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“A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON BUTEYKO BREATHING TECHNIQUES AMONG MOTHERS OF UNDERFIVE CHILDREN AT DISTRICT HEAD QUARTERS HOSPITAL CHITTOOR, ANDHRA PRADESH.”

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Abstract :

This study aimed to assess the effectiveness of a video-assisted teaching programme on the Buteyko breathing technique among mothers of under-five children at District Headquarters Hospital, Chittoor, Andhra Pradesh, using a quantitative pre-experimental one-group pre-test and post-test design with 60 mothers selected through non-probability convenience sampling; baseline knowledge was assessed using a structured questionnaire, followed by video-assisted teaching and a post-test after seven days, with data analyzed using frequency, percentage, mean, standard deviation, paired t-test, and chi-square test, and the findings showed a significant improvement in knowledge after the intervention, with the mean knowledge score increasing from 8.51 in the pre-test to 15.07 in the post-test ($t = 25.242$, $p = 0.000$), indicating that the video-assisted teaching programme was effective in improving mothers' knowledge regarding the Buteyko breathing technique, while significant associations were observed between knowledge scores and selected demographic.

Keywords : Assess, Effectiveness, Buteyko breathing technique

INTRODUCTION

The early childhood period, particularly from birth to five years, is a crucial stage for physical growth, respiratory development, and immune system maturation. Under-five children are highly susceptible to respiratory illnesses such as asthma, bronchitis, pneumonia, wheezing, and recurrent upper respiratory infections. These conditions remain among the leading causes of childhood morbidity and hospital visits in developing countries. Poor air quality, exposure to allergens, viral infections, and improper breathing patterns further increase the risk of respiratory problems in young children.

Globally, an estimated 260–262 million people were suffering from asthma during the period 2016 to 2018, with a substantial proportion being children. In India, approximately 35 million children were reported to have asthma during the same period. In Andhra Pradesh, around 6,000 under-five children were suffering from asthma, indicating a significant public health concern among young children.

Mothers, being the primary caregivers, play a central role in maintaining and improving the Respiratory health of their children. Their knowledge, awareness, and caregiving practices greatly influence early detection, prevention, and management of respiratory difficulties. However, many mothers lack adequate awareness about simple, non-pharmacological techniques that can support better breathing and reduce respiratory distress in children.

The Buteyko Breathing Technique (BBT), developed by Dr. Konstantin Buteyko, is a scientifically recognized breathing method used to manage breathing difficulties by promoting nasal breathing, reducing hyperventilation, and improving carbon dioxide tolerance. Research has shown that Buteyko breathing helps reduce symptoms of asthma, breathlessness, anxiety, and nasal congestion. Although the method is widely used among adults, it can also be beneficial for children when taught and supervised by caregivers, especially mothers.

Education about such techniques is most effective when delivered in engaging and understandable formats. Video-assisted teaching has emerged as a powerful educational tool, offering visual demonstration, clarity, repetition, and ease of understanding for learners with varying literacy levels. Videos can simplify complex techniques like Buteyko breathing, making it easier for mothers to learn, practice, and apply them to their children in daily life. Despite the proven benefits of Buteyko breathing and the effectiveness of video-based health education, there is limited awareness among mothers of under-five children regarding this technique. Many rely solely on medication for respiratory problems, without knowledge of complementary approaches that can support long-term respiratory health. This indicates a clear need for structured educational interventions.

Therefore, this study aims to assess the effectiveness of video-assisted teaching on Buteyko Breathing Technique among mothers of under-five children. By enhancing mothers' knowledge and confidence in using this technique, the study seeks to promote better respiratory management, reduce unnecessary healthcare visits, and improve the overall well-being of young children. The findings will also help healthcare professionals design more effective parent-focused educational programs for respiratory health.

METHODOLOGY

The present study will use a quantitative research approach with a pre-experimental one-group pre-test and post-test design to assess the effectiveness of video-assisted teaching on Buteyko breathing technique among mothers of under-five children. The study will be conducted at District Headquarters Hospital, Chittoor, Andhra Pradesh. A total of 60 mothers of under-five children will be selected by non-probability convenient sampling technique. Mothers who are willing to participate and able to understand Telugu or English will be included in the study. Data will be collected using a structured questionnaire consisting of

socio-demographic variables and knowledge questions regarding Buteyko breathing technique. Initially, a pre-test will be conducted to assess the existing knowledge of mothers.

