



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

# IJRSET

International Journal of Innovative Research in  
**SCIENCE | ENGINEERING | TECHNOLOGY**

# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 12, Issue 3, March 2023

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

Impact Factor: 8.423

9940 572 462

6381 907 438

[ijirset@gmail.com](mailto:ijirset@gmail.com)

[www.ijirset.com](http://www.ijirset.com)

# A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Growth and Development of Underfive Children among Mothers in Selected Community at Bangalore

Dr. Anil Kumar R V<sup>1</sup>, Mr. Raghavendra H.L.<sup>2</sup>, Dr. Usha Mukund Bhandari<sup>3</sup>, Prof. Nagamani T<sup>4</sup>

Principal, Blossom College of Nursing, Nagarbhavi, Bangalore, Karnataka, India<sup>1</sup>

Nursing Superintendent, Alnavara Health Unit, South Western railways, Indian railways<sup>2</sup>

Former Registrar, Karnataka State Nursing Council, Karnataka, India<sup>3</sup>

Principal, Suyog College of Nursing, Mysuru, Karnataka, India<sup>4</sup>

**ABSTRACT:** Children are the "Ultimate Asset of the Country." Due to their immaturity and the many stages of growth and development, children under the age of five are a vulnerable or special risk category in any population demanding of special health care. A study was carried out in Bangalore to determine the impact of a structured teaching programme on mothers' understanding of the growth and development of children under the age of five. For the study, a pre-experimental evaluation strategy was applied, and 50 moms were chosen as the sample using a non-probability convenient sampling technique. For the data collection procedure, demographic information, a structured knowledge questionnaire, and a structured teaching programme were used. The study's findings reveal that, overall, 65% of mothers correctly responded to knowledge questions based on criteria, and that moms had the least understanding of infant growth and sleep patterns. The number of children, race, and childcare support were all substantially correlated with maternal knowledge. The study came to the conclusion that identifying knowledge gaps in mothers and traits that correspond to knowledge deficits offers guidance on how to best customise educational interventions for moms.

**KEYWORDS:** Under five children, Growth, Development, Mothers of underfive children

**Corresponding authors email id:** [nagamani8119@gmail.com](mailto:nagamani8119@gmail.com)

## I. INTRODUCTION

Children are the "Nations immensely significant asset" to its families and society. Each child is a priceless gift with a variety of potentials, and if they are well-developed and used, they can be the best resource for the country.[1]

Early childhood is crucial for a child's growth. Rapid physical, mental, emotional, social, and moral growth and development occur throughout the first four years of life. Children's early years offer an opportunity to inculcate the ideals necessary to create a tranquil, prosperous, and democratic society.[2]

Due to their immaturity and the different stages of growth and development, children under the age of five are a vulnerable or special risk category in any population that requires specific health care.[3] Children's early years offer an opportunity to inculcate the ideals necessary to create a tranquil, prosperous, and democratic society. As families and communities take care of their children, they strengthen the interpersonal and social links that keep all people whole and healthy.[4]

Mothers, who are a child's primary caretaker and teacher, have a significant impact on their development before the age of five. From the perspective of a child's development, a mother's involvement seems to be crucial, beginning during pregnancy and extending throughout a child's early stages. Women have a significant impact on children's development as their children's primary carers and first teachers. At this point, mothers' traits are essential as the cornerstone variables impacting young children's general growth and future.[5]

Mothers have unique responsibility for the growth and development of their children because they are daycare providers. Her responsibility is to provide children with learning opportunities, and she should keep an eye out for issues with growth and development. Mothers who are familiar with typical development can spot when a child's development is off. If the moms are ignorant of information relating to diet, health, weaning, growth, and behaviour of the child. It might have an impact on how they raise their kids.[6]

In addition to providing medical care, the current notion of health care emphasises sickness prevention and health promotion. Hence, it is crucial to provide children with the proper care at every stage of their growth and development. [7]

