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## Development of Videos to Empower Young Mothers on Developmental Delay and Early Intervention

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### Abstract

The study on "Development of videos to empower young mothers on Developmental Delay and Early Intervention" was taken up by the investigator with the aim to develop videos in Malayalam for improving the awareness of young mothers on Early Intervention and Developmental Delay. 100 Mothers were interviewed to assess their knowledge level on Developmental Delay and Early intervention before and after the awareness class. In the present study a video was developed on at-risk babies, Developmental milestones and Development Delay, Causes of Developmental Delay and Early Intervention and it was used as an aid to assess the knowledge of the respondents and create awareness on the same. Nine experts working in the field of Child Development evaluated the video. The survey results so obtained were consolidated and analysed using statistical software, IBM SPSS Statistics and percentages. The percentage analysis was used to assess the knowledge level of the young mother's on the topic before and after providing awareness via visual aid, paired t test was conducted to check the effectiveness of the video and its impact upon the mothers as a whole and independent t test was done to check the awareness of young mothers on the topic staying under Urban and rural population and to know which among them had more knowledge on the topic. The study points out that though there is a general concern among mother's regarding their child's development, they lack awareness on developmental milestones, delay and Early Intervention. It was found using paired t test that there was a definite positive difference in the knowledge of mother's on the topic after going through the video.

**Keywords:** Developmental delay, Early Intervention, At-risk babies, speech stimulation, video development

### Introduction

In the present scenario, studies show that children come for intervention at a very later stage whereby the outcome is not fully satisfactory. It is presumed that lack of awareness must be one factor for this delayed intervention. Studies have shown that early detection of any disability help in dropping the high incident rates of disabled children. If given the intervention at earlier period of life, complication of these disorders can be prevented and the children can be rehabilitated and brought back to normal phase of life. The role of detecting disability is not the sole responsibility of the doctors, rather the family and community workers also plays an important role here. Scientific research shows that the first three years of life is best suitable for identification and intervention as the brain structure development and functioning is at its peak (Developmental Disabilities for Resource Healthcare Providers 2006).

In this context it was found essential to study the level of awareness of young mothers on at risk babies, the developmental milestones, developmental delay and the importance and impact of early intervention. We all know that the mother is the key stimulator and not all mothers are aware of Developmental Delay, Early Intervention and Speech stimulation strategies. Speech stimulation and therapy should be done in the language that is spoken at home.

The trend today adopted by anybody to look out and seek information is through the YouTube videos. But unfortunately it was found that although there are lot of videos on the YouTube and other websites on Developmental Delay and Early Intervention, but none of

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these are suitable for the rural women because all of them are in English and it will not be a good guide for them as they are westernized in terms of accent and not suitable for a rural set up. There are very few studies regarding the knowledge of mothers on Developmental Delay and Early Intervention in India. The mothers should be aware of these aspects as it serves as a prerequisite to detect the delay at a very early age and enable the mother's to approach the Early Interventionist at the right time.

**Objectives:**

1. To check the level of awareness of young mothers on At-risk babies, Developmental delay, Early Intervention and Speech stimulation strategies.
2. Development of Video modules in Malayalam to sensitize mother's knowledge on the topic under the following headings:
  - At-risk babies.
  - Developmental Delay.
  - Causes of developmental delay.
  - Early Intervention and speech simulation strategies.
3. Conduct awareness programs and re-check the awareness of Developmental Delay and Early Intervention among young mothers.
4. To evaluate the effectiveness of the videos developed.

