



# Prevent postpartum blues with the implementation of breastfeeding father education model to increase the frequency of breastfeeding in mothers: A systematic review<sup>☆</sup>

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## ABSTRACT

**Objective:** To find out if the breastfeeding father education model can increase exclusive breastfeeding in mothers to prevent the occurrence of postpartum blues.

**Methods:** This study uses literature review design, articles collected using search engines such as PubMed, Elsevier, Scinapse, Plos One, and Google Scholar. We identified journals based on the PRISMA 2015 Guidelines with a total of  $n = 5690$  and obtained the number of journals reviewed  $n = 33$ .

**Results:** The father's support is believed to have influenced the mother's decision to start and maintain breastfeeding. Father education is proven to increase breastfeeding with a value of  $p (0.001) < 0.05$ . In addition, support from husbands is also classified as sufficient (54%) in lowering anxiety levels in mothers with spearman's test results  $p = 0.48$  or  $< 0.05$ .

**Conclusions:** Providing an education model of breastfeeding father can increase the exclusive breastfeeding by the mother to prevent the occurrence of postpartum blues.

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## Introduction

Many studies show that the most factor which influenced the mother's decision to start and maintain breastfeeding is the father's support. The mother who receives support from their husbands feels ten times more comfortable and confident about breastfeeding their babies than those who are not receiving support from their husband.<sup>1</sup> Postpartum mother will experience changes that will affect the coping mechanism and perceptive, father's support make the coping mechanism and mother perspective become positive and will not cause any anxiety on the mother.<sup>2</sup>

The problem is 83.6% of fathers still have low knowledge about lactation regulation.<sup>3</sup> Therefore, we need an education model that can increase the father's support to the mother through breastfeeding. This study will be summarized recent evidence about the breastfeeding father education model and its impact to improve breastfeeding frequency of mothers to prevent postpartum blues.

## Methods

This study uses literature review design, articles collected using search engines such as PubMed, Elsevier, Scinapse, Plos One, and Google Scholar. Keywords that are inputted include

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“breastfeeding father” “education model” “postpartum blues” “breastfeeding mother.” The criteria for articles used are those published in 2015–2020. The table of findings is compiled by the Review-Manager app. We identified journals based on the PRISMA 2015 Guidelines with a total of  $n = 5690$  and obtained the number of journals reviewed  $n = 33$ . The region where the study was conducted mostly in Indonesia, Ireland, and Nepal. Collected articles were reviewed and the result is summarized to form a novel study hypothesis.

## Result

Six studies and twenty-seven additional articles ( $n = 33$ ) that met the aforementioned inclusion criteria were summarized in this review. The literature discussed the breastfeeding father education model, maternal breastfeeding and postpartum blues separately and consistently show that breastfeeding activity affects the postpartum blues. Table 1 summarizes the relationship between breastfeeding in mother, postpartum blues, and breastfeeding father educational model in the included articles.

The literature consistently shows that breastfeeding provides many benefits for both children and mothers. The relationship between breastfeeding and the incidence of postpartum blues has been proven in several studies, the majority of studies stated that these two variables have a positive correlation.<sup>4–6</sup> The results of this study show empirical evidence that breastfeeding can be a protective factor against postpartum blues.<sup>5,6</sup> The low coverage of breastfeeding in some region makes this problem as a challenge. Some of the studies recommended to find out some risk factors and treat them as well as preventing postpartum blues occurrence.

**Table 1**  
Relationship between breastfeeding father education model, breastfeeding in mother and postpartum blues published in scientific literature.

