



**EXPLORING THE FACTORS INFLUENCING THE CHOICE OF CESAREAN SECTION  
AMONG JORDANIAN WOMEN: A STUDY AT QUEEN ALIA MILITARY HOSPITAL**

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**ABSTRACT**

Recognizing the factors driving cesarean section (C-section) delivery choices among Jordanian women is essential to improve various maternal and neonatal health outcomes. A cross-sectional survey was conducted with 305 women seen at the gynecology clinic at Queen Alia Military Hospital from July to August 2025. A structured questionnaire was used to measure participant sociodemographic characteristics, knowledge, motivations, access to care, the relationship with their health professional, expectations and outcomes, and other factors influencing choice. Descriptive statistics were calculated using SPSS statistical software. Overall understanding of C-section (Mean = 3.82, SD = 0.50) and the relationship with health professional (Mean = 3.77, SD = 0.63) had high means followed by motivations (fear of labor pain, convenience) (Mean = 3.09, SD = 0.61). Adequate access to care (Mean = 3.50, SD = 0.53) was indicated; however, more educational material was needed (Mean = 3.48, SD = 0.39). Outcomes and expectations showed high scores (Mean = 3.72, SD = 0.56), implying concerns for recovery and birth experiences. Overall the study emphasizes the need for improved maternal education and psychological/mental support by providing shared decision making in order to minimize unnecessary C-sections as well as address issues in education through evidence-based, women-centered care in Jordan.

**KEYWORDS:** Cesarean Section, Maternal Care, Motivations, Knowledge, Healthcare Access.

**BACKGROUND**

The increase in cesarean section (C-section) births worldwide has resulted in growing public health concerns. The World Health Organization recommends a C-section rate of 10-15% to achieve appropriate maternal and neonatal outcomes, but the C-section rates in many countries including Jordan, exceed this.<sup>[1]</sup> Recent literature suggests that both non-clinical and clinical factors drive the rising rates of birth by C-section. In Jordan specifically, C-sections are performed for obstetric indications, but also due to cultural factors, social expectations, and familial influences.<sup>[2,3]</sup>

Maternal fear of labor pain, along with less medical based reasons like the perception of a surgical birth being safer for the baby, are consistently reported as maternal reasons for requesting an elective C-section.<sup>[4]</sup> Hatamleh

et al. (2019) identified that healthy Jordanian women often may prefer C-section practices, as they believed it enabled better control of timing, and eliminated the unpredictability of vaginal delivery. Stories from peers and family also provided encouragement of the views held by participants and could significantly shape women's birth experiences.<sup>[5]</sup>

In addition, aspects of the dynamics of the healthcare system play a fundamental role. The increasing privatization and medicalization of maternal care, in Jordan, have contributed to rising elective C-section rates. Alyahya et al. (2019) reported inefficiencies in woman-centered care and limited antenatal counselling, in both the public and private sectors, which may prevent women from having the ability to make informed choices. Data from the Jordan Population and Family

Health Survey indicates also inequities in who is undergoing C-sections; women of greater socioeconomic status and women delivering in private hospitals were significantly more likely to have C-sections than women who deliver in public facilities.<sup>[6]</sup> It is evident that preferences for the mode of delivery are formed not only individually, but via systemic and institutional frameworks.

An additional consideration for those requesting elective C-sections are negative experiences of prior births and apprehension about experiencing disrespectful care. Studies have documented that poor intrapartum support and reports of obstetric mistreatment may elevate women's association for surgical birth.<sup>[7]</sup> Alternatively, supportive intrapartum care and non-pharmacological pain relief practices can improve women's birth experiences and possibly decrease unnecessary surgical births.<sup>[8],[9]</sup>

The rising rate of C-sections in Jordan is a multifaceted issue affected by cultural practices and family roles, in addition to many system factors both inside and outside of healthcare. The setting where the birth is taking place, such as Queen Alia Military Hospital, must be taken into account when designing evidence-based recommendations that are based on publicly endorsed global standards and are in line with women's preferences.

#### Method

We will conduct a cross-sectional review of medical record and survey data from Jordanian women attending the gynecology clinic at Queen Alia Military Hospital between July 2025 to August 2025. Data will include information on patient demographics, awareness of complications, knowledge levels, and motivations for mode of delivery in the future months. We will analyze the associations of the four variables within the data using statistical methods in the SPSS statistical software package.

