


UTAUT Model: An Approach to Evaluate the Acceptance of Public Perception on Standard Operating Procedures for Early Initiation of Breastfeeding for Section Caesarea Patients

Ana Pujianti Harahap¹^a, Aulia Amini¹, Indriyani Makmun¹ and Linda Meliati²

¹Midwife Profesional Education Study Program, Department Faculty of Health Sciences,
Universitas Muhammadiyah Mataram, Indonesia

²Midwife Study Program, Polytechnic the Ministry of Health Mataram, Indonesia

Keywords: Early Initiation of Breastfeeding (EIBF), Standard Operating Procedure (SOP), Sectio Caesarea (SC).


Abstract: Sectio Caesarea (SC) is one of the obstacles to the implementation of early initiation of breastfeeding (EIBF) so that it requires appropriate Standard Operating Procedures (SOP). SOP will always be related to the perception of voluntary public acceptance, which public acceptance of EIBF SOP for SC patients requires an evaluation approach that is able to investigate the determining factors. This study aims to analyze public perception of EIBF SOP for SC patients. This study used evaluation research through survey method and Unified Theory of Acceptance and Use of Technology (UTAUT) model design approach. This evaluation model emphasized the four key constructs of UTAUT: Performance Expectations, Business Expectations, Social Influences, and Facilitating Conditions as independent variables and the dependent variables under study, namely interests and behavior. This research involved forty samples with accidental sampling technique. Population this study employed mothers who have given birth through SC. The results indicated that social influence can significantly influence the mother's interest in implementing EIBF SC in accordance with the SOP, namely the p-value of < 0.005 , which is 0,028. According to SOP, the effect of facilitating conditions on respondents' behavior in carrying out EIBF SC found that the p-value < 0.005 was 0.042. Survey research results, EIBF SOP for SC patients be accepted in public by considering social aspects and the availability of supporting facilities. It is necessary to conduct feasibility tests related to EIBF SOP for SC in further research.

1 INTRODUCTION

According to a United Nations Children's Fund (UNICEF) report, there were 54 neonatal infant deaths (aged 0-28 days) per 1,000 live births worldwide in 2020. Infant Mortality Rate (IMR) become still a health problem in Indonesia. In 2020, the number of IMR in Indonesia reached 72.0% and occurred at the age of neonate, 0-28 days which is caused by IUD include asphyxia, infection, congenital abnormalities, tetanus moratorium, and others. In 2021, infectious diseases contributed to death in children aged 29 days - 11 months. Pneumonia and diarrhea are still the main problems causing 73.9% of mortality (pneumonia) and 14.5% (diarrhea). One of the indicators carried out by the

Indonesian government to reduce the risk of mortality in neonatal period children, which is 6-48 hours after birth, is the First Neonatal Coverage. Services provided include newborn care counselling, exclusive breastfeeding, K vitamin, and hepatitis B. Early Initiation of Breastfeeding (EIBF) is the first step taken for the success of exclusive breastfeeding (Kemenkes RI, 2020).

Early initiation of breastfeeding helps babies get the first milk, namely colostrum. Early initiation of breastfeeding (EIBF) can stimulate immunoglobulins and lymphocytes found in colostrum to prevent pathogenic infections during normal intestinal maturation to protect infants from diarrhea. Moreover, early initiation of breastfeeding can also prevent hypothermia in newborns (Exavery et al.,

^a <https://orcid.org/0009-0000-1441-5707>

2015). In Indonesia, EIBF in 2020 reached 66.06%. In the West Nusa Tenggara (NTB) region, the implementation of EIBF amounted to 86.5%. The method of delivery with SC is one of the factors that can affect the implementation of EIBF. Delivery by Cesarean Section affects early initiation of breastfeeding by 0.47 times higher than normal delivery. Obstacles to SC delivery include having an anesthetic effect, pain due to SC injuries, discomfort in the mother, and lack of role of a team of health workers (pediatricians, obstetricians, gynecologists, and midwives) (Nurkholifa, Pamungkasari and Prasetya, 2021). This research aligns with the research by (Nurkholifa et al., 2021), which shows that mothers who have just given birth do not have autonomy in carrying out EIBF in the first hour of birth. This is because they must follow procedures for newborns carried out by the hospital and medical teams to assist in the delivery process. Hence, they need SOP in implementing early initiation of breastfeeding for SC patients.

