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Women's satisfaction with hospital-based intrapartum care: A Jordanian study

Khitam Mohammad[1]*, Insaf Shaban[2], Caroline Homer[3] and Debra Creedy[4]

[1]Faculty of Nursing, Jordan University of Science and Technology, Irbid, Jordan.
[2]Faculty of Nursing, AL al-Bayt University, Jordan.
[3]Faulty of Nursing, Midwifery and Health, University of Technology, Sydney, Australia.
[4]Griffith Health Institute, Griffith University, Australia.

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Exploring patient satisfaction can contribute to quality maternity care but is not routinely conducted in many Middle Eastern countries. This study investigated the prevalence and factors associated with satisfaction during labor and birth among Jordanian women using a descriptive cross-sectional design. Women (n=298) were recruited from four maternal and child health centers in Al-Mafraq city, Jordan. Participants completed an intrapartum care scale which measured satisfaction with three areas of care: interpersonal, information and involvement in decision making, and physical environment. Overall, only 17.8% of women were satisfied with intrapartum care. Around 13% of women were satisfied with interpersonal care, 20.5% with information and involvement in decision making, and 18.8% with physical birth environment. Regression analyses revealed that low satisfaction was associated with experiencing an episiotomy, poor pain relief during labour, and vaginal birth. Health care professionals, policy-makers as well as hospital administrators need to consider the factors that contribute to low satisfaction with childbirth in any effort to improve care.

Key words: Labour, birth, Jordan, maternity care, midwife, patient satisfaction.

INTRODUCTION

Patient satisfaction is crucial for maintaining and monitoring the quality of health care and can inform service development and delivery (Bazant and Koenig, 2009; Camacho et al., 2012; Martin and Fleming, 2011; Rudman et al., 2007). The interest in patient satisfaction is not only based on a desire to deliver more responsive care and ensure the views of service users are considered, but to develop humanized health care and positively influence health care experiences of consumers (Rudman et al., 2007).

Intrapartum satisfaction is a broad, multi-faceted concept that includes women's experience of labour, birth and immediate postpartum (Bertucci et al., 2012). Satisfaction in this context is often about giving birth in a manner that suits the needs of each woman. Furthermore, as satisfaction is multidimensional, women may be satisfied with some aspects of an experience and dissatisfied with others (Bertucci et al., 2012).

Satisfaction has been investigated in relation to various dimensions of care. First, satisfaction has been associated

*Corresponding author. E-mail: mohammad211003@yahoo.com.

with interpersonal factors such as effective communication between women and care providers during labour and birth; providing opportunities to have an active say during labour and birth; being able to choose among options; deciding when certain actions will be done; and being given information as to why certain decisions are being made (Harriott et al., 2005; Rudman et al., 2007; Waldenström et al., 2006). Perceptions of support from care providers during labour are reported to improve childbirth outcomes and women's satisfaction (Hodnett et al., 2009). Second, satisfaction with intrapartum care has been linked to information-giving and participation in decision–making (Bazant and Koenig, 2009; Dencker et al., 2010; Gungor and Beji, 2012; Janssen et al., 2006; Martin and Fleming, 2011; Rudman et al., 2007; Waldenström et al., 2006). Involvement in decisions about labour procedures can affect women's perceptions of satisfaction. Events such as operative births, long and painful labour, inadequate pain relief, increased obstetric interventions and transfer of the baby to a neonatal unit can adversely affect satisfaction with intrapartum care (Hatamleh et al., 2013a; Oweis, 2009; Rudman et al., 2007; Waldenström et al., 2006). Third, the physical environment in which care is provided is also believed to impact on patient health and safety, effectiveness of care, and morale of staff (Foureur et al., 2010; Sheehy et al., 2011; Ulrich et al., 2008). In most developed western countries, attempts have been made to make the labour and birth environment less clinical and more homelike (Sheehy et al., 2011). Satisfaction with the physical environment is a significant predictor of women's overall satisfaction and positive experience in labour and birth (Foureur et al., 2010; Hodnett et al., 2009).

