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The evaluation of early initiation breastfeeding implementation in dr. Mohammad Hoesin Hospital of Palembang, Indonesia: Complaints and barriers

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ABSTRACT

Background: Early Initiation of Breastfeeding (EIB) is a worldwide health demand of both mother and child. EIB programme implementation is the duty and responsibility of all health care practitioners, ranging from executive staff and manager, which haven't runs well in dr. Mohammad Hoesin hospital.
Aims: To identify opportunities and challenges of hospital management in running the EIB programme in Obstetric Department of dr. Mohammad Hoesin hospital.
Methods: In this cross sectional study, all of birth mothers and health professionals were included. Samples were selected by purposive sampling. Data was obtained from the questionnaires which have been tested for validity and reliability.
Results: Our study found disintegration of EIB implementation between the managerial and implementer staff. Most of EIB implementers (29 doctors and 14 midwives) stated that EIB was already done well but complained of low level of maternal EIB knowledge and lack of EIB practice support from hospital manager. While managerial staff (n = 12) blaming the EIB implementers worked attitude for this issue. Most patients (51,3%) performing EIB, while majority of no EIB group had abdominal delivery (p = 0,003) and complained that no EIB policy in operating room.
Conclusion: At dr. Mohammad Hoesin hospital, EIB implementation faces challenges in managing the hospital, such no EIB policy in operating room, majority of patients are obstetric referral case with complication and unfit for EIB, managerial staff knowledge of EIB differ greatly, low socialization of EIB regulations and other elements of implementation, patient's level of knowledge, disintegration between the manager and executive staff causing ambiguity in the implementation of the EIB, and the lack of supervision of EIB implementation in the field.

This article is an extension of a selected paper "The evaluation of early initiation breastfeeding practice in dr. Mohammad Hoesin Hospital Palembang" published in *Proceedings of the International Conference on Applied Science and Health* (No. 1, February 2017).

INTRODUCTION

Early Initiation of Breastfeeding (EIB) is the natural process that allowed baby to feed itself, at least in the 1st hour of the life [1]. Babies are given the opportunity to obtain colostrum along EIB process [2]. Colostrum is the white blood cells and antibody-containing immunoglobulin A (IgA), which very important for resistance to infection, intestinal growth, infant survival, as well as create a protective layer for baby's immature intestines [1,3]. Early initiation of breastfeeding is crucial in preventing newborn deaths which greatly contribute to MDG's objective in lowering neonatal mortality rate [4]. However, in fact, the national rate

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of EIB is still low, only 34.5% [5]. To increase the value of such coverage, there should be an effort to take advantage of opportunities and overcome the challenges of EIB implementation [6].

In dr. Mohammad Hoesin hospital, EIB programme has become a procedure that must be implemented for hospital management. Although there is a standard procedure, but its implementation was very poor. EIB was given just a few minutes after the mother gave birth spontaneously. The newborn is immediately taken from her mother for body weight and length measurement. EIB also never happened in the setting of caesarean section (CS) mother because the baby was considered a high-risk infant and should have neonatal management immediately. This EIB implementation gap has lasted for years without any evaluation and refinement, which encourage the writer to evaluate its problems from the dimension of patients, executive staff (doctor, midwife, and nurse), and manager's points of view.

METHODS

Study design was cross sectional, consists of three groups of sample (patients, executive staff, and manager) which minimal sample size of the first two groups was calculated with Lemeshow formula proportioned by each population size (n = 37, n = 43 respectively), while total sampling was done in manager group whom govern the EIB policy (n = 12). All subjects were selected by purposive sampling. Data was taken primary by a self-structured contingency questionnaire, rated valid and reliable by Cronbach test, to be filled out by the subjects, and secondary from medical record for tracking the pregnancy and labor history in patient group. Univariate analysis was performed to calculate the frequency distribution and the proportion of each sample group characteristics. Bivariate data was analyzed to determine the relationship between reinforcing factors (knowledge, attitude, behaviour, barrier, and support) and EIB implementation, Chi-square or Fisher exact test for category variable and Mann-Whitney U test for continues variable.