#### Problem Statement

Recently, we have seen a rising trend in cesarean section (C-section) rates globally in the past 10 years which has surpassed the WHO recommended range of 10-15% in Jordan (WHO, 2015). Additionally, many of these procedures are now being done elective which may pose a larger risk of surgical complications and are not only an unnecessary expense for the healthcare system, but also, a risk to long-term reproductive health. Informed preferences among Jordanian women, have adhered to all of the above psychological and social factors, as shown in a series of papers published on preference culture among women in Jordan, including fear of labor pain, family experience, perceived safety, and socio-economic factors such as education, income, and access to private facilities.<sup>[10]</sup> Similarly, preference of cesarean versus vaginal delivery has been influenced by privatization of

maternal care, limited antenatal counseling, and an understanding that mothers do not 'support labor.

#### Research Questions for the Study

1. What are the sociodemographic characteristics (age, education level, employment status, and number of children) of women attending the gynecology clinic at Queen Alia Military Hospital?
2. What is the level of understanding among these women regarding what a cesarean section entails?
3. What is the level of awareness among these women about the potential complications associated with cesarean delivery?
4. What are the main reasons and influencing factors motivating Jordanian women to choose cesarean section over vaginal birth?

#### Method

We will do a cross-sectional study using medical records and survey data gathered from Jordanian women who visited the gynecology clinic at Queen Alia Military Hospital between July and August 2025. This data will include patient demographics, awareness of complications, knowledge, and motivation about the mode of delivery in future pregnancies.

Our study sample included 305 pregnant women who accessed the gynecology clinic during the study period. We will examine associations among the four primary variables using statistical analysis in the SPSS statistical software package.

#### Exclusion Criteria

Women who had experienced more than a cesarean were excluded from this study to provide uniformity in examining the factors that led to the decision regarding mode of delivery in women with either their first birth or low-risk women considering a repeat C-section.

#### Importance of the Study

The increasing cesarean delivery rates in Jordan demonstrate the need to understand women's reasoning behind their consent to surgical births which can only be justified in terms of medical necessity, or to save lives. This research deals with a specific population, women at Queen Alia Military Hospital, as is often the case with research in Jordan, they are not studied in a population where the research is primarily in general hospital, or private hospital settings.<sup>[11]</sup> Using a quantitative survey approach that examines women's sociodemographic and cultural factors, knowledge, and their interactions with health care, this study provides facility specific evidence for future targeted interventions to improve women's education.

Once the findings of this research are analyzed and disseminated it will support practitioners' understanding of differences in delivery decisions and how this is informed in providing education antenatally for women to make informed decisions.<sup>[12]</sup> The elective cesarean

delivery model has risks associated with it, that carry over to future births (for example, maternal morbidity) and even care for their infants because it can increase health care costs.<sup>[13]</sup>

### Limitations of the Study

This study gives important information about factors that impact Jordanian women's preference for cesareans of birth, but there are limitations to consider. The study was conducted only in Queen Alia Military Hospital, and the findings may not represent women in other healthcare facilities, regions, or settings. The cross-sectional nature of the study meant that it was not possible to assess changing perceptions over time. Also, administering self-completed questionnaires might bolster biases in direction of either recollection or social desirability effects. The relatively short duration of the study (July – August, 2025) may also limit the diversity of the sample and it may miss seasonal fluctuations or institutional influences as factors in the cesarean preference. In addition, as a determining factor, some dimensions in variables, i.e., mental health conditions or healthcare policy influencing, were not included in their entirety. Despite these limitations, they add to support for future maternal health education and planning based policy making.

### Ethical Considerations

This research will comply with international and institution ethics standards, including the Declaration of Helsinki and the ethical principles outlined by the APA (1976). The study will seek approval from the Institutional Review Board (IRB) from royal medical services and officials from Queen Alia Military Hospital prior to the process of data collection. Each participant will complete a written informed consent after the purpose of the study, procedures, risks, and rights were explained, to ensure voluntary consent. To maintain confidentiality and anonymity, the responses will be coded and the identification for the accessibility of the data will be secured. Participants have the option to skip questions or withdraw from the study without any risks or consequences. The research will present minimal risks to participants as the study consists of questionnaires only and will dispose of all data following ethics guidelines. Data will be disposed of ethically guidelines once the research is published.

