduled and implemented to increase uptake and proper implementation of the partogram.

For the midwives and nurses

- To actively participate in training programs and workshops to keep their knowledge and utilization of the partograph up-to-date.
- Increase the cooperation and coordination between midwives and obstetricians to enhance teamwork for the safety of their clients.
- The need to use partograph for each mother admitted to the labour department regardless of her condition to ensure appropriate monitoring of the progress of labour and detect complications early.

5.3 Suggestions for further research

- To conduct a study to evaluate the effectiveness of partograph utilization in decreasing morbidity and mortality in labour departments.
- To conduct a study aiming to compare the scope of partograph utilization between governmental hospitals and private hospitals.
- To conduct a qualitative study to gain indepth insight about challenges and barriers that hindered the proper use of partograph.

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Annexes

Annex (1): Knowledge, Attitude, and Utilization of Partograph Questionnaire (English version)

عزيزتي الممرضة / القابلة ...

يسعدني مشاركتك الفعالة في هذه الدراسة بعنوان: **تقييم معرفة واتجاه واستخدام مخطط المخاض بين الممرضات والقابلات العاملات في أقسام الولادة في المستشفيات الحكومية في قطاع غزة.**

هذه الدراسة تقوم بها الباحثة كمتطلب للحصول على درجة ماجستير تمريض صحة الأم والطفل بجامعة القدس أبو ديس كلية المهن الصحية. إن مشاركتك تساهم في إنجاح الدراسة التي تهدف إلى تقييم معرفة واتجاه واستخدام مخطط المخاض بين الممرضات والقابلات العاملات في أقسام الولادة في المستشفيات الحكومية في قطاع غزة.

أثمن عالياً موافقتك على الاستجابة على فقرات الاستبانة والتي من ممكن أن تستغرق حوالي 20 دقيقة، مع العلم أن المشاركة اختيارية ولك حق الانسحاب متى تشائين مع ضمان سرية المعلومات المقدمة. وإن هذا البحث لن يستخدم إلا لأغراض البحث العلمي فقط.

يرجي إجابة جميع الأسئلة الواردة في الاستبانة وفقاً لما لديك من معرفة وتوجهات وممارسة عملية.

ولكم جزيل الشكر والتقدير

الباحثة /ياسمين أحمد

Part 1: Sociodemographic factors

1.	Age:	……. years
2.	Hospital:	□ Al Shifa □ Nasser □ Shohada Al Aqsa □ Kamal Adwan □ Al Emaraty
3.	Qualification:	□ Diploma nurse □ Diploma midwife □ Bachelor nurse □ Bachelor midwife □ Postgraduate
4.	Experience:	……. Years

5	Have you been trained to use the partograph?	□ Yes □ No

Part 2: Knowledge about partograph

No.	**Item**	Yes	No
1	Partograph is a graphic record of progress of labor by hours		
2	Partograph decrease maternal morbidity rate during labor		
3	Partograph decrease the maternal mortality rate during labor		
4	Partograph decrease fetal morbidity rate during labor		
5	Partograph decrease fetal mortality rate during labor		
6	Plotting on action line indicate Decision making for delivery		
7	Plotting on alert line indicate for continue monitoring progress		
8	Partograph start in active stage of labor		
9	Partograph filling by a midwife in low risk deliveries		
10	Normal uterine contraction 3-4 times in 10 minutes		
11	Strong intensity of uterine contraction is 40second as minimum		
12	Start plotting on partograph on 6 cm dilation		
13	Duration of labor in multiparous is 14 hours		
14	Primiparous labor duration is 20 hours		

Part 3: Attitude towards partograph

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I prefer use the partograph during labour					
2	I think the partograph is very important as part of the quality of care for the mother					
3	I think correctly filling of partograph reduce complication for mother and fetus					
4	I believe the partograph help in early detection of surgical intervention during labor					
5	I feel comfort when use the partograph					
6	I think most labor cases don't require partograph					
7	I think the filling of partograph done by doctors only					
8	I think the use of partograph consuming more time					
9	I think partograph ineffective tool					
10	I think partograph is from hospital protocols					

Part 4: Utilization of partograph

No.	Item	Done	Not done
1	I use the partograph with all cases in ward		
2	I document fetal heart rate correctly		
3	I document cervical dilation correctly		
4	I document on partograph every 1 hour		
5	I document the head station correctly		
6	I plot the suitable symbol for liquor condition		
7	I document maternal blood pressure every 4 hours		
8	I document uterine contraction correctly		
9	I document maternal information (age, admission time and gestational age)		
10	I document signature and time in place		

How the use of partograph contribute to reducing fetal and maternal complication?

