



Effect of breast-feeding on children health

Kumai Lalita

Teacher, High School, Mahinam Pohaddi, Benipur, Darbhanga, Bihar, India

Abstract

Nutritional factors have been shown to be important in childhood survival, growth, health and development. Breastfeeding is the optimal method of infant feeding. Breast milk provides all the necessary nutrients growth factors and immunological components that healthy term infants need. In addition, breastfeeding is advantageous for a child's development including its association with reduced incidences of infant mortality and morbidity. In addition, it is also shown to have benefits for neuro-developmental oral motor development outcome. Cognitive development in childhood is a complex process influenced by multiple genetic and environmental factors. Cognitive development in children can show up in many ways, including impaired development. Cognitive impairment in children remains a health problem and describes a wide variety of impaired brain function related to the abilities of children. Protecting and investing in the physical, mental and emotional development of all children lays the foundation for a better future. Breastfeeding – available to almost every child – is key to that future. It offers one of the earliest opportunities to ensure that a child will not only survive, but thrive. Promoting breastfeeding is the simplest and wisest investment a nation can make.

Keywords: breastfeeding, cognitive, development, children, and promoting

1. Introduction

Breastfeeding is one of the most effective ways of feeding to ensure child health. Exclusive breastfeeding is recommended for the first six months of life. Breastfeeding reduces the risk of child mortality and morbidity each year. In addition, adequate breastfeeding support for mothers and families could save many young lives. Globally, it is less than 40% of infants under six months of age who are exclusively breastfed. Breastfeeding is actively promoted by World Health Organization (WHO) as the best source of nourishment for infants and young children.

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Cognitive development in childhood is a complex process influenced by multiple genetic and environmental factors. Cognitive development in children can show up in many ways, including impaired development. Cognitive impairment in children remains a health problem and describes a wide variety of impaired brain function related to the abilities of children. It manifests as specific difficulties with language, academic matters and learning, and especially psychiatric, neurological and/or behavioral problems in later life. Suggestions that insufficient breastfeeding may lead to cognitive impairment manifesting as lower intelligence quotients (IQ) scores appear in Holmes' study which shows an association between breastfeeding and higher intelligence quotients (IQ) scores. In addition, many observational studies and reviews show

an association of breast milk to higher scores on cognitive development tests. But, those results may be confounded by maternal and infant factors.

Protecting and investing in the physical, mental and emotional development of all children lays the foundation for a better future. Breastfeeding – available to almost every child – is key to that future. It offers one of the earliest opportunities to ensure that a child will not only survive, but thrive. Promoting breastfeeding is the simplest and wisest investment a nation can make.

But to ensure that all children receive a chance to grow and develop to their fullest potential, it is not enough simply to make breastfeeding possible; it must be vigorously protected and promoted by appropriate public policies and supported by health systems and families. Then breastfeeding becomes easy, desirable, enjoyable and valued in society. And only then will the conditions exist that make it simple for mothers to offer their infants the best foundation for a healthy future.

Breastfeeding is vitally important for the young baby. It is how babies were designed, through millennia of evolution, to be fed, and as such is perfectly tailored to their needs. It provides perfect nutrition, presenting all the necessary components, and delivering them in the most bio-available way. It provides antibodies, protection from disease that helps to support the baby's immature immune system. Other physical benefits are clear, though the mechanisms are not yet fully understood. The influence of breastmilk on a child's health is long-term – children breastfed even for just the first few months have much lower rates of diabetes, obesity, and some forms of cancer, even years later and on into adulthood.