### Study Boundaries

The study examines various factors that impact Jordanian women's preferences for Cesarean section (C-section) delivery at Queen Alia Military Hospital, in Amman. The unit of analysis for this study is Jordanian women presenting to the gynecology clinic within the established research period, excluding non-Jordanian women and healthcare professionals. The use of a cross-sectional design will be used to gather data at a single point in time which can affect the ability to determine causal inferences, or even the evaluation of long-term trends.

In operational terms, a C-section is identified as a surgical delivery option (surgical delivery option may be more accurate than surgical delivery method) is either indicated for medical reasons (i.e. fetal distress, placenta previa) or elected for non-medical reasons (i.e. fear of labour pain, convenience.<sup>[13][14]</sup> Both studies examined the factors influencing women's knowledge, attitudes, culture, and psychology about their C-section delivery preference.

A structured questionnaire will be utilized to obtain participants responses along five domains of interest.

1. Understanding & Knowledge (Q1 – Q10): Respondents current awareness of the procedures being used, their risks, and indications for medical use.
2. Motivations & Preferences (Q11 – Q15): Factors influencing fear, convenience and safety issues relating to C-section delivery.
3. Access & Resources (Q16 – Q20): Availability and accessibility of healthcare services, educational materials, and institutional support influencing women's decisions regarding C-section delivery.
4. Interaction with Healthcare Providers (Q21 – Q25): Quality of counseling and evaluated informed consent.
5. Outcomes & Expectations (Q26 – Q30): Recovery, health impacts, and state of wellbeing.
6. Additional Influences (Q31 – Q35): Societal and or cultural norms and pressures, family tension, mass and social media, and economic factors.

### RESULTS

To answer the research question, “*What are the sociodemographic characteristics (age, education level, employment status, and number of children) of women attending the gynecology clinic at Queen Alia Military Hospital?*”, frequencies and percentages were calculated for each variable. The results are presented in Tables (1–4):

**Table 1: Age Distribution of Respondents.**

Age Category	Frequency	Percent
Under 20	0	0.0%
20–29	94	30.8%
30–39	177	58.0%
40 and above	34	11.1%
Total	305	100.0%

The age distribution of the participants who responded in the study is displayed in Table (1). 305 total participants were surveyed, with the largest proportion being women in the 30–39 years age range (177 respondents; 58.0%), followed by 20–29 years (94 respondents; 30.8%). The smallest proportion of participants were 40 years and older (34 women; 11.1%). Importantly, none of the =participants were listed in the under 20 years category.

Overall, the findings indicate that the majority of women attending the gynecology clinic at Queen Alia Military

Hospital during the study period were in their reproductive peak age group (20–39 years), with the age group 30–39 years being the most dominant among the respondents.

**Table 2: Education Level of Respondents.**

Education Category	Frequency	Percent
Primary	14	4.6%
Secondary	107	35.1%
University & above	184	60.3%
<b>Total</b>	<b>305</b>	<b>100.0%</b>

The education status of those who participated in the study is presented in Table (2). Among the 305 subjects who participated in the study, 184 women (60.3%) held a university degree or higher to the question of education. The participants reported secondary education as the second most common level of education with 107 participants (35.1%) indicating this level, with a small number of 14 women (4.6%) reporting only primary education.

Overall, the results suggest that most women visiting the gynecology clinic at QAMH at the time of data collection had some education, and a good proportion of women reported some university education or degree. The distribution of educational background may be representative of women's access to higher education in Jordan, especially in urban or institutional contexts in the healthcare system.

**Table 3: Employment Status of Respondents.**

Employment Category	Frequency	Percent
Unemployed	183	60.0%
Employed Part-time	1	0.3%
Employed Full-time	119	39.0%
Total (Valid = 303)	303	99.3%
Missing (No Response)	2	0.7%
<b>Grand Total</b>	<b>305</b>	<b>100.0%</b>

The employment status of the respondents is displayed in Table (3). Of the 305 participants, valid responses were received from 303 women; the majority of the participants—183 women (60.0%)—identified as unemployed. Fewer of the respondents identified as

employed full-time, which were 119 participants (39.0%), and there was only 1 respondent (0.3%) who identified as employed part-time. Two participants (0.7%) respondents were marked as missing from that variable. The data suggests that the sample contained a majority of women that were attending the gynecology clinic at Queen Alia Military Hospital during the data collection period that identified as unemployed, followed by a fair amount that identified as employed full-time, and very few participants that identified as employed part-time.