RESULT

Characteristics of patients

The characteristics of patients in both of groups (EIB vs non EIB) were similar. In both of groups, the subject majority aged 21-35 years (age of reproduction), live in the urban city, high educated, and multiparous. They both also showed high knowledge and good attitude characteristic, received good support and less EIB barrier, altough no significant relationship was found between these demographic data and reinforcing factors with EIB implementation (Table 1).

Patients' complaints to EIB

Mode of delivery was one significant risk factor of poor EIB implementation, where CS women mostly could not implement the EIB (p = 0.003) (Table 1). Half of respondents (50%) from the group EIB (-) complained that EIB is unable to performed in operating room and delivery room is less feasible, others stated education about EIB which was given by doctor or midwive were remain unclear, and complained of low policy socialization (Figure 1).

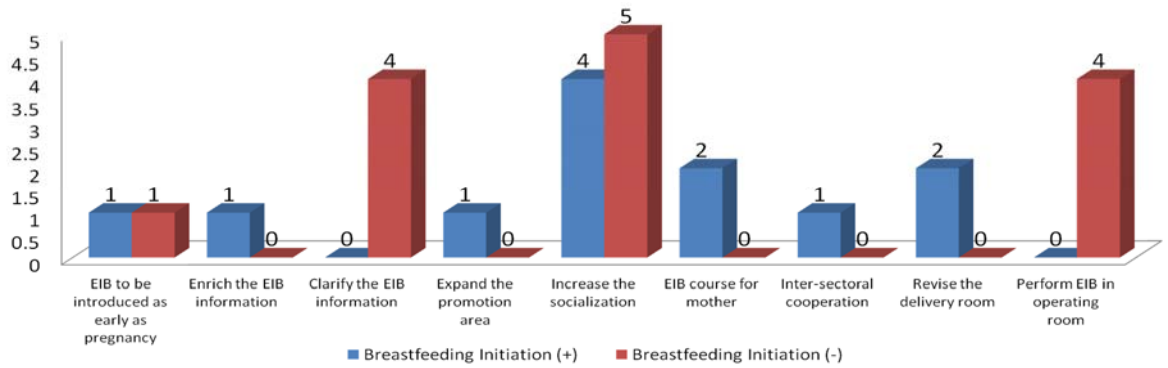

Figure 1. Patient's complaint to EIB*
* Note: a respondent can give more than one complaint

Table 1. Demographic characteristic and reinforcing factors of patient group.

Variables	EIB (+) (n = 19)		EIB (-) (n = 18)		*p* value
	N	%	N	%	
Age					
- <20 year	1	5.3	1	5,6	0,994€
- 20-35 year	13	68.4	12	66,7	
- >35 year	5	26.3	5	27,8	
Living					
- Urban area	13	68.4	12	66,7	0,909§
- Rural area	6	31.6	6	33,3	
Education					
- Low educated	7	36.8	7	38,9	0,802§
- High educated	12	63.2	11	61,1	
Occupation					
- Housewife	15	78.9	16	88,9	0,660§
- Not housewife	4	21.1	2	11,1	
Parity					
- Nulliparous	7	36.8	4	22,2	0,341€
- Multiparous	11	57.9	14	77,8	
- Grandemultiparous	1	5.3	0	0	
Mode of delivery					
- Vaginal	18	94.7	9	50	**0,003**§
- Abdominal	1	5.3	9	50	RR = 0,056 (0,006 – 0,509)
Knowledge					
- High	9	47.4	8	44,4	0,186€
- Moderate	4	21.1	8	44,4	
- Low	6	31.6	2	11,1	
Mean ± SD score	10.63 ± 3.68		12 ± 2.249		**0.041***
Attitude					
- Good	15	78.9	15	83,3	1,000§
- Bad	4	21.1	3	16,7	
Mean ± SD score	11.68 ± 2.24		11.7222 ± 2.94669		0.814*
Behaviour					
- Supporting EIB	18	94.7	9	50	**0,003**§
- Not Supporting EIB	1	5.3	9	50	RR = 0,056 (0,006 – 0,509)
Mean ± SD score	3.73 ± 0.99		2.0556 ± 1.69679		**0.002***
Support					
- Good	19	100	18	100	-£
- Bad	0	0	0	0	
Mean ± SD score	8.47 ± 0.77		8.6667 ± 0.59409		0.115*
Policy					1,000§
- Good	4	21.1	4	22,2	
- Bad	15	78.9	14	77,8	
Mean ± SD score	2.63 ± 1.30		2 ± 1.97037		0.103*
Barrier					
- Low	18	94.7	18	100	-£
- High	1	5.3	0	0	
Mean ± SD score	9.79 ± 2.02		9.7222 ± 1.60167		0.330*

