



## Prevalence of Complications and Outcomes During Pregnancy Among Women of Twin Pregnancy at Maternity Hospitals in Baghdad City

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### Abstract

*Maternal complications are the major problems that cause pregnancy. This study aimed to identify the complication and outcomes during pregnancy among those with twin pregnancies at Maternity Hospitals in Baghdad City during the study period. A descriptive cross-sectional study was conducted among twins Pregnancy women in 5 hospitals during the study period. Data were obtained from pregnant women through the utilization of the study instrument, and an interview technique for each laboring woman and a review of their medical records as means of data collection. Tables and graphs were used to analyze the data results. Out of 50 pregnant women, 82% of them were in the age less than 30 years old, 86% were unemployed, 72% of them had a primary education level, and 86% were living in an urban area; (76%) of them had a family history of complication.*

*Two third of them had a history of abortion less than 3 times. Few of them had anemia and premature rapture membrane complication; premature and hypertension. More than half had a cesarean section procedure. Ensure universal health coverage of reproductive health care, comprehensive maternal and newborn health care.*

**Keyword:** Maternal, Complication, Pregnancy, Outcomes, Baghdad, Twin.

## Introduction

Maternal complications are the major problems that cause pregnancy [1]. It may affect the woman, the fetus, or both, and it occurs at different times during pregnancy or the last months of pregnancy [2]. Women who bleed at this time are at risk of losing a baby or bleeding excessively (hemorrhage) [3]. There is also a slight risk [4]. But most pregnancy complications can be effectively treated [5]. Maternal mortality rates remain unacceptably high [6]. Not a single day passes without about 830 women dying worldwide as a result of complications during pregnancy and childbirth [7]. It was estimated that in 2015, 303,000 women died during pregnancy and childbirth [8]. It is worth noting that almost all of these deaths occurred in countries with few resources and that most of them could have been prevented [9]. The rise in maternal mortality in some regions of the world reflects the disparities in access to health services and highlights the gap between the rich and the poor [10]. Almost all (99%) maternal deaths occur in developing countries, with half of these deaths occurring in sub-Saharan Africa, and one-third in South Asia. More than half of maternal deaths occur in places that suffer from their fragility and poor humanitarian conditions [11].

Adolescent girls under the age of 15 face the highest risk of maternal death, and complications during pregnancy and childbirth are the main causes of death for these adolescent girls in developing countries [12]. Women in developing countries experience pregnancy many times more, on average than women in developed countries, and therefore their risk of dying from pregnancy is higher than that of others [13]. Most of the complication appears during pregnancy and most of them can be prevented or treated [14]. Other complications may appear before that period, but they worsen during that period, especially if they are not addressed as part of the woman's care such as severe hemorrhage; infections; pre-eclampsia and eclampsia; bad situation; unsafe abortion and the rest of the deaths occur due to exposure, during pregnancy, to diseases such as malaria, anemia, AIDS and HIV infection [15-16].

The method of delivery has an influence on the fetal outcome among twin deliveries; however, seeking a method that leads to a better fetal outcome has still remained a matter of discussion because of various fetal presentations at birth [17]. Non-randomized studies have mentioned that prearranged caesarean section may reduce the threat of twins' perinatal death, especially the second twin compared with going through normal vaginal delivery [18]. The number of normal deliveries to the whole of Iraq in 2010 was (955709) births and the rate was 78% of the total births, while the number of C-sections was (270,069) births and the rate was 22% of the total births. The number of births of twins was (10361) birth, with the rate of 0.85% of total births [19]. This study aimed to identify the complication and outcomes during pregnancy among those with twin pregnancies at Maternity Hospitals in Baghdad City during the study period.

## Methodology

**Study design:** A descriptive cross-sectional study was conducted among twins Pregnancy women to identify the complication and outcomes during pregnancy at Maternity Hospitals in Baghdad city.

**Time of data collection:** - The study is employed through the present study from 22nd April 2021 to 25th November 2021.

**Ethical Clearance:** - Formal administrative approval is obtained to contact the study from the Ministry of planning - Central Statistical Organization (CSO) which accepted the study questionnaire.

**Place of study:** - This study was conducted in (5) hospitals in Baghdad city which includes: Baghdad Teaching Hospital, Al-Yarmook Teaching Hospital, Al-Elwyia Maternity Hospital, Ebn- Albaladi Maternity Hospital, and Al-Karkh Maternity Hospital.

**Sampling collection:** - A purposive sample of (50) twins laboring pregnant women were selected from delivery rooms of five Hospitals in Baghdad city.