……
……

If you don't use the partograph, mention the causes.

……
……

What are the barriers and challenges of using the partograph?

……
……

Do you have any suggestions to improve the use of partograph?

……
……

Thank you for your cooperation …

Annex (2): Knowledge, Attitude, and Utilization of Partograph

Questionnaire (Arabic version)

أولاً: المعلومات الشخصية

1	العمر:	..... سنة
2	مكان العمل:	□ الشفاء □ ناصر □ شهداء الأقصى □ كمال عدوان □ الهلال الإماراتي
3	الدرجة العلمية:	□ دبلوم تمريض □ دبلوم قبالة □ بكالوريوس تمريض □ بكالوريوس قبالة □ ماجستير □ دكتوراه
4	سنوات الخبرة:	..... سنة
5	هل تلقيت تدريب على استخدام نموذج متابعة المخاض (Partograph)؟	□ نعم □ لا

المحور الثاني:

قياس المعرفة حول نموذج متابعة المخاض لدى القابلات والممرضات العاملات في أقسام الولادة في المستشفيات الحكومية بقطاع غزة

الرقم	الفقـــــــرة	نعم	لا
1	نموذج متابعة المخاض هو عبارة عن مخطط يتم من خلاله متابعة تقدم الولادة وحالة الأم والجنين بالتزامن مع عدد ساعات المخاض		
2	يسهم نموذج متابعة المخاض في التقليل من حدوث مضاعفات مرضية للأم أثناء الولادة		
3	يسهم نموذج متابعة المخاض في التقليل من حالات وفيات الأمهات أثناء الولادة		
4	يسهم نموذج متابعة المخاض في التقليل من حدوث مضاعفات مرضية للجنين أثناء الولادة		
5	يسهم نموذج متابعة المخاض في التقليل من حالات وفيات المواليد أثناء الولادة		
6	وقوع المخطط على خط (Action line) يشير إلى ضرورة اتخاذ قرار لإنهاء المشكلة		
7	وقوع المخطط على خط (alert line) يشير إلى استمرار متابعة حالة الأم والجنين لحين الولادة		
8	يستخدم نموذج متابعة المخاض في active stage من عملية الولادة		

9	يتم تعبئة نموذج متابعة المخاض بواسطة القابلة في حالات low risk.		
10	عند حدوث 3-4 تقلصات للرحم كل 10 دقائق فهذا طبيعي		
11	مدة حدوث انقباض الرحم (strong) هو 40 ثانية كحد أدنى		
12	يبدأ تدوين تقدم الولادة على نموذج متابعة المخاض عند توسع عنق الرحم 6 سنتيمترات		
13	الولادة طويلة الفترة للأم التي سبق لها الولادة هي 14 ساعة من بدء انقباضات الرحم		
14	الولادة طويلة الفترة للأم البكرية هي 20 ساعة من بدء انقباضات الرحم		

المحور الثالث:

قياس التوجهات والتصورات الذهنية حول نموذج متابعة المخاض لدى القابلات والممرضات العاملات في أقسام الولادة في المستشفيات الحكومية بقطاع غزة