## II. NEED FOR THE STUDY

The WHO estimates that 74 deaths among children under five occur globally for every 1000 live births. The average under-five mortality rate in the United States is 8 per 1000 live births. Singapore has the lowest mortality rate for children under the age of five, at 3 per 1000 live births. With 282 deaths per 1000 live births, Sierra Leone has the highest rate of under-five mortality. It is at least 25 times as high in many developing nations as it is in industrialised nations on average.[8]

Every year, around 9 million children under the age of 5 pass away, or about one every three seconds. Of these, 4 million pass away within the first month, 3 million newborns pass away within the first week of life, and 2 million of these deaths occur in low- or middle-income nations.[9]

Every year, more than 2.1 million Indian youngsters pass away before turning five. 9.7 million people worldwide are affected annually. According to UNICEF's most recent "The condition of the world's children-2008" report, India ranks first globally for the number of child deaths, with one child dying every three seconds. Child deaths can be significantly decreased by taking quick, low-cost steps including prompt and exclusive breastfeeding, immunisation, and care.[10]

Children learn to rely and trust on their moms via the love and attention they get, thus it is crucial for them to have secure and loving connections with them. As they mature, they pick up knowledge by seeing her, copying what she does, and receiving direction from her. The wellbeing of mothers and that of their children are inextricably linked, according to numerous studies. The risks to mothers and their children increase when they are uneducated, underprivileged, and unable to meet their children's fundamental requirements.[11]

A study on "Strategies to prevent the loss of developmental potential in more than 200 million children in underdeveloped countries" was undertaken. It claimed that by fostering comprehensive early childhood development programmes, the school system can encourage child development. Building intervention follow-up for at-risk children is more likely when early development programmes run by the health system are connected to educational programmes.[12][13]

The fact that approximately three-fourths of India's infant population lives in villages is the reason for picking this study. Mothers are typically the primary carers for children, thus it is necessary to conserve this richness and to promote their welfare via exercising the highest care in order to make them healthy and to prevent them from terrible diseases. Parents ought to essentially understand how their children grow and develop. In order for them to grow into the wholesome citizens and leaders of tomorrow. A teaching course on the growth and development of children under the age of five will increase mothers' understanding of this subject and raise awareness of it.

## III. OBJECTIVES OF THE STUDY

1. Assess the pre-test knowledge score regarding growth and development of under-five children among mothers.
2. Evaluate the effectiveness of structured teaching programme on knowledge regarding growth and development of under-five children among mothers.
3. Determine the association between pre-test knowledge score with selected demographic variables.

## HYPOTHESIS

1.  $H_1$  - The mean post-test knowledge score of mothers will be significantly higher than their mean pre-test knowledge score.
2.  $H_2$  - There will be an association between pre-test knowledge score and selected demographic variable.

## IV. METHODOLOGY

The research approach adopted for this study was an evaluative approach. A pre experimental one-group pre-test and post-test research design was used. The sample for the present study comprised of 50 mothers who fulfilled the inclusive criteria and non-probability convenient method was used to select the sample for this study. The independent variable refers to structured teaching programme on growth and development of under-five children and knowledge of



mothers on growth and development of underfive children is the dependent variable. Age of mother, education, age group of the child, occupation, monthly income, type of family, religion, and source of information are the demographic variables. This study was undertaken in Kotthanur community at Bangalore. The investigator developed the tool in two sections. Section – A consists of Demographic variables of the mothers. It includes age, education, age of the child, occupation, monthly income, type of family, religion, and source of information. Section – B consists of structured knowledge questionnaire to seek information from the mothers on growth and development of underfive children. Validity and reliability was obtained as per the study requirements and ethical clearance obtained from the concerned authorities. Consent from each participant was obtained after collecting background data and pre-test was conducted on knowledge regarding growth and development of underfive children. The structured teaching programme was given soon after the pre-test. The post-test was done on 5<sup>th</sup> day of structured teaching programme to the mothers. Data were collected and obtained from mothers who are in selected community at Bangalore. The collected data was conveniently summarized and tabulated by applying descriptive statistics such as mean, percentage, and standard deviation and inferential statistics such as Chi-square test, and t<sup>2</sup>-test.