Author, publication year	Region	Title	Methods	Results
Anita R., <sup>7</sup> 2016	Indonesia	Optimizing the role of breastfeeding father through the provision of prenatal father education	Posttest only control group design and simple random sampling	The role of breastfeeding father in prenatal education is an alternative solution in increasing the Success of exclusive breastfeeding program
Nepali S., <sup>2</sup> et al., 2018 <sup>9</sup>	Nepal	Husband's Support for Breastfeeding and Breastfeeding Self-Efficacy of Nepalese Mothers from Bungmati	Cross-sectional design with a sample of 110 mother who visited the Vungmati Health Post for immunization	Mothers who received support from their husbands were 10 times more comfortable and confident about breastfeeding than those who did not receive support from his husband
Annemarie E., <sup>8</sup> et al., 2016	Ireland	Views of fathers in Ireland on the experience and challenges of having a breast-feeding partner	Cross-sectional study with questionnaire on 1398 fathers with infants aged 4–7 months	Father with good education and social experience are very supportive of breastfeeding
Fitrah A.K., <sup>10</sup> et al., 2017	Indonesia	The relationship of husband's support to the incidence of postpartum blues	Cross-sectional study with the population was all multiparous postpartum mothers who were in the Primar Clinic Puskesmas Payung Sekaki, Pekanbaru City. Consecutive sampling with total 45 postpartum mothers done by home visit.	There is a relationship between husband's support for the incidence of postpartum blues. Based on the result of the study, it was found that from 12 postpartum mothers who experiences postpartum blues, there only a mother who had good husband support
Jennifer A.D., <sup>9</sup> et al., 2017	N/A	Breast-feeding Coparenting Framework	Survey and journals review	Breastfeeding education and support programs are needed to increase the breastfeeding rates
Suparwati, <sup>4</sup> et al., 2018	Indonesia	The relationship between breastmilk production and the incidence of postpartum blues in Trucuk II Klaten Health Center	Cross-sectional study with purposive sampling of 48 normal postpartum mothers at 3rd–10th days	There is a relationship between breastmilk production with the incidence of postpartum blues. All of the respondent whose breastfeeding was not smooth, experienced severe postpartum blues

From all the identified causes, the father's support act as the most relatable, and a modifiable risk factor also can be treated by giving much more education.<sup>1,7,8</sup> Other relevant studies have implemented a breastfeeding father method in which the father helps the mother to breastfeed in some ways that can influence the mother's decision to start and maintain breastfeeding.<sup>7,9</sup>

Some recent studies reveal that the role of father to do breastfeeding father is low and the possible cause is the low father's knowledge.<sup>6</sup> So that some novel innovation is implemented by giving father's education about breastfeeding father. Father education is proven to increase breastfeeding with a value of  $p$  ( $0.001$ )  $<$   $0.05$ . In addition, support from husbands is also classified as sufficient (54%) in lowering anxiety levels in mothers with spearman's test results  $p = 0.48$  or  $< 0.05$ .<sup>2</sup>

## Discussion

### Postpartum blues

Postpartum blues is likened to the iceberg phenomenon because it is difficult to detect and become underdiagnosed. Most of the mothers do not know if they are experiencing the postpartum blues. Also, people still consider psychological disorders to be a natural thing as a mother's instinct and protective attitude towards her baby.<sup>6</sup> Some studies show that in Indonesia, one of ten mothers who had just delivered a baby has a tendency to postpartum blues.<sup>11</sup>

Postpartum blues is a manifestation of psychological phenomena experienced by women related to the presence of the baby. The cause of this postpartum blues is rapid hormonal changes, a less supportive social environment as well as a result of doubt about the new role as a mother. The postpartum blues will have an impact on the mother, husband, and baby.<sup>12</sup>

Several previous studies examined the factors that influence the incidence of postpartum blues, there are mother's readiness, husband support, type of labor, maternal adjustment, coping stress, and social support.<sup>13</sup>