Psychologically and emotionally, breastfeeding can be the basis for a strong, secure bond between mother and baby. This bonding provides the infant with a sense of security, reassurance, and comfort. Although secure bonding is not

absolutely dependent upon breastfeeding, the act of breastfeeding does release certain hormones in both mother and baby (specifically, oxytocin), which are often referred to as the 'love hormone' and can help induce feelings of calm, peace, and affection. Many studies have researched the link between a secure mother-child bond, and the child's emotional development later in life. It seems that such a secure bond is the foundation on which all relationships are based, so breastfeeding can be extrapolated to be an important part of learning social skills. Other social factors may be a bit less clear from the infant's point of view, but one interesting interpretation is provided by Dr. Brian Palmer, in his presentation 'The Importance of Breastfeeding as it Relates to Total Health'. The graphic demonstrations of how artificial teats can deform oral and facial characteristics are shocking, and have clear implications for health. In a society that puts so much emphasis on physical appearance, sucking on a breast will produce more natural facial characteristics, whereas sucking on artificial teats often leads to malocclusions, gapped teeth, and unsightly overbites.

If every baby were exclusively breastfed from birth, an estimated 1.5 million lives would be saved each year. And not just saved, but enhanced, because breast milk is the perfect food for a baby's first six months of life – no manufactured product can equal it. Virtually all children benefit from breastfeeding, regardless of where they live. Breast milk has all the nutrients babies need to stay healthy and grow. It protects them from diarrhoea and acute respiratory infections – two leading causes of infant death. It stimulates their immune systems and response to vaccinations. It contains hundreds of health-enhancing antibodies and enzymes. It requires no mixing, sterilization or equipment. And it is always the right temperature.

Children who are breastfed have lower rates of childhood cancers, including leukaemia and lymphoma. They are less susceptible to pneumonia, asthma, allergies, childhood diabetes, gastrointestinal illnesses and infections that can damage their hearing. Studies suggest that breastfeeding is good for neurological development. And breastfeeding offers a benefit that cannot be measured: a natural opportunity to communicate love at the very beginning of a child's life. Breastfeeding provides hours of closeness and nurturing every day, laying the foundation for a caring and trusting relationship between mother and child. Supports the right to nutrition Children have a right to good nutrition. The Convention on the Rights of the Child, ratified by all but two nations, specifically calls for informing all segments of society about child health and nutrition, including the advantages of breastfeeding. Mothers who breastfeed, however, need only about 500 additional calories a day – the equivalent of a teaspoon of oil, some extra beans and half a banana. And breastfeeding mothers have more time to spend with their children. Since the dawn of civilization, we have been interfering with breastfeeding. The rearing of infants on artificial foods has been the largest uncontrolled clinical experiment ever undertaken, and it is still going on, despite the disastrous consequences. It has brought untold suffering, disease and death to countless millions of babies. The erosion of breastfeeding's natural contraceptive effect has been a major factor in bringing about the recent explosive growth of the human population. With human numbers now increasing by a quarter of a million people a day, this is surely the transcending problem of our time.

Research Area

Darbhanga is bounded by Madhubani district on the north, by Samastipur on the south, by Saharsa on the east and by Muzaffarpur on the west. The area of the district is 2502 sq. kms. Which is 1.46 of the state area, the district contains several rivers and rivulets. The main rivers passing through the district are Kamala, Balan, Old Kamla, Bagmati, Khiroi and their branches. The district is having low lying areas having several 'Chours' and marshes. Flood is usual feature of the area in rainy season and out of 18 blocks, 15 are flood affected. Almost whole of the district has alluvial soil which is rich in fertility. The district is completely devoid of hills and forests. Normally the whole of the district is covered by the south-western monsoon which starts from the second week of June and lasts upto September. The average rainfall is 1262 mm. The maximum rainfall comes in the third week of July, whole of August and first week of September.

The climate of the district may be characterized by summer from March to mid-June followed by rainy season in which the district witnesses ravage of floods every year. The rains are followed by the winter season which lasts from November to the end of February.

Darbhanga is one of the four districts of Darbhanga division with its head quarter at Darbhanga. It has been divided into two sub-divisions namely Darbhanga and Benipur. Darbhanga district has only one town, i.e. Darbhanga and 1273 villages. While the district administration is under the charge of a district Magistrate the subdivision is headed by S.D.O. and the block is headed by B.D.O. For the general development of Darbhanga town there is a municipality also.