V. RESULTS

Table 1: Frequency and percentage distribution of demographic variables of mothers

Demographic variables		No. of mothers (n)	Percentage %
Age	20-25 Years	19	38
	26-30 Years	19	38
	31-35 Years	7	14
	Above 35	5	10
Educational status of mothers	Informal education	4	08
	Primary school	15	30
	Middle school	12	24
	High school	7	14
	PUC & above	12	24
Age of the child	Infant	22	44
	Toddler	10	20
	Pre school	18	36
Occupation	Coolie	7	14
	Housewife	29	58
	Business	00	00
	Government employee	7	14
	Others	7	14
Monthly income of family	Below Rs 2000	4	08
	Rs 2001 to 4000	11	22
	Rs 4001 to 6000	16	32
	Above 6001	19	38
Type of family	Nuclear	37	74
	Joint	13	26



	Extended	00	00
Religion	Christian	10	20
	Hindu	31	62
	Muslim	09	18
	Any other	00	00
Source of information	Health personnel	11	22
	Mass media	24	48
	Family and friends	15	30
	Others	00	00

Table 2: Pre-test and post-test knowledge level of mothers

n=50

Level of knowledge	Pre test		Post test	
	Numbers of respondents	Percentage (%)	Numbers of respondents	Percentage (%)
Inadequate	43	86	19	38
Moderate	7	14	31	62
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

Table 3: Comparison of pres test & post-test knowledge scores of mothers

n=50

Test	Maximum Score	Min Score obtained	Max Score obtained	Respondents knowledge		
				Mean	SD	Mean %
Pre test	45	7	22	12.4	2.85	27.5
Post test	45	21	37	29.3	3.44	65.11

Table 4: Effectiveness of STP on growth and development of underfive children among mothers

Test	Mean	SD	Mean difference	't' value
Pre test	12.4	2.85	16.9	34.9
Post test	29.3	3.44		

't' (tab<sub>(49)</sub>=1.96) p<0.05 S- significant.

Table 5: Comparison of area wise pres test & post-test knowledge scores of mothers

n=50

Sl. No	Area	Knowledge scores						Enhancement (Mean %)
		Pre test (X)			Post test (Y)			
		Mean	SD	Mean%	Mean	SD	Mean%	
1	General information	1.34	0.96	22.3	2.88	1.73	48	25.7
2	Growth	2.20	1.16	24.4	5.44	1.67	60.4	36
3	Development	7.78	2.07	29.9	17.40	2.63	66.9	37
4	Nutritional requirements	0.90	0.47	22.5	3.38	0.81	84.5	62



Table 6: Association between the pre test knowledge scores and the selected demographic variables. n=50

Demographic variables		No. of mothers (n)	< Median	> Median	X <sup>2</sup> value (df)
Age	20-25 Years	19	6	13	0.543 NS
	26-30 Years	19	8	11	
	31-35 Years	7	3	4	
	Above 35	5	2	3	
Educational status of mothers	Informal education	4	1	3	0.534 NS
	Primary school	15	6	9	
	Middle school	12	4	8	
	High school	7	3	4	
	PUC & above	12	4	8	
Age of the child	Infant	22	8	14	0.222 NS
	Toddler	10	3	7	
	Pre school	18	7	11	
Occupation	Coolie	7	4	3	1.613 NS
	Housewife	29	11	18	
	Government employee	7	2	5	
	Others	7	2	5	
Monthly income of family	Below Rs 2000	4	1	3	0.813 NS
	Rs 2001 to 4000	11	5	6	
	Rs 4001 to 6000	16	6	10	
	Above 6001	19	6	13	
Type of family	Nuclear	37	13	24	0.0461 NS
	Joint	13	5	8	
Religion	Christian	10	1	9	4.522 NS
	Hindu	31	12	19	
	Muslim	09		4	



Source of information	Health personnel	11	1	10	4.562 NS
	Mass media	24	11	13	
	Family and friends	15	6	9	

**VI. DISCUSSION**

The findings of the study have been discussed under following headings.

