

**Original Article**




**Effectiveness of Self-Instructional Module on Knowledge regarding Maternal Deprivation Syndrome among Mothers in Selected Community Areas**

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ARTICLE INFO	ABSTRACT
<p>Article History:            Submit : May 2, 2022            Revised : May 20, 2022            Accepted : May 24, 2022            Online : June 30, 2022</p> <p><i>Keywords:</i>            Self-Instruction Module,            Knowledge,            Maternal Deprivation Syndrome,            Mothers</p>	<p><i>Background:</i> Life is an incredible gift God gives to human beings, but the first day of everybody’s life will start in the mother's womb. The importance of mothers in life can neither be defined nor can it be measured. The present study attempted to evaluate the effectiveness of a self-instructional module on knowledge regarding maternal deprivation syndrome among mothers in the selected community areas of Bangalore.</p> <p><i>Methods:</i> A pre-experimental one-group pretest-posttest design was commenced on 50 mothers with children below five years using non-probability convenient sampling, and knowledge was assessed using a structured knowledge questionnaire. The study's findings showed that the self-instructional module was adequate</p> <p><i>Results:</i> Results of research shows that out of 50 mothers, 34 had inadequate, ten had moderate knowledge, and 6 had adequate knowledge before giving the self-instructional module. After the self-instructional module's administration, none had inadequate knowledge, 16 (32%) had moderate knowledge, and 34 (68%) had adequate knowledge. Therefore, knowledge of the mothers was improved post-test. The ‘t’ value was 16.50, greater than the table value of 1.677 at 0.05 significant, and was found to be highly significant</p> <p><i>Conclusion:</i> No significant association was found between post-test knowledge score and selected socio-demographic variables except family income.</p>
<p> <i>Corresponding Autor</i> : Divya Dongari</p> <p> <i>Affiliation</i> : Mid-Level Health Provider, HWC- Valligatla, Chittoor Dt, Andhra Pradesh, India</p> <p> <i>Email</i> : ivyadongari4u@gmail.com</p> <p><i>”Cite this as</i> : Dongari, D., Kumar, K. S. ., &amp; Maadhavi, D. (2022). Effectiveness of Self-Instructional Module on Knowledge regarding Maternal Deprivation Syndrome among Mothers in Selected Community Areas. Journal of Applied Nursing and Health, 4(1), 51-60. <a href="https://doi.org/10.55018/janh.v4i1.36">https://doi.org/10.55018/janh.v4i1.36</a></p>	

**Introduction**

“There is a story behind everything... However, behind all

your stories is always your mother’s story... Because hers is where yours begins” -Mitch Albom ([Mother, 2022](#)).



Life is an incredible gift God gives to human beings, but the first day of everybody's life will start in the mother's womb. The importance of mothers in life can neither be defined nor can it be measured (Morrisey, 2012) Mother is only the person who will fulfill all the needs of children. "The best place to relax is the mother's lap, and the best place to cry is in a mother's arms" like this mother will fulfill children's physical, nutritional, social, and emotional needs (Center, 2019; Mother, 2022). According to WHO, 130 million babies are born annually, but so many children, especially those under two years old, face maternal deprivation. A maternal deprivation syndrome is a form of failure to thrive. It is also called "non-organic failure to thrive" or "emotional deprivation" that is caused by neglect [intentional or unintentional] by parents (Kliegman, 2017; Soto-Rubio et al., 2020).

The WHO reported that children who had been separated from their mothers and placed in institutions failed to thrive. This report called for significant changes in the practices and prevalence of institutional care for infants and children and in changing practices relating to the stays of small children in hospitals so that parents were allowed more frequent and more prolonged visits (Bowlby, 2018) If the child does not seem to be growing or developing typically call for an appointment with the health care provider to take advice is very important. Education about the mother-child relationship and care of children during the prenatal period is essential to prevent maternal deprivation syndrome (Kliegman,

2017) In the olden days, mothers were spending more time with children, and they were the primary caregivers to the children. Without communicating with the children, the mother also uses to identify their needs of children by seeing the children's facial expressions (Morrisey, 2012)

Our society is gradually advancing women's careers while the number of children in daycare increases. Nowadays, mothers are well educated and knowledgeable about the care of children but do not have time to spend with them because of their busy schedules, especially working mothers. Working mothers depend on daycare centers to provide care and meet the basic needs of their children, but they forget that, unfortunately, their children lack one of the basic needs, which is love (Shell, 2018).

Working mothers miss many developmental milestones in their children's lives by keeping them in daycare centers. Spending an-eight-hours in a day at daycare centers while their parents are working and then going home only to find mom and dad tired and ready to go to bed does not allow for any quality family interaction that children need, by doing like these children cannot able to share their feelings with the parents. It will affect the children's physical growth, cognitive development, and social behavior and lead to mental disturbances (Islam et al., 2017; Shell, 2018).

