"A Comparative Study to Assess the Growth of Toddlers among Urban Slum Area and Rural Area and Its Correlation with Selected Variables"

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ABSTRACT: Growth is an important attribute of childhood. Growth is an essential feature of a child life that distinguishes him or her from an adult. Healthy children are the future asset to the nation and also the pride of the Nation. Thus, promotion of their health from the beginning of human life is essential. The study aimed to assess and compare the growth of toddlers from urban slum with rural area of Tapi District of Gujarat state and co-relate the growth of toddlers with selected variable.

A Comparative survey research study with one group from Urban slum and rural area without control group design was used and study was conducted at Tapi district of Gujarat state. Sample comprised of 100 toddlers each from urban slum and rural area, sample was selected by simple random sampling technique. Data was collected by using semi structured questionnaire, WHO growth chart and analyzed by using descriptive and inferential statistics.

INTRODUCTION

"We worry about what a child will become tomorrow,
yet we forget that he is someone today"
- Stacia Tauscher

Healthy children are the Nation's greatest resource. Investment in child development is an investment in the future Nation. Healthy children are the greatest asset to the nation and also the pride of the Nation.

Promotion of health from the beginning of human life is essential. Growth and development are most outstanding characteristics of toddlers wellbeing. It also indicates the status of child's health.

Toddler is a common term for a young child who is learning to walk. The toddling stage is generally considered to be the stage of development between infancy and childhood. Toddling usually begins between age 12 and 24

months. Understanding toddlers is fundamental to successful child bearing, eating habits established in first 2 to 3 years of life tends to have lasting effects on subsequent years. During the period from 12 to 18 month the growth rate slows resulting in a slight adjustment from the previous calories requirement.

The period of growth and development continuous throughout the life cycle, however, the period in which the principal changes occur is from conception to the end of adolescence. Growth' is an important attribute of childhood. Growth is an essential feature of a child life that distinguishes him or her from an adult. Growth is mainly due to multiplication of cells and an increase in intracellular substance.

Growth refers to an increase in physical size of the whole or any of its parts and can be measured in inches or centimeters and in pounds or kilograms.

----Dorothy R. Marlow.

SIGNIFICANCE OF THE STUDY:

Malnutrition is associated with about half of all child deaths worldwide. Malnourished children have lowered resistance to infection, they are more likely to die from common childhood ailments like diarrheal diseases and respiratory infections and for those who survive, frequent illness saps their nutritional status, looking them into a vicious cycle of recurring sickness, faltering growth and diminished learning ability.

The high levels of under nutrition in children and women in South Asia and sub-Saharan Africa pose a major challenge for child survival and development. Progress is made when provision of basic services is combined with support for

initiatives that inform and empower communities and families (particularly women) to ensure adequate nutrient intake and prevent infectious disease.

The children report says nearly nine million children die worldwide every year before the age of five. India has the highest number of child deaths, In India everyday despite a decrease in child mortality figures, 5,000 children under the age of five die due to preventable causes, according to a latest UNICEF report.

Despite India's considerable social and economic progress over the decades, malnutrition continues to be a grave problem, particularly among vulnerable population of the community. Child malnutrition is a biggest challenge; our country is facing today even when the economy is said to surging ahead. Every second child under age of three in the country is malnourished.

Throughout the world there is an increase awareness of malnutrition and altered growth pattern as the significant cause of morbidity and mortality. This awareness will help to decline the morbidity due to nutritional disorders and other forms of disorders. Due to increase morbidity and mortality under five year of age there is a need to assess the growth of children and to find out the factors which effects on the growth of toddlers.

STATEMENT OF THE PROBLEM

"A Comparative Study to Assess the Growth of Toddlers Among Urban Slum Area and Rural Area and Its Correlation with Selected Variables of Tapi District of Gujarat State."

OBJECTIVES:
1. To assess the growth of toddlers from urban slum area of Tapi District of Gujarat state.
2. To assess the growth of toddlers from rural area of Tapi District of Gujarat state.
3. To compare the growth of toddlers from rural and urban slum area.
4. To co-relate the growth of toddlers with selected demographic variables.

HYPOTHESIS:

H1: The growth/ health status of toddlers from urban slum area will be significantly higher than toddlers from rural area as evident from structured survey questionnaire at 0.05 level of significance.

DELIMITATIONS OF THE STUDY
1. The study is delimited to Tapi District of Gujarat state.
2. The study is delimited to the toddlers only.
3. The study is delimited to 200 samples.

