# Interventions analysis of addressing exclusive breastfeeding (EBF) barriers to improve EBF coverage among industrial women employees in Indonesia

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# ABSTRACT

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Keywords Exclusive breastfeeding Indonesia Women employees Low coverage of exclusive breast feeding (EBF) is a global public health problem. Employment has been recognized as a barrier to EBF practice among women employees in Indonesia as they work more than 8 hours per day. In Indonesia, about 200,000 industrial companies employ women and women are offered only 3 months maternity leave. As a result, the prevalence of EBF among industrial remains low. While policies already exist, the technical guidelines on the interventions are not well implemented due to unpractical approaches on these guidelines. This paper analyses interventions to address barriers of EBF in order to increase EBF coverage among industrial women employees in Indonesia. We conducted a review of secondary data to explore best practices to increase low coverage of EBF among industrial women employees. The propose of the study was to provide recommendations that could be implemented in the Indonesian setting. The study shows that there are three group level barriers, i.e individual, group and social-culture, which contribute to low coverage of EBF. The analysis revealed that work place interventions, such as lactation programs and increasing employers' awareness on breastfeeding, are effective and feasible to be implemented in Indonesia. Another intervention is personal intervention, i.e prenatal planning and preparation, job sharing and day care. It is recommended that these interventions be implemented simultaneously to address the barriers of EBF practice among industrial women employees in Indonesia.

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# 1. Introduction

Exclusive Breast Feeding (EBF) is the best nutrition for infants and is an important aspect to preventing child mortality, optimal health achievement, growth and child development. It is supported by research that 1.4 million children died per year due to suboptimal infant feeding (World Health Organisation (WHO), 2005). EBF is the process of providing breast milk only, without adding any complementary foods such as water or honey for infants during their first six months of life, and the World Health Organization recommends that all infants should receive EBF (WHO 2005). EBF brings several advantages for both children and mothers. Scientific evidence has shown that EBF is important, not only for children's nutrition, but also for their growth, physical development and intelligence (Baker and Milligan, 2008). Meanwhile, EBF is also beneficial for mothers as an effective method of birth control, reducing the risk of breast cancer and psychological mother-infant attachment (Chapman, 2011). EBF provides the best nutrition for physical growth, has

a good impact on physio-social development and is an effective method of preventing further pregnancies for the mothers (Senarath et al, 2010). It could also save as many as 1.5 million infant's lives every year as it prevents numerous causes of infant mortality, such as malnourishment and diarrhoea (UNICEF, 2002). However, globally the low coverage of EBF still remains, which is particularly poor in developing countries (WHO, 2007) due to a lack of breastfeeding promotion, cultural barriers, poor of advocacy and lack of knowledge (WHO, 2002).

There are many countries that still have low coverage of EBF, such as Indonesia. Based on the Indonesian Health Survey Demography (IHSD) in 2012, the coverage of EBF was 42 %. There were only 12% of women employees in Indonesia who continued to breastfeed (cited in Murtyarini (2012). There are several barriers hindering EBF, such as lack of knowledge, socio-culture, employment, lack of advocacy, policy and support (Tarrant et al, 2011). The International Labour Organisation (ILO) as The United Nations (UN) specialised agency which seeks the promotion of social justice and internationally recognised human and labour rights, found that employment is a contributing factor to the practice of EBF, especially when mothers return to work (ILO, 2011a). This is due to a reduction in physical contact during working time, compared to when they were on maternity leave (Amin et al, 2011). In fact, in developing countries especially, there is a significant increase in number of women employees, due to social-economic changes and needs (Yimyam and Morrow, 1999). Examining the global trends, women's participation in employment has grown significantly. It has risen from 1.2 billion in the 1980's to 52.6 billion in 2006 (Riordan and Wambach, 2010). In Indonesia, approximately 45 billion women work as industrial employees (Kompas, 2011).

Many studies show that employment contributes to shortening in the duration of supplying EBF (Ogbuanu et al. 2011). Research evidence shows that mothers who return to work full-time spend less time providing EBF, compared to women who choose to stay at home (Lawrence and Lawrence, 2005). Based on the Fragile Families and Child Wellbeing Studies, cited in Ogbuanu et al. 2011), women who are in employment are 54% higher in breastfeeding cessation than women who are not. As a response to the issue, one of the ILO's primary goals is to protect the maternity health needs of women workers and their babies and to promote the retention of women in the workforce throughout their childbearing years (Riordan and Wambach, 2010). One of the points that need to be addressed to reach this goal is breastfeeding.