A retrospective study evaluated the incidence of non-organic failure to thrive. The sample size of 36 hospitalized children [23 females and 13 males] between 10

days to 22 months was selected. The study revealed that the incidence of non-organic failure to thrive was 1.15% of total admission for the same age and more frequent in females than in males.<sup>6</sup> A study was conducted on the effects of daycare centers on children. A sample consisting of 50 children was selected in a daycare center. The study revealed that children exposed routinely to non-maternal care for more than 20 hours a week likely show insecure attachment associated with heightened aggressiveness, non-compliance, and withdrawal in the preschool and early school years. The study concluded that extensive daycare in the first year of life is itself a psychological risk factor (Mushalpah, 2021; Shell, 2018; WHO, 2017)

A systematic study was conducted on children's adverse effects of maternal deprivation syndrome. The samples of 118 infants were selected from various institutions. The study showed that children who had been institutionalized for more than eight months during the first year showed severe psychiatric disturbances. The study concluded that lack of maternal care leads to psychological disturbances in children (Khonsary, 2017; Rheingold, 2018). Another study was conducted on maternal deprivation syndrome in infants with a sample of 95 who were separated from their mothers. Studies showed that 20% reacted to separation by severe depression, 27% by mild depression, and the study concluded that lack of maternal care affects the physical and mental health of the children (Smeltzer, 2014; Spitz &

Wolf, 2016). A descriptive study was conducted on the effects of imperfect mothering in children. The children's guidance clinic selected a sample of 50 children suffering from psychiatric disorders aged 6-10 years. Data was collected through the interviewing. The study revealed that 53% of cases were experiencing insufficient parent-child interaction at their homes. Study concluded that sufficient mothering is necessary to prevent several psychiatric disorders in children. Keeping the above facts in view, the researcher is keen to assess mothers' knowledge regarding maternal deprivation syndrome.

## Method

This study's conceptual framework is based on Von Bertalanffy's General system theory. The approach used for the study was the evaluative approach. Pre-experimental One group pretest-posttest design was used; the study's independent variables were the self-instructional module for improving mothers' knowledge regarding maternal deprivation syndrome, and the study's dependent variable was mothers' knowledge regarding maternal deprivation syndrome. The tool consists of a structured questionnaire consisting of Section A: Items on demographic variables age, religion, educational status, occupation, income, type of family, and sources of information. Section B: Structured knowledge questionnaire was used to assess mothers' knowledge regarding maternal deprivation syndrome. The investigator conducted the pilot study

by selecting five samples using non -a probability convenient technique in the community area and found the feasibility, practicability, and possibility of conducting the main study. The preliminary study was conducted in Mallathahalli, Bangalore, on 50 mothers with maternal deprivation syndrome. A pre-test was conducted on the very first day, along with an assessment of demographic variables using a knowledge questionnaire, and a post-test was conducted after the administration of SIM to assess the knowledge. There were 30 questions in the knowledge part for assessing mothers' knowledge regarding maternal deprivation syndrome. The investigator developed this tool by reviewing related literature in pediatrics textbooks and electronic sources. Each correct response is given a score of one, and the wrong

response is scored as zero. The content was modified and rearranged based on expert suggestions and recommendations. The self-instructional module was prepared to enhance mothers' knowledge regarding maternal deprivation syndrome. The instrument's reliability is defined as the extent to which the instrument yields the results on repeated measures. The tool, after validation, was subjected to a test for its reliability. In this study, to obtain the tool's reliability, the split-half method was used to assess the knowledge value obtained as  $r = 1$ . Hence the tool is considered highly reliable for carrying out the main study. The data obtained were analyzed by using both descriptive and inferential statistics. This research has gone through an ethical test.

## Results

Table 1. Frequency and Percentage distribution of mothers according to their socio-demographic variables (N=50)

No	Demographic Variables	Frequency	Percentage
<b>Age</b>			
1	20-25 Years	20	40
	26-30 Years	25	50
	31-35 Years	5	10
<b>Religion</b>			
2	Hindu	30	60
	Muslim	5	10
	Christian	15	30
<b>Educational Status</b>			
3	Non-Formal	4	8
	Primary	8	16
	Bachelor Degree	28	56

No	Demographic Variables	Frequency	Percentage
	Master's Degree	10	20
	<b>Occupation</b>		
4	Employed	42	84
	Unemployed	8	16
	<b>Income /Month</b>		
	Rs. 10,000-20,000	3	6
5	Rs. 21,000-30,000	16	32
	Rs. 31,000-40,000	13	26
	Above 40,000	18	36
	<b>Type of Family</b>		
6	Nuclear Family	35	70
	Joint Family	15	30
	<b>Source of Information</b>		
7	Yes	0	0
	No	50	100