In Jordan, outcomes for childbearing women and children have improved over the past 20 years. Infant mortality rates have decreased from 40 per 1000 live births in 1985 to 23 per 1000 live births in 2010 (Department of Statistics and Macro International Inc, 2010). Maternal mortality ratios have decreased from 41 deaths per 100,000 live births in 2002 to 19.1 deaths per 100,000 live births in 2008 **(**Department of Statistics and Macro International Inc, 2010). Almost all (99.5%) births in Jordan are now attended by trained health personnel (Department of Statistics and Macro International Inc, 2010). Despite these improvements significant deficits in the provision of basic maternity services remain. Maternity services are currently focused on screening and treating complications of childbearing and most births are performed by resident doctors or obstetricians. The role of midwives is to assist doctors in the birth. Midwives also are required to attend to many labouring women simultaneously, making it difficult to provide individualized quality care (Abushaikha and Oweis, 2005).

In Jordan, labour and birth is associated with many obstetric interventions such as a high number of vaginal examinations and routine episiotomy (Department of Statistics and Macro International Inc, 2010). Care providers rarely provide emotional care or antenatal and/or postpartum education. Women have a limited role in decision-making regarding their care, and health professionals are the primary decision-makers who judge whether procedures during pregnancy, birth, and post-partum are warranted. In addition, a woman's family are not allowed to attend the labour and birth (Abushaikha, 2007; Hatamleh et al., 2008, 2013a, b; Khalaf et al., 2007; Khresheh et al., 2009; Oweis, 2009; Shaban et al., 2011).

However, empirical data about Jordanian women's satisfaction with health care services during childbirth are very limited. There have been no studies to determine whether the structure, processes or outcomes of care predict women's satisfaction with intrapartum care. Therefore, the specific aims of this study were to:

1. Determine women's perceptions of satisfaction with intrapartum care;
2. Explore satisfaction in relation to three dimensions: interpersonal care, information and involvement in decision-making, and physical birth environment; and
3. Investigate predictors of women's satisfaction with their intrapartum care.

METHODOLOGY

Design

A descriptive cross-sectional design was used for this study.

Participants

A convenience sample of women attending one of the four maternal and child health centers in Al-Mafraq city in the north-east of Jordan were invited to participate and asked to complete the survey while waiting for their appointment. Women who were eight weeks postpartum, had given birth to a full term singleton live baby, and could understand Arabic were recruited into the study. Women whose babies experienced complications requiring admission to special care nursery were excluded. The 8-week time point for recruitment and data collection was aimed to ensure that women would reliably recollect their recent birthing experiences (Martin and Fleming, 2011).

Using power analysis of medium effect size, a power of 0.8 and a level of significance at 0.05 (Cohen, 1992), the estimated sample size needed was calculated to be 102 women (Cohen, 1992). Over sampling was undertaken to allow for attrition.

Measures

The questionnaire was developed after an extensive review of the literature. Variables measuring intrapartum care were drawn from previous studies of recent mothers' experiences of maternity care conducted in Australia, Sweden, and Canada (Biro et al., 2003; Janssen et al., 2006; Rudman et al., 2007; Waldenström et al., 2006). The questionnaire had two sections. The first section included questions about participants' age, level of education, parity, total income and occupation. Questions were also asked about the recent childbirth experience such as place of birth, gender of the baby, length of labour and birth, effectiveness of pain relief techniques, birth attendant, perineal trauma (that is, episiotomy) and if the woman had an opportunity to talk to a health

Table 1. Characteristics of the satisfaction with intrapartum care measure.

Variable	No. of items	Total mean score	SD	Cut-off score = total mean +SD
Overall satisfaction with intrapartum care	14	36.12	8.88	Scores ≥ 45 considered satisfied
Subscale 1: Interpersonal care	5	11.28	3.62	Scores ≥ 15 considered satisfied
Subscale 2: Information and decision making	4	10.87	3.03	Scores ≥ 14 considered satisfied
Subscale 3: Physical birth environment	5	11.54	4.21	Scores ≥ 15 considered satisfied

professional about her feelings in relation to the birth.

