Maternal Satisfaction during COVID-19 Pandemic Birthing: A Cross-sectional Study

HUSSEIN SZ[1], MAT RADZI S[2]

[1]Department of Nursing, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia
[2]Hospital Canselor Tuanku Muhriz, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia

ABSTRAK

Kelahiran pandemik telah mewujudkan cabaran besar terhadap kualiti dan kecekapan sistem kesihatan, anggota kesihatan di unit kesihatan ibu, dan pengalaman kelahiran oleh wanita. Kajian ini dijalankan untuk menentukan kepuasan ibu terhadap penjagaan intrapartum dan hubungannya dalam kalangan ibu intrapartum di hospital pengajar di Kuala Lumpur. Kajian keratan rentas ini dijalankan ke atas 300 wanita intrapartum dengan menggunakan persampelan rawak sistematik. Kepuasan ibu dikaji menggunakan 26-item soal selidik dengan nilai alfa Cronbach sebanyak 0.88. Data dianalisis menggunakan SPSS versi 26. Hasil kajian ini menunjukkan majoriti responden terdiri daripada mereka yang berumur antara 31 hingga 36 tahun (94.4%), Melayu (95%), suri rumah (93.8%), berpendidikan menengah (93.1%), dan mempunyai pendapatan antara RM4,000.00 dan RM4,999.00 sebulan (97.6%). Selain itu, hasil kajian mendapati bahawa 94.7% responden mempunyai tahap kepuasan yang tinggi dengan penjagaan intrapartum, dan 86.7% mempunyai persepsi keseluruhan yang positif terhadap penjagaan intrapartum. Hasil dapatan kajian menunjukkan terdapat korelasi positif yang lemah tetapi signifikan antara kepuasan ibu dengan persepsi ibu terhadap penjagaan kejururawatan intrapartum (r = 0.371; p ≤ 0.001). Memahami kepuasan ibu terhadap penjagaan intrapartum boleh membantu dalam mengoptimumkan kesejahteraannya dan menyediakannya untuk penjagaan bayi.

Kata kunci: Kelahiran pandemik; kepuasan ibu, penjagaan intrapartum

Address for correspondence and reprint requests: Siti Zuhaida Hussein. Department of Nursing, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia. Tel: +6018-2055211 Email: zuhaida_hussein@ukm.edu.my

ABSTRACT

The birth pandemic has created major challenges to the quality and efficiency of health care systems, maternity care providers and women's childbirth experiences. This study was conducted to determine maternal satisfaction with intrapartum care and its relationship with intrapartum mothers in a teaching hospital in Kuala Lumpur. This cross-sectional study was conducted with 300 intrapartum women using systematic random sampling. Maternal satisfaction was examined using 26-item questionnaires with a Cronbach's alpha value of 0.88. Data were analysed using SPSS version 26. The results of this study showed that the majority of respondents were between the ages of 31 and 36 years, Malay, housewives (93.8%), had secondary education (93.1%), and had an income between RM4000 and RM4999 per month (97.6%). In addition, the results of the study found that 94.7% of respondents had a high level of satisfaction with intrapartum care, and 86.7% had a positive overall perception of intrapartum care. In addition, a weak but significant positive correlation was found between maternal satisfaction and mother's perception of intrapartum nursing care ($r = 0.371$; $p \leq 0.001$). Understanding the mother's satisfaction with intrapartum care can help to optimise her well-being and prepare her for infant care.

Keywords: Intrapartum care; maternal satisfaction; pandemic birthing

INTRODUCTION

Maternal satisfaction with intrapartum care is multidimensional and subjective which influenced by expectations and experiences. Globally, the COVID-19 pandemic has posed significant obstacles to the provision of maternity services. Studies have shown that the COVID-19 pandemic has negatively affected women's childbirth experiences, leading to decreased birth satisfaction (Breman et al. 2021; Preis et al. 2022). Factors such as pandemic-related unpreparedness, stress, restrictions on birth companions, and poor maternal-infant bonding have been reported to significantly decrease birth satisfaction (Mayopoulos et al. 2021; Preis et al. 2022). Hospitals prioritising infection control, COVID-19 testing, and the separation of symptomatic mothers from their infants further contribute to this situation (del Rio et al. 2021; Preis et al. 2022). Additionally, the pandemic has also affected the nurse-to-patient ratio, with many nurses, including nurse midwives, working overtime to provide care for COVID-19 patients (Grimm 2020).

