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EXPLORING FACTORS INFLUENCING THE MODE OF DELIVERY CHOICES AMONG JORDANIAN WOMEN

Hala Bawadi[1]. Zaid Al-Hamdan[2]*, Nagham Abu Shaqra[3], Maher Maaitah[4], Abdelmanie Suleimat[5], Asma Basha[6], Shawqi Saleh[7], Mohammad Al-Hamdan[8], Mazen El -Zibdah[9], Raja Khater[10], Awab Al-Hamdan [11]Ahmad Abdulla[12]

[1]Professor, Department of Maternal and Child Health, School of Nursing, University of Jordan. h.bawadi@ju.edu.jo
[2]Professor. Community and Mental Health Department, Faculty of Nursing, Jordan. University of Science and Technology zaid_hamdan@hotmail.com; zmhamdan@just.edu.jo, https://orcid.org/0000-0001-6086-2428, https://orcid.org/ 0000-0001-9488-6313
[3]MD, Senior Population and Health Advisor/ nabuhaqra.md@gmail.com
[4]Dr. former chief of the Obstetrics and Gynecology Department at Royal Medical Services mmaaita@hotmail.com
[5]Dr. Chief of Obs/Gyn Specialty at the Ministry of Health drsmane10@yahoo.com
[6]Prof. Director of Obstetrics and Gynecology, The University of Jordan and Jordan University Hospital bashaasma@yahoo.com
[7]Professor of Obstetrics and Gynecology, University of Jordan. sssaleh@ju.edu.jo
[8]MD The University of Jordan. mohammed.alhamdan88@gmail.com
[9]Dr. Obstetrics and Gynecology Consultant at the Private Sector drmazen@go.com.jo
[10]Dr. Senior Service Delivery Advisor, Health Services Quality Accelerator Activity/University Research Company rkhater@urc-chs.com
[11]MD Student, The University of Jordan. AOA0235235@ju.edu.jo
[12]Dr. specialist, obs/gyn specialist; Ahmad.fabdulla@hotmail.com

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Corresponding Author: Zaid Al-Hamdan (zmhamdan@just.edu.jo)

ABSTRACT

The birthing process presents women with both physical and emotional challenges. Recently, there has been a global increase in the use of cesarean section (CS), especially elective CS, in Jordan. The evidence suggests that numerous factors encourage women to opt for a Cesarean section (CS) over a normal delivery. This study identifies the factors that influence Jordanian women's preferences regarding the mode of delivery. This cross-sectional study focused on Jordanian women in the second or third trimester of pregnancy. They were all either primiparous or para-one. The data were collected via a structured self-administered questionnaire comprising 52 questions. The study sample comprised 432 women, more than half of whom (57.2%) were aged 25--34 years. Approximately two-thirds (63.0%) were in their third trimester of pregnancy. The most reported source of information about maternal health and pregnancy was doctors (81.5%), followed by nurses (39.6%). The average knowledge score was 71.4%. The women preferred normal vaginal delivery over Cesarean section. They had incorrect beliefs (30%) about both modes of delivery, with an average of 70%. Additionally, they were not

significantly involved in the decision-making process. Research has revealed that the level of Jordanian women's knowledge regarding delivery methods varies significantly by geographic location and educational level. The results highlight the benefits of creating programs to teach women about the advantages and disadvantages of both CS and vaginal delivery. Both have particular benefits, risks, and consequences. Possessing appropriate knowledge would assist women in making informed decisions regarding which mode of delivery better suits their circumstances.

KEYWORDS: Mode of Delivery Decisions; Cesarean Section; Vaginal Birth; Knowledge And Belief.

1. INTRODUCTION

1.1. Background

Child labor presents women with both physical and emotional challenges. Presently, women are increasingly given the opportunity to choose which mode of delivery they prefer, with increasing numbers opting for CS rather than vaginal delivery. This phenomenon is found in countries across the board, regardless of income level (1). Undoubtedly, CS delivery is sometimes necessary and even essential, but there are concerns that women and healthcare providers, particularly in low- and middle-income countries (LMICs), are increasingly planning CS deliveries on the basis of personal preferences and beliefs rather than medical necessity, exposing women to potential risks (2) (3, 4). The increasing rate of CS deliveries around the world is worrying. According to the World Health Organization (WHO), the global average percentage of C-sections is approximately 21%, which is above the recommended 15%. In Jordan, CS rates have risen as they have in many regions of the world in recent years [1]. The Jordanian Population and Family Health Survey 2017--2018 reported that the C-section rate in 2018 was 26%.

