



A STUDY TO ASSESS THE KNOWLEDGE REGARDING MISSION INDRADHANUSH AMONG MOTHERS OF UNDER FIVE CHILDREN AT SELECTED MUNICIPAL MATERNAL AND CHILD HEALTH CENTRE (MCH), TIRUPATI.

**Kokillamma B, *Vishnuvardan M, Dr. Sudharani P³ and Dr. Sreelatha M.⁴

Mr. B. kokillamma, M.Sc. Nursing, Assistant professor, Community Health Nursing, College of Nursing, SVIMS, Tirupati, Andhra Pradesh, India.

Mr. M. vishnuvardan, M.Sc. Nursing, student, Community Health Nursing, College of Nursing, SVIMS, Tirupati, Andhra Pradesh, India.

Dr. P. Sudharani, M.Sc., Ph.D., Professors and Principal I/c, Community Health Nursing, College of Nursing, SVIMS, Tirupati, Andhra Pradesh, India

Dr. M. Sreelatha, M.Sc., Ph.D., Associate Professor, Community Health Nursing, College of Nursing, SVIMS, Tirupati, Andhra Pradesh, India

ABSTRACT

Objectives: To assess the knowledge regarding Mission Indradhanush among mothers of under five children. To find out the association between the knowledge regarding Mission Indradhanush among mothers of under five children with their selected socio-demographic variable. **Review of literature:** Investigator with background for the development of questionnaire for data collection. Conceptual framework adopted for the present study was based on modified general system theory model 2021, which involves input, throughput, output and feed-back. **Methodology:** Non-experimental approach, descriptive design by using non-probability purposive sampling technique, which includes 100 mothers of under five children. The tool was reliable determined by split half, cronbach's alpha formula, with $r=0.6$. Pilot study was conducted, following which the data collection was carried out. Data was analyzed by descriptive and inferential statistics. **Results** revealed that 49 Per cent of mothers had moderately adequate knowledge regarding (MI), with a mean score of 2.09 ± 0.7 . Significant association with religion and occupation of the mothers at <0.01 level and other variables were not significant. The study **concluded** that majority of mothers of under five children had moderately adequate knowledge on (MI). **Recommendation:** The study may be replication using larger population.

INTRODUCTION:

Mission Indradhanush (MI) is a health initiative of the Government of India (GoI). It was launched by honorable Union Health Minister Mr. J. P. Nadda on 25 December 2014. As a strategic endeavor, the Ministry of Health & Family Welfare (MoHFW), GoI, launched Mission Indradhanush to achieve more than (90%) full immunization coverage in the country. This initiative will eventually close immunity gaps and strengthen immunization coverage. (WHO, 2020).

The Union Ministry of Health and Family Welfare has launched Intensified Mission Indradhanush (IMI) on 8th October 2017, to accelerate full immunization coverage to more than 90% by December 2018. Through this programme, Government aims to reach each and every child less than two years of age and all those pregnant women who have been left uncovered under the routine immunization programme and thus to reduce maternal and child mortality to achieve targets of Sustainable Development Goals (SDGs). (Kishore, 2019).

Dr Harsh Vardhan, Minister of Health and Family Welfare (MoHFW), Government of India, launched 'Intensified Mission Indradhanush 3.0' on Friday, February 19. The said mission will be conducted in two rounds, across 250 districts/urban areas across the nation, starting from February 22 and March 22. He launched the IMI 3.0 portal as well at the event. The release stated that the IMI3.0 has been launched in a bid to vaccinate children and pregnant women who missed their vaccine doses during the COVID-19 pandemic. The IMI 3.0 will identify and vaccinate the beneficiaries in two rounds, where each round will last for 15 days. (Mission Indradhanush, MOH&FW 2021)

Mission Indradhanush 2021 the Union Minister also launched the IMI 3.0 portal and released the Operational Guidelines for IMI 3.0 and the awareness material/IEC package developed as part of the campaign. According to a release by the Union Health Ministry, Vardhan expressed his elation at the elaborate preparations to immunise every mother and child. The Intensified Mission Indradhanush 3.0 will have two rounds starting from February 22 and March 22, 2021, and will be conducted in pre-identified 250 districts/urban areas across 29 States/UTs in the county. (WHO, 2021).

