

# Benefits of Breast Milk According to The Teachings of Islam, Child Psychology, and Chemical Science

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## ABSTRACT

Breastfeeding is one of the most important activities for child development. Breastfeeding is a very important part of the process of growing children who are strong and healthy, both physically and spiritually. Breastfeeding activities not only have an impact on providing nutrition but also on the stimulation of the psychological aspects of the breastfed baby. Islam recommends that a mother breastfeed her baby for two years. Reviewing this explanation, it is necessary to conduct research that integrates religious studies related to the study of Al-Baqoroh verse 233 with chemistry related to the content of breast milk and also with psychology that examines the psychology of children who receive breast milk for 2 years and those who do not get breast milk at all. The research method was carried out by reviewing the interpretation of the Qur'an Surah Al-Baqoroh verse 233 from various experts, examining the chemical content of breast milk from various experts, and carrying out psychiatric observations on 50 school-age children. Based on the results of a literature study related to the study of Al-Baqoroh verse 233 and the chemical analysis of breast milk content with the results of psychological analysis of children who received breast milk for 2 years, it shows that there is an association or relationship. The commands in the Koran are in line with the many benefits of breastfeeding, as well as effects on child psychology.

## KEYWORDS

Breast Milk; Teaching of Islam; Child Psychology; Chemical Science

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## Introduction

Breastfeeding is one of the most important activities for a child's growth and development. Breastfeeding is very essential in the process of growing children who are strong and healthy both physically and mentally. Breastfeeding activities not only have an impact on providing nutrition but also on the stimulation of the psychological aspects of the baby who is being breastfed. Islam recommends a mother breastfeed her baby for two years (Vitoria *et al.*, 2016).

In the Qur'an, at Al Baqarah verse 233, there are several important things related to breastfeeding activities. Breastfeeding breast milk from a mother to her baby is an act of worship and part of carrying out Allah's commands. Some even state that a mother must breastfeed her child (Dimiyati *et al.*, 2016).

Allah is truly the Most Merciful (Most Merciful) of all His creatures, greater than a mother's love for her child. Allah SWT commands mothers to breastfeed, even though it is their nature and instinct. This shows that the mercy of Allah SWT is much wider and greater than the love of a mother for her child.

Based on the commentary book *Fi-Zhilalil Qur'an* written by Sayyid Qutb, when discussing Surah Al Baqarah verse 233, it is written, "Allah obliges a mother to breastfeed her child for two whole years because He knows that these times are very important for children from all aspects, either health or psychological aspects." Various modern health and psychiatric research also confirms that the two-year period is very important for the health of children's growth, both in terms of mental health and physical health (Firdausi *et al.*, 2015).

Reviewing this explanation, it is necessary to conduct research that integrates religious studies related to the study of Al-Baqoroh verse 233 with chemistry related to the content of breast milk and also with psychology that examines the psychology of children who receive breast milk for 2 years and those who do not get breast milk at all.

## Literature review

### *Tafsir Surah Al-Baqarah Verse 233*

The Qur'an, as a book of guidance, guides (almost) all aspects of life. One aspect that the Qur'an pays attention to is the task of parents in educating their children. In the Qur'an, several verses contain recommendations for educating children, from pregnancy to adulthood, to believe in and fear Allah.

Surah al-Baqarah verse 233 discusses the procedure for breastfeeding a husband and wife's child. After the previous verse, it regulates the husband and wife relationship in marriage and the procedure for divorce. In Tafsir al-Misbah, it is stated that this verse is a series of verses about the family, specifically discussing the duties of wives and husbands during the growth period of "toddler" children (under three years) ('Abd al-Bāqī *et al.*, 1997).

In Surah al-Baqarah verse 233 above, it is stated that "mothers should breastfeed their children for two whole years, for those who want to breastfeed perfectly". The word mother in this verse uses *الوالدة* which according to Quraish Shihab means mother in general, not necessarily a biological mother. This shows how important breast milk is for a child's growth, so it doesn't have to be obtained from the biological mother. However, biological mother's milk is certainly preferred, because it makes the child feel comfortable and brings the inner bond between mother and child closer (Nisa *et al.*, 2020).