The second section was a scale measuring women's satisfaction with the three dimensions of intrapartum care. Subscale one contained items related to "interpersonal care" by the midwife/doctor who provided most of the care during labour (5 items). The second subscale included questions about women's satisfaction with information they received and involvement in decision-making (4 items). The last subscale contained questions about physical birth environment (5 items). Participants were asked to rate their satisfaction with intrapartum care on a five point Likert scale of 1 = strongly disagree to 5 = strongly agree. Three items 'during labor and/or birth, decisions made without taking may wishes into account', 'I felt pressured to have baby quickly', and 'I felt labor was taken over by strangers and/or machines' were reverse scored. The cut-off score of the scale and subscales was calculated using the total mean score plus one standard deviation (SD). The cut-off scores are as shown in Table 1.

The questionnaire was translated into Arabic and back-translated to ensure content validity and semantic validity by four bi-lingual scholars who lived in Jordan but had completed postgraduate degrees in English-speaking countries. Face and content validity was assessed by a panel of experts in midwifery and nursing who reviewed the items for clarity, relevance, comprehensiveness, understandability, and ease of administration.

The questionnaire was piloted with a group of 20 childbearing Jordanian women for face validity. Results of the pilot study showed that the questionnaire was easy to administer, clear to read and required 10 minutes (on average) to be completed. The Cronbach's alpha value for the satisfaction with intrapartum care scale was 0.88. The reliability coefficients for each sub-scale of the satisfaction instrument ranged from 0.76 to 0.90.

Procedure

Approval for the study was obtained from the Ministry of Health and Human Research Ethics Committee at Al al-Bayt University. The study was conducted from January to May, 2012. Midwives in each clinic initially identified women who met the inclusion criteria and were willing to speak with a research assistant. Verbal and written information about the study were provided and written consent obtained. The questionnaire was administered during an interview at the time of the clinic appointment. The interview was conducted away from the clinics in order to provide privacy and to ensure the absence of the health care providers.

Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 17, personal computer version. Frequencies, means, and standard deviations were calculated as appropriate on the variables. The proprieties of the instrument were assessed using Cronbach's alpha for reliability. Relationships between dependent variable (satisfaction with three dimensions of intrapartum care together) and independent variables (demographic, obstetric, and childbirth experience variables) were examined using Chi-square analysis. To determine the relationship between obstetric variables and satisfaction with intrapartum care, stepwise multiple regression analyses were undertaken. Statistical significance was set at $p < 0.05$.

RESULTS

Characteristics of participants

In total, 304 women agreed to participate. Questionnaires with more than 3 questions (10% of the questionnaire) unanswered were deleted (n = 6). From the 298 remaining questionnaires, 210 (70%) were from multiparous women. Majority of the women (63.8%) were between 25 and 35 years old. Majority of the women were not employed (73.8%), and 41.6% reported a family income of between 301 to 500 JD per month which is considered low. Participant characteristics are shown in Table 2.

Of the sample, 220 (73.8%) women gave birth in a public hospital and 78 (26.2%) in a private hospital. During labour and birth, 51% of the women were primarily assisted by a midwife only, 12.8% of the women were primarily assisted by medical staff, and the remainder (36.2%) received care from both doctors and midwives in attendance. Ninety percent of the women had a labour lasting less than 11h. Caesarean sections accounted for 10.1% of births. Over forty percent (43.3%) of the women indicated that their labour was more painful than expected and almost two-thirds (63.8%) were unhappy with pain relief during labour. Just less than half (46.3%) of the women reported having an episiotomy and 8% reported complications during labour and/or after the birth including postpartum haemorrhage. Nearly two-thirds of the women (64.1%) reported not being offered an opportunity to talk to any health professional about the birth and 58.8% indicated they would have liked to.