**Methodology**

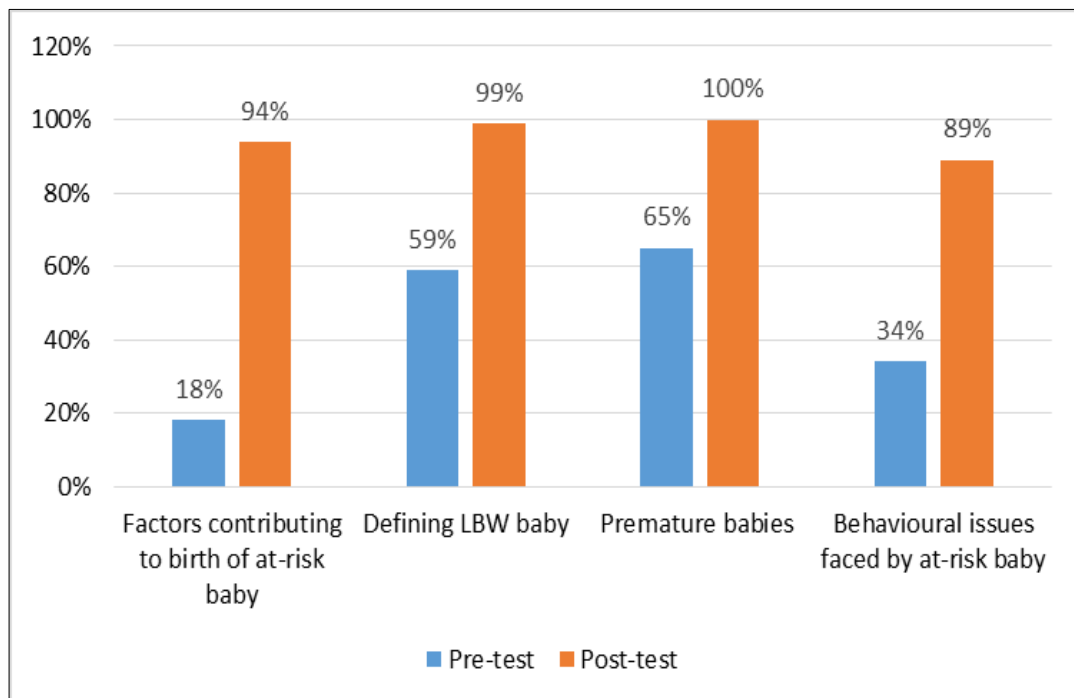
The study included urban and rural areas of Ernakulam

city. The investigator went to Vypin and Muppathadam, Aluva (Rural Area) and Edapally, Pathadipalam and Kalamassery (Urban Area). The sample for the study was selected using Purposive sampling technique where the focus was on young mothers having children in the age range of 0-5 years. The method selected for the study was one to one interview method. A sample of 100 young mothers having children in the age group of 0-5 years were taken as the samples, 50 each from Urban and Rural area to check the level of awareness on Developmental Delay and Early Intervention. This apart 9 Experts in the field of Early Intervention were also selected for the evaluation of the video modules so developed. The tools used for analyzing the study include a questionnaire to check the level of awareness of young mothers on developmental delay and early intervention, four videos for providing awareness to young mothers on at-risk babies, developmental milestones, developmental delay and early intervention and a checklist for the experts to evaluate the video so formed. The data was interpreted using percentage analysis, ANNOVA, Paired sample T test and Independent sample test.