Nurses who deliver high-quality nursing care tailored to patients' needs can provide mothers with positive maternal experiences. Previous studies have indicated that mothers' interpersonal interactions with healthcare professionals significantly

impact her satisfaction with the information received, decision-making ability, and physical birth environment (Afulani et al. 2021; Pantoja et al. 2020; Shimoda et al. 2020). The effective communication and listening skills of healthcare practitioners, especially midwives, play a crucial role in increasing maternal satisfaction. Edmonds et al. (2021) reported that the attitudes and behaviors of healthcare practitioners, especially midwives who can listen to the mother's complaints and communicate effectively, are the most influential in increasing maternal satisfaction (Edmonds et al. 2021). Additionally, being attentive, present, and consistently providing adequate information are vital factors that influencing maternal satisfaction (Ängeby et al. 2019; Arrebola et al. 2021; Getenet et al. 2019; Jha et al. 2017).

Recent research has revealed that approximately 47-49% of postpartum mothers are satisfied with the quality of physical care provided by nurses during childbirth (Edmonds et al. 2021; Pantoja et al. 2020). Furthermore, Mollard and Kupzyk (2022) reaffirmed that higher birth satisfaction is linked to two factors: socioeconomics status and birth. For example, factors such as higher income, marriage, race, type of vaginal birth, presence of a birth partner, and adequate support during birth contribute to increased birth satisfaction.

A growing body of literature recognises a connection between maternal satisfaction and intrapartum care. Care and the physical environment are believed to emphasise patient-provider interaction during childbirth as an essential component of birth quality (Fatih et al. 2017). The essential factors affecting maternal satisfaction include the utilisation of available health facilities, services provided, facility cleanliness, and cost of postnatal therapy (Mohamad et al. 2020; Rishard et al. 2021). Compassion, consideration, and respectful care among health care providers are crucial cultural practices (Fatih et al. 2017; Elgazzar et al. 2018). According to Mohamad et al. (2020), assessing maternal satisfaction is critical for enhancing the quality of health care services and avoiding negative implications for mothers and babies. Dissatisfaction can increase morbidity and mortality owing to factors such as unattended home births and treatment delays (Astuti et al. 2019; Demis et al. 2020b; Fumagalli et al. 2021; Srivastava et al. 2015).

On the other hand, previous research has established that the primary causes of unpleasant birthing experiences are a lack of empathic interaction between patients and nurses, inadequate hospital facilities, and traditional practices during childbirth, all of which contribute to mothers' pessimism about postpartum care (Debela et al. 2021; Demis et al. 2020a; Kindane et al. 2023). However, the essential factor is insufficient communication between health professionals during the intrapartum period, particularly during the active phase, which may influence the well-being of both mothers and babies (Asrese 2020). In a similar situation, Malaysian mothers had low satisfaction with their intrapartum care

experiences. Mohamad et al. (2020) stated that less than 21% of postpartum mothers are satisfied with intrapartum care. Some cross-sectional studies in Indonesia and Ethiopia reported that only a few mothers experienced good intrapartum care during their intrapartum periods (Asere 2020). Astuti et al. (2019) reported that only 13% of well-experienced Indonesian mothers were satisfied with the quality of intrapartum treatment.

Additionally, it was discovered that support from family and friends affected maternal satisfaction with intrapartum care (Amoah et al. 2022; Demis et al. 2020b; Fatih et al. 2017). Similarly, Fathi et al. (2020) reported that spouses' involvement in the labour process increases maternal satisfaction. Nonetheless, Samiye et al. (2020) found a weak positive correlation between supportive care and intrapartum satisfaction. Most mothers who had less positive experiences in childbirth and needed complete information about labour progress had low maternal satisfaction. Nevertheless, negative postpartum experiences significantly affect maternal and child health, family functioning, and future reproductive goals and intentions (Ramlee et al. 2023).

However, there is substantial disagreement regarding the association between maternal satisfaction and intrapartum nursing care. Recent literature has presented contradictory findings regarding maternal satisfaction and its influencing factors (Pantoja et al. 2020). Women's or mother's satisfaction with maternal care helps identify additional areas of care that need improvement, modify maternal care, and identify potential barriers. Therefore, understanding a mother's satisfaction with intrapartum care can optimise her well-being and prepare her for infant care. The purpose of this study was to identify the characteristics that influence maternal satisfaction among women experiencing intrapartum care at teaching hospitals. This research was important to advance the understanding of intrapartum care and maternal satisfaction. Aside from that, it is acknowledged that maternal comprehension facilitates the development of preventive measures and the reduction of maternal and perinatal mortality (Ängeby et al., 2019; Ramlee et al. 2023).