Review of Literature

Review of related literature makes the investigator fully aware with the previous work that has been done. It also provides an opportunity of gaining insight into the method, measures, subject and approaches employed.

Mihrshahi *et al.*, (2008) ^[4] A recent study in Bangladesh showed that this rate gradually declined from 87.1% at 1 month to 77.2% at 3 months and 61.4% at 6 months.

UNICEF, (2009) ^[3] Also, universally the breastfeeding rates was decline over the past four decades. The percentages of infants younger than 6 months old who were exclusively breastfed in 2000–2007 were 38% worldwide, 23% in West/Central Africa, 39% in Eastern/Southern Africa, 44% in South Asia, 26% in Middle East/North Africa, and 43% in East Asia/ in addition's in United State only 79.2% of women initiated breastfeeding, 49.4% were still breastfeeding at six months, and 26.7% continued breastfeeding to twelve months. Patel, D.V, Bansal, S.C, Nimbalkar, A.S, Phatak, A.G, Nimbalkar, S.M, Desai, R.G. (2015) ^[1] Breastfeeding Practices, Demographic Variables, and Their Association with Morbidities in Children. Exclusive breastfeeding compared to the use of formula saves money and benefits mothers and infants by protecting against infant mortality for the first 6 months, diarrhea, obesity type 1 and 2 diabetes mellitus, gastrointestinal illness, otitis media, respiratory infections, and hospitalization.

Objectives of the Study

In the specific context of the study, we have find to the specific objectives which determine the nature, scope and field of the study:

- To compare the health status i.e. height and weight of intake of Breast Feeding and without intake Breast-feeding.

Methods

The present study was conducted on 60 children from Different Villages of Darbhanga District. The age of children varied from 1 month to 9 month. The criteria of selection of respondents were based on the observation. The respondents selected, were of different age groups from different religions and from different strata of society. A Socio-economic status examination was conducted after obtaining a detailed history. The criteria of selection of cases were based on the Complain of rickets and diarrhea. The patients selected, were of different age groups from both sexes, different religions and from different strata of society. A nutritional status examination and routine examination was conducted after obtaining a detailed history. Examination was then conducted using minimal accessories.

Results and Discussions

The children included in this series of work presented themselves with various grades of Breast-feeding and Breast-feeding Deficiency all the data collected under various heads were satisfactorily complied, evaluated, analysed and discussed.

Table 1: Showing the number of cases of Breast-feeding Deficiency among 60 children in the age group 1 month to 9 months in different villages/mohalla of Darbhanga district.

No of children of age group 1 month to 9 months observed	No of cases of Breast-feeding deficiency	Percentage
100	60	60%

Of these 100 children, Breast-feeding Deficiency constituted 60 case 60%.

Table 2: Showing incidence of Protein energy malnutrition in different age group due to deficiency of Breast-feeding

Age group in Years	Number of cases	Percentage
1 to 2 month	18	30 %
3 month to 5 months	22	36.66 %
6months to 9 months	20	33.33 %

Total number of cases studied were 60. Incidence of Breast-feeding Deficiency was in the age group 1 to 2 months (30 %) Incidence of Breast-feeding Deficiency was 36.66% in the age group 3 month to 5 months, 33.33% in the age group 6 months to 9 months.

Table 3: Showing incidence of Breast-feeding Deficiency with relation to sex. Total Number of cases studied 100.

Sex	Breast-feeding Deficiency	% age
Male	60	60%
Female	40	40%

There were 60 female (60%) and male 40 (40%) in this series.

Table 4: Showing incidence of Breast-feeding Deficiency with relation to different religions.

Different religion	Breast-feeding Deficiency	Percentage
Hindu	60	60%
Muslim	40	40%

Total number of cases studied 100. There were 60 Hindus, and 40 Muslims. Hindu and Muslim both suffering from Malnutrition but Muslim is more suffering from this problem.