§ Fisher Exact test, 95% CI
€ Chi Square test, 95% CI
* Mann-Whitney U Test, 95% CI
£ p-value can not be calculated

Characteristics of hospital staff

Doctors in executive staff group have more advance age, higher education and knowledge about EIB compared with midwives in the same group. High majority of doctors and midwives showing a good attitude and practice towards EIB implementation, but deplore the policy which didn't support EIB implementation (Table 2). While no significant differences were found in EIB reinforcing factors (knowledge, attitude, practice, policy and barriers) both in doctors group and in midwives group.

Table 2. Demographic characteristic and and reinforcing factors of executive staff group.

Variable	Midwive (N = 14)	Doctor (N = 29)	*P*
Age	28.36±2.4	30.55±2.94	**0.020***
Education			
- Less than diploma	0 (0%)	0 (0%)	**<0.001**€
- Diploma	14 (100%)	0 (0%)	
- Bachelore	0 (0%)	29 (100%)	
- Master	0 (0%)	0 (0%)	
EIB implementation			
- Running well	12 (85.7%)	19 (65.5%)	0.279§
- Bad	2 (14.3%)	10 (34.5%)	
Knowledge about EIB			
- Good	9 (64.3%)	28 (96.6%)	**0.01**€
- Moderate	5 (35.7%)	1 (3.4%)	RR = 0.64
- Bad	0 (0%)	0 (0%)	(0.007-0.625)
Mean ± SD	12.57 ± 1.55	13.41± 1.38	0.79*
EIB Attitude			
- Pro	14 (100%)	29 (100%)	-£
- Contra	0 (0%)	0 (0%)	
Mean ± SD	6 ± 0	5.83± 0.47	0.178*
EIB practice			
- Good	14 (100%)	27 (93.1%)	1.000§
- Bad	0 (0%)	2 (6.9%)	
Mean ± SD	4 ± 0	3.86± 0.52	0.326*
EIB policy			
- Supported	5 (35.7%)	13 (44.8%)	0.409§
- Not supported	9 (64.3%)	16 (55.2%)	
Mean ± SD	3.64 ± 1.39	3.27± 1.58	0.463*
EIB barrier			
- High barrier	6 (42.9%)	12 (41.4%)	1.000§
- Low barrier	8 (57.1%)	17 (58.6%)	
Mean ± SD	8.14± 1.61	8.07± 1.73	0.894*

§ Fisher Exact test, 95% CI
€ Chi Square test, 95% CI
* Mann-Whitney U Test, 95% CI
£ p-value can not be calculated

Hospital staffs' complaints to EIB

Study result in executive staff found that EIB has generally been implemented properly. But EIB problems emerge from several factors: Less recognition and support from hospital toward EIB, unavailability of EIB in CS patient, and low maternal knowledge are major complaints of doctors regarding EIB implementation; The patient's condition, unavailability of EIB in CS patient, low maternal knowledge, and less of socialization are midwife complaints regarding EIB implementation as shown in Figure 2. Respondents suggested to improve hospital support through the socialization of policy; improving patient education not only given to maternity patients, but also in pregnant patients; and implement EIB in operating room.