MATERIALS AND METHODS

This quantitative cross-sectional study aimed to determine maternal satisfaction and its influencing factors among 300 intrapartum mothers in a teaching hospital. A cross-sectional design was chosen because the study was conducted at a single point in time, allowing for simultaneous measurement of variables in a given population (Getenet et al. 2019; Leavy 2020). This study included 300 intrapartum mothers who delivered via spontaneous vaginal delivery at a government teaching hospital in Kuala Lumpur, Malaysia. Mothers were selected using simple random sampling, which allowed for the generalisation of the study's findings to the population (Leavy 2020). However, this method also had limitations, such as being time-consuming and unsuitable

for all situations. The inclusion criteria were mothers aged 20 to 36 years who had experienced spontaneous vaginal delivery a the teaching hospital. The exclusion criteria were mothers who experienced complications during delivery (stillbirth), tested positive for COVID-19, or were treated in a high-dependency unit.

Study Instrument

This study utilised a 26-item modified questionnaire from Varghese and Rajagopal (2012) to assess maternal satisfaction with intrapartum care. The questionnaire used a Likert scale ranging from 1 to 5 points, with 1 indicating strong disagreement and 5 indicating strong agreement. Respondents' knowledge level was determined using a cut-off point of 50% of the total maximum scores obtained. Scores below 43 indicated a low level of satisfaction, scores between 44 and 87 indicated a moderate level of satisfaction, and scores above 88 indicated high satisfaction with intrapartum care. The validity of the instrument in this study was good, with a Cronbach's alpha value of 0.87.

The Data Collection Process

Data collection among intrapartum mothers took place between January and May 2022. The researcher first checked the daily census of the ward to identify eligible mothers as respondents. The mother's medical report was consulted to determine eligibility. If a mother met the criteria, the researcher approached her,

explained the purpose of the study, and obtained a written informed consent. Random number tables were used to assign a number to each respondent. The respondent was selected based on the number on the random number table following the patient admission census in the maternity ward.

Ethics, Consent and Permission

The study received approval from the research ethics committee before conducting the study. Written informed consent was obtained from each participant to ensure protection of their parental rights. This study followed the ethical principles of autonomy, beneficence, confidentiality, and anonymity.

Data Analysis

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) 26.0 for Windows. A significance level of $p<0.05$ was chosen. Descriptive analyses, such as mean, standard deviation, frequencies, and percentages, were used. An inferential analysis was conducted using parametric tests, considering the normal distribution of data.

RESULTS

Data Socio-demographic

A total of 300 respondents (100%) were included in this study. Table 1 showed that the majority of respondents (53.3%) were aged between 31 and 36 years, identified as Malays (87%),

TABLE 1: Socio-demographic data (n = 300)

Factors	Categories	Frequency (n)	Percentage (%)
Age	20 – 25 years	29	9.7
	26-30 years	111	37.0
	31-36 years	160	53.3
Ethnicity	Malay	261	87.0
	Chinese	22	7.3
	Indian	17	5.7
Employment Status	Housewife	168	56.0
	Semi-professional	58	19.3
	Professional	74	24.7
Level of Education	Not schooling	4	1.3
	Secondary education	174	58.0
	Higher education	122	40.7
Family Incomes	<RM1999 – RM2999	9	3.0
	RM3000 - RM 4999	202	67.3
	>RM5000	89	29.7

and were working mothers (96.7%). The study also revealed that most respondents had a secondary school education level (57.7%); and 41% had a monthly household income between RM 4,000.00 and RM 4,999.00.

Level of Maternal Satisfaction and the Mother's Perception of Intrapartum Care

The analysis in this study reported that 284 respondents (94.7%) had a high level of satisfaction with intrapartum care, while 260 (86.7%) had a positive overall perception of intrapartum care. Table 2 showed the levels of maternal satisfaction and perceptions of intrapartum care.

Relationship between Sociodemographic Data and Maternal Satisfaction on Intrapartum Care

In this study, a high level of satisfaction was reported among Chinese (100%), semi-professionals (100%) and respondents with higher education (100%). Respondents with an income > RM5000 also demonstrated a high level of satisfaction (100%). However, respondents with no education reported a low level of satisfaction (100%). Respondents with a negative perception reported a higher level of satisfaction (97.5%) than those with a low level of satisfaction (2.5%).