Based on data obtained from the West Nusa Tenggara provincial general hospital, data on the number of patients who gave birth with SC in 2017 was 288 (88%) out of a total of 327 deliveries. Of the patients who give birth through SC, most never have EIBF. Patients who gave birth normally were 39 people (22%). Data obtained from the regional general hospital of West Nusa Tenggara province, also a referral hospital for West Nusa Tenggara province, showed that the number of deliveries with SC in 2017 was 1,022 people. The operational standards for early initiation of breastfeeding in SC patients should prioritize patient comfort (Retno Dwi Andayani et al., 2017). Support from various parties is required for implementing EIBF, from husbands/families, health workers, and maternity hospitals, especially facilities (Retno et al., 2016). Before doing EIBF, SC patient needs to be given information on its implementation (Lyellu et al., 2020) (Ara et al., 2018). This study assessed public perception of EIB SOP for SC, used as input for public acceptance. Previous research on obstacles to early initiation of breastfeeding implementation in post-sectio caesarea patients found that standard operating procedures still needed to be created. From the results of the description above, this study aims to analyze the "public perception of EIB SOP for SC patients in Mataram City area".

Table 1: Hypothesis.

H1	There is an influence of Performance Expectations on the interest of mothers to carry out Standard Operational Procedure for Early Initiation of Breastfeeding for Sectio Caesarea patients
H2	There is an influence of Business Expectations on the interest of mothers to carry out Standard Procedure for Early Breastfeeding Initiation for Sectio Caesarea patients
H3	There is an Influence of Social on the mother's interest to carry out Standard Procedure for Early Breastfeeding Initiation for Sectio Caesarea patients
H4	There is an influence of Facilitating Conditions on the behavior of mothers to carry out Standard Procedure for Early Breastfeeding Initiation of Sectio Caesarea patients

2 MANUSCRIPT PREPARATION

2.1 Design

This type of research is evaluation research through a survey method approach. Research design used the Unified Theory of Acceptance and Use of Technology (UTAUT) model. This evaluation model emphasized the four keys of UTAUT constructs: Performance Expectations, Business Expectations, Social Influence, Facilitating Conditions as independent variables, and Interests and Behaviors as dependent variables. The samples in the study were as many as 40 samples. The sample and population in this study was mothers who had given birth through SC delivery method in the Mataram City Area. Analysis used Chi Square, and multiple regression analysis. The independent variables studied Performance Expectations, Business Expectations, Social Influences, and Facilitating Conditions. The dependent variables were Interest and Behavior.

2.2 Measurement

The data collection method uses questionnaires and was distributed with Google Form. The data scale used the Likert scale, with four instrument results: Strongly Agree, Agree, Disagree and Strongly Disagree. The questionnaire used has been tested for validity and reliability using the Pearson Product

Moment and Cronbach's Alpha tests. The questionnaire has been declared valid and reliable with the result of the value of $r_{count} > r_{table}$ which is > 0.312 . The significant value of 5% is < 0.05 .

2.3 Sample

The study included forty participants, and the sampling method used Popability Sampling with Stratified random sampling. The quora for each Puskesmas (Community Health Center) in the Mataram City area was determined based on proportion, and only four Puskesmas providing service (PONED) were selected to ensure representative samples. The sampling technique employed was accidental sampling. The inclusion criteria involved mothers who had undergone Caesarean Section (SC) delivery in Mataram City area within the last five years and were willing to participate as respondents. Exclusion criteria comprised mothers whose babies had complications, such as asphyxia, low birth weight, congenital abnormalities, and mothers with comorbidities such bleeding, PEB, and infection.

3 RESULT

3.1 Characteristics of Respondents

Table 2: Frequency Distribution Characteristics of Mrs X as Sectio Caesarea Respondents.