There are many policies and guidelines established by the WHO to address such a problem and a number of countries have adapted these with the aim of increasing EBF coverage. In Indonesia for example, in order to encourage women to breastfeed whilst in employment, several policies and strategies have been established that will be explained in detail below.

There are many policies and guidelines established by WHO to address such a problem and a number of countries have adapted these with the aim of increasing EBF coverage. In Indonesia for example, in order to encourage women to breastfeed whilst in employment, several policies and strategies have been established that will be explain detail in chapter 3. However, in reality, the country's EBF coverage of 42% in 2009 is still lower than the national target which is 80% (Berlian, 2010).

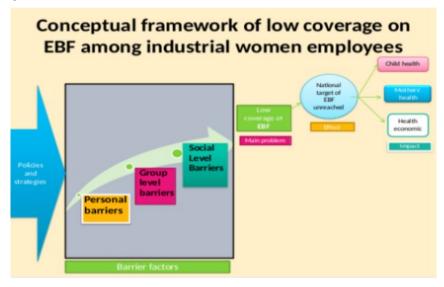
'Coverage of EBF' illustrates the number of women who have babies aged 0-2 years and who breastfeed during the first 6 months (WHO, 2005). 'Industrial women employees' are women who work for the industrial sector, full-time for 8-12 hours daily in factories or companies that produce goods (ILO, 2012a). As maternity leave periods generally expire before the end of the breastfeeding period, provisions to enable women to continue to breastfeed upon returning to work are important to meet international recommendations on breastfeeding and are in the best health interests of both mother and child (ILO, 2012b). In relation to this, ILO established an act regarding health protection in the work place. Article 3 Confession No 183 explains about women's employment rights related to maternal matters including breastfeeding (ILO, 2012c). However, the lack of workplace support for breastfeeding makes working incompatible and it leads to low coverage of EBF among industrial women employees (ILO, 2012a).

Having understanding that EBF as a global health problem amongst industrial women employees this study aimed to analyse the interventions to address the barriers of EBF in order to increase EBF coverage among industrial women employees in Indonesia.

#### 2. Methods

#### 2.1. Study Design and conceptual framework

This study reviewed interventions to address barriers of EBF among industrial women employees in Indonesia, which included personal, group and social barriers related to EBF. Recommendations are provided for Indonesian stakeholders with the aim of increasing EBF coverage among industrial women employees. The conceptual framework used is adapted from Hector et al (2005). The conceptual framework was used to analyse the barriers in each level, including the effect and impact, and also which interventions exist to address these barriers. The following figure represents the conceptual framework of low coverage on EBF among industrial women employees.



**Figure 1**: Conceptual framework of low coverage on EBF among industrial women employees (Hector et al, 2005)

# 2.2. Scope of review

This review deals with how to manage the barriers to increase coverage of EBF among industrial women employees. It is necessary to address barriers at the personal, group and social level together because they are associated with each other in terms of contributing to low coverage of EBF among industrial women employees (Amir et al, 2010).

## 2.3. Sources of data

Several sources were used to collect data i.e. documents from Indonesia and an international literature search.

## 2.3.1. Documents from Indonesia

The lead author was involved in a breastfeeding promotion project of Indonesian Breastfeeding Mothers Association (AIMI). Thus, as a member, the author frequently received new documents regarding topics related to breastfeeding. Such documents include National situational analysis of the government, policy makers and NGO's actions on addressing the barriers of EBF practice among industrial women employees.

## 2.3.2. International literature search

#### i. Leeds University Library Search

The Leeds University was searched for books on breastfeeding related to employment and four textbooks with relevant information were chosen.

## ii. UNICEF and WHO documents

Relevant international documents on EBF and the barriers of employment were collected from the WHO office in Geneva and from the UNICEF office in Jakarta, Indonesia.

#### iii. Specialised databases

Global Health, Medline, ScienceDirect and WHO databases were searched repeatedly. Those databases were used to collect information regarding data in developed and developing countries that related to breastfeeding and employment. There were several steps taken to search literature using these databases which used keywords and this is explained in the following tables.