The analysis revealed significant

TABLE 2: Level of maternal satisfaction and the mother's perception of intrapartum care (n = 300)

Factors	Level	Frequency	Percentage (%)
Level of satisfaction on intrapartum care	Low	16	5.3
	High	284	94.7
Overall Perception on intrapartum care	Negative	40	13.3
	Positive	260	86.7

relationship between the level of maternal satisfaction on intrapartum care and age (χ^2 = 9.691, P = 0.008), ethnicity (χ^2 = 1.408, P = 0.001), employment status (χ^2 = 4.055, P = 0.041), level of education (χ = 78.71, P<0.001) and income (χ = 49.98, P<0.001). The analysis did not reveal a significant relationship between perception and level of maternal satisfaction with intrapartum care. Satisfaction levels were not significantly different based on perception care (χ^2 = 0.734, P = 0.392). Table 3 showed the relationship between sociodemographic factors and level of maternal satisfaction with intrapartum care.

Correlations between Sociodemographic Factors and Level of Maternal Satisfaction on Intrapartum Care

In this study, Table 4 showed the results of the correlations between sociodemographic factors and the level of maternal satisfaction with intrapartum care. The results revealed a significant positive correlation between maternal age and maternal satisfaction (r = 0.69, P<0.001), indicating that as maternal age increased, maternal satisfaction also tended to increase. However, no significant correlation was found between maternal satisfaction and ethnicity (r = -0.039, p = 0.497) or employment status (r =

TABLE 3: Relationship between sociodemographic factors and level of maternal satisfaction on intrapartum care (n = 300)

Factors	Categories	Level of Satisfaction		X^2	P
		Low (%)	High (%)		
Age	20-25 years	5(17.2)	24(82.8)	9.691	0.008*
	26-30 years	6(5.4)	105(94.6)		
	31-36 years	5(3.1)	155 (96.9)		
Ethnicity	Malay	11(4.2)	250 (95.8)	21.408	<0.001***
	Chinese	0(0.00)	22 (100.0)		
	Indian	5(29.4)	12 (70.6)		
Employment Status	Housewife	11 (6.5)	157 (93.5)	4.055	0.041
	Semi-professional	0(0.00)	58 (100.0)		
	Professional	5 (6.8)	69 (93.2)		
Level of Education	Not schooling	4(100.0)	0 (0.00)	78.71	<0.001***
	Secondary education	12(6.9)	162 (93.1)		
	Higher education	0(0.00)	122 (100.0)		
Family Incomes	<RM1999 – RM2999	5(55.6)	4(44.4)	49.98	<0.001***
	RM3000 - RM 4999	11(5.4)	191(94.6)		
	>RM5000	0 (0.00)	89 (100.0)		
Perception	Negative	1 (2.5)	39 (97.5)	0.734	0.392
	Positive	15 (5.8)	245 (94.2)		

*p<0.05; ***p<0.001; df=2; a. 2 cells (33.3%) had expected count less than 5. The minimum expected count was .91.

TABLE 4: Correlations between sociodemographic factors and level of maternal satisfaction on intrapartum care (n = 300)

	1	2	3	4	5	6	7
Age	1						
Ethnicity	-0.039	1					
	0.497						
Employment status	0.693***	-0.072	1				
	<0.001	0.212					
Level of education	0.649***	-0.216***	0.738***	1			
	<0.001	>0.001	>0.001				
Family incomes	0.448***	-0.397***	0.588***	0.737***	1		
	<0.001	>0.001	>0.001	>0.001			
Maternal satisfaction	0.156**	-0.217***	0.017	0.296***	0.272***	1	
	0.007	>0.001	0.764	>0.001	>0.001		
Perception on intrapartum care	0.258***	-0.018	0.320***	0.300***	0.207***	-.049	1
	>0.001	0.754	>0.001	>0.001	>0.001	0.393	

**Correlation was significant at the 0.01 level (2-tailed); ***Correlation was significant at the 0.001 level (2-tailed).
Dependent Variable: satisfaction

0.216, p = 0.212), suggesting that there was no clear relationship between maternal satisfaction and ethnicity or employment status. In contrast, a strong positive correlation was observed between maternal satisfaction and the level of education (r = 0.738, P<0.001) and household income (r = 0.737, P<0.001). These analyses indicated that higher levels of maternal satisfaction are associated with higher levels of education and household income. Lastly, maternal perception of prenatal care demonstrated significant positive correlation with maternal satisfaction (r = 0.296, p<0.001), indicating that positive perception of prenatal care was associated with higher levels of maternal satisfaction.

