

Effectiveness of Video Assisted Teaching on Knowledge Regarding Management of Paediatric Emergencies among Mothers of Under-Five Children

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ABSTRACT

Background: A quasi experimental study was conducted to assess the effectiveness of video assisted teaching on knowledge regarding management of paediatric emergencies among mothers of under-five children at selected community areas, Kishtwar, Jammu and Kashmir. A total sample of 120 mothers of under-five children were selected using purposive sampling technique. The objectives of the study were to assess the knowledge regarding management of paediatric emergencies among mothers of under-five children before and after video assisted teaching and to find out the effectiveness of video assisted teaching on knowledge regarding management of paediatric emergencies among mothers of under-five children. The final objective was to determine the knowledge regarding management of paediatric emergencies and selected demographic variables.

Materials and Methods: A two-group pre-test post-test design was used to conduct the study. A sample comprising of 60 mothers of under-five children in experimental and 60 in control group were enrolled using non-probability purposive sampling technique. The conceptual framework of the study was based on Imogene King's Goal Attainment Model

Results: Data analysis was done using descriptive and inferential statistics. Findings of the study revealed that the mean post-test knowledge score 21.6 ± 3.3 among experiment group was significantly higher than the mean pre-test knowledge score 12 ± 3.5 ($p < 0.01$). Paired t value computed at 16.47^{**} was statistically

significant at $p < 0.01$. Change in knowledge score among the control group was not significant ($p > 0.05$ level). The t test value (17.4^{**}), revealed that, there is significant increase in the mean post-test knowledge score among experimental group compared to the mean post-test knowledge score among control group at 0.01 level. Significant association at 0.05 level was observed between knowledge with regard to their source of information.

Conclusion: T

he findings of the study confirmed that the video assisted teaching was significantly effective in improving the knowledge regarding management of paediatric emergencies among mothers of under-five children.

Key Word: Video assisted teaching, knowledge, management of paediatric emergencies, mothers of under-five children.

I. INTRODUCTION

Paediatric emergency is all about saving the lives of children. It's a very different approach to providing medical care to children than that of general pediatrics¹. Once children started moving around – whether they are three or thirteen – they are prone to many kinds of accidents. While younger children get themselves into trouble because of their innate curiosity, the older children tend to be more adventurous, hurting themselves during play. It could vary from fracture to drowning or electrocution to

poisoning. With children around, parents need to be extra cautious. For instance, make sure that medicines are kept away from the reach of children or they have no access to electrical equipment. While all these can guarantee safety to an extent, children may still get involved in accidents². Paediatric emergencies represent clinical situations with life-threatening risks in the absence of rapid and adequate management. They are a public health priority in the world and in Africa in particular because of their considerable morbidity and mortality. Paediatric emergencies are nowadays one of the most sensitive areas of medicine and are the subject of questioning in many countries, both in the North and in the South³. Every year, millions of children die, most often from preventable or treatable diseases. Emergency department-related morbidity and mortality is a major scourge in low- and middle-income countries. To address this situation, the world has made significant progress in reducing child mortality in recent years. Globally, the under-five mortality rate has fallen from 93 deaths per 1000 live births in 1990 to 41 in 2016 and 38 in 2019. This is equivalent to 01 in 11 children dying before reaching the age of 05 in 1990 compared to 01 in 27 children in 2019. This remarkable progress in improving child survival since 2000 has saved the lives of 50 million children under the age of five worldwide. Sub-Saharan Africa remains the region with the highest under-five mortality rate in the world, with 1 in 13 children dying before their fifth birthday, 20 years lower than the global average of 1 in 13 in 1999⁴.

A study was conducted to assess the epidemiology of Admissions in a paediatric Emergency Department in Albert Royer Hospital Dakar. A total of 300 children met the inclusion criteria and represented the study population (2.83%). The majority (70.67%) were younger than 60 months, compared with 2.00% of new-borns. Boys represented 53.8%, sex ratio 1.16. A proportion of 35.1% was referred. More than half of our patients (55.88%) were managed within 30 minutes of arrival.