No	Characteristic	F	%
1.	Age		
	• 20-35	27	67,5
	• <20 and >35 years	13	32,5
	Total	40	100
2.	Experience		
	• EIBF	27	67,5
	• Never EIBF	13	32,5
	Total	40	100

In Table 1 the respondents in this study are mothers who had given birth through the Sectio Caesarea delivery method in Mataram City Area in the last five years in 2022, with a sample of 40 respondents. The characteristics of respondents used in this study are age and experience. The age characteristics of most respondents are respondents aged 20-35 years, of 27 respondents (67.5%). Meanwhile, the age at risk in mothers aged < 20 years and >35 years as many as 13 respondents (32.5%). The characteristics of respondents based on experience obtained most of the experience of mothers who have carried out EIBF

amounted to 27 respondents (67.5%), and those who have never had experience EIBF as many as 13 respondents (32.5%).

3.2 Performance Expectations, Business Expectations, Social Influences, Facilitating Conditions, Interests, and Behaviors Standard Procedures for Early Initiation for Breastfeeding of Sectio Caesarea Patients

Table 3: Distribution of respondents based on Standard Performance Expectations of EIBF for SC Patients.

Performance Expectations	Frequency	%
Beneficial	26	65
Non Beneficial	14	35
Business Expectations	Frequency	%
Easy to Implement	30	75,0
Difficult to Implement	10	25,0
Social Influence	Frequency	%
Need social support	21	52,5
No need social support	19	47,5
Facilitating Conditions	Frequency	%
Certain	26	65,0
Not sure	14	35,0
Interest	Frequency	%
Interested	24	60,0
Not interested	16	40,0
Total	40	100

Table 2 shows that respondents' performance expectations of EIBF SOP for SC patients mostly have a perception of more useful, of 26 respondents (65%). Respondents' business expectations of EIBF SOP for SC patients mostly have an easy perception to be implemented by 30 respondents (75%). Social influence, with most respondents' perceptions stated that they needed social support by 21 respondents (52.5%). Furthermore, in the aspect of conditions that facilitate most respondents have a confident perception to follow EIBF based on EIBF SOP for SC patients by 26 respondents (65%). Then, regarding respondents' interest in being willing to follow instructions according to EIBF SOP for SC patients, most of the respondents are interested as 24 respondents (60%).

The findings in Table 2 show that public perception of SOP EIBF for SC, when assessed from Performance Expectations, Business Expectations, Social Influences, Facilitating Conditions, Interests and Behaviors, is mostly more than 50% acceptance.

The ease of respondents in carrying out Early Initiation of Breastfeeding in labour with the Sectio Caesarea method can be assessed from respondents' Performance Expectations of the benefits and :advantages obtained from the Standard Operating Procedure for Early Breastfeeding Initiation Implementation of Sectio Caesarea patients. EIBF Benefits for mothers and their babies include increasing the baby's chances of obtaining colostrum, supporting the success of exclusive breastfeeding, strengthening the mother-baby relationship, and improving the baby's health (WHO, 2017), (Padmavathi et al., 2014). The first milk or colostrum obtained when carrying out EIBF has exceptional nutritional and health value for infants because it contains fat-soluble proteins, vitamins, and anti-bacterial ingredients. Regarding its convenience, business expectations refer to how easily a person uses a system (Darmansyah & Yosemite Karnvati, 2017). Most respondents, as many as 30 (75%), think that SOP are easy to implement. This shows respondents will be comfortable carrying out EIBF in labour with SC. Patient discomfort is one of the influencing factors in the implementation of EIBF. The mother's ability to carry out EIBF is seen from comfort during the implementation. The comfort experienced by mothers can facilitate the mechanism of removing breast milk (Retno et al., 2016), (Wu et al., 2018).

3.3 The Effect of Performance Expectations, Business Expectations, and Social Influence on Community Interest in Using EIBF SOP for SC Patients

In table 4 of the three variables, namely performance expectations, business expectations, and social influence, only social influence factors affect the mother's interest in implementing EIBF in accordance with the SO EIBF P for SC patients with a p value result of < 0.05, which is 0.028.