Multiple Linear Regression Analysis

Multiple linear regression analysis revealed that the model accounted for a significant proportion of the variance in maternal satisfaction (R-squared = 0.215, P<0.001), indicating a moderate level of explanatory power. The adjusted R-squared value was 0.199. Table 5 presented the coefficients, standard errors, t-values, p-values, and 95% confidence intervals for each predictor variable. Among the predictor variables, age (β = 0.051, SE = 0.026, , P = 0.045), employment status (β = -0.129, P<0.001), education level (β = 0.208, P<0.001), and maternal perception (β = -0.068, P = 0.062) demonstrated statistically significant relationships with maternal satisfaction. The findings suggested that as age increased, maternal satisfaction

TABLE 5: Multiple linear regression analysis

	Coefficients	Standard Error	t-values	P-Values	Lower 95%	Upper 95%
Intercept	1.644	0.080	20.651	0.000	1.487	1.801
Age	0.051	0.026	2.011	0.045	0.001	0.102
Ethnicity	-0.060	0.036	-1.675	0.095	-0.131	0.011
Employment Status	-0.129	0.023	-5.583	0.000	-0.175	-0.084
Level of Education	0.208	0.042	4.922	0.000	0.125	0.291
Family Incomes	0.054	0.037	1.449	0.148	-0.019	0.127
Perception on intrapartum care	-0.068	0.036	-1.877	0.062	-0.140	0.003
R-squared	0.215					
Adjusted R-squared	0.199					
F-statistic	13.414					
P-value (F-statistic)	>0.001					

a. Dependent Variable: satisfaction
b. Predictors: (Constant), perception, ethnics, age, income, employ, education

levels tended to increase. For each one-unit increase in age, there was a corresponding average increase of 0.051 units in maternal satisfaction. Similarly, higher education levels (β = 0.208, P<0.001) were associated with increased maternal satisfaction. A one-unit increase in education was associated with an average 0.208-unit increase in maternal satisfaction. Regarding employment status, the analysis revealed a significant negative association with maternal satisfaction (β = -0.129, P<0.001). For each one-unit increase in employment status, there was 0.129-unit decrease in maternal satisfaction. This suggested that there was a significantly negative association between employment and satisfaction. In other words, as employment increased, satisfaction tended to decrease.

DISCUSSION

This study aimed to determine the factors influencing maternal satisfaction and its association with sociodemographic variables among 300 intrapartum mothers in a teaching hospital in Kuala Lumpur, Malaysia. This study showed that nearly 90% of the mothers had a positive overall perception of and satisfaction with intrapartum care. This study found that most of the respondents had a positive perception of intrapartum care.

Additionally, the positive correlation between maternal age, level of education, household income, maternal perception of prenatal care, and maternal satisfaction suggested that these factors played an important role in shaping maternal satisfaction with maternal healthcare. Previously, Fatin et al. (2023) discovered that increased household income was associated

with decreased labour satisfaction. In the researchers' opinion, mothers with low economic status usually have minimal expectations compared to mothers with high incomes (Imtithal Adnan et al. 2020). Women or mothers who earned more money are likely to have better perceptions, and therefore, higher expectations. Satisfaction, from the researcher's perspective, is multifaceted. Hence, a holistic approach is required to fully understand this process. Unfortunately, this study did not investigate the factors influencing mothers' perceptions of intrapartum care. Previous studies have found that intrapartum mothers' perceptions and levels of satisfaction are strongly influenced by the factors of experienced, skilled, and knowledgeable nurses handling intrapartum care (Getenet et al. 2019; Mohamad et al. 2020). Moreover, the results of this study highlighted the need for healthcare providers to consider the unique needs and experiences of mothers in different age groups with varying educational backgrounds, income levels, and perceptions of prenatal care. Thus, tailored interventions and support programs should be developed to address these factors and enhance maternal satisfaction.

In the present study, the multiple linear regression analysis provided insights into the factors influencing maternal satisfaction. The findings suggested that maternal age and education level positively contribute to maternal satisfaction, whereas employment status was negatively associated with it. These findings highlighted the importance of considering age, education level, and employment status when addressing maternal satisfaction in health care interventions and support programs. By tailoring interventions to address these factors, healthcare providers and policymakers can enhance maternal satisfaction and improve overall maternal wellbeing.

