

**Republic of Iraq Ministry of Higher
Education and Scientific Research
University of Al-Qadisiyah
College of Nursing**



**Prevalence and Indication of Caesarean Section in The
Maternity and Children's Hospital in Diwanyiah City**

A Thesis

Submitted to the Council of College of Nursing– University of AlQadisiyah in
Partial Fulfillment of the Requirements for the Degree of Bachelor in Nursing

By

Elaf Ahmed Ghazi

Amna Muhammad Kazem

Saja Wanas Hantoush

Bayrak Rahim Abdul Hussein

Amanda Rikan Rayeh

Supervised By

Dr. Abdul Amir Lilo Al-Obaidi

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

يَرْفَعُ اللَّهُ الَّذِينَ ءَامَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ
بِمَا تَعْمَلُونَ خَبِيرٌ

صَدَقَ اللَّهُ الْعَظِيمُ،

سورة المجادلة (11)

الاهداء

الى ارواح المقاتلين الابطال ولكل من قدم نفسه فداء لنصل الى ماوصلنا إليه،

نهدي لكم اجر ماتعلمناه في سنين دراستنا

الى امي وابي انتما من تستحقان كل عبارات الشكر

الى من اعطى احلامي القوة

الى السند والفؤاد

الى كل يد وقلب سار معي في درب الانجاز

الشكر والتقدير

بداية الشكر لله عز وجل الذي أعاننا وشد من عزمنا لإكمال هذا البحث ، ونشكره راعين ، الذي وهبنا الصبر والمطولة والتحدي لنجعل من هذا المشروع علما ينتفع به نتقدم بأجمل عبارات الشكر والامتنان من قلوب فائضة بالمحبة والاحترام والتقدير له ،

ونقدم أزكى تحياتنا وأجملها وأثناها نرسلها بكل الود والحب والإخلاص .. شاكرين لك كل ما قدمته وما نصحت لنا به في إشرافك على هذا البحث ، فلك منا كل الشكر والامتنان:

الدكتور الفاضل / عبد الامير ليلو العبيدي

ونتقدم بجزيل الشكر والعرفان إلى جميع أعضاء هيئة التدريس

Abstract

Objective: To measure the rate and trend of CS in the Women's and Children's Hospital in Diwaniyah in the period from 1/August/2022 to 31/January/2023.

Methodology: The study began after obtaining the approval of the College of Nursing, University of Al-Qadisiyah on 6/12/2022, where the study was conducted retrospectively in the Women's and Children's Hospital in Diwaniyah in the period from 1 / August / 2022 to 31 / January / 2023 in order to obtain line data. The basis is about the rates of caesarean section and the main indicators of its occurrence, as it included 614 samples, and the data was analyzed by applying the descriptive statistical data analysis approach in terms of frequency and percentage.

Result: The most common indication of caesarean section was previous caesarean section (29.31%) followed by obstructed labor(14.33%), placenta Previa (6.84%) and breech presentation (6.51%) respectively.

Conclusion: The rising prevalence of caesarean section was mainly due to previous caesarean section followed by obstructed labor certain measures have been recommended to curtail the increasing

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CHAPTER ONE
INTRODUCTION

CHAPTER ONE

INTRODUCTION

1-1Introduction

Cesarean section is a surgical technique in which incisions are made through a mother's abdomen and uterus to deliver her baby (Maktha et al., 2016).

Many factors are attributed to the rapid increase of cesarean section. These include but not limited to financial incentives, maternal request, lack of regulations, the safety of the operation, improved anesthesia services, availability of blood transfusion and antibiotics, rising incidence of primary cesarean section due to clear indications, the decline in operative vaginal delivery and identification of high-risk pregnancy (Miseljic et al., 2018), (Tadevosyan et al., 2019), (Besio, 2016), (Verma et al., 2020).