Table 4: Effect of Performance Expectations, Business Expectations, Social Influence on Community Interest using EIBF SOP for SC patients.

Performance Expectations	Interest				Total	%	p-value
	Interested		Not interested				
	f	%	f	%			
Beneficial	15	37,5	11	27,5	26	65,0	0,685
Non Beneficial	9	22,5	5	12,5	14	35,0	
Total	24	60,0	16	40,0	40	100	
Business Expectations	Interest				Total	%	p-value
	Interested		Not interested				
	f	%	f	%			
Easy to Implement	19	47,5	11	27,5	30	75,0	0,456
Difficult to Implement	5	12,5	5	12,5	10	25,0	
Total	24	60,0	16	40,0	40	100	
Social Influence	Interest				Total	%	p-value
	Interested		Not interested				
	f	%	f	%			
Need social support	16	40,0	5	12,5	21	52,5	0,028
No Need social support	8	20,0	11	27,5	19	47,5	
Total	37	60,0	16	7,5	40	100	

3.4 The Effect of Facilitating Conditions on Community Behaviour Using EIBF SOP for SC Patients

Table 5: Effect of Facilitating Conditions on Community Behavior using EIBF SOP.

Facilitating Conditions	Behavior				Total	%	p-value
	Positive		Negative				
	f	%	f	%			
Certain	17	42,5	9	22,5	26	65,0	0,042
Not sure	8	20,0	6	15,0	14	35,0	
Total	25	96,7	15	37,5	40	100	

In table 5, it is found that the facility variable has an influence on people's behavior to use the EIBF SOP for SC. The p value < 0.05, which is 0.042. This shows that there is a relationship between facilitating conditions and maternal behavior in using EIBF SOP.

4 DISCUSSION

In this study, the mothers' age is mainly at reproductive age 27 respondents (67.5%), which means that the time is right to get pregnant and give birth (Table 1). According to Retno's research (2017), of 282 mothers who gave birth with the SC method, 70% aged 20 and 35 years old. At this age, the mother is included in the early adult stage, where the mother can determine the willingness to action that was taken on her (Rudi Zalukhu, 2015) included in following

action instructions by the SOP for EIBF implementation for SC patients in this study. Based on respondents' experience with a history of childbirth before having carried out EIBF, more than 50%, of 27 respondents (67.5%) have had EIBF in their previous labour history. This shows that respondents have at least received information related to implementing EIBF. Besides the health workers, peers can also obtain information (Ara et al., 2018). Of the ten steps of breastfeeding success, one of them is the provision of information carried out by health workers about the benefits and management of breastfeeding, including the implementation of EIBF (WHO, 2017), (Lyellu et al., 2020), (Syukur & Purwanti, 2020).

The study's results based on the social influence on EIBF SOP of SC patients did not show a significant difference between the categories of need for social support and not requiring support. Social support in this study included family, husband, and health worker. Mothers who give birth with the SC delivery method have been unable to give a significant role because of the influencing conditions. Mothers should receive practical support to start, establish, and manage general breastfeeding difficulties (WHO, 2017), (Getaneh et al., 2021). Research in Tanzania states that implementing EIBF on patient SC in Hospital Dear Mother and the support of health workers in the operating room primarily determined a child patient's position success during EIBF Sustainability. Besides, it is supported by healthcare provider facilities (Lyellu et al., 2020) (Jerin et al., 2020), (Jerin et al., 2020), (Sampieri et al., 2022). The support of health workers in the operating room primarily determines sustainability and it is supported by healthcare provider facilities (WHO, 2017), (Retno et al., 2016).