Medicalized transport concerned 21.5% against 78.5% of nonmedicalized. Emergencies were dominated by respiratory distress (56.33%), dehydration (29%) and shock (13.33%). We recorded 16 deaths (5.3%). This mortality was significantly related to the low socio-economic level ($p = 0.000$), as well as the young age of the children ($p = 0.01$)⁵.

Objectives of the study

1. To assess the knowledge regarding management of pediatric emergencies among mothers of under-five children before video assisted teaching.
2. To assess the post-test knowledge regarding management of pediatric emergencies among mothers of under-five children.
3. To find out the effectiveness of video assisted teaching on knowledge regarding management of pediatric emergencies among mothers of under-five children.
4. To determine the association between knowledge level and selected demographic variables.

Hypothesis

- H₁-There is significant difference in mean knowledge scores before and after video assisted teaching among experimental group.
- H₂- There is significant difference in mean post-test knowledge scores among experimental and control group.
- H₃- There is significant association between knowledge level of mothers of under-five children with selected socio-demographic variables.

II. MATERIAL AND METHODS

Research Approach: Quasi experimental approach.

Research Design: Two group pre-test – post-test design.

Population: Mothers of under-five children

Settings: Pochhal and Cherhar, Kishtwar, Jammu and Kashmir.

Sampling Technique: Non –probability purposive sampling technique.

Sample size: 120 mothers of under-five children (60 in experimental and 60 in control group).

TOOLS AND TECHNIQUE

I) Demographic Performa was used to collect socio demographic data such as age, educational status, number of children, source of information, religion and type of family.

II) Structured Knowledge Questionnaire was used to assess the knowledge regarding management of paediatric emergencies which consisted of 30 items divided in to five areas (Introduction & definition, Paediatric assessment triangle, Types, Management and Precaution)

III) Video Assisted Teaching (VAT) was administered for a duration of 45 minutes for 60 samples in experimental group (mothers of under-five children). Lecture cum discussion was used as a teaching methodology along with a series of videos prompting the concept of management of paediatric emergencies.

Method of Data collection: Data was collected for a period of one month [25th March 2019 to 25th April 2019]. After explaining the purpose and obtaining an informed consent, the pre-test was administered for both groups followed by a video assisted teaching for experimental group. After a period of 07 days a post test

was carried out for both experimental and control groups.

Inclusion criteria:

Mothers of under-five children who were willing to participate in the study

Mothers of under-five children who were available at the time of data collection

Exclusion criteria:

Mothers of under-five children who were not willing to participate in the study

Mothers of under-five children not available during the period of data collection

Statistical analysis:

Both Descriptive and Inferential statistics were used to analyse the data [using SPSS version 20 (SPSS Inc., Chicago, IL)]. Descriptive statistics such as Frequency distribution and percentage were used to describe the socio demographic data and Inferential statistics such as student t test was used to find out the effectiveness of VAT by comparing the mean knowledge scores between experimental and control group, paired *t*-test was used to determine the difference between mean knowledge scores before and after the intervention. Chi-square was performed to find out the association between knowledge and selected demographic variables. The level $P < 0.05$ was considered as the minimum accepted level of significance.

III. RESULTS

Table 01: Frequency distribution, percentage and Chi-square value of sample characteristics.(N=120)

Demographic Variables	Experimental		Control		P
	f	%	f	%	
Age (In years)					
≤20 yrs.	00	0%	00	0%	4.14
21-30	56	93.3%	60	100%	
31-40 yrs.	04	6.7%	00	0%	
>40 yrs.	00	0%	00	0%	0.042
Number of Children					
One	51	85%	43	71.7%	3.14
Two or more	09	15%	17	28.3%	
Religion					
Muslim	35	58.3%	30	50%	0.84
Hindu	25	41.7%	30	50%	
Educational status					
Primary Education	35	58.3%	58	96.7%	25.3
High School	01	1.7%	0	0%	
Higher Secondary and above	24	40%	02	02%	

Table 01: continued...