**Inclusion criteria:** The inclusion criteria are pregnant women who have been diagnosed as a twin pregnancy and Laboring women at 28 weeks and more of gestational age.

**Exclusion criteria:** - The Psychological or neurological diseases; Pregnant women with the previous scare in the last delivery and Pregnant women with the acute or chronic medical disease were excluded from our study.

**Data collection:** The description of the demographic characteristics of study groups that include the following variables (age of pregnant, residence area, mothers' level of education, woman's occupation, family history with twins delivery, chronic diseases, smoking habit for pregnant, and passive smoking, types of complications occurred during the current pregnancy. Reliability of the questionnaire was used

to determine the accuracy of the questionnaire: internal consistency reliability is determined through the computation of the Cronbach alpha correlation coefficient of the scale. The results showed a very high level of stability and internal consistency of the main study domains at the level of items of the applied questionnaire.

Data were obtained from pregnant women through the utilization of the study instrument, and an interview technique for each laboring woman and a review of their medical records as means of data collection. The observation technique was used by the investigator during laboring in theaters rooms. The data were collected from the study sample according to the daily admission of each pregnant woman to the delivery room, while the process of data collection for each laboring woman was started from the beginning of 1st stage of labor to the 4th stage of labor, and the time of data collection for each woman depends on the time that the mother takes to deliver the neonate and follow up through the postpartum until 6 hours of labor.

Tables and graphs were used to analyze and assess the results of the study under the application of the statistical package (SPSS) ver. (20.0).

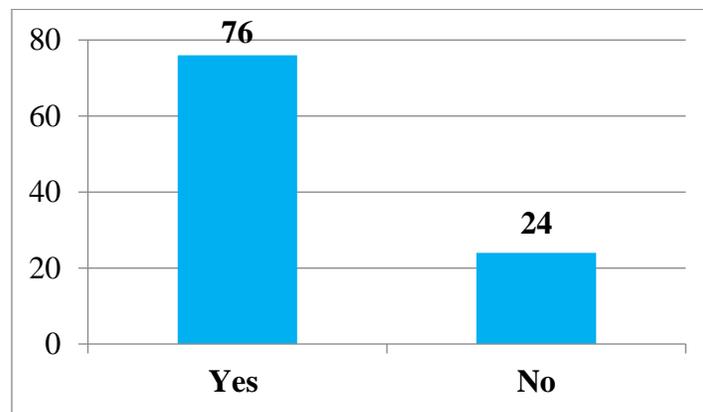
## Results

Out of 50 pregnant women, 82% of them were in the age less than 30 years old, 86% were unemployed, 72% of them had a primary education level, and 86% were living in urban areas [Table 1]. 38/50 (76%) of them had a family history of complication and 24 % ( 12/50) were not had it [Figure 1]. In figure 2 shows that 60% (30/50) of pregnant women had a history of abortion less than 3 times and 20 % ( 10/50) had more than 3 times. In table 2 shows that 10% of them had anemia and premature rapture membrane complication; 18 had premature and 6% of them had hypertension. In figure 3 show that 60% of women had 3 to 5 times of pregnancy. In figure 4 shows 76% of them had cesarean section and 24% of them had a normal delivery. 56% (28/50) of women had malpresentation and 16 % (8/50) had malposition [Table3].

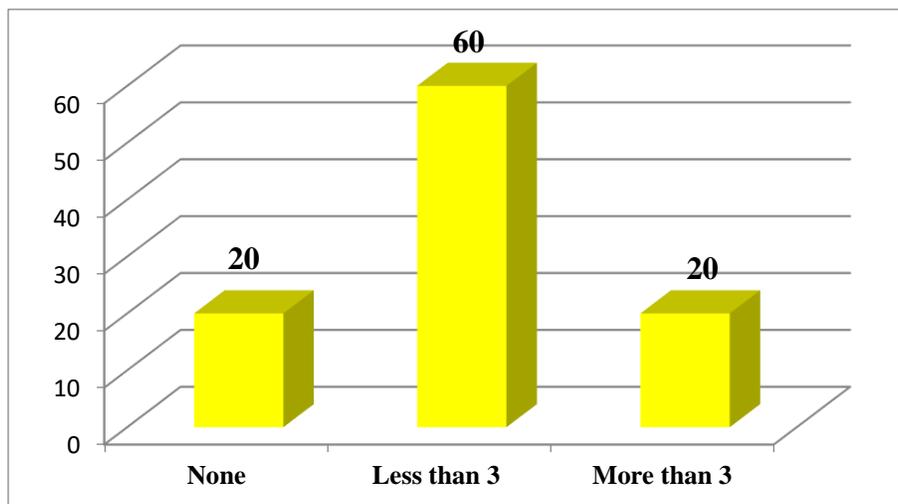
**Table 1: Characteristic of studied samples**