Then, regarding the duration of breastfeeding a child, in Surah al-Baqarah verse 233, it is mentioned for two whole years, for those who want to breastfeed perfectly. In the interpretation of the Ministry of Religion, it is said that this means allowing mothers to breastfeed their children for less than two years if they agree in a husband-and-wife discussion. This applies if there are special reasons, such as a doctor's recommendation to shorten breastfeeding time for the health of the mother or baby. However, the Qur'an still recommends, with emphasis, breastfeeding. Quoting Tafsir al-Misbah, from the fragment of the verse, it can also be understood that the benchmark for breastfeeding a child is two years, no more.

### *Father's Duties in Child's Growth Period*

In addition to discussing the recommendation to breastfeed children, Surah al-Baqarah verse 233 also discusses the duties of the father during his growth period. Part of the verse is, "And it is the duty of the father to bear their living and clothing properly" (Al-Qattan *et al.*, 2001). In this case, the father is obliged to support his wife and children in a good way and according to his ability. The reason why the husband has to bear here, according to Quraish Shihab, is reciprocal kindness. The wife is already breastfeeding, so it is the husband who fulfills her needs. In addition, the child will later get a lineage from his father. Therefore, it is the father's obligation to provide for and educate him to be a servant of God with a good soul, one of which is by fulfilling the needs of mother's milk (ASI) for the good of his growth and development (Wolf, 2014).

After discussing the obligations of mothers and fathers above, there is a fragment of the verse that says, "A person is not burdened more than his ability." A mother should not suffer because of her child, and neither should a father suffer because of his child. The heirs are (obligated) like that too. "in Surah al-Baqarah verse 233. In Tafsir al-Misbah, it is said that from here it can be seen if the obligation is carried out according to the ability of the mother, father, or heir (in this case, the children of the husband and wife). There is no compulsion to do it. In addition, it is stated that there are three stages of breastfeeding recommendations (Yusuf *et al.*, 2002).

First, the perfect level is two full years, or thirty months minus the gestation period. Second, the standard level, which is less than two years, Third, the level of deficiency that can lead to sin, namely refusing to breastfeed their children. Therefore, if the mother is unable to breastfeed her child, at least at a standard level, either for justifiable reasons (such as illness) or inappropriate reasons (such as asking for payment to breastfeed her child), then the father must find someone willing to breastfeed his child, with a commensurate reward (Tomori *et al.*, 2016).

In the sentence in Surah al-Baqarah 233, "And if you want to breastfeed your child to someone else, then there is no sin for you...", in this case, the absence of sin applies to the father. He is looking for other milk because his wife is not able to breastfeed her child. However, if the mother, for no special reason, does not breastfeed her child, it will result in wasting milk, which is a form of affection for her child and becomes redundant, so that it is a sin for her (Rohman, 2018).

### *Benefits of Breast Milk*

For infants, the importance of obtaining adequate energy and nutrition in a loving and supportive environment cannot be overstated (Carroll *et al.*, 2014). Among them, some activities play an important role in providing nutrition to infants, namely breastfeeding activities, especially with breast milk. Mother's milk or alternative formula milk is a source of nutrition for babies for the first 4 to 6 months. Breastfeeding is better for a baby's health, although controversy still revolves around breastfeeding and bottle feeding. The advantages of breastfeeding in the first two years of life include the following (Golden, 2001):

1. Appropriate weight gain and decreased risk of obesity in children (Grummer-Strawn & May 2004 in Papalia). One possible explanation for this decreased risk is early metabolic programming. The consuming formula can change how a baby's body reacts to carbohydrates, changes that predispose babies to obesity later in life.
2. Fewer allergies
3. Prevention and reduction of diarrhea, respiratory infections (such as pneumonia and bronchitis), urinary tract and bacterial infections, and otitis media.
4. Stronger and denser bones in childhood and adulthood
5. Decreased childhood cancer and decreased frequency of breast cancer in women and their offspring.

6. Lower SIDS frequency. In one study, for every exclusive breastfeeding behavior in a month, SIDS rates fell by half.
7. Visual acuity as well as neurological enhancement in cognitive enhancement.

Undoubtedly, if Shari'a obliges a mother to breastfeed her child, there must be wisdom behind it and many benefits for the child, both known and unknown. Modern medical science has determined the various features and benefits of a baby who breastfeeds on its own mother's milk. Among others (Akre, 2011).