**Table 4: Number of Children of Respondents.**

Number of Children	Frequency	Percent
1	77	25.2%
2	90	29.5%
3	73	23.9%
4	38	12.5%
5	15	4.9%
6	9	3.0%
7	2	0.7%
8	1	0.3%
<b>Total</b>	<b>305</b>	<b>100.0%</b>

Table (4) illustrates the breakdown of participants based on their family size. A total of 305 women were surveyed, with the highest percentage, 90 participants (29.5%) having two children; followed by 77 women (25.2%) with one child; while 73 participants (23.9%) indicated that they have three children; while smaller family sizes included 38 women (12.5%) with four children, and 15 women (4.9%) with five children.

A small number of women reported larger families, with 9 women (3.0%) having 6 children, 2 women (0.7%) having 7 children, and 1 woman (0.3%) with eight children. The findings indicate that the majority of women that attended the gynecology clinic at Queen Alia Military Hospital had between one and three children and families larger than five children were not common among participants in this study. The findings indicate that the majority of women that attended the gynecology clinic at Queen Alia Military Hospital had between one and three children and families larger than five children were not common among participants in this study.

**Table 6: Domain Scores with Verification Degree and Ordering.**

Order	Domain	Mean	Std. Deviation	Verification Degree
1	Understanding & Knowledge	3.82	0.56	High
2	Interaction with Healthcare	3.77	0.63	High
3	Outcomes & Expectations	3.72	0.56	High
4	Access & Resources	3.50	0.53	Moderate
5	Additional Considerations	3.48	0.39	Moderate
6	Motivations & Preferences	3.09	0.61	Moderate
—	Total	3.56	0.36	Moderate

Table (6) presents the mean scores, standard deviations, and verification degrees for the study domains. The total score across all domains had a mean of 3.56 with a

standard deviation of 0.36, indicating a moderate level overall for the participants' responses across the six domains.

There was the highest mean score for the domain of Understanding & Knowledge ( $M = 3.82$ ,  $SD = 0.56$ ) which placed it in the first rank with a high verification degree, indicating participants had a good level of knowledge and understanding regarding cesarean sections in comparison to other components measured in the study.

The second highest domain was Interaction with Healthcare ( $M = 3.77$ ,  $SD = 0.63$ ), classified as high, indicating that participants reported positive interaction with healthcare professionals. The third domain was Outcomes & Expectations ( $M = 3.72$ ,  $SD = 0.56$ ), which also showed high degree of verification as participants had positive expectations around outcomes of delivery.

The remaining domains—Access & Resources (Mean = 3.50,  $SD = 0.53$ ), Additional Considerations (Mean = 3.48,  $SD = 0.39$ ), and Motivations & Preferences (Mean = 3.09,  $SD = 0.61$ )—all scored at a moderate level, with Motivations & Preferences ranking last, indicating more variability in personal or cultural influences on delivery preferences.

The researcher looked at the participants' responses to the ten items in the Understanding & Knowledge domain to respond to the second research question, "What is the level of understanding of what a cesarean section is and the potential complications [associated with it]?" The mean and standard deviations were calculated for all items, which will be used to determine the level of knowledge and awareness of the women at the gynecology clinic at Queen Alia Military Hospital.

**Table 7: Descriptive Statistics for Understanding and Knowledge.**

Item No.	Item Statement	Mean	Std. Deviation	Order	Verification Degree
Q4	I believe that cesarean sections should only be performed for medical necessity.	4.76	0.595	1	High
Q5	I feel confident in making informed decisions about my delivery method.	4.45	0.643	2	High
Q6	I am influenced by stories or experiences shared by friends and family about cesareans.	4.20	1.048	3	High
Q8	I believe scheduling a cesarean section offers more convenience than natural birth.	4.18	1.179	4	High
Q10	I think a cesarean section is less stressful for the child than natural birth.	4.14	1.066	5	High
Q9	I am concerned about the pain associated with natural childbirth.	4.06	1.406	6	High
Q1	I have a good understanding of what a cesarean section entails.	3.97	0.653	7	High
Q7	Media and internet have influenced my perception of cesarean sections.	3.26	1.340	8	Moderate
Q2	I am aware of the potential complications associated with cesarean sections.	2.79	1.078	9	Moderate
Q3	Cesarean sections are safer than natural births.	2.43	1.565	10	
<b>Total</b>		<b>3.82</b>	<b>0.50</b>	—	<b>High</b>

Table (6) contains descriptive statistics for the Understanding & Knowledge domain. The mean score for all ten items was 3.82, with a standard deviation of 0.50, indicating a high degree of verification. This suggests that, on average, participants exhibited a strong understanding and awareness of cesarean sections, as well as factors related to cesarean section.

