

Effectiveness of Video Assisted Structured Teaching Programme on Knowledge Regarding Management of Allergic Rhinitis by Mothers of Children (2-12 Years) Attending OPD at SKIMS Soura, Srinagar

Yasmeena Hassan¹, Aisha Akhter², Zareefa Bano²

¹M Sc student, Mader- e- Meharban, Institute of Nursing Sciences and Research, SKIMS, Soura, Srinagar, Jammu and Kashmir

²Assistant professor, Mader- e- Meharban, Institute of Nursing Sciences and Research, SKIMS, Soura, Srinagar, Jammu and Kashmir

Corresponding Author: Aisha Akhter

DOI: <https://doi.org/10.52403/ijshr.20230136>

ABSTRACT

Background: All ages are susceptible to allergic rhinitis, a chronic respiratory condition marked by nasal cavity irritation. Allergic rhinitis is the result of a complex interaction between genetic, environmental, and other lifestyle factors. The present study was intended to assess the effectiveness of video assisted structured teaching programme on knowledge regarding management of allergic rhinitis by mothers of children (2-12 years) attending OPD at SKIMS Soura, Srinagar.

Objectives: To assess the pre-test and posttest knowledge of mothers of children (2-12 years) regarding management of allergic rhinitis, to evaluate the effectiveness of video assisted structured programme regarding management of Allergic Rhinitis by comparing pre-test and post-test knowledge of mothers of children (2-12 scores and to find the association of pre-test knowledge scores of mothers of children (2-12 years) regarding management of Allergic Rhinitis with their selected demographic variables.

Methodology: The study was conducted quantitatively using a one group, pre-test, post-test methodology. The current study had included 50 mothers of children (2-12 years) attending pediatric OPDs at SKIMS Soura Srinagar were selected by non-probability convenience sampling technique. Self structured interview schedule was administered.

Results: The finding of the present study showed that on pre-test majority of subjects (96%) had inadequate knowledge, (4%) moderate knowledge and (0%) inadequate knowledge. The finding of the present study showed that on post-test majority of subjects (88%) had adequate knowledge, (12%) moderate knowledge and none of the study subject had inadequate knowledge.

Conclusion: Pre-test finding concluded that knowledge level of study subjects were inadequate regarding management of allergic rhinitis due to lack of previous exposure and education about management of allergic rhinitis. So there was need to make them aware and educate them properly regarding management of allergic rhinitis. Therefore health education programme regarding management of allergic rhinitis can help them to manage allergic rhinitis in their children properly without any serious health complication.

KEY WORDS: Knowledge, Mother, Management, Allergic rhinitis, Video Assisted Structured Teaching Programme.

INTRODUCTION

An inflammatory condition of the nasal mucosa known as allergic rhinitis is brought on by allergen exposure, which results in IgE-mediated inflammation (1). Four main symptoms - rhinorrhea, sneezing, nasal irritation, and nasal congestion - define it

clinically. IgE-mediated processes cause allergic rhinitis, which is frequently accompanied by other symptoms as itchy eyes (conjunctivitis) (2). In the United States, up to 40% of people under the age of 18 suffer from allergic rhinitis (3). But every year, a sizable proportion of adolescent cases go unrecognized and untreated. Many young children first experience the year-round symptoms of seasonal allergies. As Sergeant said, "one out of every five paediatric visits is allergy related" due to the prevalence of allergy symptoms. When costs are taken into account, visiting the doctor can become very expensive. For children under the age of 12, it is estimated that 2.3 billion dollars are spent annually on doctor visits related to allergic rhinitis (4).

Numerous symptoms of allergic rhinitis are brought on by chemicals that are typically inhaled through the air (5). Most of the compounds in the air are regarded as being safe. The immune system of the body, however, fights against potentially dangerous substances like viruses and other illness-causing chemicals. Several allergy drugs used for medical management can lessen symptoms and help you manage hay fever. These medications are available as liquids, pills, eye drops, nasal sprays, and injections, among other forms.

