

## **Poor Nutrition as a Correlate of Infant Mortality among Mothers in Imo State.**

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### **Abstract**

*The purpose of this study was to ascertain poor nutrition as a correlate of infant mortality among mothers in Imo State. Two research questions two hypothesis guided the study. The population consisted of 1,500 women of child bearing age in the fifteen randomly drawn communities of the twenty seven local government areas of Imo State. Structured question was an instrument for data collection. The test-retest reliability using Pearson product moment correlation coefficient was used to obtain a correlation coefficient Of .79. The analysis was done using inferential statistics of simple linear regression. It was found out that poor infant feeding is a significant correlate of infant mortality since the  $P=.002 < .05$ . It was also found that lack of optimal breastfeeding is a significant correlate of infant mortality since  $P=.003 < .05$  alpha level. It is therefore recommended that every nursing mother should appropriately breastfeed their babies; also holistic nutrition education is required.*

**Key words:** Poor nutrition, correlates, mothers, infant, mortality

Mortality indices in Nigeria for children aged less than five years old are among the worst in the world. Malnutrition, including micronutrient deficiency is estimated to contribute about 53% to under- five mortality (Moris, Cogill and Uany; 2008). This is to say that more than half of these deaths could have been averted if children were not malnourished.

According to National Demographic and Health survey (NDHS, 2008); nearly 10 million children aged 0-5 years suffer severe to moderate malnutrition. The indications are that indices have worsened and Nigeria is in the grips of a silent emergency posed by childhood nutrition. The adverse impact of adequate dietary intake on childhood malnutrition was confirmed in recent assessment of the related effects of rising food and commodity prices in the country. The assessment indicated that as prices increased, poor householder becomes more food insecure. Children in poor Nigerian states including Imo State are chronically undernourished (United Nations Children Emergency Fund UNICEF, 2011).

### **Introduction**

The positive correction between malnutrition and infant mortality is shown by examining the National Demographic and Health survey (NDHS, 2003) and National Immunization Coverage Survey (NICS, 2007) Indices.

The table below shows that South East zone which has a prevalence of underweight of just 9%, mortality was lowest at (103 per 1000 live births) and in the North West, underweight reached 43%. Infant mortality is commensurately higher at 269 per 1000 live births. The mortality rate increases significantly with poor nutrition status.

Fig 1: Underweight Vs Infant Mortality Rate

Zone	Underweight Infant MR. (per1000 birth)
South East	9
103	
South South	18
176	
North East	33
260	
North West	43
269	

(NICS, 2007)

As opined by Ross and Harvey (2003), vitamin A supplementation is a major part of emergency response to outbreak of measles and Zink (plus osmolality oral re-

hydration solution) is becoming established as an adjunct therapy in management of childhood diarrhea.

Optimal breastfeeding practice is the best intervention to reduce infant morbidity and mortality in the first 2-3years of life. Breastfeeding promotion remains a key child survival strategy. Children born to HIV infected women are of less risk of illness and death if not breastfed, only if these children can be provided with uninterrupted access to nutritionally adequate breast milk substitutes.

According to UNICEF (2010), exclusive breastfeeding is recommended where formula feeding is not Available, Feasible, Affordable, Safe and Sustainable (AFASS). In the area of promoting growth and development, holistic nutrition education is required which emphasizes the essential nutrition actions, namely optimal breastfeeding, complementary feeding, nutritional care for the sick child, growth monitoring, vitamins and mineral deficiency control and dietary diversification.

### Statement of the Problem

Poor nutrition and inadequate dietary supplement among mothers is still a major cause of infant mortality in Imo State. Imo State is noted as a state with high infant mortality rate coinciding with a high frequency of diarrhea in 4-24 months of age. This perhaps can be attributed to various reasons such as; lack of proper

nutrition education, poor nutritional habits, ignorance, economic status, lack of nutritional awareness and possibly high cost of food supplements. The researcher therefore in reaction to these facts intends to study poor nutrition as a correlate of infant mortality among mothers in Imo State.

### **Objectives of the Study**

The objectives of the study include the following;

1. to ascertain if poor nutrition correlate with infant mortality among mothers in Imo State.
2. to find out if lack of optimal breastfeeding correlate with infant mortality among mothers in Imo State.

### **Research Questions**

The following research questions guided the conduct of the study;

1. What is the relationship between poor nutrition and infant mortality?
2. What is the relationship between lack of optimal breastfeeding and infant mortality?

### **Research Hypothesis**

1. Poor infant feeding is not a significant correlate of infant mortality.

2. Lack of optimal breastfeeding is not a significant correlate of infant mortality.

### **Research Methodology**

Descriptive survey research design was adopted for the study. A sample of one thousand and five hundred (1,500) women of child bearing age was used and the convenient sampling technique was adopted to sample the most easily accessible and readily available 1,500 participants. The instrument for data collection was the self developed and structured questionnaire. The instrument was subjected to both content and face validity by the jury approach. The test-retest method was used to administer the validated instrument. Pearson Product Moment Correlation was used to check for reliability. The coefficient value obtained was .79 and was considered high for the study. The researcher used six trained research assistants to administer the questionnaire and ensure on the spot collection. The collected data was analyzed using descriptive statistics of frequency percentage and mean as well as inferential statistics of simple Linear Regression set at .05 level of significant and 1.50 was the criterion mean used for the decision.