RESEARCH METHODOLOGY:

Research Design: A Comparative survey research study with one group from Urban slum and rural area without control group design

Research Setting: Tapi district of Gujarat state.

Sample Size: 200 comprised of 100 toddlers each from urban slum and rural slum area,

Sampling Technique: Simple Random Sampling Technique.

TOOLS FOR DATA COLLECTION
Data and Source of data:
Data collection: Semi structured questionnaire, WHO growth chart and analyzed by using descriptive and inferential statistics
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Data collected on Section-I deals with background data of sample such as age, sex, religion, occupation, educational status of parents, income of family, food pattern, quantity of food, frequency of food per day, environmental sanitation in terms of frequency and percentage and comparison of urban slum area and rural areas data.

Data collected on Section—II Deals with height, weight, head circumference, chest circumference, mid arm circumference and head to toe assessment to assess the growth of the toddler in terms of frequency and percentage and comparison of urban slum area and rural areas data.

Result
1.Analysis of data collected for background data of the toddler.

Table 1.1: Frequency and percentage wise distribution of toddlers among urban slum area and rural area according to parent's education and its comparison.

N=200

Sample characteristics	Urban Slum Area N=100		Rural Area N=100	
	Frequency	Percentage	Frequency	Percentage
Both parents present at the time of interview a) yes b) No	19 81	19 81	2 98	2 98
Educational status Of the father is: a) Illiterate b) Primary education c) Secondary education	10 32 53	10 32 53	20 29 47	20 29 47

d) Graduation	5	5	4	4
Educational status Of the Mother is:				
a) Illiterate	11	11	27	27
b) Primary education	61	61	30	30
c) Secondary education	26	26	39	39
d) Graduation	2	2	4	4

Table 1.2: Frequency and percentage wise distribution of toddlers among urban slum area and rural area related to breast feeding practice and its comparison

N=200

Sample characteristics	Urban Slum Area N=100		Rural Area N=100	
	Frequency	Percentage	Frequency	Percentage
Period of Exclusive breast feeding is:				
a) 6 month	95	95	90	90
b) 5 month	3	3	4	4
c) Birth to 4 month	2	2	6	6
Is breast feeding practice still continue?				
a) Yes	57	57	58	58
b) No	43	43	42	42
When breast feeding was stopped?				
a) Before 6 month	0	0	0	0
b) 6 to 12 month	0	0	10	10
c) After 1 year	43	43	32	32
d) Still continue	57	57	58	58

Table 1.3. Frequency and percentage wise distribution of toddlers among urban slum area and rural area related to diet pattern of family and toddler and its comparison

N=200

Sample characteristics	Urban Slum Area N=100		Rural Area N=100	
	Frequency	Percentage	Frequency	Percentage
Diet pattern of family:				
a) Vegetarian	24	24	29	29
b) Non vegetarian	0	0	0	0
c) Mixed	76	76	71	71
Food generally taken by toddler:				
a) Family food	88	88	73	73
b) Fast food	8	8	8	8
c) Packed food	4	4	13	13
d) All of above	0	0	6	6
Quantity of Diet per day is sufficient?				
a) Yes	62	62	69	69
b) No	38	38	31	31

2.Analysis of data collected for physical assessment of growth of the toddler.

Table: 2.1Frequency and percentage wise distribution of toddlers among urban slum area and rural area related to height, weight, head circumference chest circumference, mid arm circumference and its comparison.

N=200

Sample characteristics	Urban Slum Area N=100		Rural Area N=100	
	Frequency	Percentage	Frequency	Percentage
Height:				
a) Above average	0	0	0	0
b) Average	75	75	60	60
c) Below average	25	25	40	40
Weight:				
a) Over weight	0	0	0	0
b) Healthy	62	62	43	43
c) Grade I	20	20	32	32
d) Grade II	18	18	19	19
e) Grade III	0	0	6	6
f) Grade IV	0	0	0	0
Head Circumference:				
a)Above average	0	0	0	0
b) Average	75	75	60	60
c) Below average	25	25	40	40
Chest Circumference:				
a) Above average	0	0	0	0
b) Average	75	75	60	60
c) Below average	25	25	40	40
Mid arm Circumference				

a) above average	0	0	0	0
b) Average	75	75	60	60
c) Below average	25	25	40	40

Table2.2: Frequency and percentagewise distribution of toddlers among urban slum and rural area according to gradation of malnutrition.