The victims of allergic rhinitis experience both physical and mental health problems (6) (7). In addition to the illness, the patient's family dynamics may also be off (8). Poorly or ineffectively managed allergic rhinitis impairs quality of life in a variety of ways, including reduced sleep quality, which affects concentration, a bad attitude at work, poor school attendance and performance, and the use of sedating antihistamines, which further impair learning ability, during treatment (9). It should be mentioned that allergic rhinoconjunctivitis, an allergic disease of the nose, is not only prevalent but also a disease of public health concern due to its negative effects on quality of life and financial burden (10).

This issue with the treatment of allergic rhinitis emphasizes the necessity for comprehensive public health interventions based on a detailed evaluation of the patients' knowledge, attitude, and level of practice. Prioritizing and coordinating research efforts in the area of nasal allergy is urgently necessary. This will make it possible to control this common chronic allergy nasal condition in the twenty-first century with lasting effects. Therefore, the purpose of this study was to evaluate mother's knowledge regarding management of allergic rhinitis.

METHODOLOGY

The broad organizational structure of the process for acquiring reliable and valid data for an investigation is indicated by research methodology. A quantitative research strategy was used in this investigation. Self-structured questionnaire used to gauge knowledge of allergic rhinitis management.

Research Design

In this study, a pre-experimental one group pre-test post-test design was used to assess the effectiveness of video assisted structured teaching programme on knowledge of mothers of children (2-12 years) regarding management of allergic rhinitis. This study was conducted at SKIMS Soura Srinagar Kashmir. The study subjects were 50 mothers of children (2-12 years), selected through convenience sampling technique.

Development of the Tool

Developed structured teaching Programme (intervention and health talk) containing literature related to definition, causes, clinical manifestation, investigations, complications, prevention and management related to allergic rhinitis. After content validity and modification of the tool, a structured knowledge interview schedule about the management of allergic rhinitis was developed.

Test- retest, Karl Pearson's coefficient correlation used to calculate reliability. Reliability was found $r=0.92$ which reveals

tools was reliable for the study. A self structured interview schedule consists of 67 itemed in dichotomous format with YES or NO options.

Scoring criteria, 1 (one) mark for correct answer and 0 (zero) for the wrong answer. Categorization of score done, inadequate (0-34), moderate (35-50) and adequate 51-67).

RESULTS AND DISCUSSION

The results were drawn from the data collected by the application of various tests be it descriptive or inferential statistics. The

first and foremost thing in this research study was to analyze the demographic variables. Thus the characteristics of the study subjects in terms of their demographic variables which included age in years, type of the family, place of residence, number of children, educational qualification of mothers, occupational status of mothers, total monthly family income, age of children in years, regarding management of allergic rhinitis. Each demographic variable was divided into various categories as mentioned below:

Table 1: Distribution of research participants by frequency and percentage based on various demographic factors. n=50

Variables	Categories	Percentage	Frequency
Age of Mother	20-25 Years	12.0%	6
	25-30 Years	12.0%	6
	30-35 Years	46.0%	23
	35 above	30.0%	15
Education of Mother	Illiterate	14.0%	7
	Primary/middle	38.0%	19
	Higher secondary level	14.0%	7
	Graduates & above	34.0%	17
Occupation of Mother	Working.	14.0%	7
	Non working.	86.0%	43
Residence	Urban	30.0%	15
	Rural	70.0%	35
Type of Family	Nuclear family	58.0%	29
	Joint family	42.0%	21
Total Monthly Family Income	Less than Rs 30,000	48.0%	24
	Rs 30,000 to Rs 40,000	8.0%	4
	Rs 40,000 to Rs 50,000	30.0%	15
	Above Rs 50,000	14.0%	7
Age of Child In Years	2 – 4 Year	38.0%	19
	5 -7 Year	28.0%	14
	8-10 Year	14.0%	7
	11-12 Year	20.0%	10
Number of Children	One	36.0%	18
	Two	46.0%	23
	More than 3	18.0%	9