(5) point to numerous reasons why women opt for CS rather than vaginal delivery. These include poor previous birth experiences, fear of childbirth, safety concerns, cultural perceptions, and healthcare provider recommendations. This decision is sometimes ill informed and taken by women who lack adequate knowledge regarding the two modes of delivery (6). Without a doubt, a woman's perception and knowledge of CS significantly influence her choice (7), although previous experiences of childbirth inevitably play a role (8).

Differences in healthcare professionals' practice styles, concerns about medical litigation, and various organizational and healthcare system factors have resulted in an increase in CS deliveries (4, 9, 10). Other contributing factors are varying standards of medical practice between countries, the convenience associated with CS, the fear of legal actions, and financial considerations (11).

Social and economic factors can significantly impact the prevalence of cesarean section (CS). Women marry later and/or delay their first pregnancy. The age of marriage for females in Jordan has increased from 22.1 years in 2015 to 22.7 years in 2022 (DoS 2023). Women with previous babies or those who are conceived via IVF (Rai et al 2023) Older primiparous women are more likely to be at high risk and, therefore, more likely to receive advice from healthcare professionals to deliver via CS, with the goal of achieving better outcomes (12). Research suggests that concern for body image also affects women's choice of mode of birth (Khosravi et al., 2023).

Like most countries, Jordan has seen a recent rise in CS rates, including those for elective CS (13). When this matter is discussed with physicians, the increase is linked to the rising demand for CS among women. This prompts comprehensive research into the factors driving women's choices regarding preferred methods of delivery. Therefore, this research focuses on women's preferences for child delivery and the drivers behind their decisions. It also looks at women's autonomy levels in making this decision while assessing women's knowledge and preferences toward the modes of birth.

2. METHODS

2.1. Design and Data Collection

We conducted a cross-sectional study using a five-part questionnaire as follows: demographic variables and maternal history (21 questions); knowledge regarding mode of delivery (11 questions); preference toward normal and vaginal delivery (9 questions); belief about mode of delivery (12 questions); and the decision-making process for primiparous women (10 questions) and the decision-making process toward mode of delivery for para-one women (10 questions). Each of the scales used was evaluated for internal consistency reliability via Cronbach's alpha. Face and content validity was ensured through a literature review and evaluation by three domain experts. All scales demonstrated moderate to high internal consistency reliability, with Cronbach's alpha values of 0.81 and above."

2.2. Setting and Participants

The participants were recruited from five maternity units at tertiary care hospitals and five health care centers in both the private and public health sectors in Jordan, with recruitment taking place from November 2023 to February 2024. The head nurse of prenatal care identified women who met the inclusion criteria for the research team. All Jordanian women in prenatal care in the second or third trimester, primiparous or para-one, were invited to participate. On the basis of a power analysis, a sample size of 350 was considered sufficient for the study. Research assistants interviewed 432 participants, helping them complete the questionnaire. The sample size was increased to minimize bias associated with a convenience sample.

2.3. Ethical Approval

Ethical approval for the study was obtained from the Institutional Review Board (IRB) of the first author's university. Participants were informed about the study objectives, voluntary nature of participation, anonymity, and confidentiality on the first page of the questionnaire. Returning the complete questionnaire was considered as implied informed consent. No personal identifiers were collected. The IRB confirmed that written or verbal consent was not required because the return of the questionnaire indicated participants' agreement to participate. The study did not involve any minors.

2.4. Data Analysis

Descriptive statistics were used to summarize the study variables using means and standard deviations for variables and frequencies and proportions for categorical variables. Stepwise regression with backward elimination was used to identify only significant variables that impact women's knowledge regarding normal delivery, preference toward CS delivery, and beliefs.

To predict decision-making (for both primipara and para-one pregnant women), we initially conducted an analysis of variance (ANOVA) to test the differences among groups in terms of participant characteristics. We added the variables identified through ANOVA to the hypothesized predictors (knowledge, preference toward normal delivery, preference toward CS delivery, and beliefs). The assumptions for the regression models were evaluated, including the linear relationship, absence of multicollinearity, and normality and homoscedasticity of the residuals.