Global health, Popline and ScienceDirect was used to collect information on barriers of EBF among industrial employees.

	results:			
Vera verde	Result			
Keywords	Global Health	Popline	Science Direct	
Breastfeed*	5143	7783	8090	
Exclusive breastfeeding	4033	3020	4002	
Exclusive Breastfeeding problem*	11	14	18	
Exclusive Breastfeeding barriers*	6	9	4	
Breastfeeding and Employ*	7	7	5	
Breastfeeding and Job*	4	6	5	
Breastfeeding and industrial women employee*	2	1	3	

**Table 1.** Global health, Popline and Science Direct database search-keyword and number of results:

WHO database was used to collect information about policy and intervention guidelines to support breastfeeding in the work place.

Keywords	Result	
Breastfeeding promotion program*	150	
Exclusive breastfeeding and Job*	50	
Exclusive breastfeeding policy*	14	
Exclusive Breastfeeding strategy*	5	
Breastfeeding and Employ*	9	

Table 2. WHO data	base search-keyv	word and numbe	er of results
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Relevance of articles from these databases is shown by the number of stars (\*) they carry. Articles with five stars were given preference and their abstract were examined to confirm their relevance to the dissertation. 7, 15 and 10 articles were selected from Global Health, Popline and ScienceDirect respectively; 10 articles were selected from the WHO database. Hand searches of references in the retrieved articles was done to identify relevant articles that were not retrieved by databases. Further information about the literature search is below.

## i. Exclusion criteria

Articles about breastfeeding that were not related to employment were excluded.

## ii. Inclusion criteria

All literature either English or Indonesian from 1995 until 2012 were included.

## iii. Specialised Websites

ILO, UNAIDS, UNICEF, WHO, Indonesian Ministry of Health, AIMI websites were searched for relevant information. Articles were selected based on the above inclusion and exclusion criteria.

#### iv. Subscription for information update

The author subscribed to the British Breastfeeding Journal and Zetoc in September 2011 for information on new articles related to breastfeeding among women employees. Selection criteria for the articles are as listed above and 5 articles were selected.

#### 3. Intervention Analysis

Multiple intervention approaches were found within the literature reviewed. However, Riordan and Wambach's (2010) approach was chosen because it addresses barriers that were mentioned in the conceptual framework. According to Riordan and Wambach (2010), there are four key interventions to encourage breastfeeding for women employees. These are individual strategies to manage breastfeeding and work; workplace strategies to support breastfeeding and work; community strategies to support breastfeeding and work; and national and global strategies in promoting and supporting breastfeeding.

This study focuses on workplace and individual strategies. Workplace strategies were chosen because evidence shows that the most common reason for women employees to discontinue breastfeeding practices is because there is no facility or support for breastfeeding in the work place (Hirani and Kalmariani, 2011). Thus, women employees have difficulty in continuing to breastfeed. Furthermore, the workplace is an important site for interventions since women usually start to have problems in breastfeeding after returning to work (Huffman, 1984 cited in Abada et al, 2001).

Meanwhile, the individual strategies overcome problems related to personal barriers (Riordan and Wambach (2010). These were chosen because improvements of individual attitudes regarding EBF will have significant influence either at the community, social or cultural level (Dabritz et al, 2008). Thus, by using this intervention, the programme manager of the breastfeeding promotion might also accomplish community changes in terms of breastfeeding awareness (Libbus and Bullock, 2002). In addition, both interventions seem to be feasible to be implemented in an Indonesian context since Indonesia still has similarities with other developing countries, which still have several challenges such as political constraint, financial constraint, health policy weaknesses, and limited health staff (Pricilla, 2008). Those challenges will have a negative influence on intervention and policy effectiveness. For instance, due to the re-shuffle of the cabinet of Indonesian Ministries, there are several programmes under the Ministry of Health which could not achieve the optimal goal (Berlian, 2010).

Criteria from Walley and Wright (2010) was used to assess them, in the following sections. The criteria are technical effectiveness, organisational feasibility, social, cultural and political feasibility, financial feasibility, equity and gender consideration and sustainability that will be assessed at the end of this section.

## 3.1. Workplace strategies

Workplace strategies are implemented in order to limit group barriers of EBF practice among industrial women employees through creating a conducive environment for women employees in the workplace for breastfeeding (ILO, 2012a). According to Riordan and Wambach (2010), there are two effective workplace strategies, which are lactation programmes in work sites and increasing awareness of EBF among employers.