Table. It shows that the majority of subjects, 25(50%), belong to the age group of 26-30 years, the majority of subjects, 30(60%) were Hindus, 4(8%) mothers exposed to non-formal education, 42 (84%) were employees, 3(6%) were having income between Rs. 10,000-20,000 and 15 (30%) belonged to the joint family. None is a source of information about maternal deprivation syndrome

Table 2. Mean, Mean %, and Standard deviation of Pre-test and Post-test. (n=50)

Aspects of the knowledge questionnaire	No. of Item	Pre-test			Post-test		
		Mean	SD	Mean (%)	Mean	SD	Mean (%)
<b>General information &amp; meaning</b>	5	2.28	0.9	45.60%	4.42	0.63	88.40%
<b>Causes and incidence</b>	9	3.62	1.72	40.22%	6.74	1.46	74.88%
<b>Ill effects, symptoms and diagnosis</b>	9	3.38	1.74	37.55%	6.82	1.47	75.77%
<b>Management, prevention and complications</b>	7	2.74	1.29	39.14%	5.94	0.96	84.85%
<b>Over all</b>	30	12.02	5.65	40.06%	23.92	4.52	79.73%

Table 3. Categorization of knowledge scores of mothers in terms of frequency and percentage distribution (N=50)

No	Level of knowledge	Respondents			
		Pretest		Post-test	
		Number	%	Number	%
1	Inadequate (0-32.5)	34	68	0	0
2	Moderate (32.6 – 65%)	10	20	16	32
3	Adequate (65.1-100%)	6	12	34	68
	Total	50	100	50	100

Table 4. Effectiveness of Self-instructional module on the knowledge level of mothers. (N=50)

Aspects	Pretest vs. Post-test			
	Pre-test mean	Post-test mean	't' value	P-value
General information and meaning	2.28	4.42	2.13	< 0.05
Causes and incidence	3.62	6.74	3.26	< 0.05
Ill effects, symptoms and diagnosis	3.38	6.82	3.23	< 0.05
Management, prevention and complications	2.74	5.94	2.64	< 0.05
Over all	12.02	23.92	16.5	< 0.05

Table 5. Association between post-test knowledge level of mothers with their socio-demographic variables (N=50)

No	Demographic Variables	Category	Knowledge Level of Participants						x <sup>2</sup>	P-value Inference = 9.49, df=4
			Inadequate		Moderate		Adequate			
			N	%	N	%	N	%		
1	Age	20-25 years	0	0	6	30	14	70	2	p>0.05 NS
		26-30 years	0	0	7	28	18	72		
		31-35 years	0	0	3	60	2	40		
2	Religion	Hindu	0	0	9	30	21	70	0.3	p>0.05 NS
		Muslim	0	0	2	40	3	60		
		Christian	0	0	5	33.3	10	66.7		
3	Educational Status	Non formal	0	0	2	50	2	50	0.8	p>0.05 NS
		Primary	0	0	2	25	6	75		
		Bachelor degree	0	0	9	32.2	19	67.9		
		Master degree	0	0	3	30	7	70		

No	Demographic Variables	Category	Knowledge Level of Participants						$\chi^2$	P-value Inference = 9.49, df=4
			Inadequate		Moderate		Adequate			
			N	%	N	%	N	%		
4	Occupation	Employed	0	0	12	28.6	30	71.4	1.4	p>0.05 NS
		Unemployed	0	0	4	50	4	50		
5	Family Income	10,000-20,000Rs	0	0	3	100	Nil	Nil	19	p>0.05 S
		21,000-30,000Rs	0	0	10	62.5	6	37.5		
		31,000-40,000Rs	0	0	2	15.4	11	84.6		
		40,000 above	0	0	1	5.55	17	94.5		
6	Type of Family	Nuclear	0	0	10	28.6	25	71.4	0.6	p>0.05 NS
		Joint	0	0	6	40	9	60		
7	Source of Information	Yes	0	0	0	0	0	0	0	p>0.05 NS
		No	0	0	16	32	34	68		

**KEY:** NS- Not Significant, SS- Statistically Significant, df- Degrees of freedom,  $\chi^2$ - Chi-square

### Discussion

Table shows that out of 50 mothers, 34 had inadequate, ten had moderate knowledge, and 6 had adequate knowledge before giving the self-instructional module. After the self-instructional module's administration, none had inadequate knowledge, 16 (32%) had moderate knowledge, and 34 (68%) had adequate knowledge. Therefore, knowledge of the mothers was improved post-test. General information and meaning: The mean % was 45.6% with a Standard deviation of 0.9 in the pretest, and in the post-test, it was 88.4% with a standard deviation of 0.63. That reveals the improvement in general information & meaning of maternal deprivation syndrome among mothers. Causes and incidence: Mean percentage was 40.22% with a standard deviation of 1.72 in the pretest, and in the post-test, it was 74.88% with a standard deviation of