Sampling Technique

The sampling Technique used for the study was Non-probability convenient sampling Technique.

CRITERIA FOR SELECTION OF SAMPLE

Inclusive Criteria

Mothers who were available during the period of data collection in the Pediatrics OPD. Mothers of under-five children who were willing to participate in the study.

Exclusion Criteria

Mothers who were not available during the period of data collection.

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

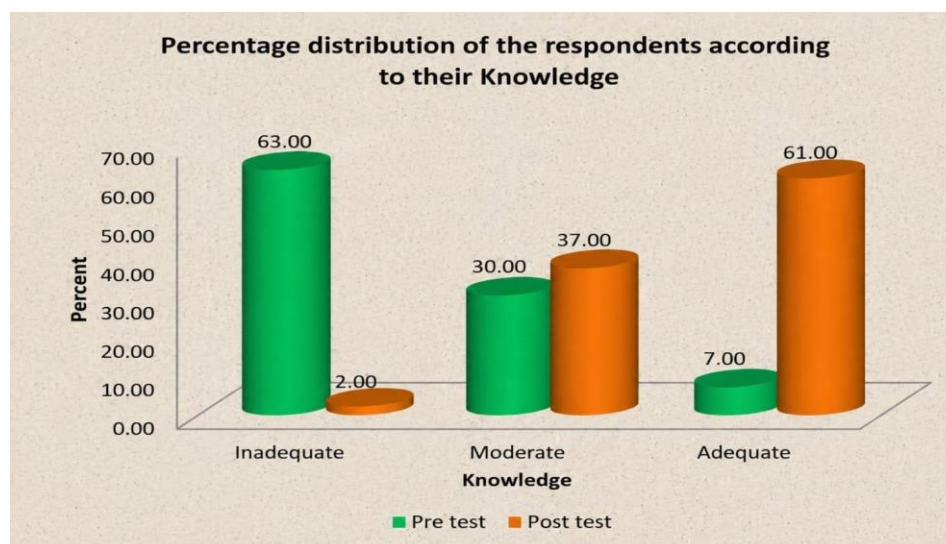
III. INSTRUMENTS USED FOR DATA COLLECTION

The research tool is an instrument that serves as the primary means of collecting reliable data and deriving meaningful conclusions. In accordance with the objectives of the present study, a self-structured questionnaire was developed to assess the knowledge of mothers of under-five children regarding the Buteyko breathing technique. The questionnaire was designed to evaluate the effectiveness of the video-assisted teaching programme in improving the knowledge of mothers about the Buteyko breathing technique and its importance in promoting respiratory health among under-five children.

RESULT

Percentage distribution of the respondents according to their Level of Knowledge

S.No	Level of Knowledge	Pre test		Post test	
		Frequency	Percent	Frequency	Percent
1	Inadequate	63	63.00	2	2.00
2	Moderate	30	30.00	37	37.00
3	Adequate	7	7.00	61	61.00
	Total	100	100.00	100	100.00



Paired Samples Statistics : Pre test Knowledge with Post test Knowledge difference

		Mean	N	Std. Deviation	Std. Error Mean	t-value	p value	sig
Pair 1	Pre test Knowledge	8.51	100	3.35	0.34	25.242	0.000	**
	Post test Knowledge	15.07	100	2.49	0.25			

Paired Samples Correlations

		N	Correlation	p value	sig
Pair 1	Pre test Knowledge & Post test Knowledge	100	0.639	0.000	**

Note : ** = Significant at 0.01 level INFERENCE

The pre-test knowledge showed a lower mean score of 8.51 among 100 participants, whereas the post-test knowledge increased markedly to a mean score of 15.07, indicating clear improvement after intervention. The difference between pre-test and post-test scores was highly statistically significant ($t = 25.242$, $p < 0.001$), showing the effectiveness of the teaching programme. A strong positive correlation ($r = 0.639$) was observed between pre-test and post-test knowledge scores, which was also significant at the 0.01 level.