The same results were found in most Italian mothers, where more than three-quarters of intrapartum mothers felt satisfied with their care (Shiferaw et al. 2022). Similar findings were also reported for high levels of maternal satisfaction with intrapartum care in Iran, Ethiopia, Ghana, Guinea, Myanmar, and South Africa (Bavil & Dashti 2021; Mattison et al. 2018; Shiferaw et al. 2022). Indeed, the review's results supported this study's findings that most mothers were satisfied with the current labour and delivery services (Kindane et al. 2023; Marishet et al. 2018). However, this review unable to show the actual situation of maternal satisfaction because it focused on the situation in Ethiopia and Iran only. Additionally, there was likely to be a differences in the maternal health services provided in each country.

In contrast, previous studies in Malaysia reported that satisfaction was much lower than the finding of this study. Previous studies reported that the respondents had average satisfaction with the delivery care but were highly satisfied with the antenatal care (Imtithal Adnan et al. 2020; Rahman et al. 2020). Furthermore, there was no statistically significant

difference in satisfaction with labour after delivery, but there was a significant difference between intrapartum and postnatal satisfaction (Imtithal Adnan et al. 2020). The difference between these countries could be due to their different cultures, socioeconomic backgrounds and the quality of each facility's services. This has led to different responses in different parts of the intrapartum care domain. Another reason for the inconsistency among these studies could be the variation in the types of study settings and the diversity of the study populations where the respondents were recruited. Bavil dan Dashti (2021) stated that the level of satisfaction ranged from low to moderate among Iranian mothers with normal vaginal deliveries. Women are less satisfied with ineffective communication skills and attitudes among medical staff, including doctors and obstetricians (Bavil & Dashti 2021). Several factors associated with maternal satisfaction were one-to-one midwifery care, adequate information, explanations by staff, accurate expectation of the length of labour, not having a postpartum hemorrhage, and fewer than three vaginal examinations during labor as significant explanatory variables for satisfaction with labor care. However, the level of calculation of the mother's satisfaction was evaluated based on the mother's perception, which can influence the study's results. In addition, selecting the interview method by telephone can cause respondents to lose concentration when answering lengthy questionnaires. Therefore, this method may also affected the results.

It is important to acknowledge the limitations of this study. First, the study employed a cross-sectional design, limiting causal interpretations. Second, the study utilised self-report measures, which may have been subjected to bias and social desirability. Additionally, the study's sample size was small; and the assessment of maternal satisfaction was solely based on perception. This reliance on perception is susceptible to changes depending on the outcome of pregnancy. Furthermore, conducting phone interviews may encourage participants to lose focus when responding to a protracted questionnaire, potentially impacting the study's findings. Moreover, the study focused on a specific population and geographic location, limiting its generalisability.

The present study also contributed to the literature on maternal satisfaction and provided valuable insights for healthcare providers to improve maternal healthcare services and support systems. These findings highlighted the importance of considering these factors in health care interventions and support programs aimed at enhancing maternal satisfaction. By addressing the unique needs and circumstances of mothers, health care providers and policymakers can improve the overall quality of maternal care and promote positive maternal experiences.

Future research, it was recommended to employ longitudinal designs to establish temporal relationships. In addition, incorporating observational data could provide a more comprehensive understanding of

maternal satisfaction.

CONCLUSION

In conclusion, the most noticeable finding from this study was that most mothers had a high level of satisfaction and a positive perception of intrapartum care. Factors such as maternal age, education level, household income, and maternal perception of prenatal care were found to influence maternal satisfaction. Healthcare providers should consider these factors when designing interventions and support programs to enhance maternal satisfaction and wellbeing.

ACKNOWLEDGEMENT

REFERENCES

Afulani, P.A., Altman, M.R., Castillo, E., Beral, N., Jones, L., Camara, TL., Carrasco, Z., Williams, S., Sudhinaraset, M., Kuppermann, M. 2021. Development of the person-centered prenatal care scale for people of colour. *Am J Obstet Gynaecol* **225**(4): 427.e1-13.

Amoah, V., Aninng Opoku, D., Ayisi-Boateng, N.K., Osarfo, J., Apenteng, G., Offe Amponsah, O.K., Owusu-Dabo, E., Issah, S., Mohammed, A. 2022. Determinants of maternal satisfaction with the quality of childbirth services in a university hospital in Kumasi Ghana: A Cross-sectional study. *BioMed Res Int* **2022**: 9984113.