3. RESULTS

3.1. Sample characteristics

The final sample included 432 participants. Table 1 summarizes the characteristics of the sample. More than half (57.2%) were aged between 25 and 34 years, and the mean age at marriage was 24.1 years. A little less than half (46.1%) had been married for 1-3 years; approximately 64% of the participants held a bachelor's degree. With respect to their husbands' education levels, 50.7% had an undergraduate degree. The participants predominantly resided in urban areas (65.5%), with 44.2% living in North China, 40.7% in Central China, and 15.0% in South China. More than half of the women (53.5%) were unemployed, and their husbands' employment was mainly in the public sector (65.5%) and private sector (25.7%). Family income (in Jordanian dinars) varied, with 33.1% of families in the 401--620 bracket, followed by less than 400 (24.8%), 621--832 (15.7%), and 833--1040 (16.2%). Almost half of the women were experiencing their first pregnancy, and two-thirds (63.0%) of them were in their third trimester. More than half of the women (53.5%) had given birth once, whereas none reported having a previous miscarriage before 24 weeks (73.1%). Stillbirths after 24 weeks were reported by 6.5% of the participants, 12.5% acknowledged infertility issues, and 20.8% identified themselves as high-risk pregnancies. While 87.0% of the participants had not undergone any type of infertility treatment, of those who did, 6.7% had attempted in vitro fertilization treatment, 5.5% had tried fertility drugs, and 3.5% had resorted to intrauterine insemination. Surgery was the least reported method of treatment (1.2%).

Table 1: Characteristics of the Total Sample (n= 432).

Variable	Overall
Age (%)	
<18	6 (1.4)
18-24	106 (24.5)
25-34	247 (57.2)
35-44	63 (14.6)
45-49	10 (2.3)
Age at Marriage (mean (SD))	24.1 (4.2)
Years Married (%)	
<1	44 (10.2)
1-3	199 (46.1)
4-6	95 (22.0)
7-9	29 (6.7)
>9	65 (15.0)
Wife Education Level (%)	
Elementary School or Less	25 (5.8)
High School	104 (24.1)
Undergraduate	276 (63.9)
Postgraduate	27 (6.2)
Husband Education Level (%)	

Elementary School or Less	24 (5.6)
High School	166 (38.4)
Undergraduate	219 (50.7)
Postgraduate	23 (5.3)
Residence Region (%)	
Middle	176 (40.7)
North	191 (44.2)
South	65 (15.0)
Residence Place = Urban (%)	283 (65.5)
Wife Employment Status (%)	
Unemployed	231 (53.5)
Nonprofit Private	4 (0.9)
Public	137 (31.7)
Private	60 (13.9)
Husband Employment Status (%)	
Unemployed	32 (7.4)
Nonprofit Private	6 (1.4)
Public	283 (65.5)
Private	111 (25.7)
Pregnancy Age Weeks = Third Trimester (%)	272 (63.0)
Number Pregnancies (%)	
One	206 (47.7)
Two	139 (32.2)
>2	87 (20.1)
Number Births = 1 (%)	231 (53.5)
NumberMiscarriagesBefore24Weeks (%)	
0	316 (73.1)
1	79 (18.3)
>2	37 (8.6)
StillbirthsAfter24Weeks = *Yes* (%)	28 (6.5)
Infertility Issues = *Yes* (%)	54 (12.5)
High Risk Pregnancy = *Yes* (%)	90 (20.8)
Previous Birth = *Yes* (%)	228 (52.8)
Insurance Coverage Type (%)	
Public	196 (45.4)
Military	111 (25.7)
University	32 (7.4)
Private	56 (13.0)
No Insurance	37 (8.6)
Prenatal Care Location (%)	
Public	130 (30.1)
Military	44 (10.2)
University	38 (8.8)
Private	76 (17.6)
Multiple	144 (33.3)
Planned Hospital for Delivery (%)	
Public	174 (40.3)
Military	79 (18.3)
University	76 (17.6)
Private	91 (21.1)
Nonprofit	12 (2.8)

Figure 1 illustrates that the most trusted source of information about maternal health and pregnancy was doctors (81.5%), followed by nurses (39.6%) and family members (31.0%). Other common sources included the internet (30.6%), social media (21.5%), friends (17.1%), printed materials (6.71%), TV and radio (2.31%), and other unspecified sources (1.62%). (Insert figure 1 here). The insurance coverage types were mainly public (45.4%) and military (25.7%) insurance. Prenatal care location preferences included multiple locations (33.3%), public (30.1%), and private (17.6%). For planned hospital delivery, public hospitals were the most common choice (40.3%), followed by private hospitals (21.1%) and military hospitals (18.3%).