Cesarean section (C/S) can be done on an elective or emergency basis based on the time of operation. In elective cesarean section, the operation is done at a pre-arranged time during pregnancy to ensure the best quality of obstetric care, anesthesia, neonatal resuscitation, and nursing services. Whereas, in emergency C/S, the operation is done due to an acute obstetric emergency resulting in endangering to lives of mother and child (Hannah, 2004),(Gedefaw et al., 2020), (Waniala et al., 2020) . In recent years, the rate of cesarean deliveries increased dramatically worldwide and has had exceeded the World Health Organization (WHO) recommended rate in many countries (Programme, 2015).

Globally, there is an ongoing debate on what should be the optimal rates of cesarean deliveries (Programme, 2015), (Montoya-Williams et al., 2017), (Betran et al., 2015). As per the WHO report, “At the population level, Cesarean section rates higher than 10% are not associated with reductions in maternal and newborn mortality rates (Programme, 2015). Even though the disparity is observed, the C/S rate is increasing worldwide (Programme, 2015), (Montoya-Williams et al., 2017), (Betran et al., 2015). Different studies showed that the rate of Cesarean section in Ethiopia ranges from 11(Tsegaye et al., 2019) to 49% (Gedefaw et al., 2020).

Maternal mortality remains the global challenge where it is unacceptably high in low- and middle-income countries particularly in sub-Sahara African countries (Taha et al., 2019). In Ethiopia, obstetrics-related care at public health institutions is freely available to decrease maternal mortality and morbidity.

Identification of factors associated with a cesarean section is important to minimize the unnecessary practice of such life-saving intervention and increase its access to those who need it the most. Studies showed that factors related to include but not limited to mother's educational status, previous history of C/S, doctor's recommendations, type of health facility (public/private), bad obstetric history, fetal weight, socioeconomic status, residence (Maktha et al., 2016), (Verma et al., 2020), (Tsegaye et al., 2019), (Karim et al., 2020), (Rafiei et al., 2018).

Different studies have shown that the prevalence of C/S is varied in different areas of Ethiopia (Tsegaye et al., 2019), (Azene et al., 2019), (Melesse et al., 2020), (Asfaw & Tesema, 2020), (Bayou et al., 2016), (Gebreegzabher Hailu et

al., 2020), (Ayalew et al., 2020). A systematic review and meta-analysis done by Gedefaw G. et al. Showed that the pooled prevalence of C/S was 29.5% in Ethiopia (Gedefaw et al., 2020). Studies done to explore the prevalence and factors associated with cesarean section in the current study area are limited. This article identifies the prevalence of cesarean section and socioeconomic, obstetrics, and other related determinants among women giving birth at Debre Tabor Comprehensive Specialized Hospital. This information can help key stakeholders shape policy on maternal health care services in governmental health facilities of Ethiopia.

This study will help in filling the gap of information on the prevalence and association factor of cesarean section on an institutional basis. It can also be used as baseline information for future researches. Cesarean section has many complications and its associated factors when used inappropriately the potential harm may exceed the potential benefit of C/S. It also costs more than vaginal births and can result in increased risk to mother and newborn.



CHAPTER TWO
PATIENTS & METHODS

CHAPTER TWO

PATIENTS & METHODS

2-1 RESEARCH METHODOLOGY

The study began after obtaining the approval of the College of Nursing, Al-Qadisiyah University, on 12/6/2022.

The study was conducted retrospectively at the Women's and Children's Hospital in Al-Diwaniyah from August 1, 2022 to January 31, 2023 in order to obtain baseline data on caesarean section rates and the main indicators of its occurrence, as it included 614 samples from married women of childbearing age. The information was taken from the patient's record and divided into reasons for caesarean section, age groups, and numbers of previous caesarean sections. Most of the records contained all of this information, but in some it was missing or written in a way that is difficult to interpret.

Where the average age range of the patients in this study was (16_30) years, and the main indicator of the incidence of caesarean section was the frequency of caesarean section.