الرقم	الفقـــــرة	دائماً	غالباً	أحياناً	نادراً	أبداً
1	أفضل استخدام نموذج متابعة المخاض أثناء متابعة الأم في قسم الولادة					
2	أعتقد أن نموذج متابعة المخاض مهم جداً كجزء من جودة الرعاية المقدمة للأم					
3	أعتقد أن تعبئة نموذج متابعة المخاض بشكل صحيح يقلل من حدوث مضاعفات للأم والجنين أثناء الولادة					
4	أعتقد أن نموذج متابعة المخاض يساعد في الاكتشاف المبكر للحاجة للتدخل الجراحي					
5	ينتابني شعور بالارتياح عند استخدامي لنموذج متابعة المخاض					
6	أعتقد أن أغلب حالات الولادة الطبيعية لا تتطلب استخدام نموذج متابعة المخاض					
7	أعتقد أن استخدام نموذج متابعة المخاض يتم من خلال الأطباء فقط					
8	أعتقد أن تعبئة نموذج متابعة المخاض يستغرق وقتاً طويلاً					
9	أعتقد أن نموذج متابعة المخاض أداة غير فعالة لمتابعة الولادة					
10	أعتقد أن استخدام نموذج متابعة المخاض هو جزء من سياسات المستشفى					

المحور الرابع:

قياس مدى استخدام وتطبيق نموذج متابعة المخاض لدى القابلات والممرضات العاملات في أقسام الولادة في المستشفيات الحكومية بقطاع غزة

الرقم	الفقـــــــرة	نعم	لا
1	أستخدم نموذج متابعة المخاض مع كل حالات الولادة في القسم		
2	أقوم بتوثيق معدل نبضات قلب الجنين في مكانه المخصص		
3	أقوم بتوثيق مدى توسع عنق الرحم بشكل صحيح		
4	أقوم بتعبئة نموذج متابعة المخاض كل ساعة		
5	أقوم بتوثيق تقدم نزول رأس الجنين في مكانه المخصص		
6	أقوم بوضع الرمز المناسب لحالة Amniotic fluid .		
7	أقوم بتوثيق قياس ضغط الدم للأم كل 4 ساعات		
8	أقوم بتوثيق مدة وقوة ألم المخاض في مكانه المناسب.		
9	أقوم بتعبئة المعلومات حول الأم (العمر، عدد أسابيع الحمل، وقت الدخول) في مكانها المخصص		
10	أقوم بالتوقيع وتسديل التوقيت في المكان المحدد.		

من وجهة نظرك، كيف يساهم استخدام نموذج متابعة المخاض في التقليل من وفيات الأمهات والمواليد؟

إذا كنت لا تستخدمين نموذج متابعة المخاض، بإمكانك كتابة أسباب عزوفك عن تعبئته:

ما التحديات التي تواجهك كقابلة في تطبيق نموذج متابعة المخاض بشكل روتيني؟

إذا كانت لديك مقترحات أو ملاحظات حول استخدام وتطبيق نموذج متابعة المخاض بإمكانك التعبير عنها في الأسفل:

شـــــكراً لك على حسن تعاونك ،،،

Annex (3): List of experts

Name	**Place of work**
Dr. Lila Al-Masharfa	Al Shifa Hospital
Dr. Hani Mahdi	Al Shifa Hospital
Dr. Suha Balosha	Al Shifa Hospital
Dr. Mohamed Zemo	Al Shifa Hospital

Annex (4): Approval letter from Al-Quds University

Al Quds University
Faculty of Health Professions
Nursing Dept. –Gaza

جامعة القدس
كلية المهن الصحية
دائرة التمريض- غزة

التاريخ:2020/2/8

حضرة الأخ/ د. رامي العبادلة حفظه الله
مدير عام الادارة العامة لتنمية القوى البشرية
السلام عليكم ورحمة الله وبركاته

الموضوع: تسهيل مهمة الطالبة ياسمين نصر أحمد

تهديكم كلية المهن الصحية بجامعة القدس أطيب التحيات، ونرجو من حضرتكم مساعدة الطالبة المذكورة بخصوص جمع معلومات خاصة بموضوع:

Knowledge, Attitudes and Utilization of the Partograph among Nurses and Midwives at Labour Departments in Governmental Hospitals in Gaza Strip

وذلك من الممرضات والقابلات العاملات في أقسام الولادة في مستشفيات وزارة الصحة (كمال عدوان–شهداء الأقصى– الشفاء– ناصر – الإماراتي) وذلك ضمن رسالة الماجستير الخاصة بها لبرنامج تمريض صحة الأم والطفل.