OBJECTIVES:

Objectives of the study were

- 1) To assess the knowledge regarding Mission Indradhanush among mothers of under five children
- 2) To find out the association between the knowledge regarding Mission Indradhanush among mothers of under five year children with their selected socio-demographic variable.

MATERIALS AND METHODS:

Research approach: Research approach used in the present study was non-experimental approach.

Research design: The present study was descriptive research design.

Variables of the study: Independent variables: Socio-demographic variables. Dependent variable: Knowledge regarding Mission Indradhanush among mothers of under five children.

Study settings: The present study was conducted at Municipal Maternal and Child Health (MCH) Centre, Tirupati, which is located in Prakasam road. The setting was chosen on the basis of randomization using lottery methods from 13 urban health centre's in Tirupati.

Population: Mothers of under five children.

Sample: The study sample was under five mothers who are attending regular immunization clinic at (MCH) Centre, Tirupati.

Sample size: The samples and the sample size has 100.

Sampling technique: Non-Probability purposive sampling technique was adopted.

Structured knowledge questionnaire, which was developed by the investigator and validated by 8 experts in the field of community health nursing and two experts in the field of community medicine, was used for collecting the data. The tool was divided into two parts,

Section- I: It includes socio-demographic variables like age of mother and children, religion, educational qualification, occupation, monthly income of family, type of family and sources of information about vaccination.

Section- II: It consists of multiple choice questionnaire to assess the knowledge regarding Mission Indradhanush among mothers of under five children at selected Municipal Maternal and Child Health (MCH) centre, Tirupati

Total 30 multiple choice questions. Each question carries '1' mark, except 16th question which carries '4' marks, each wrong answer carries '0' mark. The total score is '33'.

Split half method and "Cronbach's alpha" formula, was used to test reliability of structured knowledge questionnaire and the value was 'r = 0.6'.

RESULT

The collected data was coded, entered in a master data sheet and the SPSS was used to analyze it. Frequency and percentages of demographic variables were analyzed. Association was ruled out by using the chi-square test.

Results of the study are organized as follows:

DISTRIBUTION OF SOCIO DEMOGRAPHIC VARIABLES AMONG MOTHERS OF UNDER FIVE CHILDREN.

Table 1: Frequency and percentage distribution of demographic variables among mothers of under five children.

(n-100)			
S.No	Demographic Variables	Frequency (f)	Percentage (%)
1.	Age of mothers in year		
	A) 20-25	36	36
	B) 26-30	41	41
	C) Above 30	23	23
2.	Age of under five children		
	A) 1-28 days	7	7
	B) 1 month – 1 year	26	26
	C) 2 – 3 years	37	37
	D) 4 - 5 years	30	30
3.	Religion		
	A) Hindu	61	61
	B) Muslim	31	31
	C) Christian	5	5
	D) Sikh	3	3
4.	Educational status of the mother		
	A) Primary education	10	10

	B) Secondary education	15	15
	C) Under graduate	30	30
	D) Post graduate and above.	45	45

5.	Occupational status of the mother		
	A) Daily Wage earner	5	5
	B) Private employee	32	32
	C) Government employee	13	13
	D) Business	50	50
6.	Income per month		
	A) Rs.< 10,000/_	11	11
	B) Rs. 10,001 – 20,000/-	17	17
	C) Rs.20, 001-30,000/-	26	26
	D) Rs.30, 001- 40,000/-	38	38
	E) Rs.40, 001- and above	8	8
7.	Type of family		
	A) Nuclear	52	52
	B) Joint	44	44
	C) Extended	4	4
8.	Source of information about vaccination		
	A) Mass media	5	5
	B) Health care personnel	88	88
	C) Relatives	6	6
	D) Friends	1	1
	E) Family members	0	0

The data presented in the above table 2 showed that majority (48 %) of participants were in the age of 26 to 30 years, 36 per cent were in the age group of 20-25 years. Age of under five children, majority (37%) were in the age group of 2-3 years, 30 per cent were in the age group of 4-5 years, 61 per cent of mothers adhering to Hinduism, 45 per cent studied up to Post graduate and above and occupation of mothers, majority (50%) doing Business, family income per month, majority (38%) belongs to income group of 30,001 – 40,000 per month. fifty two per cent belongs to nuclear family and source of information, majority (88%) heard about Mission Indradhanash through health personnel.