Source of information						
Family & Friends	21	35%	20	33.3%	5.2	0.267
Magazine and Newspaper	11	18.3%	17	28.3%		
TV and Radio	10	16.7%	08	13.3%		
Mass media	14	23.3%	07	11.7%		
Other	04	6.7	08	13.3		
Type of family						
Joint	00	00	00	00		
Nuclear	60	100%	60	100%		

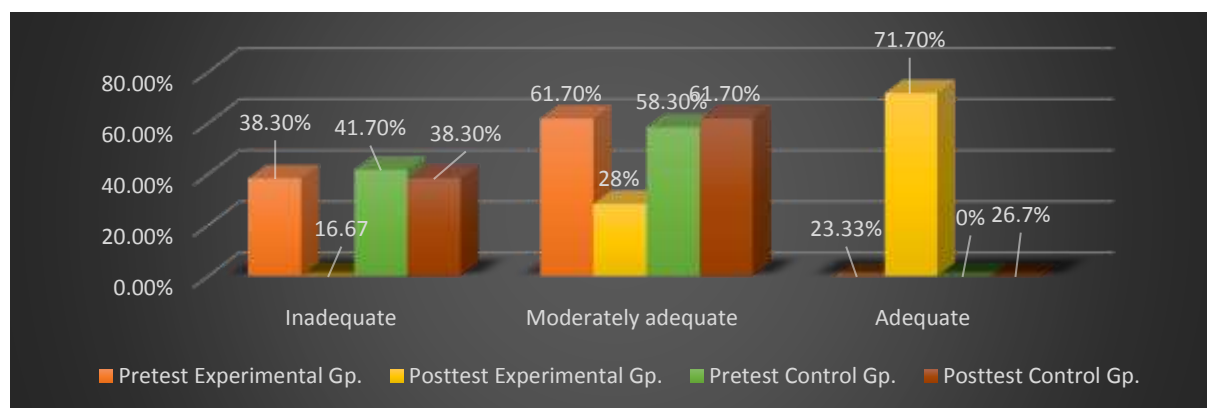


Table 02: Mean, Standard deviation and paired t-value of knowledge level among mothers of under-five children before and after VAT. (N=120)

Group	Stage	Mean	SD	Mean Difference	df	Paired t-value	P
Experimental	Pre-test	12	3.5				
	Post-test	21.6	3.3	9.6	59	16.47**	0.00
Control	Pre-test	11.4	03				
	Post-test	11.9	2.8	0.5	59	1.32	0.191

** Significant at 0.01 level

Table 02 shows that mean knowledge score among the experimental group before the Video assisted teaching was 12 ± 3.5 and that among the control group was 11.4 ± 03 . After the Intervention (Video assisted teaching), among the experimental group, the mean knowledge score increased to 21.6 ± 3.3 . Increase in knowledge score after video

assisted teaching in the experimental group was statistically significant ($p < 0.01$). Mean knowledge score among the control group on post-test was 11.9 ± 2.8 . Change in knowledge score among the control group at post-test was not statistically significant. Hence research hypothesis (H_1) was accepted.

Table 03: Mean, SD, t value of knowledge level among mothers of under-five children in experimental and control group. (N=120)

Stage	Group	Mean	SD	df	t-value	p
Pre-test	Experimental	12	3.5	118	1.03	0.304
	Control	11.4	03			
Post test	Experimental	21.6	3.3			
	Control	11.9	2.8	118	17.4**	0.000

** Significant at 0.01 level

Table 03 shows that there was significant increase in the mean knowledge score of mothers of under-five children in experimental as compared to control group at 0.01 level. Hence research hypothesis (H₂)

was accepted. Therefore, it is interpreted that there is significant increase in the knowledge scores among experimental group following video assisted teaching.

Table 04: Association between knowledge level among mothers of under-five children and selected demographic variables. (N=120)

Demographic Variables	Knowledge level				df	χ^2	p
	Inadequate		Moderate				
	f	%	f	%			
Source of Information							
Family & Friends	16	39%	25	61%	4	9.84*	0.043
Newspaper/ Magazine	14	50%	14	50%			
TV /Radio	08	44.4	10	50%			
Mass media	10	47.6%	11	52.4%			
Others	00	00%	12	100%			

*Significant at 0.05 level.

The above table depicts that the calculated χ^2 value for source of information is significantly higher than the table value (p<0.05 level). So, there is association between source of information and knowledge level of paediatric emergencies. Hence the research hypothesis H₃ was accepted. The score changes also reflect the effectiveness of the intervention.