3.2. Knowledge, Preferences, Beliefs, and Decision-Making Regarding Delivery Methods

The average percentage of knowledge regarding delivery methods was 71.4%. The mean preference

score for normal delivery was 81.0% (24.3 out of 30), whereas the average preference for CS was 59.3% (). The belief system surrounding delivery modes scored an average of 73.3%. The decision-making scores for primiparous women averaged 70.0%, and for para-one women, the mean score was 70.7%, which indicates a moderate level of involvement in decision-making processes. The standard deviations were relatively small compared with the means, indicating a modest spread around the mean values.

3.3. Prediction of Knowledge Regarding the Preferred Mode of Delivery

Table 2 shows the results for predicting the level of knowledge among Jordanian women regarding delivery modes. Compared with the Middle Region, which served as the reference group (where capital and thus the best healthcare system are assumed), women from the North Region had a higher knowledge level by an estimate of 2.33 (95% CI: -3.72, -0.93; p = 0.001). Conversely, those from southern China presented a lower level of knowledge, with an estimate of -7.64 (95% CI: -9.62, -5.65; p < .001).

Having a high-risk pregnancy was associated with a greater level of knowledge about delivery methods, with an estimated increase of 2.4 (95% CI: 0.89, 3.92; p = 0.002). Compared with those receiving care at public health facilities, women attending university-related prenatal care locations presented a significant increase in knowledge level, with an estimate of 5.32 (95% CI: 2.79, 7.84; p < .001). Private care was also a predictor of increased knowledge, with an estimate of 2.33 (95% CI: 0.33, 4.32; p = 0.02), as was going to multiple care locations, which was associated with an increase of 2.93 (95% CI: 1.24, 4.62; p < .001). Prenatal care at military health facilities did not significantly predict knowledge level (estimate 0.09, 95% CI: -2.2, 2.37; p = 0.94).

Table 2: Prediction of Knowledge Regarding the Preferred Mode of Delivery among Jordanian Women (n= 432).

Variable	Estimate (95% CI)	P Value
Residence Region		
Middle	Reference	Reference
North	2.33 (-3.72, -0.93)	0.001
South	-7.64 (-9.62, -5.65)	<.001
High-Risk Pregnancy, Yes	2.4 (0.89, 3.92)	0.002
Prenatal Care Location		
Public	Reference	Reference
Military	0.09 (-2.2, 2.37)	0.94
University	5.32 (2.79, 7.84)	<.001
Private	2.33 (0.33, 4.32)	0.02
Multiple	2.93 (1.24, 4.62)	<.001

3.4. Prediction of Preference toward Normal Delivery

Compared with those in the middle region, women residing in the southern region had a lower preference score for normal delivery, with an average of 1.35 points (95% CI: -2.29, -0.41) (p=0.005). Upon comparison, no significant difference was found between women residing in North China and those in Central China (p=0.78). Compared with those with public insurance, women with military insurance had a lower preference score for vaginal births by an average of 0.82 points (95% CI: -1.6, -0.05, p=0.04), those with university coverage by 1.74 points (95% CI: -2.98, -0.5, p=0.006), and those with no insurance by 1.41 points (95% CI: -2.57, -0.26, p=0.02). However, no significant difference emerged between those with private insurance and those with public insurance (p=0.61).(Insert Table 3 here)

Table 3: Prediction of Preference toward Normal Delivery among Jordanian Women (n= 432).

Variable	Estimate (95% CI)	P Value
Residence Region		
Middle	Reference	Reference
North	0.1 (-0.58, 0.78)	0.78
South	-1.35 (-2.29, -0.41)	0.005
Insurance Coverage		
Public	Reference	Reference
Military	-0.82 (-1.6, -0.05)	0.04
University	-1.74 (-2.98, -0.5)	0.006
Private	-0.26 (-1.23, 0.72)	0.61
No Insurance	-1.41 (-2.57, -0.26)	0.02

3.4. Prediction of Preference toward CS

Table 4 shows the regression analysis exploring Jordanian women's preference for CS delivery. Compared with the reference group (aged <18 years), the 18–24- and 35–44-year-old groups showed a greater preference for CS, with estimates of 5.47 (95% CI: 0.91, 10.03, p=0.02) and 5.16 (95% CI: 0.43, 9.9, p=0.03), respectively.