Ängeby, K., Sandin-Bojö, A.K., Persenius, M., Wilde-Larsson, B. 2019. Women's labour experiences and quality of care in relation to a prolonged latent phase of labour. *Midwifery* **77**: 155-64.

Arrebola, R.N., Mahia, L.P., López, S.B., Castiñeira, N.L., Pillado, T.S., Diaz, S.P. 2021. Women's satisfaction with childbirth and postpartum care and associated variables. *Revista da Escola de Enfermagem da USP* **55**: e03720.

Asrese, K. 2020. Quality of intrapartum care at health centers in Jabi Tehinan district, North West Ethiopia: clients' perspective. *BMC Health Serv Res* **20**(1): 439.

Astuti, M.D., Rachmawati, I.N., Rahmah, H. 2019. Intrapartum care satisfaction at three levels of healthcare facilities in Jakarta. *Enferm Clin* **29**(2): 402-6.

Bavil, D.A., Dashti, S. 2021. Maternal Satisfaction about Delivery and its influencing factors in Iranian population: A systematic review of mixed methods. *Malays J Med Health Serv* **17**(4): 296-305.

Breman, R.B., Neerland, C., Bradley, D., Burgess, A., Barr, E., Burcher, P. 2021. Giving birth during the COVID-19 pandemic, perspectives from a sample of the United States birthing persons during the first wave: March-June 2020. *Birth* **48**(4): 524-33.

Debela, A.B., Mekuria, M., Kolola, T., Bala, E.T., Deriba, B.S. 2021. Maternal Satisfaction and Factors Associated with Institutional Delivery Care in Central Ethiopia: A Mixed Study. *Patient Prefer Adherence* **15**: 387-98.

del Río, R., Dip Pérez, E., Marín Gabriel, M.Á. 2021. The Neo-COVID-19 research group: Multi-centre study showed reduced compliance with the World Health Organization recommendations on exclusive breastfeeding during COVID-19. *Acta Paediatrica* **110**(3): 935-6.

Demis, A., Nigatu, R., Assefa, D., Gedefaw, G. 2020a. Maternal satisfaction with intrapartum nursing care and its associated factors among mothers who give birth in public hospitals of North Wollo Zone, Northeast Ethiopia: Institution-based cross-sectional study. *J Pregnancy* **2020**: 8279372.

Demis, A., Getie, A., Wondmieneh, A., Getahun Bimerew, M., Alemnew, B., Gedefaw, G. 2020b. Women's satisfaction with existing labour and delivery services in Ethiopia: a systematic review and meta-analysis. *BMJ Open* **10**(7): e036552.

Edmonds, J.K., Declercq, E., Sakala, C. 2021. Women's childbirth experiences: A content analysis from the listening to mothers in California survey. *Birth* **48**(2): 221-9.

Elgazzar, H.M., Hashem, S.A.R., Heeba, M.F. 2018. Factors affecting women's satisfaction during labour experience. *Port Said Scientific J Nurs* **5**(2): 220-36.

Fathi, A., Rostami, H., Pourfathiyeh, A., Mohammadi, S., Khanalizadeh, R. 2020. Investigating the relationship between marital satisfaction and pregnancy concerns in pregnant women. *Nurs Midwifery J* **18**(1): 11-9.

Fatih Najafi, T., Latifnejad Roudsari, R., Ebrahimipour, H. 2017. The best encouraging persons in

labor: A content analysis of Iranian mothers' experiences of labor support. *PLoS One* **12**(7): e0179702.

Fumagalli, S., Colciago, E., Antolini, L., Riva, A., Nespoli, A. Locatelli A. 2021. Variables related to maternal satisfaction with intrapartum care in Northern Italy. *Women and Birth* **34**(2): 154-61.

Getenet, A.B., Teji Roba K, Seyoum Endale B, Merha Mamo A, Darghawth R. 2019. Women's satisfaction with intrapartum care and its predictor at Harar hospitals, Eastern Ethiopia: A cross-sectional study. *Nursing: Research and Review* 9: 1-11.

Grimm, C.A. 2020. Hospital Experiences Responding to the COVID-19 Pandemic: Results of a National Pulse Survey. United States.

Imtithal Adnan, F., Noor, N.M., Mat Junoh, NA. 2020. Associated factors of labor satisfaction and predictor of postnatal satisfaction in the north-east of Peninsular Malaysia. *PLoS One* **15**(8): e0238310.

