



# TO EVALUATE THE EFFECTIVENESS OF IEC PACKAGE IN TERMS OF KNOWLEDGE REGARDING MUSCULAR DYSTROPHY AMONG UNDER-FIVE MOTHERS AT TRICHY

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**ABSTRACT:** Neuromuscular disorders in children may occur as a congenital malformation or a genetic disorder that is present from birth but may not be identified until later in childhood or adolescence. They may also result from trauma or hypoxia or develop following a viral illness. The neurologic and musculoskeletal systems in infants and children are immature compared with adults placing them at increased risk for the development of neuromuscular disorder. **Materials and Methods:** A evaluative study was conducted at selected Beema Nagar Trichy. Data was collected using self-structured questionnaire consisting of socio-demographic information and to assess the knowledge regarding Muscular dystrophy .Analysis of the data was done using inferential and statistical methods. **RESULTS:** In post-test the majority had (96.6%) adequate knowledge.Table 3 shows that there was significant difference between pre-test and post-test knowledge (SD value 9) Table 4 shows that there is no significant association between the level of knowledge regarding the muscular dystrophy with their selected demographic variables **CONCLUSION:** In post-test majority of the mother had adequate knowledge and the IEC package was effective in improving the knowledge among under five mothers.

**KEYWORDS:** IEC package, Muscular dystrophy, Evaluate, Under five mothers

## INTRODUCTION

### Background of the Study:

Muscular dystrophy is a genetic disorder because of atypical gene mutation and consequences in muscle weak spot and lack of ground muscle. There's no unique management for the dysfunction but can be managed.(1) inside the global, the range of muscular dystrophy cases have been predicted at 3.6 according to 1,00,000 populace and in the us it is five.1 per 1,00,000 populace.(2) In general, dystrophy issues have an effect on everywhere between 1 in 5,000, to at least one in 6,000 people assigned male at beginning.(3) . In India an estimate of basic occurrence of MD is 29 in line with 100,000 population (4). It takes place and claims one in 1100 in male births in Tamilnadu (5) It's tough to live with a sickness like muscular dystrophy that slowly limits your capacity to transport and characteristic. Losing your independence may be emotionally tough on you and your loved ones. Like many different issues, expertise and schooling approximately muscular dystrophy is the maximum vital tool with which to manage and prevent headaches. (6)

### Problem Statement:

"A study to evaluate the effectiveness of IEC package in terms of knowledge a regarding **Muscular Dystrophy** among under-five mothers at Beema Nagar, Trichy 2022".

**Objectives:**

- To assess the level of knowledge on muscular dystrophy among underfive mothers.
- To assess the effectiveness of IEC package on muscular dystrophy among the under-five mothers at Beema Nagar, Trichy.
- To find out the association between level of knowledge with their selected demographic variables on muscular dystrophy among under five Mothers at Beema Nagar, Trichy.

**HYPOTHESIS:**

**H1** - There will be a significant difference in the level of knowledge regarding muscular dystrophy among under-five mothers.

**H2** - There will be a significant association between the level of knowledge regarding muscular dystrophy with selected demographic variables of under-five mothers before IEC package.

**OPERATIONAL DEFINITION****IEC Package:**

Information education and communication plays a pivotal role in the relating awareness mobilizing people and making development participatory through advocacy and transferring knowledge skills and techniques of the people.

**Muscular Dystrophy:**

Muscular dystrophy is a group of rare inherited muscle disease in which muscle fibers are usually susceptible to damage of muscle primarily voluntary muscles become progressively weaker.

**DELIMITATION**

1. Sample size is limited to 30.
2. The study limited to particular periods of time

**MATERIALS AND METHODS**

**Research Approach:** Evaluative approach

**Research Design:** Pre experimental design

**TOOL****Section – A: Demographic Variables**

Demographic variables life age groups, type of family, Religion Family Incomes, Education, Occupation and number of children.