Compared with those in the middle region, women residing in the northern and southern regions presented a lower preference for CS, with estimates of -2.42 (95% CI: -3.58, -1.25, p<.001) and -2.21 (95% CI: -3.92, -0.5, p=0.01), respectively.

The number of births a woman had was inversely related to the preference toward CS, with a decrease of -1.26 (95% CI: -2.42, -0.11, p=0.03) for each additional birth. Compared with those with no infertility issues, women with infertility issues had a greater preference for CS by 2.2 (95% CI: 0.59, 3.81; p=0.007).

Compared with those choosing public hospitals, women who planned to deliver at a university hospital had a significantly greater preference for CS, with an estimate of 1.98 (95% CI: 0.39, 3.58; p=0.02). Women who chose to deliver at military hospitals showed a borderline significant difference, with an estimate of 1.53 (95% CI: -0.02, 3.08; p=0.05).

However, the preferences for CS for those planning to deliver in private hospitals (p=0.11) and multiple hospital types (p=0.11) were not significantly different from those for those planning to deliver in public hospitals.

Table 4: Prediction of Preference toward CS among Jordanian Women (n= 432).

Variable	Estimate (95% CI)	P Value
Age		
<18	Reference	Reference
18-24	5.47 (0.91, 10.03)	0.02
25-34	3.35 (-1.21, 7.9)	0.15
35-44	5.16 (0.43, 9.9)	0.03
45-49	5.42 (-0.34, 11.18)	0.07
Residence Region		
Middle	Reference	Reference
North	-2.42 (-3.58, -1.25)	<.001
South	-2.21 (-3.92, -0.5)	0.01
Number of Births	-1.26 (-2.42, -0.11)	0.03
Infertility Issues, Yes	2.2 (0.59, 3.81)	0.007
Planned Hospital for Delivery		
Public	Reference	Reference
Military	1.53 (-0.02, 3.08)	0.05
University	1.98 (0.39, 3.58)	0.02
Private	1.24 (-0.28, 2.76)	0.11
Multiple	2.7 (-0.57, 5.98)	0.11

3.5. Prediction of Beliefs Regarding the Preferred Mode of Delivery

Table 6 shows the regression analysis used to identify predictors of beliefs regarding Jordanian women's preferred mode of delivery.

Compared with unemployed husbands, women whose husbands held private sector jobs had a significantly higher belief alignment score toward the two delivery methods, with an estimated increase of 2.59 (95% CI: 1.03, 4.14, p=0.001). Those with husbands employed in nonprofit private (p=0.58) and public (p=0.15) sectors showed no significant differences from those with unemployed husbands.

Women with university insurance coverage showed a significant decrease in their belief alignment score of -2.32 (95% CI: -3.99, -0.65, p=0.006). Those with no insurance also had a decrease in the belief alignment score of -1.78 (95% CI: -3.22, -0.33, p=0.02) compared with women with public insurance. The estimates for military (p=0.61) and private (p=0.1) insurance types did not significantly differ from those for public insurance.

Compared with those planning to deliver in public hospitals, women planning to deliver in university hospitals had a significantly higher belief alignment score, with an estimate of 1.46 (95% CI: 0.24, 2.68; p=0.02).

Compared with public hospitals, military (p=0.65), private (p=0.16), and nonprofit (p=0.88) hospitals showed no significant differences in belief alignment scores. (Insert Table 5 Here).

Table 5: Prediction of Beliefs Regarding the Preferred Mode of Delivery among Jordanian Women (n= 432).

Variable	Estimate (95% CI)	P Value
Husband Employment Status		
Unemployed	Reference	Reference
Nonprofit Private	0.96 (-2.46, 4.38)	0.58
Public	1.07 (-0.4, 2.54)	0.15
Private	2.59 (1.03, 4.14)	0.001
Insurance Coverage Type		
Public	Reference	Reference
Military	-0.36 (-1.77, 1.05)	0.61
University	-2.32 (-3.99, -0.65)	0.006
Private	-1.14 (-2.48, 0.21)	0.1
No Insurance	-1.78 (-3.22, -0.33)	0.02
Planned Hospital for Delivery		
Public	Reference	Reference
Military	-0.37 (-1.95, 1.21)	0.65
University	1.46 (0.24, 2.68)	0.02
Private	-0.81 (-1.94, 0.32)	0.16
Nonprofit	-0.18 (-2.52, 2.17)	0.88

3.6. Prediction of Decision-Making among Primipara Women

Preliminary ANOVA was used to assess the impact of participant characteristics (individually) on decision-making among primipara women. The results indicated a significant effect of residence region on decision-making scores ($F(2, 201) = 7.656$, $p<0.001$). There were no significant results for the remaining participant characteristics.