#### 3.1.1. Lactation programmes in work sites

Lactation programmes in work sites are action programmes that work in an effort to support breastfeeding among women employees in the workplace (Riordan and Wambach (2010). Lactation support programmes are very important to address barriers of EBF practice among women employees, enhance breastfeeding success and improve the health of mothers and babies (Riordan and Wambach, 2010). According to Riordan and Wambach (2010), there are four key elements that need to be considered in the lactation programmes in the workplace. These are time, space, people and regulation. There is evidence that if the four key elements are implemented properly, this intervention has high effectiveness in the implementation of breastfeeding programmes in the workplace, in order to increase low coverage of EBF among industrial women employees (Bakuola et al, 2006).

'Time' means flexible time to express breast milk, cleaning the breast pump and storing the milk during working time. 'Space' means private areas that are comfortable for mothers to express their breast milk. The next element is 'people' who support breastfeeding practice and create a conducive environment, these include employers and peer groups. The last is 'regulation', that advocates women employees to continue breastfeeding whilst at work (Riordan and Wambach, 2010). The following section analyses the interventions by using the criteria mentioned above in order to analyse feasibility of its implementation in Indonesia.

#### a) Technical effectiveness

Evidence found in the US about analysis of a peer counselling support programme for low income women, named Breastfeeding Initiative Programme (BFI), had showed that there was a significant increase in initiation and the duration rate of EBF (Bolton et al, 2009). BFI provides breastfeeding education and support to low-income women through peer counsellors (PCs). PCs must have transportation, a high school education or equivalent, must have breastfeeding support and home visiting, ongoing training through quarterly group meetings, and assistance on technical issues from supporting lactation consultants as needed. Though the evidence came from developed countries, the programme was for low-income women. In Indonesia, industrial women employees that are considered as labourers have a minimum salary per month (Kompas, 2010). It is therefore likely that the intervention will be feasible to be implemented in Indonesia.

#### b) Organisational feasibility

Providing space for breastfeeding is also an important aspect to be considered on creating a conducive environment for breastfeeding in the workplace (Chow et al, 2012). 'Space' includes a private area or facility where mothers can be comfortable expressing breast milk. In Thailand, most companies have private areas for women to breastfeed or express breast milk. The companies also provide some breast pumps for the employees. The evidence shows that national coverage of EBF in Thailand is more than 80% (Yimyam and Morrow, 1999). The intervention was effective as the Thai government combined the intervention with written policy and technical guidelines (Yimyam et al, 1999). Since Indonesia has a larger scope in terms of geographical areas, population and companies, the supervision, monitoring and evaluation programme should be employed simultaneously (Berlian, 2010). Thus, strengthening the scale up programme could be taken as an alternative to increase organisational feasibility of the lactation programme.

## c) Social, cultural and political feasibility

In the US companies, a quasi-experimental study showed that providing facilities such as breast pumps, breastfeeding breaks, giving mothers the option to return to work and extended maternity leave has had significant influence on positive breastfeeding attitudes amongst women employees (Lawellen et al, 2006). Thus, providing such facilities will give alternative options for women employees to keep continuing to breastfeed while working (Lawrence and Lawrence, 2005).

In the Philippines, community-based peer counselling was associated with improvement of EBF practices. This intervention evolved and became sustainable by engaging political figures, cities, and communities throughout the process (Salud et al, 2006). Colleagues in work circumstances should be involved in breastfeeding promotion programmes because they will feel supportive for those lactating women employees (ILO, 2012c). Since the evidence shows that the programme implementation should consider the complexity of social, cultural and political settings, advocacy or regulation should be combined in the programme implementation. There is evidence from Indonesia that peer-community empowerment had a positive impact on reducing maternal mortality because a cultural

7

value, which is 'gotong royong' that means 'help each other', are considered within programme implementation (IMoH, 2005). Though the programme is not related to breastfeeding, the traditional value of 'gotong royong' could be taken as an alternative value to implement worksite lactation programmes such as peer-support or peer counselling. Besides, strengthening policy that is already established will advocate industrial women employees to work while breastfeeding.

#### d) Feasibility

To create a conducive environment for breastfeeding in the workplace needs not only extra effort but also extra cost as there is additional costs for providing facilities for mothers to facilitate breastfeeding, such as private areas, transportation and educational materials (Riordan and Wambach, 2010). Evidence from a study in Korea shows that, in order to create supportive environment for breastfeeding, a lactation program requires costs, related to providing private areas, breast pumps, and transportation. However, long term benefits will be gained such as reducing employees' health costs since nuclear family health is usually covered by companies (Kang et al, 2004).