In this study, respondents' interest in carrying out EIBF in the SC delivery method according to the SOP is relatively high, about 24 respondents (60%). The research results by (Padmavathi et al., 2014) show that EIBF in the SC delivery method has several risk factors, including age, religion, family income, and parity. This research aligns with research by (Verret-Chalifour et al., 2015) which states that maternal interest is very influential in implementing EIBF, as much as 95%. The behavior in this study is how respondents respond in carrying out every action taken in implementing EIBF by the SOP for implementing EIBF in SC patients. The results showed that most participants responded positively to SOP, of 25 respondents (62.5%). This states that respondents can accept SOP to be implemented. Based on research by (Nurkholifa, Pamungkasari and

Prasetya, 2021), childbirth with the SC method can still be carried out and is more likely to be carried out immediately. According to (WHO, 2017), EIBF is carried out immediately after the baby is born, and skin contact between mother and baby can be carried out (Nguyen et al., 2021), (Dzulham et al., 2020).

The analysis results in Table 3 are variables that most influence the mother's interest in carrying out the Sectio Caesarea Early Initiation of Breastfeeding by the Standard Operating Procedures, namely social influences. This influence is the support from husbands, family, and health workers. Most social influences that require social support are interested in running EIBF by the SOP 16 respondents (40%). Based on the research results by (Lyellu et al., 2020) in Tanzania, the implementation of EIBF in SC patients at the Mother and Child Care Hospital is supported by various things, including support from health workers. The team of health workers must be align by providing support through services during the EIBF implementation. The preparation stage before EIBF includes the EIBF process and post-EIBF implementation to support success in breastfeeding (Exavery et al., 2015). The results of the analysis in Table 4 indicate the effect of the Independent variable on the Dependent variable, namely the influence of facilitating conditions on people's behavior using the EIBF SOP for SC patients in the Mataram City Region in 2022.

5 CONCLUSIONS

Most respondents aged 20-35 years amounted to 27 respondents (67.5%). Social influence can significantly affect mothers' interest in carrying out EIBF SC with a p-value of < 0.005 , of 0.028. According to SOP, the effect of facilitating conditions on respondents' behavior in carrying out EIBF SC found that the p-value < 0.005 is 0.042. From the results of the study, it is recommended to conduct a feasibility test on EIBF SOP of SC.

ACKNOWLEDGEMENTS

Universitas Muhammadiyah Mataram supported this work.