The regression analysis focused on identifying factors influencing decision-making among primipara Jordanian women, highlighting the significance of residence region (identified through ANOVA), knowledge, attitudes, and preferences toward normal delivery. Living in the southern region positively influenced participation in decision-making, with an estimated increase of 4.00 (95% CI: 2.37, 5.64, p<.001) compared with the middle region. However, residing in the North region had no significant effect on decision-making compared with residing in the Middle region.

An increase in knowledge about delivery modes was associated with a slight but statistically significant improvement in participation in decision-making, with an estimate of 0.09 (95% CI: 0.00, 0.18; p=0.04). A positive preference for normal delivery positively influenced decision-making, with an estimate of 0.27 (95% CI: 0.09, 0.45; p=0.003).

Table 6: Prediction of Decision-making among Jordanian Primipara Women.

Variable	Estimate (95% CI)	P Value
Residence Region		
Middle	Reference	Reference
North	0.12 (-1.12, 1.36)	0.85
South	4 (2.37, 5.64)	<.001
Knowledge	0.09 (0, 0.18)	0.04
Preference: Normal	0.27 (0.09, 0.45)	0.003

3.7. Prediction of Decision-Making among Para-One Pregnant Women

Since the preliminary ANOVA for evaluating the impact of individual participant characteristics on decision-making among para-one women yielded no significant results, none of these variables were entered into the regression model.

The regression analysis identified beliefs as the only significant predictor of decision-making regarding their preferred mode of delivery in this group. The analysis revealed that an increase in positive beliefs about the delivery mode is associated with a substantial improvement in participation in decision-making, with an estimate of 0.59 (95% CI: 0.4, 0.77, p<.001).

4. DISCUSSION

A comprehensive analysis of the study's results revealed useful insights into Jordanian women's preferred mode of delivery, which has significant implications for maternal healthcare practices and policymakers. The study presented valuable information about the participants, their clinical characteristics, and sources of information about pregnancy issues before the determinants of participants' knowledge, preferences, beliefs, and decision-making surrounding delivery modes were explored.

Previous studies by (5, 14, 15) have shown that doctors and nurses are the primary sources of information, suggesting a high level of trust in formal

healthcare advice in guiding informed decision-making about childbirth. The growing trend of seeking medical information via the internet and social media, while highlighting the importance of digital platforms in disseminating health information, raises questions about reliability and accuracy. With respect to insurance, there is a clear, significant reliance on government-supported healthcare services. The inclination toward more affordable and accessible public hospitals for planned deliveries suggests that pregnant women prioritize economic factors in their healthcare decisions.

Like (12, 16), the current study identified a moderate level of knowledge among the participants. Matemanosak and Suwanrath (2021) reported that the knowledge of modes of birth among their sample was poor. (17)The current study revealed that women residing in northern Jordan were more knowledgeable about delivery modes than those in the middle region were. Women in the South region had the lowest knowledge levels. Women with high-risk pregnancies displayed good knowledge, perhaps because they necessarily have greater interaction with healthcare professionals. Women receiving prenatal care at university-affiliated facilities had the highest knowledge levels, followed by those receiving care at private and multiple locations, suggesting the quality of information available at these locations. Care at military facilities did not significantly affect knowledge levels. Women receiving care at university-affiliated facilities often have health insurance through university employment, indicating higher education levels and better access to information. Similarly, women at tertiary hospitals may actively seek information due to medical intervention needs. Training programs at university-affiliated facilities may further increase patient knowledge. These factors likely contribute to better informed patients at university-affiliated and tertiary hospitals. These findings underscore the need for educational programs and prenatal care services that focus on informing women about modes of birth and their associated benefits and risks preconception and during antenatal care. Particular attention should be given to the potential risks of delivery via elective CS.