Association between Pre test Knowledge with Socio Demographic Variable

Socio Demographic Variables	Category	N/%	Pre test Knowledge				Total	Chi square	df	p value	sig
			Inadequate	Moderate	Adequate						
1 Age of the mother	< 25 years	N	26	12	0	38	64.388	6	0.000	**	
		%	26.00%	12.00%	0.00%	38.00%					
	25-34 years	N	37	16	1	54					
		%	37.00%	16.00%	1.00%	54.00%					
	35-44 years	N	0	2	5	7					
		%	0.00%	2.00%	5.00%	7.00%					
	>= 45 years	N	0	0	1	1					
		%	0.00%	0.00%	1.00%	1.00%					
Total		N	63	30	7	100					
		%	63.00%	30.00%	7.00%	100.00%					
	Illiterate	N	10	0	1	11					
		%	10.00%	0.00%	1.00%	11.00%					
	Primary education	N	37	12	0	49					
		%	37.00%	12.00%	0.00%	49.00%					

2	Education al status	Secondary education	N	16	12	0	28	54.384	6	0.000	**
			%	16.00%	12.00%	0.00%	28.00%				
		Graduate and above	N	0	6	6	12				
			%	0.00%	6.00%	6.00%	12.00%				
Total			N	63	30	7	100				
			%	63.00%	30.00%	7.00%	100.00%				
3	Occupation	Homemaker	N	48	16	0	64	34.030	4	0.000	**
			%	48.00%	16.00%	0.00%	64.00%				
		Employed	N	3	7	6	16				
			%	3.00%	7.00%	6.00%	16.00%				
		Self employed	N	12	7	1	20				
			%	12.00%	7.00%	1.00%	20.00%				
Total			N	63	30	7	100				
			%	63.00%	30.00%	7.00%	100.00%				
4	Religion	Hindu	N	33	17	5	55	1.260	6	0.974	NS
			%	33.00%	17.00%	5.00%	55.00%				
		Muslim	N	12	5	1	18				
			%	12.00%	5.00%	1.00%	18.00%				
		Christian	N	13	6	1	20				
			%	13.00%	6.00%	1.00%	20.00%				
		Others	N	5	2	0	7				
			%	5.00%	2.00%	0.00%	7.00%				
Total			N	63	30	7	100				
			%	63.00%	30.00%	7.00%	100.00%				
5	Marital Status	Married	N	54	23	5	82	7.807	4	0.099	NS
			%	54.00%	23.00%	5.00%	82.00%				
		Widow	N	8	3	2	13				
			%	8.00%	3.00%	2.00%	13.00%				
		Single parent	N	1	4	0	5				
			%	1.00%	4.00%	0.00%	5.00%				
Total			N	63	30	7	100				
			%	63.00%	30.00%	7.00%	100.00%				
6	Monthly Family Income	< Rs 10000	N	38	10	1	49	54.189	6	0.000	**
			%	38.00%	10.00%	1.00%	49.00%				
		Rs 10001-20000	N	20	5	0	25				
			%	20.00%	5.00%	0.00%	25.00%				
		Rs 20001-30000	N	5	8	0	13				
			%	5.00%	8.00%	0.00%	13.00%				
		> Rs 30000	N	0	7	6	13				
			%	0.00%	7.00%	6.00%	13.00%				
Total			N	63	30	7	100				
			%	63.00%	30.00%	7.00%	100.00%				
	Nuclear	N	42	21	5	68					
		%	42.00%	21.00%	5.00%	68.00%					
		N	18	7	1	26					