### **Results**

#### **Research Question 1**

What is the relationship between poor mothers in Imo State?  
nutrition and infant mortality among

**Table 1: Poor nutrition as a significant correlate of infant mortality.**

S/N	Statements	$\bar{X}$	SD	Decision
1.	I usually avoid food during pregnancy because of lack of appetite	3.25	0.96	Agreed
2.	I avoid my vitamin supplement because I hate taking drugs	3.25	0.50	Agreed
3.	I believe that eating fruits and vegetables will give me stomach upset	2.00	0.82	Agreed
4.	I do not practice exclusive breast feeding for my baby	3.00	0.82	Agreed
	<b>Grand Mean and SD</b>	2.875	0.775	

Research question one shows the respondents agreement that majority avoid food during pregnancy ( $\bar{X}$  = 3.25; SD = 0.96), many hate taking routine drugs during pregnancy ( $\bar{X}$  = 3.25; SD = 0.50), eating fruits gives stomach upset ( $\bar{X}$  = 2.00; SD = 0.82) and many mothers do not practice exclusive breastfeeding ( $\bar{X}$  = 3.00;

SD = 0.82). The grand mean ( $\bar{X}$  = 3.00; SD = 0.82) reveals that poor nutrition as a correlate of infant mortality is positive.

### Research Question 2

What is the relationship between lack of optimal breastfeeding and infant mortality?

**Table 2: lack of optimal breastfeeding as significant correlate of infant mortality.**

S/N	Statements	$\bar{X}$	SD	Decision
5.	My breast do not always produce milk in the first three weeks of child birth.	3.00	0.82	Agreed
6.	My babies do not suck much breast milk	3.50	0.58	Agreed
7.	My babies stop sucking breast before three months of age	3.25	0.50	Agreed
8.	My babies are not usually satisfied with only breast milk.	3.25	0.50	Agreed
	<b>Grand Mean</b>	3.25	0.60	

Research question five showed that majority of the respondents indicated that

their breast does not produce milk in time ( $\bar{X}$  = 3.00; SD = 0.82), their babies do not

suck much milk ( $\bar{X} = 3.50$ ; SD = 0.58), some babies stop sucking breast before three months of age ( $\bar{X} = 3.25$ ; SD = 0.50) and some babies do not feel satisfied with only breast milk ( $\bar{X} = 3.25$ ; SD = 0.50). The

grand mean ( $\bar{X} = 3.25$ ; SD = 0.60) shows low economic status as a factor of infant mortality.

**Hypothesis 1:** Poor nutrition is not a significant correlate of infant mortality.

**Table 3:** summary of regression on poor nutrition and infant mortality,

Model	SS	DF	MS	F	P-value	Alpha level	R <sup>2</sup>	R	Decision
Regression	603.863	1	603.863	1427.527	.002	.05	.505	.711	Reject
Residual	592.212	1400							
<b>Total</b>	<b>1199.075</b>	<b>1401</b>							

Table 3 above reveals that the calculated P-value .002 at alpha level of .05 with 1400 degree of freedom (DF) indicates that there is a positive moderate relationship between poor nutrition and infant mortality. The null hypothesis is rejected. There is therefore a

significant relationship between poor infant feeding and infant mortality.

**Hypothesis 2:** Lack of optimal breastfeeding is not a significant correlate of infant mortality.

**Table 4:** Summary of regression on lack of optimal breastfeeding and infant mortality.

Model	SS	DF	MS	F	P-value	Alpha level	R <sup>2</sup>	R	Decision
Regression	705.214	1	705.214	1671.123	.003	.05	.544	.738	Reject
Residual	590.694	1400							
<b>Total</b>	<b>1295.908</b>	<b>1401</b>							

Table 4 above shows that the calculated P-value .003 at alpha level .05 with 1400 degree of freedom (DF) indicates that there is a positive moderate relationship between

lack of optimal breastfeeding and infant mortality. The null hypothesis is rejected. It therefore implies a significant relationship

between lack of optimal breastfeeding and infant mortality.

### Discussion of Findings

The result revealed that poor nutrition is a significant correlate of infant mortality in Imo State. The result of the study shows that the P-value(.002) < the alpha level (.05). Reviewed literature confirmed that mortality indices in Nigeria for children aged less than five years old are among the worst in the world. Malnutrition, including micronutrient deficiency is estimated to contribute about 53% of under-five mortality (National development and health survey (NDHS), 2010).

The findings of this study revealed that in Nigeria for children aged less than five years old are among the worst in the world. Malnutrition, including micronutrient deficiency is estimated to contribute about 53% of such deaths (National development of health survey (NDHS) 2010).

The study further revealed that breastfeeding has been proven to be the best food for new born babies and every nursing mother is encouraged to feed their babies with it (Ademiya, 2008).

### Conclusion

Poor nutrition among mothers is a significant correlate of infant mortality. Lack of optimal breastfeeding by mothers is a significant correlate of infant mortality. In the area of promoting growth and

development, holistic nutrition education is required. Emphasis should be made on essential nutrition actions, namely optimal breastfeeding, complementary breastfeeding, nutritional care for the sick child, growth monitoring, vitamins and mineral deficiency control among others.

### References

- Adeniyi, A.F. (2008). Essentials of Breastfeeding. *Nigerian Tribune* 10(2):19-24.
- Moris S.S., Gogill B. and Uany R. (2008). Effective international action against under nutrition: Why has it proven so a difficult and what can be done to accelerate progress? *Lancet* 371(9612), 608-62.1
- National Development and Health Survey, 2008.
- National Development and Health Survey, 2010.
- National Immunization coverage survey (2007).
- Ross J.S and Harvey P.W.J. (2003). Contribution of breastfeeding to Vitamin A nutrition of infants: A simulation model. *Bull WHO* 81, 80-86
- United Nations Children's Emergency Fund (UNICEF, 2011). What can be done? A continuum of Maternal, Newborn and Child Health Care. *Geneva*
- UNICEF (2010). Integrated Management of Childhood Illness. *Bull WHO* 86, 332-338