**PART – I: Description of demographic variables of the mothers.**

- 38% (19) of mothers were in between 20 to 25 years of age, 38% (19) of mothers were in between 26 to 30 years of age, 14% (7) of mothers were in between 31 to 35 years of age and 10% (5) of mothers were above 35 years of age.
- 08% (4) of mothers were having informal education , 30 % (15) of mothers were studied up to primary school, 24% (12) of mothers were studied up to middle school, 14% (7) of mothers were studied up to high school, and 24% (12) of mothers were studied PUC & above.
- 44% (22) children were infants, 20% (10) children were toddlers, and 36% (18) children were belongs to pre school.
- 14% (7) of mothers were coolie workers, 58% (29) of mothers was housewife, 14% (7) of mothers were government employees and 14% (7) were others.
- 08% (4) of mother’s monthly family income was below Rs 2000, 22% (11) of mother’s monthly family income was between Rs 2001 to 4000, 32% (16) of mother’s monthly family income was between Rs 4001 to 6000 and 38% (19) of mother’s monthly family income was above 6001.
- 74% (37) of mothers were belongs to nuclear family, and 26% (13) of mothers were belongs to joint family.
- 62% (31) of mothers were Hindu, 18% (9) of mothers were Muslim and 20% (10) were belongs to Christian.
- 22% (11) of mothers’ source of information was through health personnel, 48% (22) of mothers through mass media, and 30% (15) of mothers source of information was through family & friends.

**PART– II: Assessment of knowledge score of mothers.**

Assessment of pre-test knowledge score of mothers reveals that, majority of the mothers i.e., 86% had inadequate knowledge and 14% of the patients had moderate knowledge regarding growth and development of underfive children. Assessment of post-test knowledge score of mothers reveals that, majority of mothers i.e., 62% had moderate knowledge and 38% of the mothers had inadequate knowledge regarding growth and development of underfive children.

**PART – III: Effectiveness of structured teaching programme on growth and development of underfive children among mothers.**

The knowledge scores of the mothers on growth and development of underfive children in pre-test and post-test reveals that, post-test mean knowledge score found higher i.e., 29.3(65.11%) and SD of 3.44. When compared with pre-test mean knowledge score value which was 12.4 (27.5%) with SD of 2.85.

**PART – IV: Determine the association between the pre-test knowledge score and the selected demographic variables.**

Chi-square test was done to analyze the association between the pre-test knowledge score and the selected demographic variables. The study findings show that, there is no association between the pre-test knowledge score with selected demographic variables.

The over all mean score of effectiveness of structure teaching programme on growth and development of underfive children in the pre-test was 12.4 and the post-test was 29.3. It indicates that there is statistically significant increase in the post-test knowledge. This research hypothesis clearly proves there was significant difference in the knowledge of mothers in the post-test, who received structured teaching programme than in the pre-test, hence the research hypothesis (H<sub>1</sub>) is accepted. The study findings also show that, there is no association between the pre-test knowledge score with selected demographic variables; hence, the research hypothesis (H<sub>2</sub>) is rejected.

**VII. CONCLUSION**

As per the study intervention the structured teaching programme given on growth and development of underfive children which would be considered as a primary need. The structured teaching programme for the mothers was effective in improving knowledge when compared to pre-test. In view of the positive results, the researcher believes that the study would benefit from widening its scope and use a much larger subject sample.

## IMPLICATION OF THE STUDY

The finding of this study has implications for nursing education, nursing administration, community health practice and nursing research.

### Nursing education

To enhance the knowledge level on growth and development of underfive children among mothers is an important aspect of basic education programmes in nursing. The primary task of nursing education would be to intervene in antenatal clinic, out patient department and in immunization clinic.