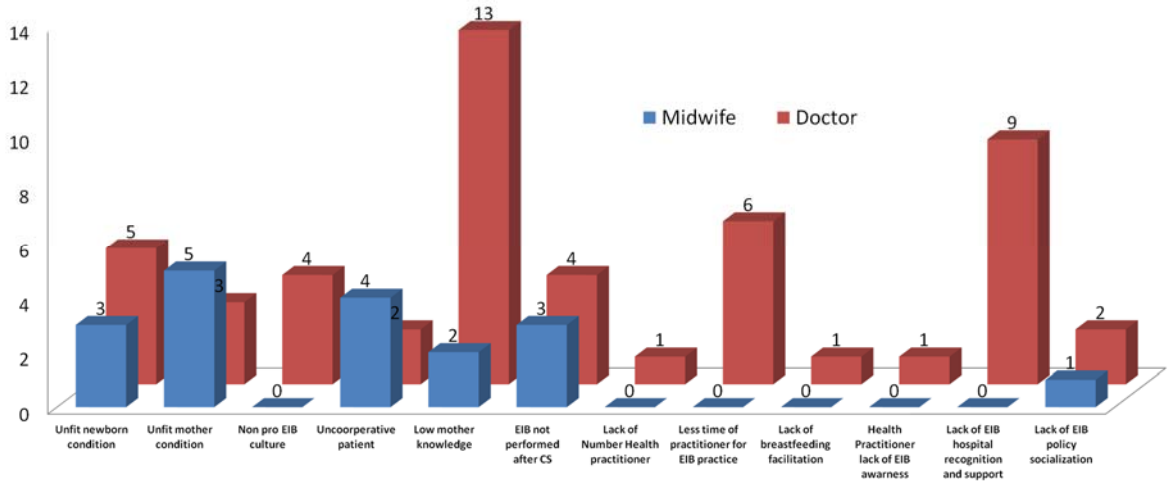

Figure 2. The doctor and midwive's complaints to EIB*
* Note: a respondent can give more than one complaint

Managements' evaluation to EIB implementation

There were 58,33% (7 of 12) managerial stated that EIB implementation in dr. Mohammad Hoesin Hospital is still poor. All of whom were specialist doctors and had worked for more than one decade, while managerial who stated that EIB implementation had run well comprise of room manager and head of medical unit, as in Table 3. This rise a question, "do the stakeholder will give the honest disadvantageous answer ?". The present study found that there were no significant differences in demographic characteristic and reinforcing factors (knowledge, attitudes, practices, support, policies, and barriers) in this group.

Table 3. EIB evaluation by top managerial

Variables	Good EIB implementation (n = 5)		Poor EIB implementation (n = 7)		*p* value
	N	%	N	%	
Age	49.4 ± 6.84		55.71 ± 4.27		0.076*
Occupation					
- Specialist doctor	2	40	7	100	0.061§
- Nursing manager	3	60	0	0	
Position					
- Director	2	40	1	14.3	
- Head of department	0	0	2	28.6	
- Head of study programme	0	0	3	42.9	0.160€
- Head of installation	1	20	0	0	
- Head of emergency room	1	20	0	0	
- Head of delivery ward	1	20	0	0	
- Head of operating room	0	0	1	14.3	
Length of work					
- <5 year	2	40	0	0	
- 5-10 year	1	20	0	0	0.061€
- >10 year	2	40	7	100	

§ Fisher Exact test, 95% CI
€ Chi Square test, 95% CI
* Mann-Whitney U Test, 95% CI