N=200

Content	Urban slum area N=100		Rural area N=100	
	F	%	F	%
Over weight	0	0	0	0
Healthy	75	75	60	60
Grade I	15	15	20	20
Grade II	10	10	14	14
Grade III	0	0	6	6
Grade IV	0	0	0	0

Above table shows that majority of the toddlers (75%) in the urban area were healthy than the toddlers (60%) in the rural area.

3. Comparison of the growth of the toddlers among urban slum area and rural area and correlation of the growth with selected variables.

Table 3.1: Chi-square values showing comparison between the growth of toddlers among and urban slum area and rural area.

N=200

Growth	Urban slum area (N=100)		Rural area (N=100)		X^2
	F	%	F	%	
Average	75	75	60	60	
Below Average	25	25	40	40	
					5*

*Significant at 0.05 level, df (1), $X^2 = 5$　P< 0.05.

Table presented the data which shows the chi-square (X^2) value 5 was higher than the tabulated value 3.84 which was found to be statistically significant at 0.05 level.

It is evident from above table that the growth/health status of toddlers from urban area was significantly higher than toddlers from rural area.

- There was a positive significant correlation between the growth of toddlers and educational status of the father among urban slum and rural area. It is evident that educational status of the father is affect to the growth of the toddlers. Hence it is evident that if father's education is higher than growth of the toddler is considered good as they are having a better knowledge regarding the health of child. There was a positive significant correlation between the father's illiteracy and education up to secondary among urban slum and rural area hence it is evident that educational status of the father is affecting to the growth of the toddlers. It also reveals that due to lower education growth of the toddlers were below average while the higher education improves the growth of the toddlers because they have the better knowledge of nutrition and health.

- There is a positive significant correlation between the growth of toddlers and educational status of the mother among urban slum area and rural area hence it is evident that educational status of the mother is affect to the growth of the toddlers. It implies that improvement in education, especially female literacy is main socio-demographic determinant which would go a long way in reducing malnutrition and improve growth of toddlers

- There is a positive significant correlation between the illiterate mothers and the mothers who attained secondary education. Hence it is evident that lower educational status of the mother is effect on the growth of the toddlers.

- there is a positive significant correlation between the growth of toddlers and exclusive breast feeding practice followed by mother among urban slum area and rural area Hence it is evident that exclusive breast feeding is affecting to the growth of the toddlers. The prevalence of exclusive breastfeeding was good among urban slum and rural area and few stunted children were not exclusively breastfed for the first 6 months.

- There is a positive significant correlation between the growth of toddlers and breast feeding practice followed by mother among urban slum area and rural area hence it is evident that breast feeding is positively affecting to the growth of the toddlers. So it is depicted from above table that the toddlers who were taking breast feeding found healthier than the toddlers who were not taking breast feeding.

- There is a positive significant correlation between the growth of toddlers and number of sibling among urban slum area and rural area. Hence it is evident that number of sibling is affecting to the growth of the toddlers. If the number of siblings are more than the growth of the toddler may decline due to insufficient attention from parents.

- There is a positive significant correlation between the number of sibling among urban slum area and rural area. Hence it is evident from above table that number of sibling is affecting to the growth of the toddlers.

- There is a positive significant correlation between the growth of toddlers and quantity of diet taken by toddlers among urban slum area and rural area hence it is evident from above table that quantity of diet is affecting positively to the growth of the toddlers.

The toddlers were one or more nutritional deficiency signs. Protein-energy malnutrition of all grades was the most common deficiency. Anemia was the other deficiencies encountered in both the communities. So it shows that inadequate food intake adversely affects the growth and of growing toddler.

RECOMMENDATION:
1. A similar study may be replicated using the large sample and among more number of areas so that findings can be generalized for a larger population.
2. A similar study can be replicated among the various groups of children's like infant, preschool, school going.
3. A comparative study can be conducted in order to compare the growth of the toddlers among two District or two states.
4. A comparative study can be conducted in order to compare the growth and development.
5. A study can be done on effect of nutritional status on the growth of toddler.
6. A study can be done to find out the malnourishment among the various group of children.
7. A study can be conduct to identify the factors responsible for poor growth among the higher socio economic status and lower socio economic status group.

Conclusion

Growth deficit was existed in urban and rural area of Tapi district. Through the analysis it was interpreted that the growth of the urban slum toddlers was higher than the rural toddlers and it was found that the variables

like educational status of parents, exclusive breast feeding practice, number of sibling, quantity of diet of toddlers had positive effect on growth of the toddlers.

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