The tabulated data presented in Table 1, revealed that study findings showed that the maximum number of study subjects (46.0%) belonged to age group of 30-35 years whereas (12.0%) belonged to the age group of 25-30 years (12.0%) belonged to the age group of 20 - 25 years and (30.0%) belonged to the age group of >35 years. About (38.0%) had educational status as primary /middle, (14.0%) had educational status as Illiterate, (14.0%) were higher secondary, and (34.0 %) were graduate and above. According to occupation, majority of study subjects (86.0 %) were non-working, whereas (14.0%) were working majority of study subjects (70.0%) belonged to rural

area, and (30.0 %) belonged to urban area. majority of study subjects (58.0 %) had nuclear family, and (42.0%) had joint family. that maximum number of study subjects (48.0%) had family income less than Rs 30,000, (8.0%) had Rs 30,000-40,000, (30.0%) had Rs.40,000 - 50,000 and (14.0 %) above Rs 50,000 family income. According to age of children (38.0%) were in the age group of 2-4 years, (28.0.%) were in the age group of 5-7 years, (14.0 %) were in the age group of 8-10 and (20.0%) were in the age group of 11-12 years . Majority of study subjects (52.0%) had one child, s(42.0.%) had two children, (6.0 %) had three children and none had

more than three children. A similar study conducted by Hemangini, Nirmal, Rajesh in 2018(11) to assessed the effectiveness of planed teaching programme on knowledge regarding prevention and management of childhood allergies among mothers in Vadodara. The findings revealed that among 60 participants 16(26.67%) Belonged to the age group of < 20 years, 18(30%) Belonged to the age group of 21-25 years,15(25%) belonged to the age group of 26-30Years, 11(18.33%) belonged to the age group of 31-35 years, educational status of mothers 28(46.67%) were having Primary level,

22(36.67%) were having Education up to secondary level and 10(16.66%)Were graduate. Maximum no of mothers 41 (68.33%) were unemployed and19(31.67%) were employed. majority of mothers 31(51.67%) belonged to nuclear family and 29(48.33%) belonged to joint family. Majority of study subjects 23(38.34%) were having three or more than three20(33.33%) were having one child,17(28.33%) were having two children Child .maximum no of study subjects 37(61.67%) were residing in rural areas and Belongs to rural area and 23(38.33%) were residing in urban areas.

Table 2: Frequency and percentage Distribution of pre test study subjects According to their Pre-test Knowledge score

Knowledge level	Knowledge score	Pre-test Knowledge scores obtained	
		Frequency(f)	Percentage (%)
Inadequate	(0-34)	48	96%
Moderate	(35-50)	2	4%
Adequate	(51-67)	0	0%
Total		50	100%

The data presented in the table 2, revealed that on pretest, out of 50 study subjects, majority of subjects (96%) had inadequate knowledge, (4%) had moderate knowledge, none of study subjects had adequate knowledge. A similar study was conducted by Mounika, Sreelatha, Sudharani in 2018(12) to Assess The Effectiveness of Awareness Programme on Common Childhood Allergies Among Mothers at Selected Areas, Tirupati. The pretest knowledge score in this study showed that among 50 mothers 35 (70%) had inadequate knowledge, 12 (24%) had moderate knowledge and 3 (6%) had adequate knowledge regarding prevention and management of childhood allergies in the pre-test

Table 3: Frequency and percentage distribution of study subjects according to their post-test knowledge

Knowledge score	Post test	
	Frequency	Percentage
Inadequate (0-34)	0	0%
Moderate (35-50)	6	12%
Adequate (51-67)	44	88%

The data presented in the table 3 revealed that on post-test, majority (88%) had adequate knowledge, (12%) % had moderate knowledge and none of the study subjects had inadequate knowledge regarding management of allergic rhinitis. A similar study was conducted by Hemangini, Nirmal, Rajesh in 2018, to assessed the effectiveness of planed teaching programme on knowledge regarding prevention and management of childhood allergies among mothers in Vadodara. The posttest knowledge score of study subjects showed that among 60 mothers (0%) had inadequate knowledge, (6%) had moderate knowledge, and (94%) had adequate knowledge regarding management of allergic rhinitis.