CHAPTER THREE
RESULT & DISCUSSION

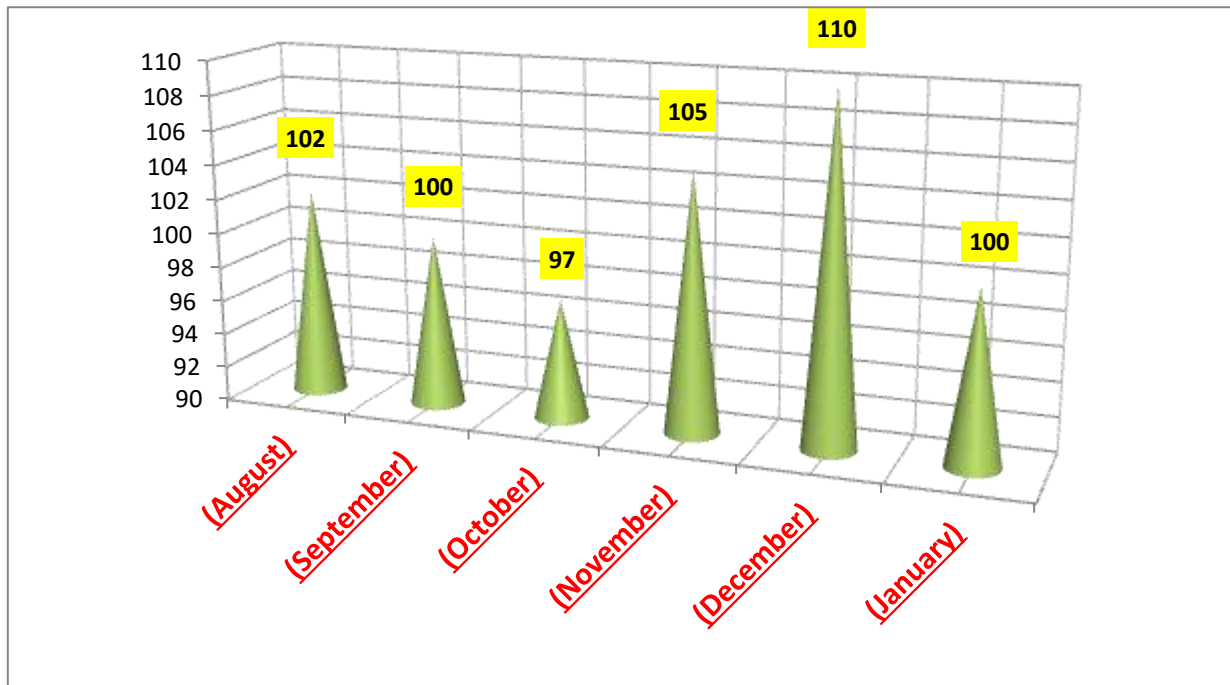
CHAPTER THREE

RESULT & DISCUSSION

3-1 The cesarean section According to Month

Table (3-1) The cesarean section According to Month

Year	Month	N	Percentage
2022	8 (August)	102	16.61
2022	9 (September)	100	16.29
2022	10 (October)	97	15.79
2022	11 (November)	105	17.10
2022	12 (December)	110	17.91
2023	1 (January)	100	16.28
Total	-	614	100 %