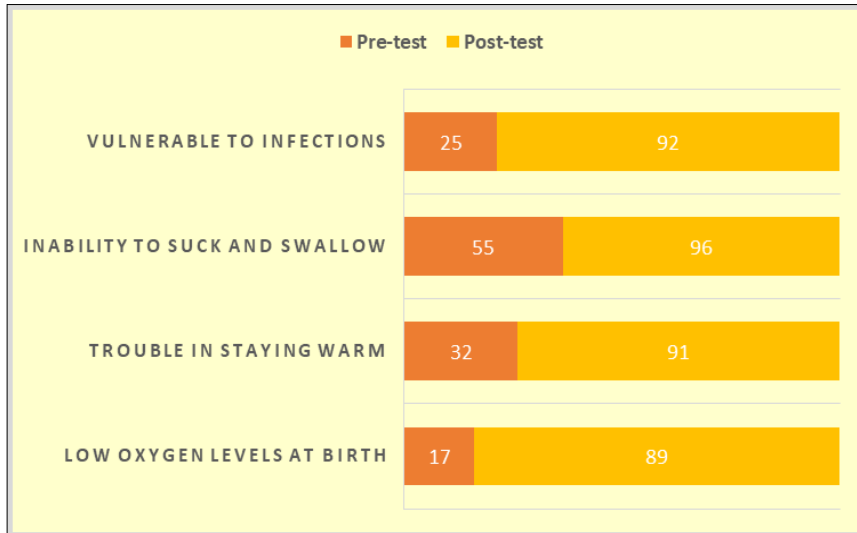
**Results and Discussions**

**Awareness of the selected respondents on aspects related to Developmental Delay and Early Intervention**

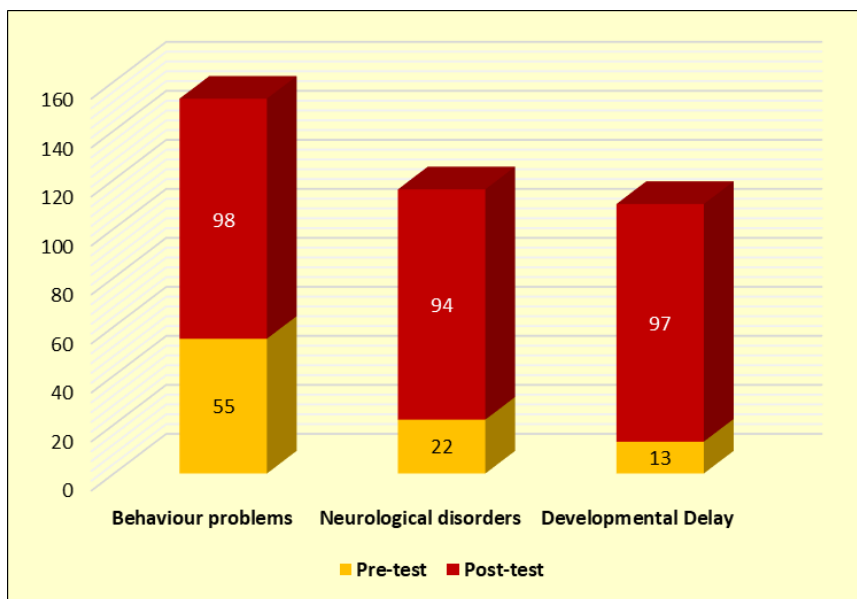
The following section details the level of awareness of the selected respondents on the topic of study before and after the awareness program.



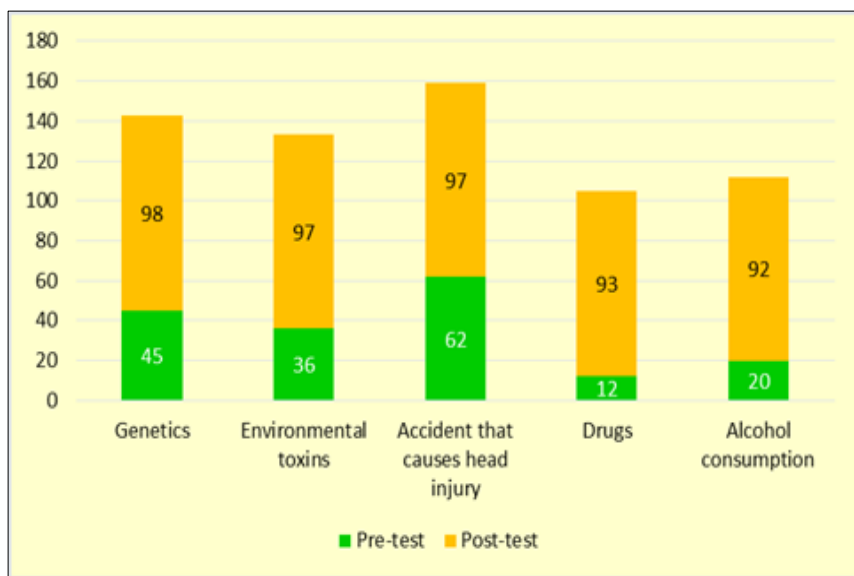
**Fig. 1:** Knowledge of the respondents on at-risk babies