Since most Indonesian companies use JAMSOSTEK insurance, an insurance that covers employees' health and their nuclear family (IMoHRT, 2010a), lactation programmes in the worksite will also be feasible if the employers have more awareness of long term benefits. Besides, employee absence is common for women employees (caused by child health conditions), lactation programmes in the workplace will have an impact on women employees' absence because breastfeeding is associated with children's health conditions (IMoHRT, 2010b). This benefit could be explained to employers.

#### e) Equity and gender considerations

Stakeholders should ensure that every woman employee could access the interventions regardless of education or socio-economic status and job level (ILO, 2012a). For instance, an advocacy to ensure that all women employees could access the area for expressing milk; companies in the US facilitate: transportation that takes women to and from areas where the babies stay to their place of employment, provision of nursing breaks, flexible working hours, and the availability of day care (Huffman, 1984 cited in Abada et al (2001). Although breastfeeding promotion in the workplace programme had been started, the advocacy to ensure that the programme could run well has still not been considered.

#### 3.1.2. Increasing awareness among employers

Increasing awareness among employers means the provision of information about breastfeeding in order to increase awareness of EBF in the work place (ILO, 2012c). The more employers and colleagues learn about breastfeeding, the more they will accept breastfeeding arrangements at the workplace and feel supportive (ILO, 2012a).

#### a) Technical effectiveness

Educating and involving employers in the breastfeeding promotion programme was found to be effective in increasing breastfeeding coverage amongst Korean women employees (Kang et al, 2007). Stratton et al (2011) examined the relationship between the employer level of knowledge and the practices of women employees in California. This was a qualitative study conducted by Stratton et al (2010) which identified factors that should be noted by employers regarding the provision of workplace breastfeeding support and findings indicate the need for targeted education and training programmes for employers to optimise the work environment for breastfeeding women. According to Bar-Yam (1998), there are significant positive changes in several companies related to baby-friendly initiatives, which are facilitated by promotion in the workplace involving employers as key players to implement this programme in the US companies. However, a study from China about assessing health programmes in developing countries revealed that the success of a health programme depends on the quality of the programme itself (Mckechnie et al, 2009).

## b) Organisational feasibility

In the US, managers' attitudes are highly valuable in creating an organisation climate for breastfeeding by either adhering to or ignoring company policies, informally supporting or discouraging breastfeeding employees, or managing or disregarding issues arising among their co-workers (Chow et al, 2012). Involving employers in breastfeeding promotion in the workplace has been initiated in Indonesia, however, due to lack of staff, there were only 20 companies out of 200,000 that participated in breastfeeding promotion in the workplace (UNICEF, 2008). Thus, to increase organisational feasibility of the intervention, more staff and training are highly needed.

## c) Social, cultural and political feasibility

Low coverage of EBF in the workplace may not be of particular interest to employers unless they are told that increasing breastfeeding rates may reduce absenteeism and increase productivity because fewer employees will need to stay home with sick infants (Heinig, 2007). Thus, attracting the employers to understand that breastfeeding will provided added benefits is important in order to increase feasibility of this intervention. Relating to social and cultural feasibility, employers or managers could act as role models to fellow women employees (Yimyam and Morrow, 1999), which would improve acceptance among staff.

## d) **Financial feasibility**

Intervention on increasing employer awareness requires costs for training and educating employers to pay more attention on breastfeeding matters. This will give advantages not only for employees and their babies but also from employers' perspectives (Lawrence and Lawrence, 2005). Since this intervention has begun in Indonesia, the intervention will be highly feasible in relation to financial costs because the government has already allocated budget towards it (IMoH, 2010).Government or other stakeholders should scale-up this intervention to increase the numbers of companies that provide a baby-friendly environment. That means increasing the budget on breastfeeding promotion for women in specific conditions such as women employees (ILO, 2012a).

#### e) Equity and gender considerations

Each programme should be acceptable, which means no rejection from groups or communities, and accessible, which means that every woman employee could reach the intervention without any difficulties (Mckechnie et al, 2009). To address equity and gender considerations, involvement of women employers that have practice in breastfeeding is valuable in this intervention.