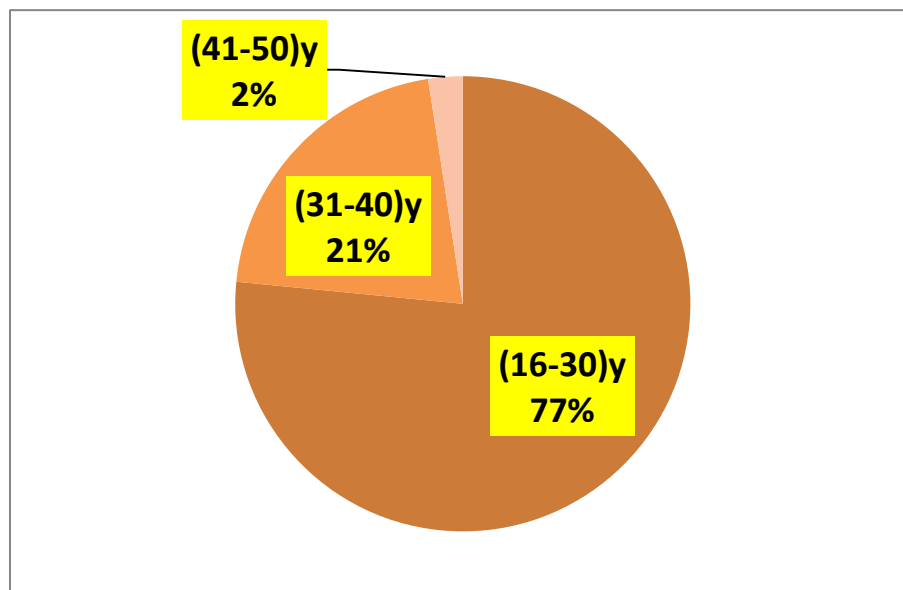


3-2 The cesarean section According to Age

Table (3-2) The cesarean section According to Age

Age Group (Year)	N	Percentage
(16-30)	470	76.54
(31-40)	129	21
(41-50)	15	2.44
Total	614	100 %

Our study finding showed that most age group of women delivered by CS was 16-30 years was 76.54 % because this age is the active time period for marriage and pregnancy. The finding was similar to a study in India which showed that the CS rate was also more in age group of 20-35 years as it constituted 55.6% (Tran et al., 2013).



3-3 C.S indication Causes

Table (3-3) The most important reasons for a cesarean section

C.S indication Causes	N	Percentage
placenta insufficiency	2	0.33
Placenta accreta	2	0.33
pre-Eclampsia	2	0.33
Hyperthyroidism	4	0.66
anaemia	5	0.82
cervical clogging	7	1.14
utero placental insufficiency	7	1.14
Diabetes	8	1.3
tightness of pelvis	10	1.62
Placenta adhesion	12	1.95
Gestational diabetes	12	1.95
Foetal fatigue	15	2.44
Emergency	20	3.25
Placenta abruption	20	3.25
Increase foetal weight	22	3.58
Oligohydramnios	26	4.23
slow pulse of the foetus	27	4.39
transvers presentation	28	4.56
hypertension	35	5.7
breech presentation	40	6.51
Placenta previa	42	6.84
obstructed labour	88	14.33
previous CS	180	29.31
Total	614	100%

The main indicator of caesarean section in Al-Diwaniyah Women's and Children's Teaching Hospital was the previous caesarean section (29.31%), Compared with a study conducted in Tikur Anbesa Teaching Hospital, Ethiopia, the main indicator was also the recurrence of the previous operation, which amounted to (32.4%), (Tadesse et al 1996)

The second most common indicator in this study was obstructed labour (14.33%) While his percentage was in study done by Subedi S. Gynaecology, Nobel ,Medical College, Biratnagar (1.5%) (Subedi, 2011).

Next indication was Fetal distress was (2.44%), results are comparable with Jawa A et al (16.06%) (Jawa et al., 2016). The gold standard method of estimation of foetal distress is not used in our set up and what we have for foetal monitoring is fetal heart rate monitoring with stethoscope and fetal doppler manually. The accurate method of estimation of foetal distress is foetal scalp pH estimation.

Caesarean section for Breech was observed (6.51%) these results are comparable with study done by Subedi S. was ((10%) (Subedi, 2011).

Also, one of the indicators of cesarean section is high blood pressure, as it reached (5.7%) during our study compared to the study of Techur Hospital, where it reached (10%) because high blood pressure affects the mother and fetus (Tadesse et al., 1996).