<b>Variables</b>	<b>Frequency(50)</b>	<b>Percent</b>
<b>Age groups /Years</b>		
<30	41	82
31-35	6	12
≥36	3	6
<b>Occupation</b>		

Employed	7	14
Unemployed	43	86
<b>Education</b>		
Primary school	36	72
Intermediate	3	6
Secondary and above	11	22
<b>Residence</b>		
Urban	43	86
Rural	7	14



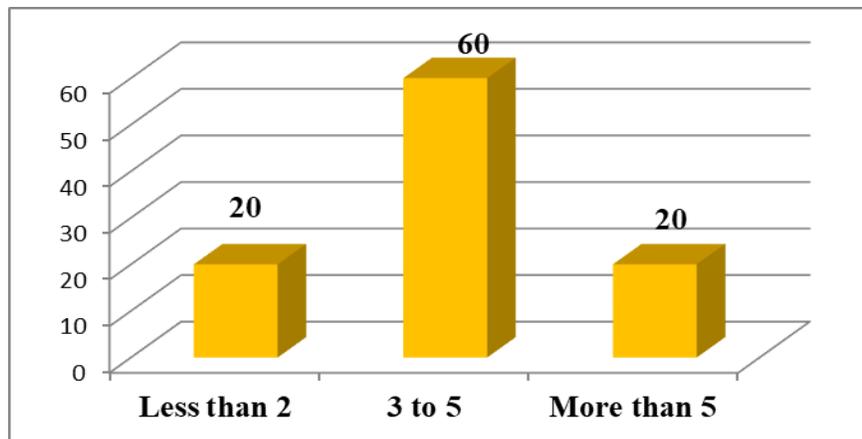
**Figure 1: Family history of complication during pregnancy among women of twin pregnancy**



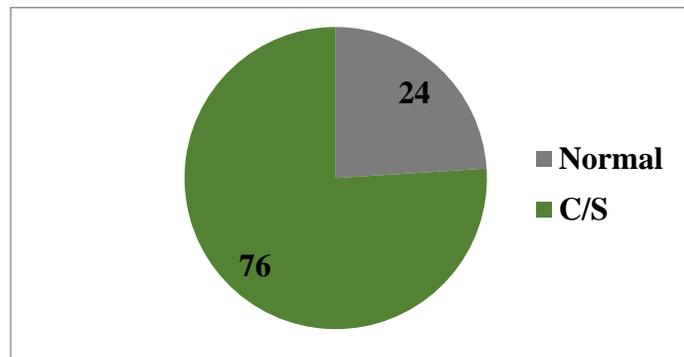
**Figure 2: Distribution of studied sample according to abortion history**

**Table 2: Distribution of studied sample according to complication during pregnancy**

Complication during pregnancy		Frequency	Percent
<b>Anemia</b>	Yes	5	10
	No	45	90
<b>Hypertension</b>	Yes	3	6
	No	47	94
<b>Gestational diabetes</b>	Yes	2	4
	No	48	96
<b>Pre mature rapture membrane</b>	Yes	5	10
	No	45	90
<b>Pre mature labour</b>	Yes	9	18
	No	41	82



**Figure 3: Distribution of studied sample according to gravidity**



**Figure 4: Distribution of studied sample according to types of delivery**

**Table 3: Causes of cesarean section**

<b>Causes</b>	<b>Frequency</b>	<b>Percent</b>
<b>Fetal distress</b>	4	8
<b>Decrease fetus heart rate</b>	4	8
<b>Meconium</b>	2	4
<b>Malpresentation</b>	28	56
<b>Cervical dystocia</b>	6	12
<b>Malposition</b>	8	16
<b>Macrosomia</b>	1	2