**Section – B: Structured Interview Questionnaire**

It consist of 25 structured interview questionnaire to assess the level of knowledge towards the Muscular Dystrophy among under five mothers

**Data Collection**

The data were collected for a period of given time before conducting the study permission was obtained from medical officer at PHC Beema Nagar. 30 under five mothers were selected and oral and written consent was obtained. The samples were interviewed by the researchers who meet the inclusion criteria

**Plan For Data Analysis**

The data has been analysed in terms of descriptive and inferential statistics. Chi square test was used to find out the association of knowledge on learning disability with selected demographic variables.

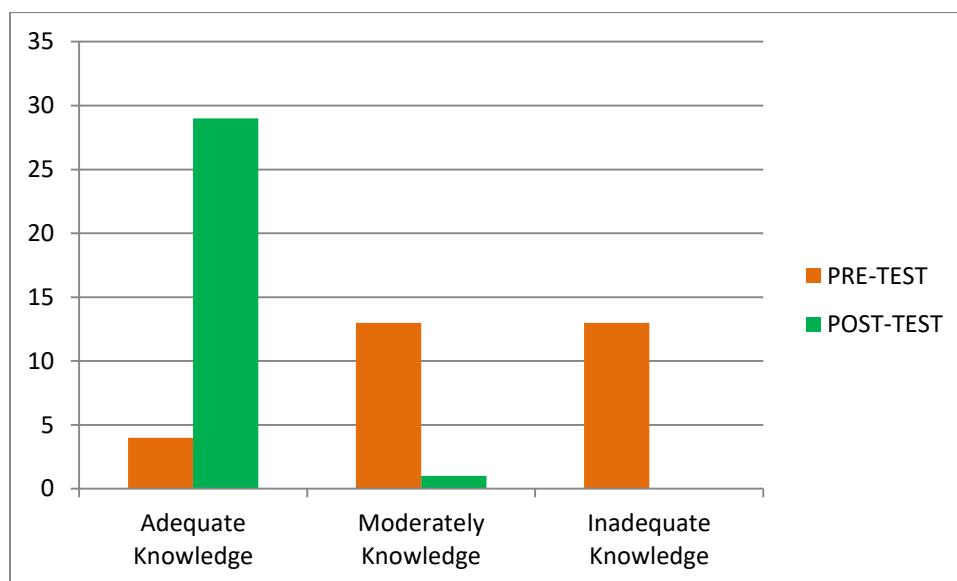
**RESULTS**

**TABLE – I: Frequency and percentage distribution of sample according to the demographic variables.**  
(N=30)

S.NO	Demographic data	Number	Frequency
<b>1</b>	<b>Age group</b>		
	a) 21 – 25 yrs	10	33.30
	b) 25 – 30 yrs	7	23.3
	c) 30 – 35 yrs	8	30
	d) 35 yrs	5	16.6
<b>2</b>	<b>Religion</b>		
	a) Hindu	10	33.3
	b) Christian	6	0
	c) Muslim	7	23.3
	d) others	7	23.3
<b>3.</b>	<b>Types of family</b>		
	a) Joint family	9	30
	b) Nuclear family	7	23.3
	c) Big family	9	30
	d) Others	5	16.6
<b>4</b>	<b>Family Income</b>		
	a) 10,000 / month	10	33.3
	b) 20,000 / month	7	23.3
	c) 30,000 / month	7	23.3
	d) >30,000 / month	6	20
<b>5</b>	<b>Number of children</b>		
	a) 1	10	33.3
	b) 2	7	23.3
	c) 3	8	26.6
	d) > 3	5	16.6
<b>6</b>	<b>Education</b>		
	a) illiterate	9	30
	b) SSLC	8	26.6
	c) Degree course	8	26.6
	d) Higher secondary	5	16.6
<b>7</b>	<b>Job</b>		

	a) Home worker	11	36.6
	b) Teacher	3	10
	c) Cooli	8	26.6
	d) Others	8	26.6
8.	<b>Previous knowledge on Muscular Dystrophy</b>		
	a) Yes	14	46.6
	b) No	16	53.3