In the Jordanian context, it is imperative that policymakers address disparities in maternal healthcare planning that stem from regional and demographic factors. The existing preference differences across regions and insurance types could be addressed by creating educational programs that target, for example, regions with lower preferences for normal delivery. Insurance plans should present thorough and unbiased information about delivery modes (17, 18, 19, 20). Healthcare providers should consider demographic factors, such as age, number of births, and infertility issues, when advising pregnant women. Information and support should fit their individual case profile. Counseling sessions for primipara mothers or those with infertility issues offer a way of overcoming concerns about delivery methods, thus ensuring that women are equipped with accurate information that supports their childbirth decisions (21, 22). While physicians undoubtedly serve as the primary and most trusted source of knowledge on the subject, it is imperative to underscore the importance of providing them with specialized training in counseling and providing informed consent. This training ensures that physicians are adept at imparting the right knowledge and guiding women toward the best decisions regarding their mode of delivery.

This sample displayed moderate beliefs regarding the preferred mode of delivery. Women whose husbands worked in the private sector enjoy economic stability, a factor that clearly shapes childbirth preferences. This view is supported by studies conducted in similar Arab contexts (Al Busaidi et al., 2012) and other cultures (23).

Insurance coverage plays a significant role; individuals with university insurance or without insurance expressed fewer rights and beliefs than those covered by public insurance did, indicating potential inequalities in healthcare access and standards. Moreover, women intending to give birth in university-affiliated hospitals exhibited more positive beliefs than those opting for public hospitals did, implying perceived distinctions in the quality of care.

Geographical location, as well as knowledge and preferences toward childbirth, was found to influence the decision-making of primipara Jordanian women. The significant impact of living in southern China points to regional differences in healthcare access and cultural norms affecting decision-making. This issue clearly needs to be addressed through targeted healthcare strategies. Furthermore, the disparities identified in this study between urban and rural areas are corroborated by past findings. Kang et al. (2020) revealed positive associations between increased knowledge about childbirth options and decision-making and between favorable preferences for normal delivery and decision-making. Comprehensive educational interventions promote these associations, informing women of the benefits and risks involved in elective

CS and normal deliveries and enhancing their decision-making (24).

The results of this study provide evidence that an individual's perceptions affect their healthcare decisions. In particular, the para-one participants revealed the extent to which their decision-making was impacted by personal beliefs about delivery modes. This finding supports the view that women benefit from a policy of providing educational programs that enhance understanding and help to build positive preferences toward both normal and CS delivery by addressing common misconceptions and fears. The result would be a population of pregnant women who possess accurate information that facilitates confident decision-making about childbirth. To achieve these objectives, healthcare authorities need to take steps to ensure that prenatal services include belief-based counseling and education. Focus should be placed on understanding the concerns of para-one pregnant women, thus reinforcing positive perceptions and correcting misinformation. By aligning healthcare services more closely with the needs and preferences of expectant mothers, a greater number of women can conclude their pregnancies with a satisfactory and safe childbirth experience.

4.1. Strengths and Limitations

The strengths of this study include the reliability of the data collection tool and the large, diverse study sample. All regions of Jordan and various healthcare sectors were represented, rendering the data a suitable base for a thorough analysis of the maternal healthcare preferences of participants with varying demographic profiles. The findings offer useful insights into the regional disparities and preferences of Jordanian women regarding modes of delivery, highlighting the necessity of targeted policies aimed at enhancing maternal health services.

The study's emphasis on participants' perceptions rather than health outcomes represents a limitation. Additionally, despite the broad data achieved by self-administered questionnaires, this data collection tool carries a risk of inherent bias, which may impact the accuracy of the findings. The sample was diverse but did not include members of some marginalized communities in Jordan, such as the Bedouin, refugee, or non-Jordanian communities in Jordan. Thus, further research is needed to bridge these gaps. Longitudinal studies would provide a more detailed picture of the link between women's health knowledge and their preferences regarding birthing methods.

5. CONCLUSION

By exploring the needs and preferences of Jordanian pregnant women regarding modes of delivery, the researchers highlighted a need for the implementation of customized healthcare strategies in a bid to reduce regional healthcare disparities. Enhancing maternal education would enable women to make informed decisions about childbirth. Policymakers and healthcare providers can play a role in alleviating anxieties and dispelling misconceptions about normal and CS delivery by creating and implementing accessible and comprehensive educational programs. This would ensure that every Jordanian woman finds the necessary information and support to guide her through pregnancy and delivery, culminating in a satisfactory childbirth experience, with the desired consequence of improving maternal and neonatal health outcomes.

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