DISTRIBUTION OF LEVEL OF KNOWLEDGE REGARDING THE MISSION INDRADHANUSH AMONG MOTHERS OF UNDER FIVE CHILDREN

Table 2: Frequency and Percentage distribution, Mean and Standard deviation of level of Knowledge regarding the Mission Indradhanush among mothers of under five children

Knowledge regarding the Mission Indradhanush among mothers of under five children	Frequency (f)	Percentage (%)	Mean (\bar{x})	Standard Deviation (σ)
Inadequate (<50%) (<15)	21	21	2.09	0.7
Moderately adequate (51-75%) (16-25)	49	49		
Adequate (>76%) (>26)	30	30		
Total	100	100		

The data presented in the above table 2 showed that 49 Per cent of mothers of under five children had moderately adequate knowledge, 30 per cent of mothers of under five children were had adequate knowledge and remaining (21%) had the inadequate knowledge regarding Mission Indradhanash (MI). Mean (\bar{x}) knowledge score was 2.09 and standard deviation (σ) was 0.7.

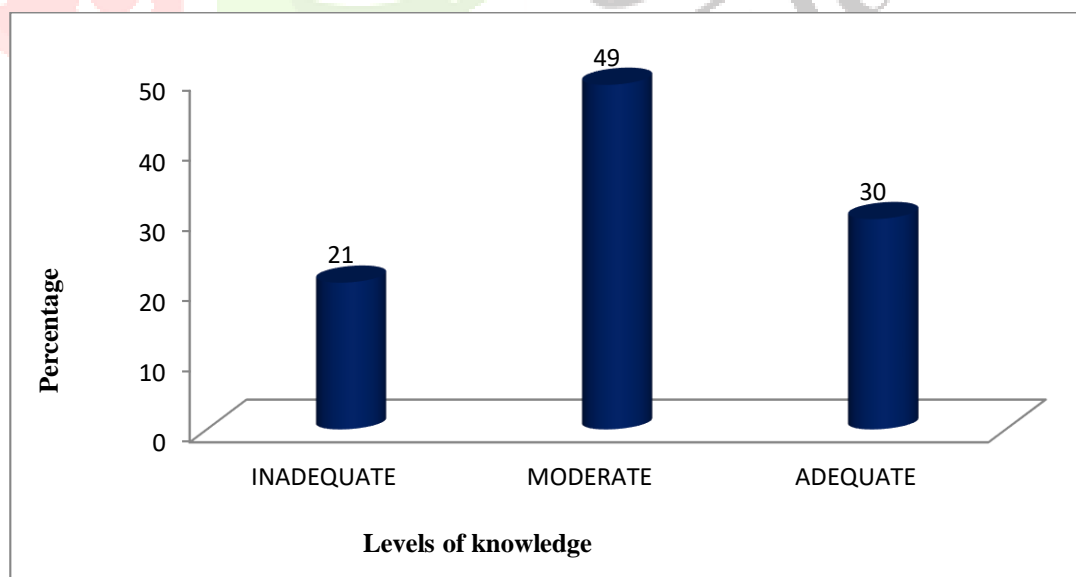


Figure 11- Distribution of level of knowledge regarding the Mission Indradhanush among mothers of under five children