Figure 1: Diagram Showing Pre and Post Mean & SD scores

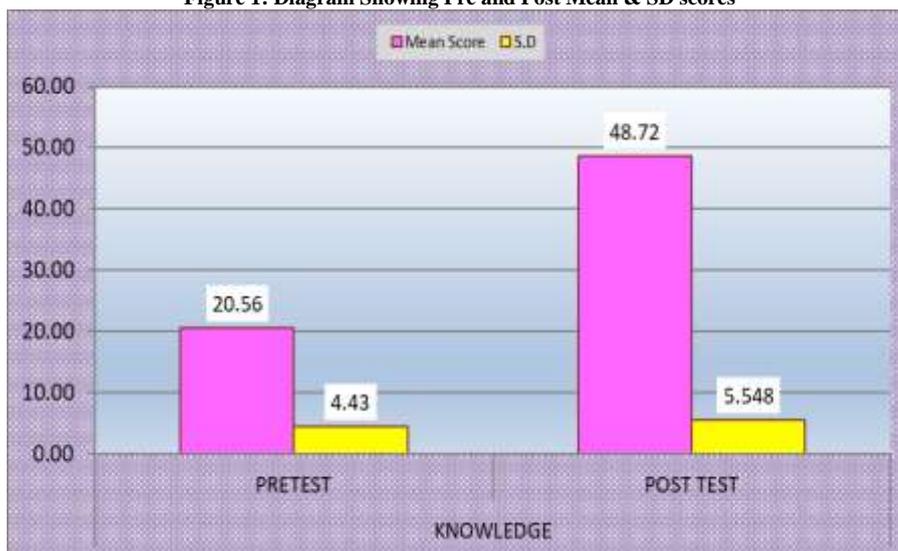


Table 4: Comparison of study subjects according to pre-test and post-test knowledge score regarding management of allergic rhinitis:

Knowledge score	Mean±S.D	Mean Diff.	Paired T Test	P value	Result
PRETEST	20.56±4.427				
POSTTEST	48.72±5.548	28.160	33.256	<0.001	Significant

**Significance level 0.05

The data presented in the table 4 revealed that the mean post test knowledge scores (48.72±5.548) of the study subjects was significantly higher than that of the mean pre-test knowledge scores (20.56±4.427) at 0.05 level of significance. This indicates

that video assisted teaching programme was effective in enhancing the knowledge regarding management of allergic rhinitis. A similar study was conducted by Hemangini, Nirmal, Rajesh in 2018 (11) in Vadodara.

Table 5: Association of pre-test knowledge score of study subjects with their selected demographic variables.

PRETEST KNOWLEDGE SCORE ASSOCIATION WITH SELECTED SOCIO-DEMOGRAPHIC VARIABLES.									
Variables	categories	ADEQUATE KNOWLEDGE	MODERATE KNOWLEDGE	INADEQUATE KNOWLEDGE	Chi square Test	df	P Value	Table Value	Result
	25-30 Years	0	0	6					
	30-35 Years	0	2	21					
	35 above	0	0	15					
Education of Mother	Illiterate	0	1	6	3.169	3	0.366	7.815	Not Significant
	Primary/middle	0	0	19					
	Higher secondary level	0	0	7					
	Graduates & above	0	1	16					
Occupation of Mother	Working.	0	0	7	0.339	1	0.560	3.841	Not Significant
	Non working.	0	2	41					
Residence	Urban	0	1	14	0.397	1	0.529	3.841	Not Significant
	Rural	0	1	34					
Type of Family	Nuclear family	0	1	28	0.055	1	0.815	3.841	Not Significant
	Joint family	0	1	20					

Total Monthly Family Income	Less than Rs 30,000	0	1	23	0.738	3	0.864	7.815	Not Significant
	Rs 30,000 to Rs 40,000	0	0	4					
	Rs 40,000 to Rs 50,000	0	1	14					
	Above Rs 50,000	0	0	7					
Age of Child In Years	2 – 4 Year	0	1	18	1.891	3	0.595	7.815	Not Significant
	5 -7 Year	0	0	14					
	8-10 Year	0	0	7					
	11-12 Year	0	1	9					
Number of Children	One	0	1	17	0.496	2	0.780	5.991	Not Significant
	Two	0	1	22					
	More than 3	0	0	9					