The top-ranked item was, "I feel that cesarean sections should be performed only when it is medically necessary" (Q4), with a mean of 4.76 and a standard deviation of 0.59, which indicates a high degree of verification. This means that there was a tendency for the participants to strongly agree that cesarean sections should not take place without medical necessity.

The second-highest item was "I feel confident in making informed decisions about my delivery method" (Q5),

which had a mean score of 4.45 and a standard deviation of 0.64, indicating that participants felt empowered to make decisions about how to deliver the sessions.

The influence of family experience (Q6, Mean = 4.20), scheduling convenience (Q8, Mean = 4.18), and worries about childbirth pain (Q9, Mean = 4.06) were also rated highly and had high verification degrees.

In comparison, the lowest means occurred in Q3: "Cesarean sections are safer than natural births" (Mean = 2.43) and Q2: "I am aware of the potential difficulties with cesarean sections" (Mean = 2.79), both demonstrating a moderate level of agreement. This implies a lack of knowledge about risks and perceived safety regarding cesarean sections.

To respond to the third research question, "What are the motivations and/or preferences that influence women's decisions regarding cesarean sections in Queen Alia Military Hospital?", the interviewees were required to provide their opinion on the five items under the

category of Motivations and Preferences. Mean scores and standard deviations were calculated for each item to gain insight into personal, cultural, or emotional reasoning women may have drawn upon in relation to the mode of delivery they preferred, see Table (8):

**Table (8): Motivations and Preferences Domain with Order and Verification Degree.**

Item No.	Item Statement	Mean	Std. Deviation	Order	Verification Degree
Q11	I prefer to have a cesarean section for my next delivery.	4.00	1.276	1	High
Q15	Fear of labor pains influences my preference for a cesarean section.	3.87	1.492	2	High
Q13	I might request a cesarean section even if there is no medical need.	2.86	1.393	3	Moderate
Q14	Cultural or family influences affect my choice of delivery method.	2.79	1.184	4	Moderate
Q12	I prefer natural birth for my next delivery.	1.92	1.423	5	Low
<b>Total</b>		<b>3.09</b>	<b>0.61</b>	—	<b>Moderate</b>

Table (8) displays the descriptive statistics for the Motivations and Preferences domain, which shows the participants' reasons and attitudes in their selection of delivery method. Overall, the mean score for this domain was 3.09 with a standard deviation of 0.61, reflecting moderate verification degree on the mean score across all five items.

The item that ranked highest was "I want to have a cesarean delivery for my next delivery" (Q11) with a mean of 4.00 and standard deviation of 1.28 with overall high level of agreement. This suggested that many of the participants indicated that they preferred a cesarean delivery for their next pregnancy.

Following Q15, which revealed that "Fear of labor pains determines my desire to have a cesarean section" (mean: 3.87; SD: 1.49) to be the second most strong factor and high scoring, suggested being afraid of labor pain is a strong impact on women's choices in labor, Q12 was the

lowest ranked and rated negatively, being "I would like to have a natural birth for my next child" (mean: 1.92; SD: 1.42), a low verification rating, showing women did not choose vaginal delivery, but cesarean delivery. Q13 (Mean = 2.86), "I would request a cesarean section even without medical need," as well as Q14 (Mean = 2.79), which stated "Cultural/family influences are factors in my choice of delivery the mode of delivery," had moderate ratings of their ability to influence delivery decisions.

To respond to the fourth research query: "What is the availability of information, resources, or healthcare services affecting women's choices for cesarean sections at Queen Alia Military Hospital?" not the five items in the Access and Resources domain were examined. We calculated the mean scores and standard deviations of availability of information, clarity of guidance, financial concerns, and accessibility of support services in the hospital on women's choices for mode of delivery.

As shown in Table (9)

**Table 9: Access and Resources Domain with Order and Verification Degree.**

Item No.	Item Statement	Mean	Std. Deviation	Order	Verification Degree
Q20	I have access to healthcare services that support my preferred method of delivery.	4.49	0.748	1	High
Q16	I have easy access to information about cesarean sections.	4.06	0.793	2	High
Q17	Reliable information about the risks and benefits of cesarean sections is easily available to me.	3.07	1.265	3	Moderate
Q18	I find it difficult to get clear guidance on choosing a delivery method.	1.65	1.026	4	Low
Q19	Financial considerations affect my choice of delivery method.	1.30	0.696	5	Low
<b>Total</b>		<b>3.50</b>	<b>0.53</b>	—	<b>Moderate</b>

Table (9) illustrates the data representation for the Access and Resources area which evaluates access to information, guidance and healthcare that inform women's choices about delivery. The overall mean score for the Access and Resources area was 3.50, with a standard deviation of 0.53, indicating a moderate verification level across all five items.