وتفضلوا بقبول وافر الاحترام والتقدير

د. حمزة محمد عبد الجواد
أستاذ مساعد في علوم التمريض
منسق برامج ماجستير التمريض بغزة
كلية المهن الصحية - جامعة القدس
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تلفاكس: 2644220 8 972+
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دائرة التمريض
Nursing Department

Tel: 08 2644210+08 2644220
Tel. Fax: 08 2644220

تلفون: 08 2644210+08 2644220
تلفاكس: 082644220

Annex (5): Approval letter from Helsinki Committee

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: 2019/10/7 **Number:** PHRC/HC/613/19

Name: Yasmin Nasr Ahmed 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:

Knowledge, Attitude and Utilization of the Partograph among Nurses and Midwives at labour departments in Governmental Hospitals in Gaza strip

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/613/19 in its meeting on 2019/10/7 و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

Signature

Member 7/10/2019 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
شارع النصر - مفترق العيون

Annex (6): Approval letter from MoH

State of Palestine
Ministry of health

دولة فلسطين
وزارة الصحة

التاريخ: 25/2/2020
رقم المرسلة: 492

السيد : رامي عبد سليمان العبادله المحترم

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

السلام عليكم ...

الموضوع/ تسهيل مهمة الباحثة// ياسمين أحمد

التفاصيل //
بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحثة/ ياسمين نصر أحمد
الملتحقة ببرنامج ماجستير التمريض – تخصص صحة الأم والطفل – كلية الصحة العامة- جامعة القدس أبوديس في إجراء بحث بعنوان:-
Knowledge, Attitude and Utilization of the Partograph among Nurses and Midwives at "labor departments in Governmental Hospitals in Gaza strip
حيث الباحثة بحاجة لتعبئة استبانة من عدد من القابلات والممرضات العاملات في أقسام الولادة في المستشفيات ام الشفاء الطبي، م. كمال عدوان، م. ناصر الطبي، م. شهداء الأقصى، م. الهلال الإماراتي، بما لا يتعارض مع مصلحة العمل وتضمن أخلاقيات البحث العلمي، ودون تحمل الوزارة أي أعباء أو مسئوليات.
وتفضلوا بقبول التحية والتقدير...
ملاحظة /
1. تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 4 أشهر من تاريخه.
2. البحث المذكور حصل على موافقة لجنه اخلاقيات البحث الصحي (لجنة هلسنكي)

محمد ابراهيم محمد السرساوي
مدير دائرة/الإدارة العامة لتنمية القوى البشرية -

التحويلات

- محمد ابراهيم محمد السرساوي(مدير دائرة) ← رامي عبد سليمان العبادله(مدير عام بالوزارة) — إجراءاتكم بالخصوص(25/02/2020)

ملاحظات المأشير :: يرجى ارسال الكتاب لمدير عام المستشفيات ونسخة لمدير عام الرقابة الداخلية ومدير عام التمريض ود. محمد الفرحاوي

- رامي عبد سليمان العبادله(مدير عام بالوزارة) ← عبد السلام محمد عبد صباح(مدير عام بالوزارة) — إجراءاتكم بالخصوص(25/02/2020)

ملاحظات المأشير ::

- عبد السلام محمد عبد صباح(مدير عام بالوزارة) ← محمد خليل محمد زقوت(معين) — إجراءاتكم بالخصوص(25/02/2020)

ملاحظات المأشير ::

- عبد السلام محمد عبد صباح(مدير عام بالوزارة) ← وائد مرزوق رزق ياغي(مدير مستشفى) — إجراءاتكم بالخصوص(25/02/2020)

ملاحظات المأشير ::

Gaza Tel: (+970) 8-2846949 Fax: (+970) 8-2825295
غزة تلفون: (+970) 8-2846949 فاكس: (+970) 8-2825295

عنـوان الدراســة: المعرفــة والاتجــاه والاســتخدام لمخطــط المخــاض لــدى القــابلات والممرضات في أقسام الولادة في المستشفيات الحكومية بقطاع غزة.