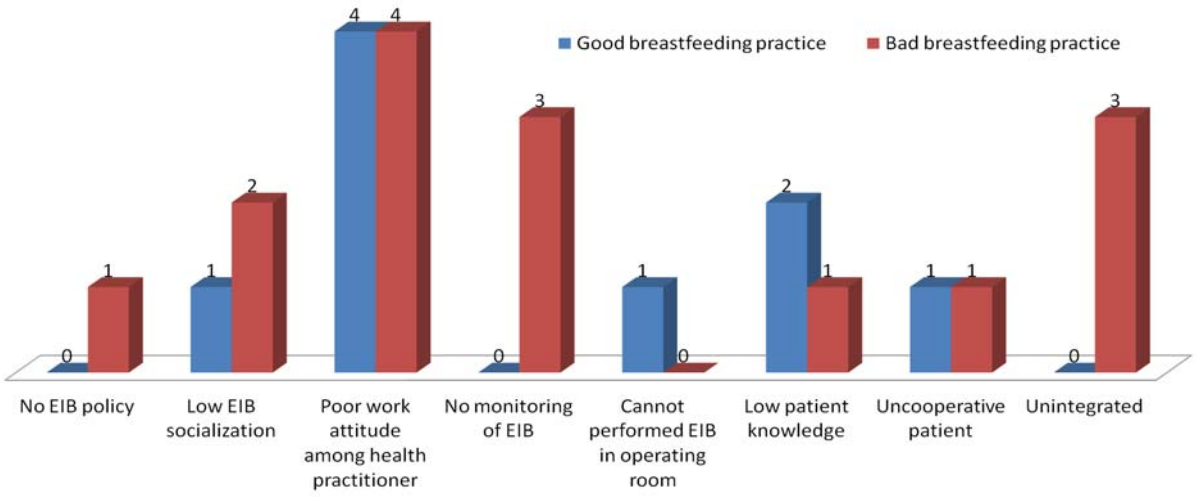

Figure 3. Distribution of EIB Barrier in Managerial Group*
* Note: a respondent can give more than one answer

Figure 3 shows barriers of EIB practice mentioned by managerial group. The work attitude is the greatest obstacle in implementing EIB. This "working attitude" such as less time to supervise and provide an opportunity for mothers to do EIB, the midwive is too rush in taking the newborn from the mother. But when we did a crosscheck on the barriers, it was known to have its own reasons such as patient condition (uncooperative, medical conditions that unfit for EIB), unavailability of EIB in CS patient, low maternal knowledge, no EIB policy socialization. This research obtains disintegration pattern between the two sides leading to the unproperly implementation of EIB in our hospital.

DISCUSSION

The study was conducted from November to December 2016 enrolling 37 postpartum mothers, 43 executive staff (14 midwives and 29 medical residents), as well as 12 managerial staff. The rate of EIB in our hospital is 51,4%. These results were still far below the target of Health People 2010, which is about 75% [7].

We found significant differences in the mode of delivery affecting the EIB implementation, which CS group did not implement EIB the most. This gives a hint that one of the obstacles of EIB implementation is CS patients don't get the opportunity to carry out EIB. Study held by Doung et al. found the probability risk of post CS mother for not having exclusive breastfeeding is 18,52 [8]. Chandrasekhar in West Nepal stated normal delivery has 7,6 times opportunity to have EIB than CS patient [9, 10]. An early study by Rowe-Murray and Fisher (2002) in Hobbs (2016), found that babies born via c-section were less likely to be have skin-to-skin contact immediately after birth and were more likely not to have attempted breastfeeding within the first 24 h post delivery [11]. Hobbs *et al*, stated the delays in breastfeeding initiation accompanying c-section delivery are associated with maternal/infant separation, reduced suckling ability, decreased infant receptivity, and insufficient milk supply, which are predictive of shortened breastfeeding duration [11], while Khanal et al (2015) stated that effect of anaesthesia, caesarean procedure, maternal tiredness, reduced maternal alertness and inadequate maternal skills to initiate breastfeeding are some of the reasons for delayed breastfeeding among caesarean births [12].

Performing EIB after CS requires many requisitions. The stability of mother and baby condition, appropriate operation room temperature, the availability of warmer, assistance from neonatology, and mother should fully awake may be needed to performing safe EIB. Dr. Mohammad Hoesin is a tertiatry level hospital which most of it handling difficult referral cases, no exception in obstetric case. This makes a CS the most frequent mode of delivery done in complicated obsteric patient. Although this reason may explain the majority cause of low rate EIB implementation after

mergency cesarean section patients, the same also happened in elective cesaren section.

The most logic and acceptable reason for this gap is the absence of EIB policy in cesaeran setting, as mentioned by executive staff group. However, contradictory statements were arise from the managerial side, by stating the EIB policy had been enacted for years. The fact that neither patients nor executive staff aware of this regulation show us the poor EIB policy socialization among executive staff and patients.