The item with the most significance was "I have access to healthcare services that support my preferred method of delivery" (Q20) with a mean score of 4.49 and standard deviation of 0.75, which translates to a high verification degree. This suggests that a majority of participants indicated they have access to healthcare services that provide support when selecting the way they will deliver. The second most significant item "I have easy access to information regarding cesarean sections" (Q16) had a mean score of 4.06 (SD = .79), meaning verification degree was relatively high as well,

and demonstrating that there was enough support for women regarding information to help their decisions.

On the other hand, the lowest mean scores experienced for "I find it difficult to get clear guidance on choosing a delivery method" (Q18, Mean = 1.65, SD = 1.03) and "Financial considerations affect my choice of delivery method" (Q19, Mean = 1.30, SD = 0.70), we will consider both items to be the low verification degree range, indicating that participants did not generally indicated financial and guidance influence in decision making as minor factors in delivery.

The question "I can easily get reliable information about the risks and benefits of cesarean sections" (Q17) had a mean value of 3.07 (SD = 1.27), and fell within the moderate range, indicating that the accessibility of high-quality and reliable information about cesarean sections' risks and benefits can be improved.

**Table 10: Interaction with Healthcare Domain with Order and Verification Degree.**

Item No.	Item Statement	Mean	Std. Deviation	Order	Verification Degree
Q24	My healthcare providers respect my preferences and decisions about delivery methods.	4.38	0.643	1	High
Q22	My healthcare providers give me enough time to discuss my questions and concerns.	4.36	0.827	2	High
Q23	I trust my healthcare providers' recommendations regarding the mode of delivery.	3.94	0.949	3	High
Q25	I feel supported by my healthcare providers throughout the decision-making process.	3.20	0.760	4	Moderate
Q21	I feel comfortable discussing delivery options with my healthcare providers.	2.95	1.250	5	Moderate
<b>Total</b>	<b>Overall Score for Interaction with Healthcare Domain</b>	<b>3.77</b>	<b>0.63</b>	—	<b>High</b>

To address the fifth research question, "What are the outcomes and expectations of women regarding cesarean sections at Queen Alia Military Hospital?", the participants' responses to the five items under the Outcomes and Expectations domain were analyzed.

Mean scores and standard deviations were calculated for each item to explore women's concerns about complications, expectations for recovery support, perceived effects on future pregnancies, and the overall childbirth experience. As presented in Table (11):

**Table 11: Outcomes and Expectations Domain with Order and Verification Degree.**

Item No.	Item Statement	Mean	Std. Deviation	Order	Verification Degree
Q28	Recovery from a cesarean section is harder than recovery from natural birth.	4.66	0.775	1	High
Q30	The method of birth will significantly affect my overall birth experience.	4.07	0.836	2	High
Q26	I am concerned about potential complications from a cesarean section.	3.67	0.928	3	Moderate
Q29	I expect to receive adequate support during recovery, regardless of the method of delivery.	3.12	0.915	4	Moderate
Q27	A cesarean section will affect my future pregnancies.	3.09	1.247	5	Moderate
<b>Total</b>	<b>Overall Score for Outcomes and Expectations Domain</b>	<b>3.72</b>	<b>0.56</b>	—	<b>High</b>

The results for the Outcomes and Expectations domain, which explored women's concerns, expectations, and perceptions of the impact and recovery experiences around Cesarean-Section births, are presented in Table. (11). The mean score across all five items for the Outcomes and Expectations domain was 3.72 with a standard deviation of 0.56 indicating high verification across all five items. For example, the highest rated item, "Recovery from a cesarean section is harder than recovery following natural birth" (Q28), had a mean of 4.66 and a standard deviation of 0.78 indicating high verification and that most women reported a strong level of agreement that recovery from cesarean section was harder than recovery following natural childbirth.

The next item with the highest rating was "The method of delivery is going to influence my overall birth experience" (Q30) with a mean of 4.07 (SD = 0.84) which showed a high level of confirmation as well which indicated that participants felt that the method of delivery influenced their overall birth experience.