1.46. The overall improvement of knowledge in this aspect is 74.88 in the posttest from the pretest score of 40.22. Mean percentage was 37.55% with a standard deviation of 1.74 in the pretest, and in the post-test, it was 75.77% with a standard deviation of 1.47. Thus, it shows that SIM helped improve mothers' knowledge of these aspects. Mean percentage was 39.14% with a standard deviation of 1.29 in pretest, and in post-test, it was 84.85% with a standard deviation of 0.96. The overall improvement in this aspect is from 0.96 in the posttest to 1.29 in the pretest. From the above data, it is evident that SIM helped improve knowledge on management, prevention & complications of maternal deprivation syndrome. Mean percentage was 40.06% with a standard deviation of 5.65 in the pretest, and in the post-test, it was 79.73% with a standard deviation of 4.52. The overall improvement in mothers' knowledge of maternal



deprivation syndrome is from 40.06 in the pretest to 79.73 in the posttest. This finding revealed that SIM effectively improves mothers' knowledge of maternal deprivation syndrome.

The pre-test vs. post-test 't' value was 16.50, more significant than the table value of 1.677 at 0.05 significance. Therefore, the 't' value is found to be highly significant, hence the formulated research hypothesis. The mean post-test knowledge score of mothers on maternal deprivation syndrome is significantly higher than that of their mean pre-test knowledge score after administration of SIM was accepted. It indicates that SIM effectively improves mothers' knowledge of maternal deprivation syndrome.

Table shows no significant association between post-test knowledge scores and selected socio-demographic variables such as age, religion, educational status, occupation, type of family, and source of information except family income. The hypothesis, H<sub>2</sub>: A significant association between knowledge scores and socio-demographic variables are rejected in age, religion, educational status, occupation, type of family, source of information, and hypothesis is accepted in family income. The findings were supported by the following. A comparative study was conducted on the causes of maternal deprivation syndrome. A sample consisting of 30 primary school children was selected into two groups. One group lived with their divorced families, and another lived with their non-divorced families. The study showed that children of divorced families got lower school

achievement scores than those of non-divorced families. Studies concluded that divorced families are the settings for poorer parenting, leading to maternal deprivation syndrome (Grych & Fincham, 2014). A study was conducted on causes of maternal deprivation syndrome with the concept of a broken home with a sample of 839 children suffering from behavior disorders.

Studies showed that 66% of children with behavioral problems came from broken homes. The study concluded that the broken home is the main causative factor in 84% of children developing maternal deprivation syndrome (Rowntree, 2015). A systematic study was conducted on children's adverse effects of maternal deprivation syndrome. The samples of 86 children between the age group of 1-4 years were selected from various institutions. Hetzer-Wolf baby test was used to determine children's developmental quotients [DQ]. The study showed that children who had been institutionalized for more than one year showed severe psychiatric disturbances. The study concluded that lack of maternal care leads to psychological disturbances in children (Smith, 2014). An article review revealed the impacts of maternal employment on children. The review reported that working mothers depend on the daycare centers to care for their children, leading to inadequate maternal care. The review showed the effects of mother employment as (a) lack of maternal care and (b) development of behavioral disorders in children like thumb sucking, temper tantrums, and bed wetting. The review concluded



that maternal employment is the risk factor for maternal deprivation syndrome (Dredge, 2020; Genero & Moretti, 2016; Peterson & Zill, 2016).

## Conclusion

A maternal deprivation syndrome is a form of failure to thrive. It is also called “nonorganic failure to thrive” or “emotional deprivation” that is caused by neglect [intentional or unintentional] by parents. It is a chronic, potentially life-threatening disorder in infants & children. Incidence is high in children below two years. It indicates psychosomatic growth failure. Neuro-endocrinal dysfunction is responsible for physiological and intellectual disturbances. Hence the mothers need to know about the maternal deprivation syndrome for early detection of psychosomatic disorders and reduce the mortality rate. Continuous awareness and education are needed to improve mothers' knowledge of maternal deprivation syndrome. The focus of this study was to evaluate the effectiveness of a self-instructional module on maternal deprivation syndrome among mothers in the selected community area, Bangalore. A Pre-experimental design and evaluative approach were used in the study. The data was collected from 50 samples through non-probability convenient sampling. The data collected were analyzed using descriptive and inferential statistics in terms of frequencies, percentages, and inferential statistics like the ‘t-test and Chi-square test for association. Based on the findings of

the study following recommendation has been made A similar study can conduct on the sample with different demographic variables, A similar study can conduct on a different sample with the same demographic variables. A descriptive study can assess mothers' knowledge regarding maternal deprivation syndrome. A comparative study can be conducted to evaluate the effectiveness of SIM on maternal deprivation syndrome among mothers. A similar study can be conducted in a different setting.

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