Satisfaction with intrapartum care

The total mean satisfaction score was 36.12 (SD ± 8.88). Scores of ≥45 were considered positive towards increased satisfaction with intrapartum care. Only 17.8% (n=53) of the participants scored ≥45. The remaining 82.2%

Table 2. Participant characteristics (n=298).

Demographic characteristic	Sample [n (%)]
Age group	
Less than 25 years	66 (22.1)
25 – 35	190 (63.8)
35 years and above	42 (14.1)
Education	
Low (9 years compulsory school/upper secondary school)	26 (8.7)
High school	115 (38.6)
Diploma	63 (21.1)
Bachelor	92 (30.9)
Others	2 (0.7)
Total monthly income	
Below 150 JD	9 (3.0)
150-300 JD	121 (40.6)
301-500 JD	124 (41.6)
Above 500 JD	44 (14.8)
Occupation	
Employed	78 (26.2)
Not employed	220 (73.8)
Gravida	
Primiparous	88 (29.5)
Multiparous	210 (70.5)
Experience during labour and birth	
Normal vaginal birth	267 (89.9)
Caesarean section	31 (10.1)
Cared for by midwife only during labour and/or the birth	152 (51)
Labour more painful than expected	129 (43.3)
Unhappy with method of pain relief during labor	190 (63.8)
Episiotomy	138 (46.3)
Complications during labour and/or after the birth	24 (8)
Haemorrhage after the birth	14 (4.7)
No opportunity to talk about the birth	191 (64.1)
Wanted to talk to a health professional about the birth	176 (58.8)

82.2% (n = 245) women scored lower suggesting dissatisfaction with the three dimensions of intrapartum care. Items including 'decisions made without taking my wishes into account', 'I felt pressured to have the baby quickly', 'the doctors were helpful during labour and/or the birth', 'I felt labour was taken over by strangers and/or machines' were the four highest scored items as outlined in Table 3.

The mean subscale score for interpersonal care was 11.28 (SD ± 3.62). Scores of ≥15 were considered positive. Only 13.1% of the participants (n = 39) scored ≥15. The remaining 86.9% (n = 259) scored low suggesting suggesting dissatisfaction with interpersonal care.

The mean subscale score for satisfaction with information and involvement in decision making dimension was 10.87 (SD ± 3.03). Scores of ≥14 were considered positive. Only 20.5% (n = 61) of the participants scored ≥14. Majority of the women (79.5%) women scored lower suggesting they were dissatisfied with this dimension.

The mean subscale score with the physical birth environment was 11.54 (SD ± 4.21). Scores of ≥15 were considered positive. Only 18.8% of participants (n = 56) scored ≥15. The remaining 81.2% (n = 242) of the women scored low suggesting dissatisfaction with the

Table 3. Satisfaction with intrapartum care scale, subscale, and item means, and standard deviations (n = 298).

Characteristic	Mean	SD
Total scale (14 items) Scores ≥ 45 considered satisfied	36.12	8.88
Subscale 1: Interpersonal care (5 items) Scores ≥ 15 considered satisfied	11.28	3.62
When you arrived at the hospital, staff were friendly and welcoming	2.10	0.63
Doctors and midwives were encouraging and reassuring	2.27	0.96
During labor and/or birth, the midwives/nurses were helpful	2.17	0.85
During labor and/or birth, the doctors were helpful	2.66	1.46
The overall care during labor and/or birth was good	2.09	0.86
Subscale 2: Information and decision making (4 items) Scores ≥ 14 considered satisfied	10.87	3.03
The midwives and doctors always kept me informed about what was happening during labor and/or birth	2.45	0.97
During labor and/or birth, decisions made without taking my wishes into account	3.01	1.07
I felt pressured to have the baby quickly	2.84	1.06
I felt labor was taken over by strangers and/or machines	2.57	0.88
Variable 3: Physical birth environment (5 items) Scores ≥ 15 considered satisfied	11.54	4.21
The level of light was adequate	2.13	0.91
The room was spacious and adequate for my needs	2.30	0.96
The level of noise was appropriate	2.44	1.15
Trays and other equipment were clean	2.28	0.91
I was able to find the supplies I needed	2.41	1.02

Table 4. Factors associated with low satisfaction with intrapartum care.