### Breastfeeding and postpartum blues

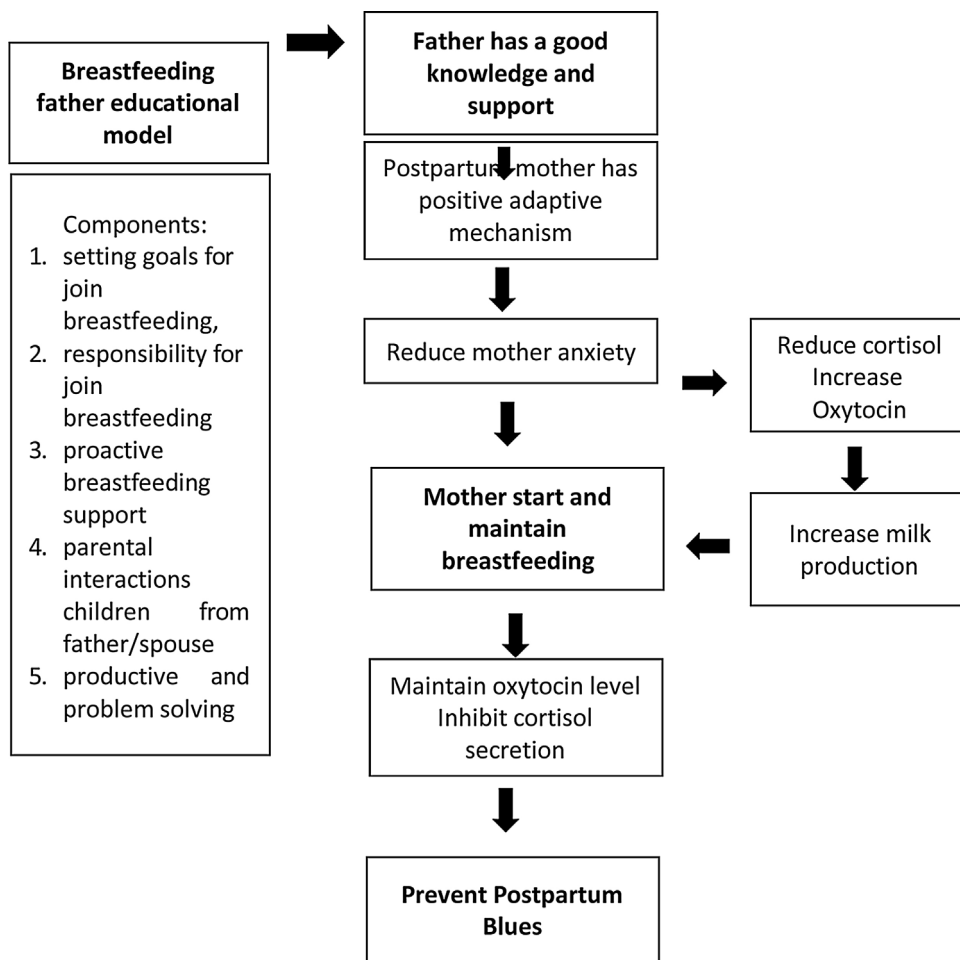
Breastfeeding is an important activity to do by mother after delivery because breastmilk is the best nutrition for babies that contains white blood cells, protein, and immune substances that are suitable for babies. Breastmilk promotes optimal growth and development and protects against disease. The nutritional value of breastmilk is greater than formula milk. Besides has a benefit for the baby, breastfeeding also has a protective effect on the mother's psychological state. Research shows that breastfeeding can improve the condition of the mother, hormonal and psychological processes associated with the postpartum blues.<sup>14</sup>

Breastfeeding is suggested to attenuate cortisol stress responses by decreasing stress hormone levels which respond to the occurrence of mood disorder or in this case, is postpartum blues. Also, breastfeeding is suggested to attenuate neuroendocrine responses to stress and may act to enhance maternal mood. Specifically, oxytocin and prolactin, hormones responsible for lactation, are suggested to have mood-ameliorating effects thus can prevent the occurrence of postpartum blues.<sup>15</sup>

### Father's support and improvement in breastfeeding

Several organizations such as the World Health Organization (WHO), the European Commission for Public Health (ECPH), and the American Academy of Pediatrics (AAP) mandate exclusive breastfeeding for the first six months of life. Breastfeeding initiation rates are very high but there is a marked decrease in breastfeeding during the first few weeks after initiation, and exclusive breastfeeding is rare. Also, a study in Indonesia shows the low coverage of breastfeeding of 54.3%.<sup>16</sup>