**Fig. 2:** Knowledge of short term complications faced by at-risk babies



**Fig. 3:** Knowledge of long term complications faced by at-risk babies



**Fig. 4:** Knowledge about the origin of developmental delay.

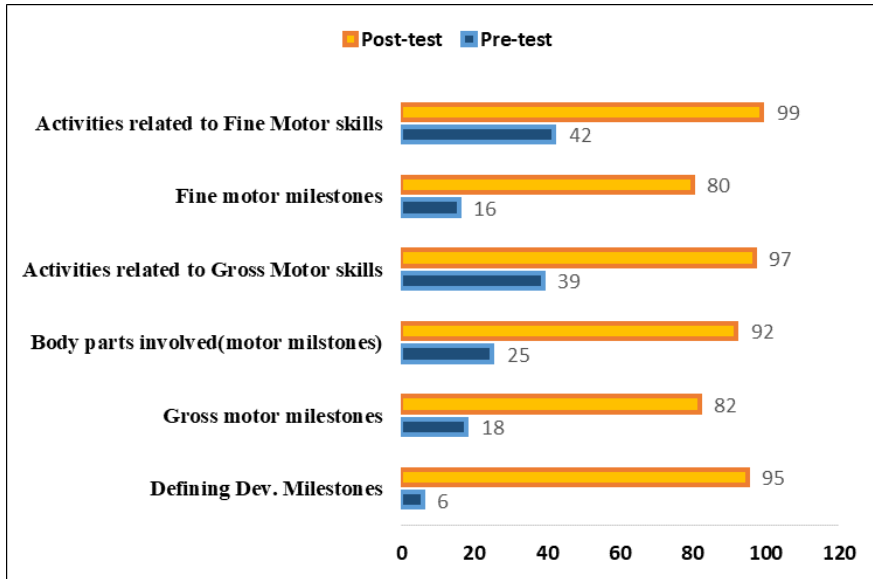


Fig. 5: Knowledge of the respondents on Milestones and Motor milestone.

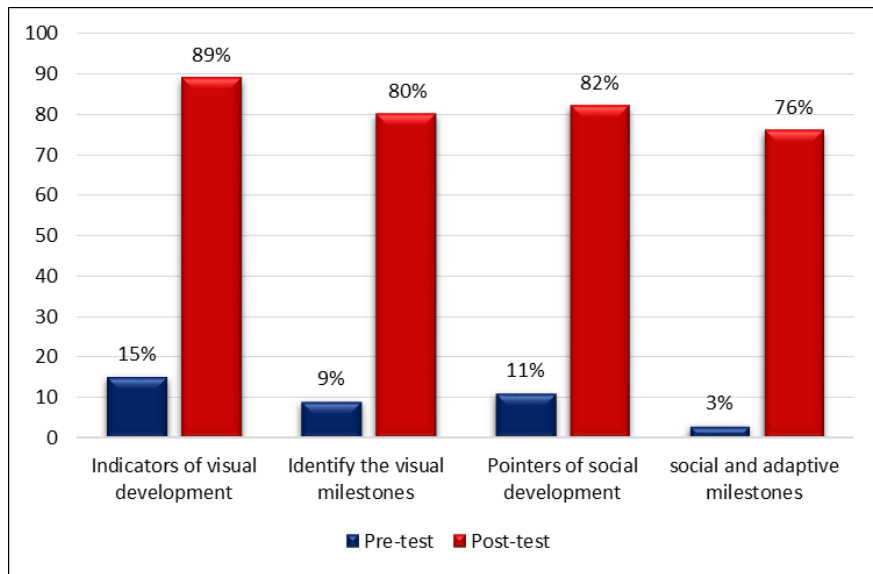


Fig. 6: Knowledge of the respondents on visual and social & adaptive milestones.