إعداد: ياسمين نصر أحمد

إشراف: د. عريفة سعيد الكسيح

الملخص

يعتبر مخطط المخاض أحد الأدوات الهامة والمفيدة في متابعة تقدم الولادة. هدفت الدراسة الحالية إلى تحديد مستوى المعرفة والاتجاه والاستخدام لمخطط المخاضفي أقسام الولادة. استخدمت الباحثة المنهج الوصفي، وقد تكونت عينة الدراسة من 105 قابلات وممرضات يعملن في أقسام الولادة في المستشفيات الحكومية بقطاع غزة وهي: مستشفى كمال عدوان، مستشفى الشفاء، مستشفى شهداء الأقصى، مستشفى ناصر، ومستشفى الهلال الإماراتي. قامت الباحثة بإعداد استبانة لقياس مستوى المعرفة والاتجاه والاستخدام لمخطط المخاض مصممة بطريقة مقياس ليكرت الخماسي، وقد تم إجراء دراسة استطلاعية على عينة مكونة من 30 قابلة وممرضة بهدف التأكد من صدق وثبات أداة الدراسة، وقد بلغت قيمة كرونباخ ألفا 0.809. بينت النتائج أن متوسط عمر المشاركات في الدراسة بلغ 31.47 سنة بانحراف معياري 6.626 سنة، 65.7% من المشاركات في الدراسة حاصلات على درجة البكالوريوس في علوم القبالة، وبلغ متوسط سنوات الخبرة 7.66 سنة بانحراف معياري 5.289 سنة، كما أن 69.5% من المشاركات في الدراسة حصلن على تدريب خاص بمخطط المخاض. وبينت النتائج أن مستوى المعرفة بمخطط المخاض كان مرتفعاً حيث بلغت نسبة الإجابات الصحيحة 87.7%، الاتجاه نحو مخطط المخاض كان فوق المتوسط بنسبة بلغت 78.4%، كما أظهرت النتائج أن استخدام مخطط المخاض كان بدرجة عالية وبنسبة بلغت 89.9%. وبينت النتائج عدم وجود فروق ذات دلالة إحصائية في المعرفة والاتجاه والاستخدام لمخطط المخاض تعزى لكل من العمر، الدرجة العلمية، وسنوات الخبرة. كما أظهرت النتائج عدم وجود فروق ذات دلالة إحصائية في المعرفة والاستخدام لمخطط المخاض تعزى لمكان العمل، في حين أن المشاركات في الدراسة من مستشفى الشفاء أظهرن مستوى أعلى ودال إحصائياً في الاتجاه نحو مخطط المخاض مقارنة بالمشاركات في الدراسة من المستشفيات الأخرى. كما بينت النتائج أن المشاركات في الدراسة اللاتي حصلن على تدريب خاص بمخطط المخاض كان مستوى المعرفة والاتجاه لديهن أعلى ودال إحصائياً مقارنة باالواتي لم يحصلن على تدريب خاص بمخطط المخاض. وبالسؤال عن أهمية مخطط المخاض أفادت غالبية المشاركات في الدراسة بأن استخدام مخطط المخاض يفيد في متابعة تقدم عملية الولادة واكتشاف المضاعفات التي قد تحدث بشكل مبكر. وأفادت المشاركات في الدراسة أن الزيادة الكبيرة

في حالات الدخول لقسم الولادة وعدم وجود أعداد كافية من القابلات المؤهلات كانت أهم المعيقات التي تحد من استخدام مخطط المخاض. وأفادت المشاركات في الدراسة أن أهم التحديات التي تواجههن في استخدام مخطط المخاض تمثلت في عدم تعاون كل من الأطباء والأمهات على حد سواء. ولتعزيز استخدام مخطط المخاض بشكل أفضل فقد ارتأت المشاركات في الدراسة ضرورة إجراء تدريب دوري خاص بمخطط المخاض خاصة للقابلات الجدد، توفير أعداد كافية من القابلات يتناسب مع عدد حالات الولادة في كل مناوبة، بالإضافة إلى المتابعة المستمرة من قبل حكيمة القسم ومشرفة أقسام الولادة. في الإجمال فقد أظهرت نتائج الدراسة أن المشاركات في الدراسة كان لديهن مستوى مرتفع من المعرفة، مستوى فوق المتوسط من الاتجاه، واستخدام مخطط المخاض بدرجة عالية. وأوصت الدراسة بالحاجة إلى زيادة أعداد القابلات المؤهلات بما يتناسب مع عدد حالات الولادة في كل مناوبة.