Also, one of the indicators of caesarean section is placenta previa, as its percentage during our study reached (3.25%), compared to a study conducted at the University of Maiduguri Teaching Hospital, Nigeria, where it amounted to (5.1%) . With such an indicator, the most appropriate solution would be to

perform a caesarean section to protect the mother and the child from complications (Geidam et al., 2009).

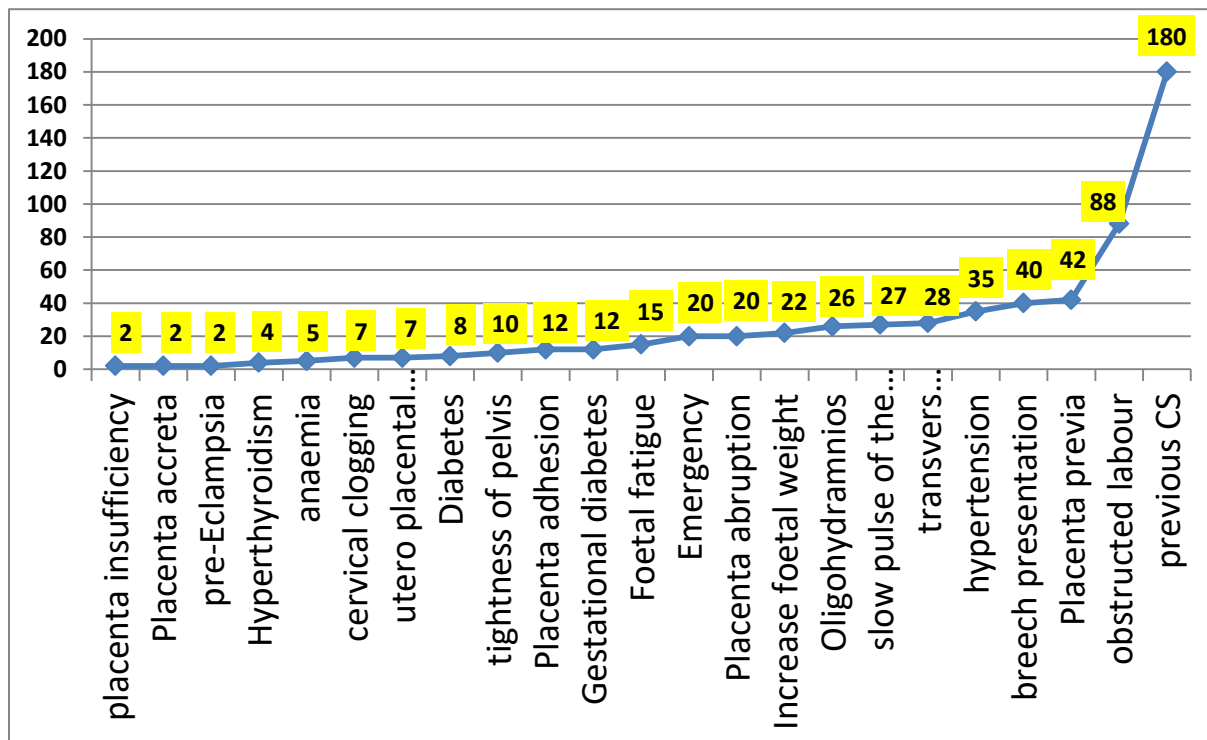
We found that 1.62% of women had pelvic tightness unsuitable for childbirth as an indicator cesarean section. When pelvic anatomy was recorded as a predictor of CS, compared to a study in ST. JOSEPH MEDICAL HOSPITAL MOSHI, TANZANIA which the incidence of pelvic stenosis in women was 5.7% (Stokke & Becher, 2013).

We found that 0.33% of women had Preeclampsia, compared to a study done by Becher was 4% (Stokke & Becher, 2013).