7 Type of family	Extended	%	18.00%	7.00%	1.00%	26.00%	1.642	4	0.801	NS
		N	3	2	1	6				
		%	3.00%	2.00%	1.00%	6.00%				
Total		N	63	30	7	100				
		%	63.00%	30.00%	7.00%	100.00%				
8 Place of Residence	Rural	N	41	14	1	56	13.997	4	0.007	**
		%	41.00%	14.00%	1.00%	56.00%				
	Urban	N	21	12	6	39				
		%	21.00%	12.00%	6.00%	39.00%				
	Semi Urban	N	1	4	0	5				
		%	1.00%	4.00%	0.00%	5.00%				
Total		N	63	30	7	100				
		%	63.00%	30.00%	7.00%	100.00%				
9 Childrens Age	2 years - 5 years	N	48	25	1	74	23.963	4	0.000	**
		%	48.00%	25.00%	1.00%	74.00%				
	6 years - 9 years	N	12	1	2	15				
		%	12.00%	1.00%	2.00%	15.00%				
	10 years - 12 years	N	3	4	4	11				
		%	3.00%	4.00%	4.00%	11.00%				
Total		N	63	30	7	100				
		%	63.00%	30.00%	7.00%	100.00%				
10 Gender of child	Male	N	35	18	6	59	2.387	2	0.303	NS
		%	35.00%	18.00%	6.00%	59.00%				
	Female	N	28	12	1	41				
		%	28.00%	12.00%	1.00%	41.00%				
Total		N	63	30	7	100				
		%	63.00%	30.00%	7.00%	100.00%				
11 Duration of Asthma Diagnosis	< 1 year	N	26	16	5	47	4.591	4	0.332	NS
		%	26.00%	16.00%	5.00%	47.00%				
	1-3 years	N	22	11	1	34				
		%	22.00%	11.00%	1.00%	34.00%				
	> 3 years	N	15	3	1	19				
		%	15.00%	3.00%	1.00%	19.00%				
Total		N	63	30	7	100				
		%	63.00%	30.00%	7.00%	100.00%				
12 Frequency of Asthma attacks in last 6 months	Treatment Received	N	15	2	0	17	8.055	6	0.234	NS
		%	15.00%	2.00%	0.00%	17.00%				
	Only inhalers	N	17	14	2	33				
		%	17.00%	14.00%	2.00%	33.00%				
	Inhalers + oral medications	N	26	12	4	42				
		%	26.00%	12.00%	4.00%	42.00%				
	Complementary therapies (if any)	N	5	2	1	8				
		%	5.00%	2.00%	1.00%	8.00%				
Total		N	63	30	7	100				

		%	63.00%	30.00%	7.00%	100.00%									
13 Source of Health information about Asthma	Doctor	N	30	10	5	45	7.927	8	0.441	NS					
		%	30.00%	10.00%	5.00%	45.00%									
	Nurse/health worker	N	19	9	2	30									
		%	19.00%	9.00%	2.00%	30.00%									
	Media (TV, internet, newspaper)	N	8	9	0	17									
		%	8.00%	9.00%	0.00%	17.00%									
	Family/friends	N	4	1	0	5									
		%	4.00%	1.00%	0.00%	5.00%									
	None	N	2	1	0	3									
		%	2.00%	1.00%	0.00%	3.00%									
Total		N	63	30	7	100									
		%	63.00%	30.00%	7.00%	100.00%									
14 Previous exposure to Asthma education programs	Yes	N	36	17	6	59	2.222	2	0.329	NS					
		%	36.00%	17.00%	6.00%	59.00%									
	No	N	27	13	1	41									
		%	27.00%	13.00%	1.00%	41.00%									
Total		N	63	30	7	100									
		%	63.00%	30.00%	7.00%	100.00%									
15 Awareness about Butekykko Breathing Technique before	Yes	N	7	7	5	19	15.416	2	0.000	**					
		%	7.00%	7.00%	5.00%	19.00%									
	No	N	56	23	2	81									
		%	56.00%	23.00%	2.00%	81.00%									
	Total		N	63	30	7					100				
			%	63.00%	30.00%	7.00%					100.00%				

Note : ** = Significant at 0.01 level

* = Significant at 0.05 level NS = Not Significant

INFERENCE

The findings show that 63 (63%) mothers had inadequate knowledge, 30 (30) had moderate knowledge, and only 7 (7%) had adequate pre-test knowledge. Knowledge level showed a significant association with age, education, occupation, income, place of residence, and child's age. No significant association was found with religion, marital status, family type, gender of the child, or treatment-related variables.