1. Babies drink clean and sterile milk
2. The right temperature
3. Available at any time, even breast milk will radiate just by hearing the baby's cry, and produce as long as the baby suckles.
4. By the baby's digestibility. Breast milk contains two types of protein with the same levels, namely casein and milk albumen. These two substances are very suitable and by the ability of the baby's digestive tract. The casein and albumen substances present in powdered milk processed from cow's milk are only suitable for cow digestion.
5. Contains sufficient nutrients to meet the needs of the baby. The ratio of protein content in breast milk and protein content in cow's milk is 1:5. Therefore, the growth rate of our calves is lower than the growth rate of calves.
6. Breast milk provides additional immunity to eradicate various diseases. Like the immune system against smallpox.
7. Prevent obesity.
8. Babies who breastfeed directly from the mother will strengthen the inner bond between mother and baby.

UNICEF and WHO find that nearly 9.4 million cases of severe malnutrition occur in developing countries each year, of which at least half are caused by bottle feeding. Infant formula is an imitation of breast milk, although researchers are studying how to make it more nutritious. Breastfeeding should last no more than 2 years. If the mother is healthy and breastfeeding is smooth, it would be better if breastfeeding was carried out for 2 years (UNICEF, 2016).

## Methods

This research was conducted in June-October 2021. The research locations were the Chemistry Laboratory of UIN Sunan Gunung Djati Bandung and the Faculty of Psychology, UIN Sunan Gunung Djati Bandung. The study of the interpretation of the Qur'an in the letter Al-Baqoroh verse 233 by various experts. Studies on the chemical content of mother's milk (ASI) from various experts and samples of psychiatric observations were conducted on 50 school-age children.

### *Data collection*

In this data collection, several sources of literature were collected, which could be in the form of research journals, e-books, articles, and so on, which discuss the study of interpretation, the study of the chemistry of breast milk, and the study of child psychology on the effect of breastfeeding.

### *Data Classification*

The data obtained from the previous stage is then classified based on the relationship between each study and analyzed.

### *Data analysis*

After the data is classified based on the relevance of the study, the data obtained are analyzed according to the formulation of the problem and the purpose of the research.

## Results and Discussion

### *Aspects of Emotional Development*

#### *Univariate Analysis*

The results of the univariate analysis in this study were to determine the frequency of the characteristics of the subjects based on the category of breastfeeding duration with the emotional development of children aged 3-5 years.

**Table 1.** Long Breastfeeding Crosstabulation Emotion Development

Long Breastfeeding	Emotional Development		
	Normal	Abnormal	Total
< 1 years old	1	3	4
1-2 years old	10	6	16
> 2 years old	2	4	6
Total	13	13	26

Based on table 1, it can be seen that children who have been breastfed for less than one year have a frequency of 25% (1 child) experiencing normal emotional development and 75% (3 children) experiencing abnormal emotional development. Based on these results, children who were breastfed for less than 1 year experienced abnormal emotional development. It can also be seen that in the category of children who have been breastfed for 1-2 years, there is a frequency of 62.5% (10 children) experiencing normal emotional development and a frequency of 37.5% (6 children) experiencing abnormal emotional development. Thus, children who are breastfed for 1-2 years experience more normal emotional development. Meanwhile, children who have been breastfed for more than two years have a frequency of 33% (2 children) experiencing normal emotional development and 73% (4 children) experiencing abnormal emotional development. So, it can be seen that children who are breastfed for more than two years experience abnormal emotional development.

### *Bivariate Analysis*

Bivariate analysis in this study aims to determine the relationship between breastfeeding based on the category of breastfeeding duration and the emotional development of children aged 3-5 years. Statistical testing with chi-square at 95% confidence and a p-value less than 0.05.

**Table 2.** Chi-Square Tests

Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.667 <sup>a</sup>	2	.264
Likelihood Ratio	2.737	2	.255
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	26		

a. 4 cells (66,7%) have expected count less than 5. The minimum expected count is 2.00

Based on table 2, it can be seen that there is no significant relationship between breastfeeding based on three categories of breastfeeding duration and the emotional development of children aged 3-5 years. It can be seen with a significance value of 0.264, which is greater than the p-value (0.05).