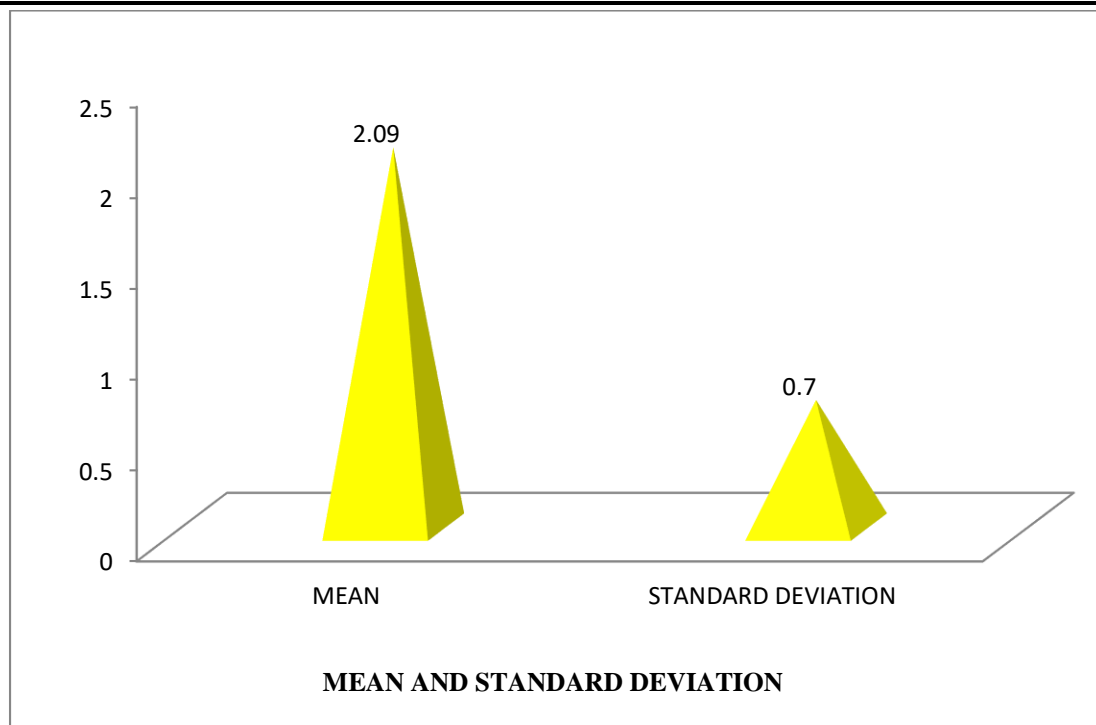


Figure 12 - Distribution of mean and standard deviation regarding the Mission Indradhanush among mothers of under five children.

ASSOCIATION BETWEEN SOCIO DEMOGRAPHIC VARIABLES WITH LEVEL OF KNOWLEDGE REGARDING THE MISSION INDRADHANUSH AMONG MOTHERS OF UNDER FIVE CHILDREN

Table 4: Association of knowledge regarding Mission Indradhanush among mothers of under five children with their socio-demographic variable.

(n-100)

S.No	Demographic Variables	Knowledge regarding Mission Indradhanush						Chi-Square (χ^2)
		Inadequate <50%		Moderate adequate 51-75 %		Adequate > 75 %		
		F	%	f	%	f	%	
1.	Age of mothers in year							
	20-25	4	19	20	41	12	40	$\chi^2 = 3.41$ P = 0.49 df =4
	26-30	11	52	19	39	11	37	
	Above 30	6	29	10	20	7	23	
	Total	21		49		30		
2.	Age of under five children							
	1-28 days	1	5	4	8	2	7	$\chi^2 = 4.33$ P = 0.63 df =6
	1month – 1 year	8	38	10	20	8	27	
	2 – 3 years	5	24	22	45	10	33	
	4 - 5 years	7	33	13	27	10	33	
	Total	21		49		30		
3.	Religion							
	Hindu	11	52	27	55	23	77	$\chi^2 = 12.72^{**}$ P = 0.04 df =6
	Muslim	8	38	19	39	4	13	

Christian	0	0	2	4	3	10	
Sikh	2	10	1	2	0	0	
Total	21		49		30		

4.	Educational status of the mother							
	Primary education	2	10	4	8	4	13	$\chi^2 = 6.07$ $P = 0.414$ $df = 6$
	Secondary education	4	20	9	18	2	7	
	Under graduate	7	33	17	35	6	20	
	Post graduate and above.	8	38	19	39	18	60	
	Total	21		49		30		
5.	Occupational status of the mother							
	Daily Wage earner	1	5	1	2	3	10	$\chi^2 = 15.8^{**}$ $P = 0.045$ $df = 8$
	Private employee	2	10	22	45	8	27	
	Government employee	2	10	7	14	4	13	
	Business	16	75	19	39	15	50	
	Total	21		49		30		
6.	Income per month							
	Rs. < 10,000/-	4	20	6	12	1	3	$\chi^2 = 8.96$ $P = 0.34$ $df = 8$
	Rs. 10,001 – 20,000/-	6	29	7	14	4	13	
	Rs. 20,001-30,000/-	5	24	11	22	10	33	
	Rs. 30,001- 40,000/-	4	20	22	45	12	40	
	Rs. 40,001- and above	2	10	3	6	3	10	
	Total	21		49		30		
7.	Type of family							
	Nuclear	8	38	26	53	18	60	$\chi^2 = 7.26$ $P = 0.12$ $df = 4$
	Joint	13	62	19	39	12	40	
	Extended	0	0	4	8	0	0	
	Total	21		49		30		
8.	Source of information about vaccination							
	Mass media	2	10	3	6	0	0	$\chi^2 = 11.73$ $P = 0.16$ $df = 8$
	Health care personnel	16	75	45	92	27	90	
	Relatives	2	10	1	2	3	10	
	Friends	1	5	0	0	0	0	
	Family members	0	0	0	0	0	0	
	Total	21		49		30		