REFERENCES

- Ara, G., Khanam, M., Papri, N., Nahar, B., Haque, M. A., Kabir, I., & Dibley, M. J. (2018). Peer counselling improves breastfeeding practices: A cluster randomized controlled trial in urban Bangladesh. *Maternal and Child Nutrition*, 14(3), 1–12. <https://doi.org/10.1111/mcn.12605>
- Darmansyah, & Yosemin Karnvati. (2017). *Model Acceptance of Accounting Information System untuk Pengidentifikasi Pemanfaatan Software Akuntansi Pada Perusahaan bisnis*. Universitas Esa Unggul.
- Dzulham, Y. Q., Kesehatan, P., & Tasikmalaya, K. (2020). THE APPROPRIATENESS OF ANDRIOD APPLICATION FOR THE STANDARD OPERATIONAL PROCEDURES OF NEONATAL MATERNAL EMERGENCY (SOP Asian Research Midwifery and Basic Science Journal. 1(1), 13–32.
- Exavery, A., Kanté, A. M., Hingora, A., & Phillips, J. F. (2015). Determinants of early initiation of breastfeeding in rural Tanzania. *International Breastfeeding Journal*, 10(1), 1–9. <https://doi.org/10.1186/s13006-015-0052-7>
- Getaneh, T., Negesse, A., Dessie, G., Desta, M., Temesgen, H., Getu, T., & Gelaye, K. (2021). Impact of cesarean section on timely initiation of breastfeeding in Ethiopia: a systematic review and meta-analysis. *International Breastfeeding Journal*, 16(1), 51. <https://doi.org/10.1186/s13006-021-00399-9>
- Jerin, I., Akter, M., Talukder, K., Talukder, M. Q. E. K., & Rahman, M. A. (2020). Mobile phone support to sustain exclusive breastfeeding in the community after hospital delivery and counseling: A quasi-experimental study. *International Breastfeeding Journal*, 15(1), 1–11. <https://doi.org/10.1186/s13006-020-00258-z>
- Kemkes RI. (2020). *Profil Kesehatan Indonesia 2020*.
- Lyellu, H. Y., Hussein, T. H., Wandel, M., Stray-Pedersen, B., Mgongo, M., & Msuya, S. E. (2020). Prevalence and factors associated with early initiation of breastfeeding among women in Moshi municipal, northern Tanzania. *BMC Pregnancy and Childbirth*, 20(1), 1–10. <https://doi.org/10.1186/s12884-020-02966-0>
- Nguyen, T. T., Hajeebhoy, N., Li, J., Do, C. T., Mathisen, R., & Frongillo, E. A. (2021). Community support model on breastfeeding and complementary feeding practices in remote areas in Vietnam: implementation, cost, and effectiveness. *International Journal for Equity in Health*, 20(1), 1–14. <https://doi.org/10.1186/s12939-021-01451-0>
- Nurkholifa, F. F. T., Pamungkasari, E. P., & Prasetya, H. (2021). Meta-Analysis the Effect of Section Caesarea on Early Breastfeeding Initiation. *Journal of Maternal and Child Health*, 6(1), 46–55. <https://doi.org/10.26911/thejmch.2021.06.01.05>
- Padmavathi, P., Jayadeepa, T., & Babu, A. A. (2014). Initiation of Breast Feeding After Caesarian Delivery. *Asian Journal of Nursing Education and Research*, 4(1), 114–116.
- Retno Dwi Andayani, S., Nursalam, N., & Budi Santoso, B. (2017). Role Provider In Increasing Of Early Initiation Of Breastfeeding Covered To Mother Of Sectio Caesarea In Hospital. *Advances in Health Sciences Research, Volume 3, 3(Inc)*, 229–232. <https://doi.org/10.2991/inc-17.2017.60>
- Retno, S., Andayani, D., & Hargono, R. (2016). Husband Involvement to Accompanying His Wife in Cesarean Section Delivery In Reducing Anxiety for Successful Implementation Early Initiation of Breastfeeding. *International Journal of Innovation and Research in Educational Sciences*, 3(5), 267–272.
- Rudi Zalukhu. (2015). *Psychological and Sociological Understanding About Human Being*.
- Sampieri, C. L., Fragoso, K. G., Córdoba-Suárez, D., Zenteno-Cuevas, R., & Montero, H. (2022). Influence of skin-to-skin contact on breastfeeding: results of the Mexican National Survey of Demographic Dynamics, 2018. *International Breastfeeding Journal*, 17(1), 1–9. <https://doi.org/10.1186/s13006-022-00489-2>
- Syukur, N. A., & Purwanti, S. (2020). Penatalaksanaan IMD pada Ibu Postpartum Sectio Caesarea Mempengaruhi Status Gizi dan Kecepatan Produksi ASI. *Jurnal Bidan Cerdas*, 2(2), 112–120. <https://doi.org/10.33860/jbc.v2i2.68>
- Verret-Chalifour, J., Giguère, Y., Forest, J. C., Croteau, J., Zhang, P., & Marc, I. (2015). Breastfeeding initiation: Impact of obesity in a large Canadian perinatal cohort study. *PLoS ONE*, 10(2), 1–14. <https://doi.org/10.1371/journal.pone.0117512>
- WHO. (2017). *Protecting, promoting and supporting BREASTFEEDING IN FACILITIES providing maternity and newborn services*.
- Wu, Y., Wang, Y., Huang, J., Zhang, Z., Wang, J., Zhou, L., Ni, Z., Hao, L., Yang, N., & Yang, X. (2018). The association between caesarean delivery and the initiation and duration of breastfeeding: a prospective cohort study in China. *European Journal of Clinical Nutrition*, 72(12), 1644–1654. <https://doi.org/10.1038/s41430-018-0127-9>
- WHO (2017) Protecting, promoting and supporting BREASTFEEDING IN FACILITIES providing maternity and newborn services.
- Wu, Y. et al. (2018) ‘The association between caesarean delivery and the initiation and duration of breastfeeding: a prospective cohort study in China’, *European Journal of Clinical Nutrition*, 72(12), pp. 1644–1654. Available at: <https://doi.org/10.1038/s41430-018-0127-9>.