Table 1 shows that Majority of the under-five mothers 10 (33.3%) in the age group of 21 – 25 years.. Under-five mothers mostly 10 (33.3%) belong to Hindu religion. Majority of family 9(30%) are joint family. Majority of their family income 60(33.33%) is Rs.10,000 permonth. Majority of them 10(33.33%) have 1 child. Most of the mothers 9 (30%) are illiterate. Majority of them are not having the previous knowledge regarding MuscularDystrophy 16(53.3%)



**Figure1: Effectiveness of level of knowledge after administration of IEC Package**

Figure 1 showed that in pre-test the majority (43.3) has moderate knowledge and inadequate knowledge. In post-test majority (96.67) had adequate knowledge. Table 3 shows that there is no association between demographic variables and knowledge regarding Muscular Dystrophy among Under Five Mothers. And the hypothesis 2 was rejected

**Table II: Effectiveness of IEC package on knowledge**

Variables	Pretest		Posttest		't' value
	Mean	S.D	Mean	S.D	
Knowledge maximum score	9.6	3.4	21.03	0.034	9

Table 2 showed that the calculated value is greater than table value the research hypothesis was accepted. Hence the IEC package was effective in improving the knowledge.

Table III: Association between demographic variable and pre-test knowledge level (n=30)

S.NO	Demographic value	Level of Knowledge						Chi square e test	Tablevalue		
		Inadequate		Moderate		Adequate					
		No	f%	No	f%	No	f%				
1	<b>Age group</b>							3.915	12.59		
	a) 21 – 25yrs	5	16.67	3	10	1	3.33				
	b) 25 – 30yrs	1	3.33	5	16.67	1	3.33				
	c) 30 – 35yrs	5	16.67	3	10	1	3.33				
	d) > 35yrs	2	6.67	2	6.67	1	3.33				
2	<b>Religion</b>							1.494	12.59		
	a) Hindu	5	16.67	4	13.33	1	3.33				
	b) Christian	2	6.67	3	10	1	3.33				
	c) Muslim	2	6.67	4	13.33	1	3.33				
	d) Other	3	10	3	10	1	3.33				
3.	<b>Type of family</b>							2.282	12.59		
	a) Joint family	3	10	5	16.67	1	3.33				
	b) Nuclear family	4	13.33	2	6.67	1	3.33				
	c) Big family	4	13.33	4	13.33	1	3.33				
	d) Others	3	10	1	3.3	1	3.33				
4.	<b>Family Income</b>							3.699	12.59		
	a) Rs.10,000 / month	3	10	5	16.67	2	6.67				
	b) Rs.20,000 / month	3	10	3	10	1	3.33				
	c) Rs.30,000 / month	5	16.67	2	6.67	0	0				
	d) others	2	6.67	3	10	1	3.33				
5.	<b>How many children do you have</b>										

	a) 1	5	16.67	3	10	2	6.67	2.652	12.59
	b) 2	2	6.67	4	13.33	1	3.33		
	c) 3	4	13.33	3	10	1	3.33		
	d) > 3	2	6.67	3	10	0	0		
<b>6</b>	<b>Education</b>								
	a) illiterate	4	13.33	3	10	2	6.67	4.892	12.59
	b) SSLC	3	10	4	13.33	1	3.33		
	c) Degree course	5	16.67	2	6.67	1	3.33		
	d) Higher secondary	1	3.33	4	13.33	0	0		
<b>7</b>	<b>Job</b>								
	a) Home maker	3	10	6	20	2	6.67	3.928	12.59
	b) Teacher	1	3.33	2	6.67	0	0		
	c) Cooli	4	13.33	3	10	1	3.33		
	d) Others	5	16.67	2	6.67	1	3.33		
<b>8.</b>	<b>Previous knowledge about MuscularDystrophy</b>								
	a) yes	6	20	6	20	2	6.67	0.145	5.99
	b) No	8	26.67	6	20	2	6.67		