Table 5: Showing Rural and Urban-wise distribution

Different locality	No. of cases	Percentage
Rural	80	80%
Urban	20	20%

Total number of cases studied 100. In rural area 80 cases and in urban area 20 cases of Breast-feeding Deficiency have been found.

Table 6: Showing incidence of Breast-feeding Deficiency in different socio-economic conditions. (Total number of case studied 100.)

Different class of people	Number of cases	Percentage
Higher	5	5%
Middle	60	60%
Lower	35	35%

Number of higher class people suffering from Breast-feeding Deficiency were 5 only i.e., number of middle class 60 and the number of lower class 35. Breast-feeding Deficiency was more prevalent in middle class people. It was very less in number in higher class people.

Table 7: Showing associated disease with Breast-feeding Deficiency

Associated Disease	No. of cases	Percentage
Acute Diarrhoea	20	20%
Chronic Diarrhoea	15	15%
Rickets	40	40%
Respiratory Disease	25	25%

The above table shows that Breast-feeding Deficiency is associated with Rickets in maximum number of cases. Out of 100 cases studied, 40 cases were having rickets, 20 cases of acute diarrhea, 15 cases of chronic diarrhea and 25 cases were having respiratory diseases.

Table 8: Showing different cause of Breast-feeding Deficiency Total Studied (our of 100 cases)

Different cause of Breast-Feeding Deficiency	No. of cases	Percentage
Dietary deficiency (low intake)	40	40%
Low Absorption	30	30%
Low intake and low absorption	30	30%

Number of cases due to dietary malnutrition (low in take) of Breast-feeding 40, due to low absorption 30 due to low intake and low absorption were 30.

Table 9: Showing different causes of low absorption of Breast-feeding Deficiency. Total cases studied 60 (out of 100)

Different causes of low absorption of Breast-feeding Deficiency	No. of case	Percentage
Helminthic + Protozoal Infestations (Parasitic Infestations)	42	42%
Due to unknown aetiology	18	18%

Number of cases due to infestation were 42 Number of cases due to unknown aetiology were 18.

Table 10: Showing the effect of Breast-feeding Deficiency

Sl. No.	Name	No. of Cases	Percentage
1.	Rickets	11	11%
2.	Conjunctival xerosis	6	6%
3.	Gastric trouble	8	8%
4.	Ulceration	6	6%
5.	Anemia	13	13%
6.	Diarrhea	14	14%
7.	Growth Problem	8	8%

The above table shows the maximum no. of children had Rickets Problems 11 cases conjunctival xeroses 6 cases. Gastric trouble 8 cases ulceration 6 cases, Anemia 13 cases Diarrhea 14 cases and growth problem 8 cases.

Every year we see hundred of children losing their health through Breast-feeding deficiency and the saddest part of the tale is that the disease is completely preventable and provided the treatment is started before the problem has set in curable too. But lackness of proper knowledge and poor economic condition, she is suffering from health problems. It is mainly a part of poverty and unhygienic living as well as ignorance, apathy and reliance on the unscientific knowledge are important contributory factors.

Conclusion

Large segments of the world's population continue to subsist on marginal or sub-marginal intakes of Breast-feeding. People exposed to subclinical Breast-feeding deficiency are predisposed to manifest frank Rickets, Low Birth weight and other problems under appropriate circumstances. It is difficult to speak of specific clinical symptoms of Breast-feeding deficiency because of the variations of the clinical signs brought about by the presence of complicating factors, such as infections, or by the presence of symptoms from multiple deficiencies as well as the effects of stresses, such as physical labour and pregnancy. The clinical picture of Breast-feeding deficiency in children is, however, usually divided into a dry neuritic and cardiac. The disease manifests itself principally with changes involving the nervous system, the cardiovascular system, and also the gastrointestinal tract.

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