Item	No. of women	χ^2	df	Significance
Birthed at a public hospital	172	40.984	1	<0.001*
Vaginal birth	215	333.992	2	<0.001*
Labour more painful than expected	115	39.608	2	<0.001*
Unhappy with method of pain relief during labour	179	174.106	2	<0.001*
Postpartum haemorrhage	12	9.333	2	0.009*
Episiotomy	117	37.041	2	<0.001*
Cared for by a midwife during labor and/or birth	111	37.845	2	<0.001*
Not talked to any health professional about how they felt about what happened during labour and/or birth	142	67.975	2	<0.001*

*Statistically significant association.

physical birth environment. Means and SD of total scale, subscales and subscale items are shown in Table 3.

Predictors of satisfaction with intrapartum care

There was no association between women's sociodemographic data (age, education, occupation, income, and parity) and satisfaction with intrapartum care. Obstetric variables associated with low satisfaction with intrapartum care (as outlined in Table 4) were birthed at a public hospital, vaginal birth, having a labour that was more painful than expected, unhappy with method of pain relief during labour, postpartum haemorrhage, episiotomy, being cared for by a midwife, and not being talked to any health professional about feelings in relation to the labour and/or birth.

Eight variables statistically associated with low satisfaction were entered into a stepwise multiple regression. The multiple regression analysis resulted in five variables being excluded (Birthed at a public hospital, labour more painful than expected, postpartum hemorrhage, cared for by a midwife, and not being talked to any health professional about how they felt about what happened during labour and/or birth). Three variables (having an episiotomy, vaginal birth, and unhappy with method of pain

Table 5. Regression analysis to identify predictors of low satisfaction with intrapartum care.

Item	Standardized coefficients		
	β	*t*	Significance
Had an episiotomy	-0.766	-6.740	<0.001*
Unhappy with method of pain relief relief during labour	0.345	3.110	0.008*
Vaginal birth	0.333	3.003	0.009*

*Statistically significant association

relief during labour) were retained as predictive of low satisfaction with intrapartum care. The regression model accounted for approximately 84% ($r^2 = 0.838$) of variance in low satisfaction with intrapartum care (Table 5).

DISCUSSION

This study investigated women's satisfaction with intrapartum care. Majority of the women in this study reported low satisfaction with overall care and dimensions of care (interpersonal care, information and involvement in decision making, and physical birth environment). The rate of satisfaction is much lower than those reported in the high income countries such as Sweden, Australia and USA (Britton, 2006; Rudman et al., 2007) but similar to rates reported in low income countries (Mohammad et al., 2011; Oweis, 2009; Senarath et al., 2006). Similarities in the rate of satisfaction with intrapartum care in low income countries may be related in part to cultural norms that manifest in domination of the medical model of maternity care and lower status of women.

In this study, many factors adversely affected satisfaction with intrapartum care. Women who reported that labour was more painful than expected, received inadequate pain management, had an episiotomy and/or postpartum hemorrhage was less satisfied with their intrapartum care. This is consistent with other studies which reported that women who have a long, painful, and intense labour, and have multiple obstetric interventions including induction of labour, increased the number of vaginal examinations, episiotomy and being in the lithotomy position during childbirth report less satisfaction with intrapartum care (Bryanton et al., 2008; Hatamleh et al., 2013a; Nilsson and Lundgren, 2007). It is not clear whether these factors drive low satisfaction or whether they are a result of them.