### Nursing practice

An implication for nursing practice derived from the study is that occurrence of malnutrition and preventing the factors associated with it can reduce stunted growth. Therefore nurses must receive adequate preparation and training on communication skills that would help them to impart knowledge of mothers.

### Nursing administration

The number of staff nurses can be increased in the PHC's. So they can provide effective structure teaching programme to mothers regarding growth and development of underfive children. Communication Medias also can give the education.

### Community health practice

The result of the study is useful in planning the health care and actions. The community health department can take preventive measures by including periodic growth and development assessment of infants as a part of community nutrition programme especially in areas where there is prevalence of stunted growth and development and malnutrition.

### Nursing research

Research should be conducted on need practice and method of teaching focusing on growth and development of underfive children.

## MAJOR RECOMMENDATIONS:

Keeping in view the findings of the present study, the following recommendations were made. Since this study was carried out on a small convenient sample, the results can be used only as a guide for further studies.

1. A similar study on a large sample may help to draw more definite conclusions and make generalization.
2. A similar study can be conducted by descriptive approach, often serves to generate hypothesis for future research.
3. A study can be conducted using various methods of teaching to determine the most effective method of teaching example-self-instructional module, video assisted, simulation etc.
4. Comparative study can be conducted among mothers of underfive children in rural and urban area, working and non working mothers.
5. A similar study can be conducted with two groups.
6. Study to Assess the effectiveness of health education material about growth and development of underfive children.
7. Study on primigravida's attending antenatal clinics.

## REFERENCES

1. Park's Text book preventive and Social Medicine (19<sup>th</sup>ed), Jabalpur BanasidasBhanot Publishers.
2. Country health system profile, India. [Online]. 2007 Aug 06 [cited 2008 Sep 20]; Available from: URL:<http://www.searo.who.int>
3. Dorothy R. Marlow, Barbara A. Redding, (1995). Text book of pediatric Nursing. (6<sup>th</sup>ed), Saunder's company.
4. Statistical data on the status of children aged 0-4 years in SouthAfrica. [Online]. 2007 Jun[cited 2008 Oct 3]; Available from: URL:<http://www.unicef.org>





5. Diken, I.H., Turkish Mothers' verbal interaction practices and self-efficacy beliefs regarding their children with expressive language delay, Anadolu University. Available at: <http://www.internationalped.com/documents/Diken%20Turkish%20mothers%20beliefs-1.doc>
6. Sharma S, Nagar S. Impact of educational intervention on knowledge of mothers regarding childcare and nutrition in Himachal Pradesh. Journal of social science [serial online] 2006 [cited 2008 Aug 20]; 12(2): [139-142]. Available from: URL: <http://www3.interscience.wiley.com>
7. [www.billmuehlenberg.com/.../the-importance-of-motherhood](http://www.billmuehlenberg.com/.../the-importance-of-motherhood)
8. Dr. B.T. Basavanthappa, Text book of pediatric child health nursing, New-Delhi, Ahuja book company Pvt. Ltd; 1<sup>st</sup> Edition 2005. P. 331—32.
9. World health statistics. [Online]. 2007 [cited 2008 Sep 20]; Available from: URL:<http://www.globalhealthfacts.org>
10. Khan, A., Invest in early childhood development. Available at [www.akdn.org/content/734](http://www.akdn.org/content/734).
11. Sinha Kounteya. Every 3 seconds, one child dies in India. [Online]. 2008 Jan [cited 2008 Oct 3]; Available from: URL: <http://timesofindia.indiat>
12. World Health Organization, Improving mother child interaction to promote better psychosocial development in children. Programme on mental health world health organization: Geneva.
13. Patrice Engle. etal. Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. Lancet 2007; 369: 229-42.



**INNO SPACE**  
SJIF Scientific Journal Impact Factor  
**Impact Factor: 8.118**



**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 **9940 572 462**  **6381 907 438**  **ijirset@gmail.com**



[www.ijirset.com](http://www.ijirset.com)

Scan to save the contact details