### *Aspects of Motor Development*

#### *Univariate Analysis*

The following is the result of univariate analysis in this study to determine the frequency of subject characteristics based on the category of breastfeeding duration with motor development of children aged 3-5 years.

**Table 3.** Long Breastfeeding Crosstabulation Motor Development

Long Breastfeeding	Motor Development		
	Appropriate	Doubt	Deviation
< 1 years old	2	2	0
1-2 years old	11	5	0
> 2 years old	5	0	1
Total	18	7	1

Based on table 3, it can be seen that children who have been breastfed for less than one year have a frequency of 50% (2 children) experiencing appropriate motor development and 50% (2 children) experiencing dubious motor development. In the category of children who received breast milk for 1-2 years, 68.75% (11 children) experienced appropriate motor development and 31.25% (5 children) experienced doubtful emotional development. Then, in the category of children who received breast milk for more than 2 years, there was a frequency of 83.33% (5 children) who experienced appropriate motor development and 16.67% (1 child) who experienced deviant motor development. Based on this data, children who have been breastfed for more than 2 years experience more appropriate motor development. Meanwhile, children who are breastfed for less than a year have a frequency of 50% (2 children) who experience appropriate motor development. Then, children who were breastfed for more than two years experienced deviant motor development by 16.67%.

#### *Bivariate Analysis*

The bivariate analysis in this study aims to determine the relationship between breastfeeding based on the category of breastfeeding duration and the motor development of children aged 3-5 years. Statistical testing using chi-square with a 95% confidence level and a p-value less than 0.05 was performed.

**Table 4.** Chi-Square Tests

Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6,238 <sup>a</sup>	4	,182
Likelihood Ratio	7,298	4	,121
Linear-by-Linear Association	,154	1	,694
N of Valid Cases	26		

a. 8 cells (88,9%) have expected count less than 5. The minimum expected count is ,15.

## Discussion

In surah al-Baqarah verse 233, it is stated that "mothers should breastfeed their children for two whole years, for those who want to breastfeed perfectly". The word mother in this verse uses *الوالدة* which according to Quraish Shihab means mother in general, not necessarily a biological mother. This shows how important breast milk is for a child's growth, so it doesn't have to be obtained from the biological mother. However, biological mother's milk is certainly preferred, because it makes the child feel comfortable and brings the inner bond between mother and child closer.

Then, regarding the duration of breastfeeding a child, in Surah al-Baqarah verse 233, it is mentioned for two whole years, for those who want to breastfeed perfectly. In the interpretation of the Ministry of Religion, it is said that this means allowing mothers to breastfeed their children for less than two years if they agree in a husband-and-wife discussion. This applies if there are special reasons, such as a doctor's recommendation to shorten breastfeeding time for the health of the mother or baby. However, the Qur'an still recommends, with emphasis, breastfeeding. Quoting Tafsir al-Misbah, from the fragment of the verse, it can also be understood that the benchmark for breastfeeding a child is two years, no more.

Based on the results of the psychological test of children through this questionnaire, it turns out that the two emotional and motor aspects do not show a significant relationship because the p-value is greater than 0.5. So the conclusion is that there is no significant relationship between breastfeeding and psychological development. This is not by the existing theory. This can be caused by the small number of samples and the questionnaire instrument whose validity has not been tested because it was not tested first.

Mother's milk contains many substances and various vitamins that cannot be defeated by any formula milk, because breast milk contains important substances needed by babies, such as DHA, AA, Omega 6, lactose, taurine, lactobacilli, vitamin A, colostrum, fat, iron, lactoferrin, lactose, which are all in the right dosage and composition for babies. Therefore, it can be said with certainty that breast milk is superior and unbeatable to any formula milk (Lin *et al.*, 2011).

## Conclusion

Based on the results of the literature study related to the study of the letter Al-Baqoroh verse 233 and the Chemical Analysis of Breast Milk Content with the results of the psychological analysis of children receiving breast milk for 2 years, it shows that there is an association or relationship. Although related to the psychological analysis of children, it has not been able to produce results that show a 100% relationship because of some obstacles when conducting the research.

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