Jha, P., Larsson, M., Christensson, K., Svanberg, A.S. 2017. Satisfaction with childbirth services provided in public health facilities: Results from a cross-sectional survey among postnatal women in Chhattisgarh, India. *Global Health Action* **10**(1): 1386932.

Kindane, A., Getachew, T., Mesfin, F., Eyeberu, A., Dheresa, M. 2023. Maternal satisfaction on delivery care services and associated factors at public hospitals in eastern Ethiopia. *Int Health* **15**(2): 189-97.

Leavy, P. 2022. *Research Design Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches.*. New York United States of America: Guilford Publications.

Marishet, A., Zemenu, Y., Teferi, A. 2018. Maternal satisfaction and associated factors on delivery care service in Hawassa City public hospitals, South Ethiopia. *Gynecol Obstet* **8**(5): 473.

Mattison, C.A., Dion, M.L., Lavis, J.N., Hutton, E.K., Wilson, M.G. 2018. Midwifery and obstetrics: Factors influencing mothers' satisfaction with the birth experience. *Birth* **45**(3): 322–7.

Mayopoulos, G.A., Ein-Dor, T., Dishy, G.A., Nandru, R., Chan, S.J., Hanley, LE., Kaimal, AJ., Dekel, S. 2021. COVID-19 is associated with traumatic childbirth and subsequent mother-infant bonding problems. *J Affect Disord* **282**: 122-5.

Mohamad, F., Lee, P.Y., Mawardi, M. 2020. Maternal satisfaction towards intrapartum care of designated healthcare facilities and its associated factors among postnatal women attending Klinik Kesihatan Salak. *Malays J Med Health Sci* **16**(2): 164-72.

Mollard, E., Kupzyk, K. 2022. Birth Satisfaction During the Early Months of the COVID-19 Pandemic in the United States. *MCN Am J Maternal/Child Nurs* **47**(1): 6-12.

Pantoja, L., Weeks, F.H., Ortiz, J., Cavada, G., Foster, J., Binfa, L. 2020. Dimensions of childbirth care associated with maternal satisfaction among low-risk Chilean women. *Health Care Women Int* **41**(1): 89-100.

Preis, H., Mahaffey, B., Heiselman, C., Lobel, M. 2022. The impacts of the COVID-19 pandemic on birth satisfaction in a prospective cohort of 2,341 U.S. women. *Women Birth* **35**(5): 458-65.

Rahman, M.M., Ngadan, D.P., Arif, M.T. 2020. Satisfaction on delivery care services among rural women in Sarawak, Malaysia: a cross sectional community-based study. *The Indonesia Public Health J* **15**(2): 201-11.

Ramlee, N., Azhary, JMK., Hamdan, M., Saaid, R., Gan, F., Tan, PC. 2023. Predictors of maternal satisfaction with labor induction: A prospective observational cohort study. *Int J Gynaecol Obstet* **163**(2): 547-54.

Rishard, M., Fahmy, F.F., Senanayake, H., Ranaweera, A.KP., Armocida, B., Mariani, I. 2021. Correlation among experience of person-centered maternity care, provision of care and women's satisfaction: Cross sectional study in Colombo, Sri Lanka. *PLoS One* **16**(4): e0249265.

Samiye, M., Elif, U., Gamze, S. 2020. The relationship between supportive care and labor pain and satisfaction with labor in Turkish culture. *Int J Caring Sciences* **13**(3): 2104-8.

Shiferaw, Z., Mahad, A., Haile, S. 2022. Maternal satisfaction and associated factors towards institutional delivery service at public hospitals in the Somali region, Eastern Ethiopia. *PLoS One* **17**(11): e0277224.

Shimoda, K., Leshabari, S., Horiuchi, S. 2020. Self-reported disrespect and abuse by nurses and midwives during childbirth in Tanzania: A cross-sectional study. *BMC Pregnancy Childbirth* **20**(1): 584.

Srivastava, A., Avan, B.I., Rajbangshi, P., Bhattacharyya, S. 2015. Determinants of women's satisfaction with maternal health care: a review of literature from developing countries. *BMC Pregnancy Childbirth* **15**: 97.

Varghese, J., Rajagopal, K. 2012. A study to evaluate the level of satisfaction perceived by postnatal mothers following nursing care in postnatal wards as expressed by themselves: pilot study. *J Biol Agric Healthcare* **2**(6): 101-11.