Interestingly, in managerial group, the knowledge and awareness about EIB were varied greatly, which indicate socialization once again seems to be a major obstacle not only at the level of the patient and executive staff, but also the managerial level. In addition, there is a discrepancy between the managerial (good EIB managerial group vs poor EIB managerial group) shown by contradictive answer in the existance of EIB policy (25% didn't know if EIB policy exist), MONEV system (only 33,3% state MONEV system is exist), and EIB program indicator (only 41,6% state EIB program indicatior is exist). This is interesting because actually all of them should know and understand about EIB policy. These discrepancies may occur as a result of unproper EIB policy - not only in patients but up to managerial level.

The last but not least, this study found that executive staffs' "working attitude" were poor, which disputes by managerial and patient, such as less time to supervise and provide an opportunity for mothers to do EIB, the midwive is too rush in taking the newborn from the mother. From other sides, when we did a crosscheck on the barriers, there was no significant difference between attituted and practice of EIB in executive staff group, and had their own reasons such as patient condition (uncooperative, medical conditions that unfit for EIB), unavailability of EIB in CS patient, low maternal knowledge, no EIB policy socialization.

No statistically significant differences were found in all group's demoraphics (except knowledge in patients group) and reinforcing factors, showing that either respondents who implement EIB or respondents who do not implement EIB have similiar human behaviour model, and those factors do not related with the good or bad of EIB implementation. This also shows us that EIB socialization might be the main culprit of this problem, and root cause analysis are needed to clarify the main cause of this problem.

The opportunitiy of EIB implementation is affected by medical condition of mother and fetus, method of delivery, hospital support, EIB policy socialization, and patient's level of knowledge. There are so many challenges for dr. Mohammad Hoesin hospital to implement EIB, such as no EIB policy in operating room, the majority of patients are obstetric referral case with complication so that the mother's condition is often unfit for EIB, knowledge of the managerial about EIB differ greatly, low socialization about regulations and other elements of the EIB implementation. There is also disintegration between the manager and executive staff causing ambiguity in the implementation of the EIB and the lack of supervision of EIB implementation in the field.

This is the first study that evaluated EIB practices and explored issues at various levels provider in the setting of dr. Mohammad Hoesin hospital. The research included a questionnaire with closed and open questions based on a model of human behavior (Health Believe Model and Malcolm Bridge Model) so that it covers the majority of human behavior dimension and makes it possible to analyze each of the behavior. The weakness of this study is its design, whih was cross-sectional, and the researchers did not evaluate the objectivity respondent's answer with direct assess practices in dr Mohammad Hoesin hospital. We had tried to minimize this weakness by doing cross-checking at all provider levels to reach conclusion. We also use a questionnaire that may not necessarily include all issues that may exist in the field, however the researchers tried to minimize this bias by open label question.

CONCLUSION

The rate of EIB in dr. Mohammad Hoesin hospital from November-December 2016 is 51.3%. The opportunity of EIB implementation is affected by medical condition of mother and fetus, method of delivery, hospital support, EIB policy socialization, and patient's level of knowledge. While the

challenges, such as no EIB policy in operating room, frequent complicated maternal condition lead the impossible to perform EIB, managerial knowledge about EIB differ greatly, low EIB socialization, disintegration between manager and implementer staff causing ambiguity in the implementation of the EIB, and the lack of supervision of EIB implementation in the field.

From this study results, for the hospital management, we suggest to perform a better socialization of EIB policy by the hospital staff, informative education about EIB to the patients, the new policy of EIB in the operating room, and the EIB integrated service system. Further research needs to be done with a single variable based on the problem issues summarized in this study, so it can focus to evaluate the EIB problems with more valid study design and bias control, also with a larger number of samples. Unintegrated EIB service raised misunderstanding issue in both providers. It requires an effort to solve the problem by round table discussion among providers to formulate an integrative mechanism that benefits all parties whom related with EIB practice.

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CONFLICT OF INTERESTS

Author have not conflict of interest.

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