*significant at 0.05 level,**significant at 0.01 level

The data presented in the above table 4 showed that there is a statistically significant association (0.01 level) between knowledge regarding Mission Indradhanush with religion and occupational status of the mothers at <0.01 level. Other socio

demographic variables like age of mother, age of under five children, mother education, income and Source of information about vaccination, were not shown any significant association with the knowledge on Mission Indradhanash.

DISCUSSION

The first objective was to assess the knowledge regarding Mission Indradhanush among mothers of under five children. The study finding revealed that 49 Per cent of mothers of under five children were having moderately adequate knowledge, 30 per cent of mothers of under five children were having adequate knowledge and remaining (21%) have the inadequate knowledge regarding MI. The findings of the present study was supported by Sujita et al (2017) conducted a non-experimental survey to assess the level of knowledge regarding immunization among 200 mothers of under five children and associate the findings with the selected demographic variables in selected area of Pune city. The study results showed that majority of mothers (70%) was having average knowledge, 25 per cent having poor knowledge and very few (5%) having good knowledge. There is also association between education of mothers knowledge regarding immunization. The study further concluded that mothers knows the importance of immunization, but they have knowledge deficiency about some vaccine like BCG, DPT, doses of hepatitis B and vitamin A vaccination.

The second objective was to find out the association between the knowledge regarding Mission Indradhanush among mothers of under five year children with their selected socio-demographic variable. The study revealed that there was a statistically significant association (<0.01 level) between knowledge regarding Mission Indradhanash with religion and occupational status of the mothers at <0.01 level.

Limitations of the study:

1. The study was limited to mothers who were having children below five years in the immunization clinic at Municipal MCH centre, Tirupati.
2. The sample size of the study was limited to 100 mothers of under five children.

Recommendations:

1. The study may be replicated using larger population.
2. A similar kind of study can be undertaken in different settings (eg. Tribal and hilly areas, construction sites etc.)
3. Educational programme may be designed for mothers, anganwadi workers, health workers, school teachers, panchayat members and social workers to disseminate knowledge regarding Mission Indradhanush.

Conclusion: In this study most of the mothers of under five children had moderately adequate knowledge regarding Mission Indradhanush. There was statistically significant association between the socio demographic variables like religion and occupational status of the mothers with the level of knowledge at <0.01 level. These findings suggested that mothers of under five children need to improve their knowledge regarding Mission Indradhanush and prevent of VPD among under five children for overall wellness of child health.

Acknowledgements:

I express my sincere gratitude to the authorities of CON SVIMS and Municipal MCH centre for their support and all the subjects without whose substantial help and co-operation, this study would not have been accomplished.

REFERENCES

1. Kishore's P (2019) National health programs of India. 13th edition, century publication new Delhi, 201-2.
2. Mission Indradhanush and MOH&FW. Accessed from 2021.
3. Mission Indradhanush Operation Guidelines (2020). Available from <http://www.tripuranrhn.gov.in/guidelines/0701201701.pd>
4. Sujita D. N, Irish, Smitta, Pragati and Vishvendra (2017) To assess the knowledge regarding immunization among mother of under 5 children in selected area of Pune city. International Journal of Applied Research. 3(6): 1112-1114
5. World Health Organization (2021). The power of vaccines: still not fully utilized. <https://www.who.int/publications/10-year-review/vaccines/en/>. Accessed 09/ 03/ 2020.