### **Discussion**

This study aimed to identify the complication that occurred during pregnancy among women of twins in Baghdad. Concerning their age, the result showed that 82% of twin pregnancy women were in the age group of < 30 years. This result matches the review of most literature which mentioned that the safe age of women for reproduction is less than 35 years. This result disagrees also with the study of Emre et al (2006) in Turkey, which indicated that maternal age was significantly higher in twins pregnancy compared to other types [20]. This result disagrees with the study of Peter (2012) which found that the majority (76.1%) of the women in this study were aged between 20-34 and the median age was 28 years with a range of 16-46 years [21]. Concerning the residency area, 86% of twin pregnancy women in the study sample were from urban residency. Regarding the level of education (72%) of twin pregnancy, women had primary school graduates. As women's education increases, their decisions to get married and become pregnant are delayed. Their opportunities to join the labor force also increase. Girl's opportunities for better education, jobs, and income. As women's views and opportunities are expanded through education, children and marriage move down in the scale of importance. "The evidence on the former is fairly clear: the higher the level of schooling, the later the age at marriage and the more preferences are implemented by means of contraceptive use" (Bongaarts, 2003) [22]. This result disagrees with the study of Peter (2012) who found that secondary education level was common accounting for 50.6% followed primary education 32.7% [21]. Also, this result disagrees with Hassoon's study (2010), which found that (45.3%) of the sample study were secondary school graduates while (20.3%) were college graduates [23].

Furthermore, and relative to the occupation status this table shows that (86 %) of twin pregnancy women were housewives. This result agrees with Hassoon's study (2010), who found that the majority of women in his study, the occupations of most women (79.6%) were housewives [23]. Concerning the family history of complication, (76 %) of twin pregnancy, women had a history of twin pregnancy in their

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families. Regarding the Gravidity, we found that (60%) of twin pregnancy women had 3 to 5 gravidity. This result agrees with the study of Ebrahim and Muhammed, 2011 in Basrah, Iraq, results indicate that. 51.4% of the women had 4 children and more [24]. Regarding abortion, we found (30%) of twin pregnancy women had a history of abortion happened in their life. Concerning the complications during pregnancy, in this study, we found that 90% of twin pregnancy women were not suffering from anemia. This result agrees with the study of Emre et al (2006) in Turkey, which indicated that anemia was the most common maternal complication in all groups [20]. This result disagrees with the study of Morawah (2014) conducted in Baghdad Teaching Hospital, which indicated that anemia was found in 39 (55.7%) nulliparous women and 58 (82.9%) multiparous women, indicated significantly, that nulliparous were less likely to have anemia than multiparous[25]. A low level of complication was found in this study, where only (6%) of women get pregnancy-induced hypertension, and only (4%) of women get gestational diabetes. Also, (10%) of women get Premature rupture membrane, and (18%) were suffering from Premature labor. Furthermore, the results of this study indicate that twin pregnancy women had never suffered from Eclampsia, pre-eclampsia, placenta previa, Abruptio placenta, stillbirth, Intrauterine growth retardation, post-term gestation and Polyhydramnios. (76%) of twin pregnancy women, cesarean section was done to them. This result agrees with the study of Emre et al (2006) in Turkey, which indicated that (73.5%) of the twin's pregnant women were delivered by cesarean section [20]. This result disagrees with the study of Peter (2012) who found that the Majority (77.3%) of the twin pregnancies were delivered vaginally, and (20.1%) delivered by caesarian section while (2.6%) had a combined delivery that is the first twin was delivered vaginally and the second by caesarian section [21]. This result disagrees with Mohammed K study (2015) which found that (48%) of them had Caesarean section delivery, while (44%) of them had normal delivery [26]. This result disagrees with the study of Morawah (2014) conducted in Baghdad Teaching Hospital, which indicated that the vaginal mode of delivery was reported in (64.3%) of nulliparous women and (58.6%) of multiparous while caesarean section was the mode of delivery in (35.7%) nulliparous and (41.4%) multiparous women [25]. Regarding the cause of C/S: (26%) of singleton pregnancy, the cause was malpresentation, while (56%) of twin pregnancy women, the cause was malpresentation. Poor women who live in remote areas are the least likely to have access to appropriate care services. This is particularly true in regions with low numbers of skilled health workers, such as sub-Saharan Africa and South Asia. While levels of antenatal care have increased in many regions of the world in the past 10 years, only 51% of women in low-income countries benefit from skilled care during childbirth [27]. In high-income countries, nearly all women benefit from at least four antenatal check-ups during pregnancy, the assistance of a skilled health worker during delivery, and postnatal care services [28].

## Conclusion and Recommendation

we concluded that the majority of women were in the age less than 30, unemployed, had a primary school. Family history is one of the main causes of complication. Few of them had a history of abortion. Few of them had a history of anemia and premature labor. Mal presentation is one of the main causes of cesarean. Most maternal deaths can be prevented because medical solutions to the most important causes are known. All women must be provided with prenatal care, skilled care during childbirth, and care and support in the weeks after delivery. Ensure universal health coverage of reproductive health care, comprehensive maternal and newborn health care.

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