In contrast, the item, "A cesarean section will affect my future pregnancies," (Q27) had the lowest mean score with a score of 3.09 (SD= 1.25), which is in the moderate agreement range as well. This means respondents

appeared ambivalent or did not strongly agree that a cesarean delivery could have future consequences on future pregnancies.

Likewise, "I expect to have adequate support during recovery, regardless of the method of delivery" (Q29, Mean= 3.12) and "I am concerned, especially, about complications related to this cesarean section" (Q26, Mean= 3.67) also appeared in the moderate range, which suggests a range of concern and expectations among women in the current sample around the topics post delivery support and complications, respectively.

In addressing the 6th research question, "What other factors influence women's decisions about cesarean section at Queen Alia Military Hospital?", the participants' responses to the five items contained within the Additional Considerations domain were analyzed. The mean scores and standard deviations were computed to examine the women's confidence in their delivery options, satisfaction with the information provided to them during care, pressures from others, and interest in educational materials.

As presented in Table (12):

**Table (12): Additional Considerations Domain with Order and Verification Degree**

Item No.	Item Statement	Mean	Std. Deviation	Order	Verification Degree
Q34	I believe my personal health condition requires a cesarean section.	4.44	0.768	1	High
Q35	Overall, I am confident about my choice of birth method.	4.37	0.821	2	High
Q33	I wish to have more educational resources about the risks and benefits of cesarean sections.	4.15	0.889	3	High
Q30	The method of birth will significantly affect my overall birth experience.	4.07	0.836	4	High
Q32	I am satisfied with the information provided to me about birth options.	2.88	1.225	5	Moderate
Q31	I feel pressured by others to choose a specific method of birth.	1.57	1.011	6	Low
<b>Total</b>		<b>3.48</b>	<b>0.39</b>	—	<b>Moderate</b>

Table (12) outlines the results in the domain of Additional Considerations, which included participant confidence, satisfaction with information, desire for educational materials related to cesarean section (CS), and external pressure related to birthing preference. The overall mean on this domain was 3.48 (SD = 0.39), represented a moderate degree of verification for the five items within the domain.

The highest item expressed was "I believe my personal health condition requires a cesarean section" (Q34), with a mean score of 4.44 (SD = 0.77), indicating a high degree of verification. This suggests that many women felt their health status justified their decision to have a CS.

The second highest level was expressed as "Overall, I am confident about my choice of birth method" (Q35) with a mean score of 4.37 (SD = 0.82), also indicating a high degree of verification, exhibiting that the majority of the participants were confident about their decision about their delivery method.

Additionally, "I wish to have more educational resources about the risks and benefits of cesarean sections" (Q33) received a score of 4.15 (SD=0.89), indicating a strong desire for further educational resources.

Conversely, item "I feel pressured from someone to choose a certain method of birth" (Q31) received the lowest score (mean response = 1.57; SD = 1.01), which demonstrates a low level of verification and indicates

that pressure from others was not a significant concern for many of the participants in this study. Similarly, “I feel satisfied with the information I received about birth options (Q32; Mean = 2.88)” was in the moderate verification level, and it indicates that the participants felt somewhat satisfied but there could be room for improvement regarding the amount and quality of information about delivery options provided to women.

### Discussion of the Findings

#### Overall Understanding and Awareness

Overall, the findings reflect a high level of understanding among women about cesarean births and delivery practices, with an average understanding score of 3.82. Participants strongly agreed cesarean births should only be done if medically indicated and felt confident they would make an informed decision about their mode of delivery. These outcomes mirror the findings from Abuhammad *et al.* (2021), which noted women in Jordan are becoming more aware of the risks of medically unindicated cesarean births and are more worried about their safety than convenience. Moreover, Hatamleh *et al.* (2019) found women indicated and reported an increased awareness of the medical indications that led to their decision-making processes related to the mode of delivery.

From there, the moderate scores on knowledge of potential complications due to a cesarean birth compared to a natural birth and in regards to the safety of cesarean births compared to natural birthed explain some of the existing gaps in health education, which has been noted in the literature<sup>[15]</sup>; therefore, there is a need for improved maternal education programs about delivery and, ultimately, to prepare the woman to make fully informed decisions regarding their delivery options.