## DISCUSSION:

The first objective of the study was to assess the existing level of knowledge on Muscular Dystrophy among under five mothers. The Investigators found out the level of knowledge in pretest most of them were Inadequate and in posttest most of them were adequate. The investigators found that an increasing level of knowledge on Muscular Dystrophy among Under Five Mothers before IEC package initially significant changes were found when comparing results obtained before and after IEC package. Before IEC package most of them had inadequate knowledge about Muscular dystrophy. After IEC package majority of them had adequate knowledge. Through these IEC package the under-five mother were able to understand and gained knowledge about Muscular Dystrophy. After IEC package, the under-five mothers' posttest assessment score was increased. This study results were supported by a study conducted by Fujino H et.al. Results showed that a better understanding of the communication between physicians and family members will increase the level of coping of mothers of child with Duchenne muscular dystrophy. (7)

The second objective was to assess the effectiveness of IEC package on Muscular Dystrophy among under five mothers. The investigators concluded that all under five mothers received IEC package which results posttest knowledge score was higher than the pretest knowledge score. When educators are suggested to advice regarding Muscular dystrophy they have a valuable opportunity to teach the users and preparation of Muscular dystrophy as well as importance of Muscular Dystrophy in the study. The paired "t" – test value is 9 with degree of freedom 30. As there was significant difference on level of knowledge the first Hypothesis is ( $H_1$ ) was accepted. This study results were supported by a study conducted by Fujino H et.al. Results showed that a better understanding of the communication between physicians and family members will increase the level of coping of mothers of child with Duchenne muscular dystrophy. (7)

The Third objective was to determine the association of pretest knowledge of Muscular Dystrophy with selected Demographic variables. The investigators concluded that there is no association of pretest level of knowledge on Muscular Dystrophy with selected Demographic variables Hence the second Hypothesis ( $H_2$ ) was rejected.

## CONCLUSION

In pre-test majority of the mothers had inadequate and moderately adequate knowledge regarding muscular dystrophy and in post-test majority of the mothers had adequate knowledge and the IEC package was effective in improving the knowledge among under five mothers.

## REFERENCE:

1. Clinicalkey [Internet]. [cited 2023 Mar 20]. Available from: <https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20190006401>
2. Salari N, Fatahi B, Valipour E, Kazeminia M, Fatahian R, Kiaei A, et al. Global prevalence of Duchenne and Becker muscular dystrophy: a systematic review and meta-analysis. *J Orthop Surg Res* [Internet]. 2022 Feb 15 [cited 2023 Mar 20];17(1):96. Available from: <https://josr-online.biomedcentral.com/articles/10.1186/s13018-022-02996-8>
3. Duchenne muscular dystrophy - symptoms, causes, treatment | nord [Internet]. [cited 2023 Mar 20]. Available from: <https://rarediseases.org/rare-diseases/duchenne-muscular-dystrophy/>
4. Infectious diseases research | foundation for neglected disease research [Internet]. FNDR. [cited 2023 Mar 20]. Available from: <https://www.fndr.in>
5. Gokul-rajendran: read latest news from gokul-rajendran - times of india [Internet]. [cited 2023 Mar 20]. Available from: <https://timesofindia.indiatimes.com/toireporter/author-Gokul-Rajendran-479236662,filterby-3,sortedby-mostmailed.cms>
6. The clinic by cleveland clinic [Internet]. The Clinic by Cleveland Clinic. [cited 2023 Mar 20]. Available from: <https://www.clinicbyclevelandclinic.com/>
7. Fujino H, Saito T, Matsumura T, Shibata S, Iwata Y, Fujimura H, et al. How physicians support mothers of children with duchenne muscular dystrophy. *J Child Neurol* [Internet]. 2015 Sep [cited 2023 Mar 20];30(10):1287–94. Available from: <http://journals.sagepub.com/doi/10.1177/0883073814558334>