We also found that among the indications for caesarean section is Oligohydramnios, which occurs due to some medications, such as non-steroidal anti-inflammatory drugs, delayed labor, and a rupture of the membranes surrounding the fetus, where its rate during our study was 4.23%, compared to a study conducted by Subedi, where its rate was 2.5% (Subedi, 2011).

We also found that among the indications for caesarean section is emergency cesarean sections which occurs due to health concerns for the mother and fetus where its rate during our study among caesarean deliveries was (3.25%), compared to a study conducted by a Tertiary Care Centre of Nepal among caesarean deliveries (76.9%) (Tamrakar et al., 2021).

We also found among the indications for caesarean section an increase in fetal weight, where the percentage of overweight babies was 3.58% of deliveries. Compared to a study in ST. JOSEPH MEDICAL HOSPITAL MOSHI, TANZANIA which the percentage of births with an increased fetal weight was 3% (Kiserud, 2010).



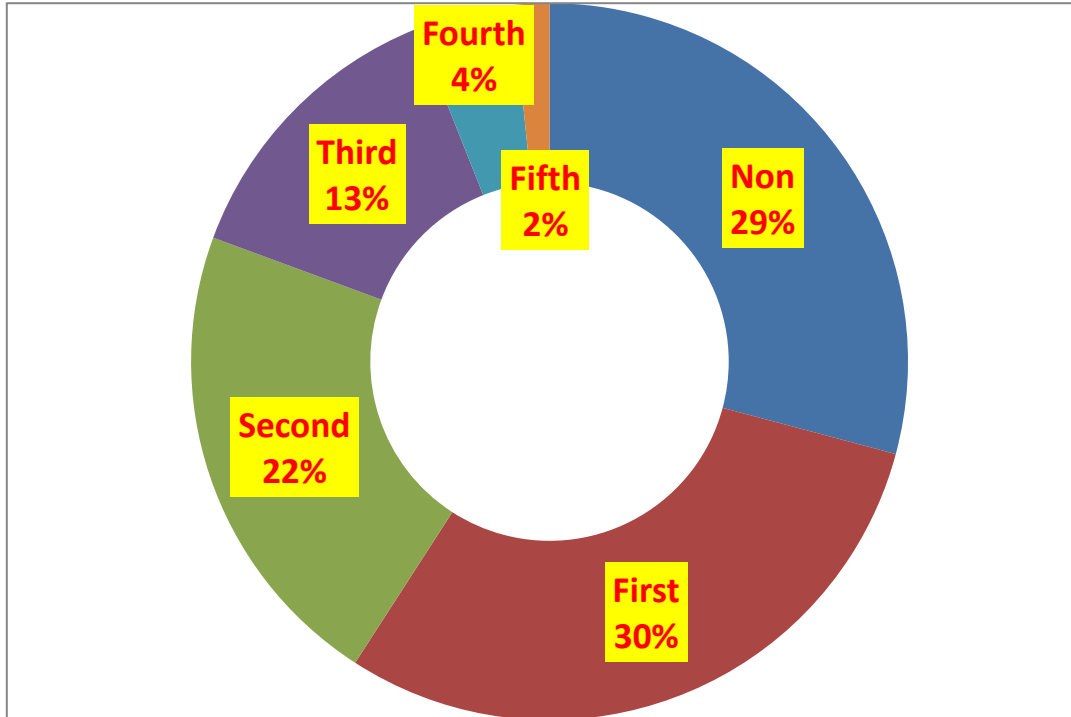
3-4 The cesarean section According to Previous C.S

Table (3-4) The cesarean section According to Previous C.S

Previous C.S	N	Percentage
Non	179	29.15
1	184	29.96
2	132	21.49
3	82	13.35
4	27	4.39
5	10	1.62
Total	614	100 %

The results showed that women who underwent a previous caesarean section had the highest percentage, which amounted to (29.96%), because undergoing

any caesarean section or uterine surgery previously caused a motive to perform a caesarean section.