In Middle Eastern countries, the main goal of care providers during labour and birth has been to ensure a safe and positive labour experience with minimal pain and discomfort (Abdel Ghani and Berggren, 2011). However, there is strong evidence from high income countries that women who have continuity of midwifery care, continuous support during labour, a good relationship with their caregiver, and good support during labour and birth are more likely to require less pain relief, have an intervention-free labour and birth, higher perception of control, and be more satisfied with their intrapartum care (Hatem et al., 2008; Hodnett et al., 2009; Leap et al., 2010a, b). However, in Jordan, continuity of care and support in labour are very difficult to achieve. It is common for midwives to be required to attend to many laboring women simultaneously (Oweis, 2009) making it difficult for them to provide individualized quality care. In addition, health care providers in Jordan tend only to provide physical care to labouring women, are unable to provide emotional support but most hospitals do not allow women to bring a supporter with them to provide social support during labour and birth (Hatamleh et al., 2008; Khresheh and Barclay, 2010; Sweidan et al., 2008). A lack of continuity of care and a lack of professional and social support may well increase the pain experienced by labouring women in Jordan and increase their need for pharmacological methods to decrease pain during labour and birth.

This study also found that insufficient time was given to women to process their birth experience and this was associated with low satisfaction. Previous studies in other countries reported a similar low priority was given to women's postpartum emotional response to labour and birth (Creedy et al., 2000; Gamble et al., 2005). Changing to a continuity of care model may increase the amount of time midwives can devote to each woman during labour and birth, improve the quality of physical and emotional care provided by midwives. Emerging evidence from high income countries suggests that continuity of care enables midwives to offer individualized physical and emotional care and ongoing education to each woman throughout their pregnancy, labour and birth, improving women's confidence to manage pain and birth with confidence (Leap et al., 2010b).

Jordanian women in this study who gave birth at public hospitals reported less satisfaction with their intrapartum care. These results could be explained in light of the high midwife-labouring woman ratio in Jordanian public hospitals, which is usually much higher than that in private hospitals (Oweis, 2009). In contrast to private hospitals, women in public hospitals mostly receive inconsistent, fragmented care and family members are not allowed to attend the labour and birth. Women have complained about these aspects of care and other researchers have recommended changes to improve the model of care offered (Khresheh and Barclay, 2010; Shaban

Shaban et al., 2011). Vaginal birth in this study was associated with low satisfaction with intrapartum care. This could be related to childbirth practices in Jordan and other Arab countries where women are subjected to unnecessary, painful, and harmful procedures such as frequent vaginal examinations, routine episiotomy, and adoption of lithotomy position for giving birth (Shaban et al., 2011). These procedures are associated with increased pain experienced and may increase dissatisfaction with care. It is possible these procedures contributed to women feeling vulnerable and reporting more pain and less satisfaction with care.

The current study found that intrapartum care by a midwife was associated with lower satisfaction. Evidence of the association between attendance of midwives during labour and birth and satisfaction with intrapartum care is mixed. A recent systematic review found labouring women prefer the attendance of midwives (Walsh and Devane, 2012), while a study conducted in Syria to identify women's preferences for birth attendant showed that many (60.4%) preferred to be attended to by doctors compared to midwives (21.2%) (Bashour and Abdulsalam, 2005). This finding may reflect cultural stereotypes and expectations of Middle Eastern cultures where midwives are perceived to be of lower status compared with medical professionals (Shaban et al., 2012). As a consequence, most Jordanian women prefer to receive their care from doctors (Department of Statistics and Macro International Inc, 2010).

There is limited data about the influence of women's demographic background and dissatisfaction with intrapartum care in Jordan. The current study found no association. Worldwide, available findings regarding the association between demographic variables and satisfaction with intrapartum care are mixed, with some studies reporting that age, parity and marital status were associated with satisfaction with intrapartum care (Senarath et al., 2006) and other studies not fully supporting this (Rudman et al., 2007).

This study showed low rates of satisfaction with care during labour and birth. Health care professionals, policy-makers as well as hospital administrators need to review the procedures and policies regarding childbirth practices in their hospitals. This information will help in planning and implementing appropriate strategies to assist women have a positive birth experience. Increasing individualized care in labour, increasing support in labour and decreesing unnecessary interventions may contribute to improving satisfaction with the labour and birth experience.

Conflict of Interest

The authors have no conflicts of interest and no financial disclosures to report.

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