## **3.2. Individual strategies**

Individual strategies are the interventions which aim to minimise individual level barriers to EBF practice among industrial women employees (Lawrence and Lawrence, 2005). These include prenatal planning and preparation and day care facilities (Riordan and Wambach, 2010).

# 3.2.1. Pre-natal planning and preparation

Intervention of pre-natal planning and preparation means giving information, education and communication during pregnancy, such as in ANC services for women, in order to increase knowledge that will lead to behaviour changes regarding breastfeeding (Riordan and Wambach, 2010). The decision to breastfeed is usually taken in the pre-natal period before maternity leave has begun (ILO, 2012c). To increase knowledge, information should be provided and easily accessed in the work place during pregnancy, using facilities such as the ANC service (ILO, 2012b). Women employees should be given information such as specifications on pay and leave entitlements, announcements concerning potential flexible work options, strategies for returning to work, childcare information and options, specific arrangements and facilities to support breastfeeding on return to work.

## a) Technical effectiveness

A study at a Taiwanese manufacturer on combining interventions, and providing ANC services with adequate information on preparation of breastfeeding, especially after returning to work by health professionals, found that it had a significant role, which was to facilitate women employees to prepare, arrange, plan and make decisions on breastfeeding practice among women employees (Chen et al, 2006). A similar intervention was also implemented in the US which provided education on breastfeeding matters before maternity leave by distributing special kits or packages during ANC services (USBC, 2002).

## b) Organisational feasibility

In Indonesia, educating women regarding breastfeeding during ANC services has a significant influence on breastfeeding attitudes because most Indonesian women know that breastfeeding is beneficial for their babies but they have a lack of information on how to deal with breastfeeding problems, such as how to continue breastfeeding when they have to return to their employment (Qomariyah et al, 2012). Thus, specific needs of women employees, mentioned above, need to be addressed by employing the ANC service during pregnancy.

## c) Social cultural and political feasibility

Pre-natal planning and preparation will be highly feasible to be implemented in Indonesia because ANC coverage remains high at 93.3% (World Bank, 2011). However, there is no specific action for pregnant women who have specific conditions, such as women employees, to deal with barriers of EBF.

#### d) Financial feasibility

As ANC services are affordabile, they could be accessed in each health care region in Indonesia (IMoH, 2006). In addition, the basic ANC service packages also contains information, education and communication for women's pregnancies, and one of the interventions is preparing pregnant women for breastfeeding. Thus, there is only a need for additional material that requires a low cost for specific additional services for industrial women employees to address the barriers of EBF among them.

## e) Equity and gender considerations

There is a minimum number of ANC visits that is set by the Indonesian government that has already been implemented in each health care region. The minimum visit for all pregnant women in Indonesia is 4 times during pregnancy, which include one visit in the first 3 months, one visit in the second three months and two visits in the last three months (IMoH, 2006).

ANC services are mostly run by midwives, especially for normal pregnant women. Midwifery practitioners are an ideal group to assist individuals and the community in establishing the network necessary for the support of successful breastfeeding that begins in the early postpartum period and continues for as long as mothers and infants desire (Zinn, 2000). However, as mentioned previously there is no specific services for women employees in terms of addressing barriers on EBF after they return to work.

#### **3.2.2. Day care**

Day care intervention include providing day care facilities for industrial women employees while they work. Establishing child care facilities in the workplace is an alternative way to encourage industrial women employees to continue breastfeeding practices (Lawrence and Lawrence, 2005).

#### a) **Technical effectiveness**

According to Heinig (2007), encouraging supportive facilities in the workplace such as child care and private areas for breastfeeding can increase breastfeeding coverage in the workplace. Another study that was conducted in Nicaraguan companies revealed that child care strategies in the workplace were associated with nutritional status and children's health (Lamontagne et al, 1998). While, the study did not relate directly to breastfeeding practice,

scientific evidence around the world show that breastfeeding is highly associated with the health and nutritional status of children.

Since most women in the US need to balance work and daily life, day care interventions have been chosen as an alternative way to address female employees' needs. Day cares have been set up within companies to encourage women to breastfeed their children during work time (Bar-Yam, 1998).

# b) Organisational feasibility

Provision of day care in work circumstances requires more staff, management and also supervision for the companies (Zinn, 2000). However, the benefits of that could be explained to the employers in order to increase feasibility at the organisational level. There is evidence from Pakistan that creating child care for women employees at an affordable cost increased the promotion of the workplace image (Hirani and Kalmariani, 2011).