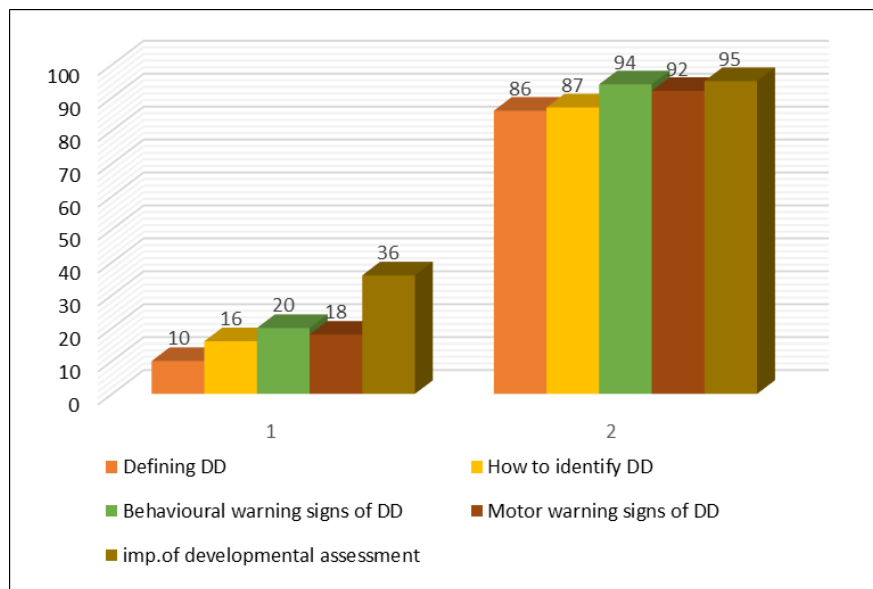
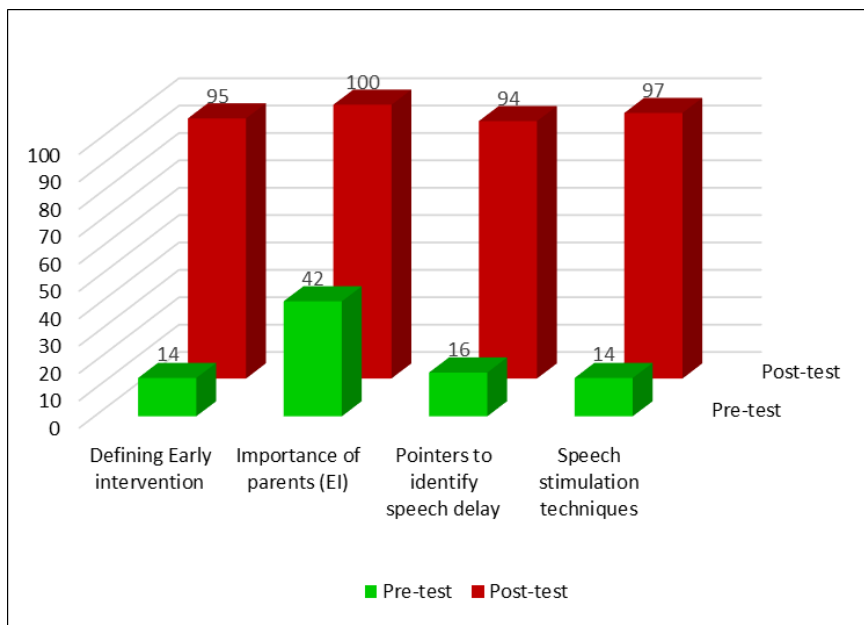


Fig. 7: Knowledge of the respondents on Development Delay



**Fig. 8:** Knowledge of the respondents on Significance of Early Intervention.

The figures depicted above represents percentage analysis of the knowledge of respondents before and after the awareness class. It’s evident from these figures that the young mothers had least knowledge on the topics like at-risk babies, causes of developmental delay, milestones, developmental delay and Early Intervention before

providing them with awareness which increased remarkably after introducing the video.

**Assessing the Effectiveness of the Videos Developed**

To check the effectiveness of the video upon the mother’s, a paired sample t-test was conducted.

**Table 1:** Paired t-test to assess the effectiveness of the video.

Paired Samples Statistics				
Pair	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	12.22	100	2.294	.229
Post-test	43.42	100	1.799	.180

Paired Differences	Pre-Post
Mean	-31.200
Standard Deviation	3.038
T	-102.683
Sig (2 tailed)	.000

A paired-samples t-test was conducted to compare the knowledge of young mothers on Developmental Delay and Early Intervention with and without providing the awareness using the visual aid (Pre-test and Post-test). There was a significant difference in the scores for Pre-test (M= 12.22, SD= 2.294) and Post-test (M= 43.22, SD= 1.799) conditions;  $t = -102.68, p = .000$ . Hence the null hypothesis is rejected. These results suggests that there is a definite effect of the developed video upon the increased awareness of mothers on the topic.

**Independent sample t-test to compare knowledge level of young mothers residing in urban and rural area**

An Independent t-test was done to compare the knowledge level of the young mothers residing under urban and rural area to assess which group among them had more knowledge level on “Development Delay and Early Intervention”.

**Table 2:** Independent sample t-test to compare knowledge level of young mothers (I)

Dimensions		N	Mean	SD	t-value	p-value
At-risk babies	Urban	50	2.98	1.134	3.118	.002
	Rural	50	2.26	1.175		
Complications faced by at-risk babies	Urban	50	2.44	.760	3.218	.002
	Rural	50	1.94	.793		
Developmental Delay	Urban	50	1.44	.675	2.218	0.029
	Rural	50	1.16	.584		
Significance of Early Intervention	Urban	50	1.16	.548	2.004	0.048
	Rural	50	.94	.550		