The data presented in the table 5 depicted that there was statistically non significant association between pre test knowledge scores of study subjects with their demographic variables like Age in mother($p=0.485$), Educational status of mother($p=0.366$), Occupation of mother (0.560), Place of residence ($p=0.529$), type of family ($p=0.815$) Total monthly family income ($p=0.864$),Age of child in years ($P=0.595$), Number of children ($P=0.780$) at 0.05 level of significance. A similar study was conducted by Hemangini, Nirmal, Rajesh in 2018(11) in Vadodara. According to the study's findings, there was no correlation between pre-test knowledge score and particular demographic factors like, educational status of mother, occupation of mother, residence, total monthly family income, age of child in years and number of children, as p value is > 0.05 , but shows significant association with age and type of family as ($p<0.05$).

CONCLUSION

It can be concluded that knowledge level of study subjects regarding management of allergic rhinitis were inadequate, therefore health education programme regarding management of allergic rhinitis should be conducted.

Declaration by Authors

Ethical Approval: Approved

Acknowledgement: None

Source of Funding: None

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

REFERENCES

1. Varshney J, Varshney H. Allergic Rhinitis: an Overview. Indian journal of otolaryngology and head and neck surgery. 2015 Jun;67(2):143-9.
2. Galli SJ, Tsai M. IgE and mast cells in allergic disease. Nature medicine.. 2012 May 4;18(5):693-704.
3. Hoyte FCL, Nelson HS. Recent advances in allergic rhinitis. 2018;7.
4. Mudarri DH. Valuing the Economic Costs of Allergic Rhinitis, Acute Bronchitis, and Asthma from Exposure to Indoor Dampness and Mold in the US. Journal of environmental and public health. 2016;2016:2386596.
5. Galli SJ, Tsai M, Piliponsky AM. The development of allergic inflammation. Nature. 2008 Jul 24;454(7203):445-54.
6. Schuler Iv CF, Montejo JM. Allergic Rhinitis in Children and Adolescents. Pediatric clinics of North America. 2019 Oct;66(5):981-93.
7. Meltzer EO, Blaiss MS, Derebery MJ, Mahr TA, Gordon BR, Sheth KK, et al. Burden of allergic rhinitis: results from the Pediatric Allergies in America survey. The Journal of allergy and clinical immunology. 2009 Sep;124(3 Suppl):S43-70.
8. Roberts G, Mylonopoulou M, Hurley C, Lack G. Impairment in quality of life is directly related to the level of allergen exposure and allergic airway inflammation. Clinical and experimental allergy. 2005 Oct;35(10):1295-300.
9. Emin O, Mustafa S, Nedim S. Psychological stress and family functioning in mothers of

- children with allergic rhinitis. *International journal of pediatric otorhinolaryngology*. 2009 Dec;73(12):1795-8.
10. La Rosa M, Lionetti E, Reibaldi M, Russo A, Longo A, Leonardi S, et al. Allergic conjunctivitis: a comprehensive review of the literature. *Italian journal of pediatrics*. 2013 Mar 14;39:18.
11. M H, Raj N, Joseph RP. A study to assess the effectiveness of a planned teaching programme on knowledge regarding prevention and management of childhood allergies among mothers of under five children residing in Waghodia taluka, Vadodara. *Journal of medical science and clinical research*. 2018 6(4):162-6.
12. Mounika M, Sreelatha M, Sudharani P. A Study To Assess The Effectiveness of Awareness Programme on Common Childhood Allergies Among Mothers At Selected Areas, Tirupati. *Journal of Nursing and Health Science*. 2018;7(5):28-31.
- How to cite this article: Yasmeena Hassan, Aisha Akhter, Zareefa Bano. Effectiveness of video assisted structured teaching programme on knowledge regarding management of allergic rhinitis by mothers of children (2-12 years) attending OPD at SKIMS Soura, Srinagar. *International Journal of Science & Healthcare Research*. 2023; 8(1): 252-258. DOI: <https://doi.org/10.52403/ijshr.20230136>