CHAPTER FOUR
CONCLUSION & RECOMMINDATIONS

CHAPTER FOUR

CONCLUSION & RECOMMINDATIONS

4-1 CONCLUSION

This study contributes to a broader understanding of the indications of cesarean section . This information can be used to improve infant and maternal health by reducing the complications associated with operative deliveries.The most common indication for cesarean section in our study was previous CS, obstructed labour was the most common indication, Other common indications in our study were problem in placenta, diabetes , hypertension, malposition of the baby, fetal distress and pelvic anatomy, oligohydramnios and pre_ clampsia. It is reasonable to inform the pregnant woman of the risk of each of the above categories, in addition to counseling her regarding the potential risks of a cesarean section for the current and any subsequent pregnancies.

4-2 RECOMMINDATIONS

1. The women aged >40 years should be counseled during antenatal care that they are at high risk of cesarean delivery.
2. Women with gestational diabetes should follow strict dietary advice apart from exercise and medications during pregnancy to control macrosomia hence, the possibility of cesarean section.
3. Moreover, women must be encouraged to deliver normally especially in their first pregnancy to avoid repeated cesarean sections.
4. The study outcome encourages women to do regular exercise so as to maintain their weight as appropriately as possible and avoid obesity that can cause adverse effects on their health.
5. Establishing a program to clinically examine females and take x-rays of the pelvic structure to identify abnormalities.
6. An early addition to the primary examination for married couples.
7. Alert patients about the true risks of major abdominal (C-section) surgery, compared to normal vaginal deliveries.
8. Caesarean sections should ideally only be undertaken when medically necessary. Every effort should be made to provide caesarean sections to women in need, rather than striving to achieve a specific rate.
9. Investigating the mother's health reasons that led to a cesarean delivery
10. Giving advice to the mother that a natural birth is safer than a cesarean section.



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الخلاصة

الهدف: هو قياس معدل واتجاه CS في مستشفى النسائيه والاطفال في الديوانيه في الفتره من 1/اغسطس/2022 الى 31/يناير/2023.

المنهجية: بدأت الدراسه بعد الحصول على موافقة كلية التمريض جامعة القادسيه بتاريخ 2022/12/6.

حيث تم اجراء الدراسه بأثر رجعي في مستشفى النسائيه والاطفال في الديوانيه في الفتره من 1/اغسطس/2022 الى 31/يناير/2023 من اجل الحصول على معطيات خط الاساس حول معدلات العملية القيصرية والمؤشرات الرئيسييه لحدوثها حيث تضمنت 614 عينه ، وقم تم تحليل البيانات من خلال تطبيق منهج تحليل البيانات الاحصائية الوصفية من حيث التكرار والنسبة المئوية.

النتيجة: كانت أكثر المؤشرات شيوعاً للولادة القيصرية هي الولادة القيصرية السابقة (29.31%) تليها الولادة المتعسرة (14.33%) والمشيمة المنزاحة (6.84%) والعرض قبل الولادة (6.51%) على التوالي.

الخلاصة: يعود السبب الرئيسي لانتشار العمليات القيصرية المتزايدة إلى الولادة القيصرية السابقة التي أعقبها الولادة المتعسرة.



جمهورية العراق
وزارة التعليم العالي و البحث العلمي
جامعة القادسية – كلية التمريض

اتشار و دواعي العملية القصرية في مستشفى النسائية والاطفال في محافظة الديوانية

بحث

مقدم الى كلية التمريض/ جامعة القادسية

كجزء من متطلبات نيل درجة البكلوريوس في كلية التمريض

من قبل

ايلاف احمد غازي

امنة محمد كاظم

سجى وناس حنتوش

بيرق رحيم عبدالحسين

اماندة ريكان رايح

بأشراف

الدكتور عبدالامير ليلو العبيدي