#### Motivations and Preferences

The results suggested that the fear of labor pain and a preference for cesarean section had the strongest motivators for preferences and moderate weight was also attributed to cultural and family factors. The findings corroborated those of Hatamleh *et al.* (2019) who stated that fear of labor pain was indicated as an important factor for healthy Jordanian women to choose cesarean birth for non-medical reasons and Alzboon (2020) who reported comfort with a decision-making process and safety perceptions were similarly important variables in the mode of delivery preferences.

The low preference level of natural birth is different than the preference outcomes from earlier studies by Mohammad *et al.* (2023), who concluded that supportive intrapartum care increased women’s confidence in their decisions to have vaginal births; hence, healthcare provided as an intervention may influence women to change their preference towards natural birth when sufficient pain management and emotional support are provided.

#### Access and Resources

The research reported high access to healthcare services, but only moderate access to trustworthy information about risks and benefits of these services. This is in accordance with Al Qerem *et al.* (2024) who said that even though Jordanian women had reached the hospitals or clinics, they did not have access to comprehensive and evidence-based information regarding maternal health interventions.

The low scores for economic barriers indicate that financial circumstances are a minimally important factor in choice of delivery at the Queen Alia Military Hospital. This is consistent with Al-Rawashdeh *et al.* (2022), who indicated that c-section disparities in Jordan are associated more with regional and educational differences than with economic considerations.

#### Interactions with Healthcare Providers

There were also high levels of trust and respect for providers, as indicated by high agreement for having sufficient time to speak with, and encouragement during, counselling. This was similar to findings from Alyahya *et al.* (2019) that also indicated that good relationships with providers would contribute toward maternal satisfaction and positive decision-making regarding delivery preference. Although, moderate scoring for comfort discussing the preferred delivery method suggests there is still some gains to be made for further improvements to patient-centred communications; as indicated by Mrayan *et al.* (2024) for the active role of women in decision-making about labour being associated with positive outcomes and satisfaction.

#### Outcomes and Expectations

Women frequently voiced concerns pertaining to the implications of their postpartum experiences around childbirth, and those concerns reflected their prior experiences related to childbirth. These concerns aligned with previous work by Muhaidat & *al.* (2023) wherein the visual aspects of Cesarean section could influence women’s emotional experiences and their satisfaction. In addition, women reported moderate anxiety regarding future pregnancies, which also aligns with the previous work by Al-Husban *et al.* (2023) in which misunderstandings of Cesarean sections may contribute to long-term health consequences and additional postnatal education and support should be considered.

#### Additional Considerations

Participants indicated that they felt quite confident in their decision-making around delivery, and they wanted more educational resources to consider. This supports Azzam *et al.* (2023) who suggests that antenatal education programs can help empower women think about informed decisions about delivery.

The limited influence of external pressure differs from Hatamleh *et al.* (2019), who reported that family preference often influenced women’s delivery decisions.

Younger women and women with greater levels of education may be feeling more empowered in their delivery decisions today than in previous cohorts.

## CONCLUSION

This research inquired into factors that contribute to the deliberation of cesarean section among women who attend Queen Alia Military Hospital in Jordan. Data collected from six domains (Understanding & Knowledge, Motivations & Preferences, Access & Resources, Engagement with Health Providers, Outcomes & Expectations, and Other Factors), creates an elaborate depiction of women's perspectives, knowledge, and decision-making regarding cesarean section.

Overall, the findings demonstrated women's understanding of cesarean section was high, and women were confident in their decisions during pregnancy; however, strong motivational factors such as fear of labor pain, convenience, and health-related factors influenced a woman's decision of delivery.

This study corroborates research showed studies showing that a woman's previous experience, and their psychological comfort were sometimes more important considerations than medical indications when making a decision.

The study also provided an assurance of good access to maternal health services and a provided an assurance of positive experience with service providers, which was in agreeance with the quality of maternal care reported by Alyahya et al., 2019. Additionally, there was moderate access to reliable educational materials, and limited awareness of potential risks and long-term implications indicating areas for health education.<sup>[16][17]</sup>

In addition, although it was stated that most participants felt minimal pressure from outside sources regarding delivery decision making, the request for more educational tools indicates a direction for programming to help give women more self-agency to make informed decisions that positively impact maternal and neonatal outcomes.

In summary, the research is important for identifying an important area of need which is to enhance health education to address information gaps and uncertainty regarding pain, while also addressing misconceptions, all healthy maternal education and counseling, and supportive care, may limit unneeded cesarean births and promote evidence-based decision-making in line with best maternal health practices in Jordan.

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