Studies show several obstacles in the continuing the breastfeeding such as a psychological factor including mother who feels embarrassed or not wanting to breastfeed in public, children who are uncomfortable, busy with work, mother's knowledge factors, lack of support for mother, and also other psychological stressors. Some evidence said that the husband's support is known to have the



**Fig. 1.** The role of breastfeeding father educational model to increase the frequency of breastfeeding and prevent the occurrence of postpartum blues.

greatest role because the husband is the closest person to the postpartum mother who will support all the processes of the mother's psychological change in the proper direction.<sup>17–19</sup>

Lack of father's support makes the breastfeeding activity of mother decreased, as well as proven by a study that found out from twelve postpartum mothers who experienced postpartum blues there is only a mother who has good father's support. Furthermore, a mother who considered that those who supported to breastfeed were eleven times more likely to do breastfeeding starting from the hospital.<sup>20</sup> The father's support is believed to have influenced the mother's decision to start and maintain breastfeeding. This phenomenon can be explained by adaptation theory that said there are three aspect mechanism in adaptation those are coping, *kognator*, and regulators mechanism, if there was a good role of father then the control process that covers these aspects will be adaptive so that the mother's anxiety will be decreased.<sup>2</sup>

Support from the father will make the adaptation mechanism of the postpartum mother become positive. This positive adaptation mechanism will cause inhibition of stress hormone release, especially cortisol. Also, with a positive postpartum adaptation factor, it can remove the inhibitor of oxytocin release which in turn will release the mother's milk smoothly.<sup>2</sup>

#### *Breastfeeding father educational model in increasing breastfeeding frequency*

Breastfeeding fathers refer to the way fathers coordinate parenting responsibilities with mothers to achieve their breastfeeding

goals. Fathers can take the responsibility of supporting breastfeeding by assisting mothers in building a willingness to breastfeed and overcoming common obstacles.<sup>9</sup>

Low of father's knowledge causes fathers to tend to ask mothers to provide formula milk as a companion to breastfeeding because they are worried about insufficient milk production. Also, the fathers will not give the mother support because they think breastfeeding is only for the mother. This problem makes an educational model is needed for the breastfeeding father implementation.<sup>7</sup>

A well-educated father can be obtained through the breastfeeding father's educational model that will give fathers information about how to give support to the mother including his role in helping mothers to breastfeed. Father education is proven to increase breastfeeding activity, with a value of  $p(0.001) < 0.05$ .<sup>2</sup>

Education for father is important because the information that given to father can change father's understanding, and further can change father's attitude and behavior. The attitude is in a form of support and behavior is how the father will help the mother in breastfeeding activity.<sup>6</sup> Fathers who have high school educational background is said to have played a role in supporting mothers with sufficient categories (54%) in lowering anxiety levels in mothers with spearman's test results  $p = 0.48$  or  $< 0.05$ .<sup>2</sup>

The real implementation of the breastfeeding father educational model is by making a framework that consists of 5 components, there are: (1) setting goals for joint breastfeeding; (2) responsibility for joint breastfeeding; (3) proactive breastfeeding support; (4) parental interactions -children from father/spouse; (5) productive and problem solving.<sup>9</sup>

The first component explains the setting for the duration and exclusivity of breastfeeding that should be mutually determined. Bringing the baby to the mother when the baby shows signs of hunger, checks the baby's drinking while feeding, assesses the mother's comfort, and helps to get professional breastfeeding assistance if needed.<sup>9</sup>

The third component can be done by starting to give support, there are three types of support those are providing information, assessment, and emotional support. The fourth component can be done by improving the interaction of father and baby by ensuring that the father has the time and opportunity to be close to the baby. The last component is to improve productivity and solve some problems related to breastfeeding father.<sup>9</sup>

Fig. 1 summarizes the role of breastfeeding father educational model to increase the frequency of breastfeeding and prevent the occurrence of postpartum blues.

### Conclusion

Providing an education model of breastfeeding father can increase the exclusive breastfeeding by the mother to prevent the occurrence of postpartum blues.

### Conflicts of interest

The authors declare no conflict of interest.

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