**Table 3:** Independent sample t-test to compare knowledge level of young mothers (II)

Dimensions		N	Mean	SD	t-value	p-value
Causes of developmental delay	Urban	50	1.92	.665	-2.138	.035
	Rural	50	2.22	.737		
Motor Milestones	Urban	50	1.28	.671	-2.270	0.25
	Rural	50	1.64	.898		
Visual and Social Milestones	Urban	50	.28	.497	-2.037	0.044
	Rural	50	.50	.580		
Language Milestones	Urban	50	1.06	.240	-2.163	0.033
	Rural	50	1.22	.465		

The tables depicted above points out that there was a significant difference in the knowledge level of young mothers residing under urban and rural area. Mothers were classified based on the residential area they reside in, i.e. 1 for mothers living under urban residency and 2 for mothers living under rural residency.

Table 2 points out that mothers residing under urban area had more knowledge on the topics like at-risk babies, complications faced by at-risk babies, developmental delay and significance of early intervention than mothers living under rural area.

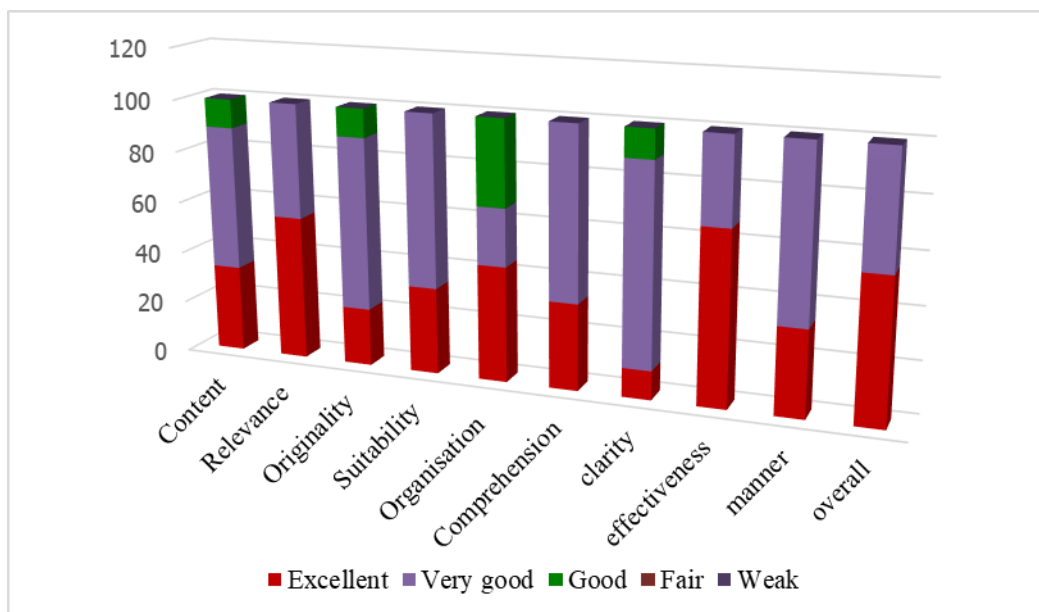
From table 3 it's clear that mothers residing under rural area had more on the topics including causes of

developmental delay and major milestones than young mothers residing under the urban population.

**Evaluation of the developed video by expert**

A checklist was provided to nine experts via mail to check the effectiveness of the video developed by the investigator. The experts so selected worked in the field of child development and intervention. The checklist consisted of 10 criteria's like content, relevance, originality, suitability for the target, organisation of matter, comprehension, clarity, effectiveness, manner and overall performance.

**Fig. 8:** Evaluation of the video.



From figure 8, its apparent that majority of the experts graded excellent for relevance, organisation of matter, effectiveness and overall performance of the video and most of them graded very good for content, originality, suitability, comprehension, clarity and manner in which the video was made. The experts implied that overall presentation of the topic via social media was excellent.

**Conclusion**

The present study discusses “Development of videos to empower young mothers on Developmental Delay and Early Intervention”. It also analyze mother’s various background details (includes age, residential area, type of family and number of children) upon their knowledge level on the topic.

The study concludes that though there is a general concern among mother’s regarding their child’s development, they

are not even aware of developmental milestones, delay and Early Intervention. The video developed by the investigator was sufficient to provide basic information on the topic “Developmental Delay and Early Intervention”. It was found using paired t test that there was a definite positive difference in the knowledge of mother’s on the topic after going through the video

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