## c) Social cultural and political feasibility

There is a positive correlation between the increase of maternal employment and demand for child care (Havnes and Mugstad, 2011). This has also occurred in Indonesia because of economic and cultural changes. There are an increasing number of women employees (IMoHRT, 2010), and women employees have been identified to have specific needs in terms of maternal matters such as breastfeeding especially after they return to their job (ILO, 2012a). Thus, day care is considered as an alternative solution that will have high feasibility to be implemented, and it will support industrial women employees to continue breastfeeding if the day care is available near the companies.

#### d) Financial feasibility

In Indonesia, there are many day care facilities provided by private companies. However, parents have to pay a lot of money for the day care. Regarding this problem, subsidised day care could be taken to address financial feasibility (Lamontagne et al, 1998).

## e) Equity and gender considerations

Maternal employment usually results in a loss of child care time. Thus, childcare will be the alternative way to provide for industrial women employees in order to increase EBF practice. Moreover, providing day care for industrial women employees will address the equity of both the employer's female workers and the employee's babies to have breastfeeding because breastfeeding is the right of each baby around the world (ILO, 2012a).

The following table shows a summary of the appraisal of interventions:

Interventions	Technical Effectiveness	Organisational feasibility	Social, cultural and political feasibility	Financial feasibility	Equity and gender considerations
Lactation program in the worksites	High	Moderate	Moderate	High	High
Increasing employers' awareness	High	Moderate	Moderate	Moderate	High
Prenatal planning preparation	High	High	High	High	High
Day care	High	Low	High	Low	Moderate

**Table 3.** Summary of the appraised interventions

#### 3.3. Sustainability

The Indonesian government has already introduced breastfeeding promotion in the community and in recent years there are several policies already established for supporting the programme (Kompas, 2010). As mentioned previously, regarding the problems that hinder breastfeeding

practice among industrial women employees, while there are policies to support the actions, a comprehensive approach to handle the problems needs to be considered.

# 4. Recommendations

Recommendations are provided which can be considered when establishing programmes related to increasing EBF coverage among industrial women employees for government, professional boards and international and local NGO stakeholders.

## 4.1. Workplace strategies

- a) It is recommended to strengthen policy to support breastfeeding practice in the workplace for industrial women employees by providing written policies that target employers, and guidelines on how to implement lactation programmes in order to increase EBF coverage.
- b) Governments should manage a programme to promote lactation in industrial companies.
- c) In order to increase employer participation to create a conducive environment for breastfeeding in the workplace, programme managers such as midwives, nurses and public health practictioners should involve employers in programme implementation.
- d) Employers could also be a target for education on how breastfeeding benefits not only women employees, but also from an employers' perspective, as evidence suggests that creating a conducive environment for breastfeeding will reduce health costs due to fatigue and will increase an employee's loyalty.
- e) It is recommended to recruit more staff to spread information and train employers on breastfeeding support for their employees.

## 4.2. Individual strategies

- a) ANC service coverage is high in Indonesia, the Government should consider the potential intervention as a feasible implementation, which is integrating information, education and communication about how to manage breastfeeding, especially after returning to work. This should be highlighted into ANC services for industrial women employees. Regarding this, the government should provide specific guidelines for ANC services for women employees that mentions the specific needs that could be addressed relating to breastfeeding problems for healthcare providers such as midwives, nurses and doctors.
- b) The government should invest more money to strengthen programme intervention to support breastfeeding practices that might affect EBF coverage among industrial women employees.
- c) Dissemination and training that target health providers on how to provide specific needs, such as how to plan and prepare for breastfeeding during ANC services is recommended for NGOs, professional boards and public health practices.
- d) Combining dissemination of the definition of specific needs of industrial women employees and how to implement them in the field is recommended d as intervention is initially implemented.
- e) It is recommended that to increase employers' awareness, workshops, training, information, education and communication should be provided by NGOs, professional boards and public health practices that run the programme interventions.

# 5. Conclusion

This study has analysed the different barriers of EBF among industrial women employees in Indonesia at three barrier levels, which are personal, group, socio and culture. In order to address the situation, the dissertation analysed different interventions used either in developed or developing countries to increase low coverage of EBF among industrial women employees. From these, appropriate options were identified, then recommended for implementation within Indonesia. These include workplace interventions and individual interventions such as strengthening policy to support these interventions and also developing guidelines as technical tools to run the programme interventions.

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