IV. DISCUSSION

The findings in the present study revealed that the mean pre-test knowledge score regarding management of paediatric emergencies among experimental group was 12±3.5 and mean post test score was 21.6±3.3. The paired t value [16.47**, df=59] computed by comparison of pre and post knowledge score among experimental group was significant at P<0.01 level. Hence, there is significant difference in the mean knowledge scores of mothers of under-five children before and after VAT which is significant in enhancing the knowledge levels regarding management of paediatric emergencies among mothers of under-five children. The experimental group shows improvement in knowledge scores compared to the control group. The student t test value (17.4**) computed by comparing the mean post-test knowledge score among experimental group [21.6±3.3, df=118] and

mean post-test knowledge score [11.9±2.8, df=118] among control group is statistically significant at 0.01 level. Therefore, it is interpreted that video assisted teaching is significant in improving the knowledge [P< 0.01 level].

This result is supported by various studies. A study was conducted to assess the knowledge and attitude regarding home safety measures on unintentional injuries among mothers of under-five children in Paediatrics units at Pondicherry Institute of Medical Sciences, Puducherry. The study results show that 21(31.34%) mothers had inadequate knowledge, 37 (55.22%) mothers had moderately adequate knowledge and 9(13.43%) mothers had adequate knowledge regarding home safety measures on unintentional injuries. In attitude, 67(100%) mothers had favourable attitude regarding home safety measures on unintentional injuries⁶

V. CONCLUSION

The study was conducted to assess the effectiveness of video assisted teaching on knowledge regarding management of paediatric emergencies among mothers of under-five children at selected community areas, Kishtwar, Jammu and Kashmir. The

results of the study undoubtedly confirm that the post-test knowledge score in the experimental group is significantly higher than the pre-test knowledge score and there were no significant changes in the mean knowledge score in the control group. Therefore, it is concluded that VAT is significantly effective in enhancing the knowledge level regarding management of paediatric emergencies among mothers of under-five children.

LIMITATIONS

- The study used a purposive sampling, the generalization of findings remains restricted.
- The influence of extraneous variables during the period between pre-test and post-test on the control group cannot be explored.
- No follow-up was made to measure the retention of knowledge.

RECOMMENDATIONS

- A similar study can be replicated among staff nurses.
- A comparative study can be conducted between mothers of under-five children in rural and urban area.

Declaration by Authors

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Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. <https://www.vietnammedicalpractice.com/hanoi/en/news/what-pediatric-emergency>.
2. <https://www.narayanahealth.org/blog/childb>

- irth-neonatal-care-paediatric-emergencies/
3. Dan, V., Hazoume, F.A., Ayivi, B. and Koumakpai, S. (1991) Prise en charge des urgences du nourrisson et de l'enfant: Aspects actuels et perceptives d'avenir. Service de pédiatrie et génétique médicale du Centre National Hospitalier et Universitaire de Cotonou (Benin). *Médecine d'Afrique Noire*, 38, 752-759.
4. Organisation Mondiale De La Santé (2020) Enfants: améliorer leur survie et leur bien-être. Principaux faits, septembre 2020.
5. Thiongane, A., Ndongo, A., Sow, A, Keita, Y, Boiro, D, Dieng, Y, Basse, I., Seck, N, Hilaire, L, Faye, P, Fall, A, Sylla, A, Diouf, S. and Ndiaye, O. (2022) Epidemiology of Admissions in a Pediatric Emergency Department in Albert Royer Hospital Dakar. *Open Journal of Pediatrics*, 12, 188-195. doi: 10.4236/ojped.2022.121020.
6. Alwynna Sandy, Anne Jenefer. G, Aarthika R, Aarthi D, Abirami S, Anargha Santhosh, Ann Mary, Anna Jeena, Anupriya K, Arathi Ittiel, Archana A. Knowledge and attitude regarding home safety measures on unintentional injuries among mothers of under-five children in Paediatrics units at Pondicherry Institute of Medical Sciences, Puducherry. *International Journal of Advances in Nursing Management*. 2021; 9(4):347-0. doi: 10.52711/2454-2652.2021.00080.

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