Association between Post test Knowledge with Socio Demographic Variable										
Socio Demographic Variables	Category	N/%	Post test Knowledge			Total	Chi square	df	p value	sig
			Inadequate	Moderate	Adequate					
1 Age of the mother	< 25 years	N	0	15	23	38	7.189	6	0.304	NS
		%	0.00%	15.00%	23.00%	38.00%				
	25-34 years	N	2	22	30	54				
		%	2.00%	22.00%	30.00%	54.00%				
	35-44 years	N	0	0	7	7				
		%	0.00%	0.00%	7.00%	7.00%				
	>= 45 years	N	0	0	1	1				
		%	0.00%	0.00%	1.00%	1.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
2 Education al status	Illiterate	N	1	8	2	11	19.869	6	0.003	**
		%	1.00%	8.00%	2.00%	11.00%				
	Primary education	N	1	21	27	49				
		%	1.00%	21.00%	27.00%	49.00%				
	Secondary education	N	0	8	20	28				
		%	0.00%	8.00%	20.00%	28.00%				
	Graduate and above	N	0	0	12	12				
		%	0.00%	0.00%	12.00%	12.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
3 Occupation	Homemaker	N	1	29	34	64	7.882	4	0.096	NS
		%	1.00%	29.00%	34.00%	64.00%				
	Employed	N	0	2	14	16				
		%	0.00%	2.00%	14.00%	16.00%				
	Self employed	N	1	6	13	20				
		%	1.00%	6.00%	13.00%	20.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
4 Religion	Hindu	N	0	19	36	55	14.211	6	0.027	*
		%	0.00%	19.00%	36.00%	55.00%				
	Muslim	N	2	9	7	18				
		%	2.00%	9.00%	7.00%	18.00%				
	Christian	N	0	5	15	20				
		%	0.00%	5.00%	15.00%	20.00%				
	Others	N	0	4	3	7				
		%	0.00%	4.00%	3.00%	7.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
	Married	N	1	32	49	82				
		%	1.00%	32.00%	49.00%	82.00%				
	Total	N	1	5	7	13				

5 Marital Status	Single parent	%	1.00%	5.00%	7.00%	13.00%	5.871	4	0.216	NS	
		N	0	0	5	5					
		%	0.00%	0.00%	5.00%	5.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
6 Monthly Family Income	< Rs 10000	N	1	24	24	49	13.518	6	0.036	*	
		%	1.00%	24.00%	24.00%	49.00%					
	Rs 10001-20000	N	1	10	14	25					
		%	1.00%	10.00%	14.00%	25.00%					
	Rs 20001-30000	N	0	3	10	13					
		%	0.00%	3.00%	10.00%	13.00%					
	> Rs 30000	N	0	0	13	13					
		%	0.00%	0.00%	13.00%	13.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
7 Type of family	Nuclear	N	1	27	40	68	2.048	4	0.727	NS	
		%	1.00%	27.00%	40.00%	68.00%					
	Joint	N	1	9	16	26					
		%	1.00%	9.00%	16.00%	26.00%					
	Extended	N	0	1	5	6					
		%	0.00%	1.00%	5.00%	6.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
8 Place of Residence	Rural	N	1	26	29	56	6.645	4	0.156	NS	
		%	1.00%	26.00%	29.00%	56.00%					
	Urban	N	1	11	27	39					
		%	1.00%	11.00%	27.00%	39.00%					
	Semi Urban	N	0	0	5	5					
		%	0.00%	0.00%	5.00%	5.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
9 Childrens Age	2 years - 5 years	N	2	29	43	74	1.563	4	0.815	NS	
		%	2.00%	29.00%	43.00%	74.00%					
	6 years - 9 years	N	0	5	10	15					
		%	0.00%	5.00%	10.00%	15.00%					
		10 years - 12 years	N	0	3	8	11				
			%	0.00%	3.00%	8.00%	11.00%				
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
10 Gender of child	Male	N	1	22	36	59	0.070	2	0.966	NS	
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
	Female	N	1	32	49	82					

5 Marital Status		%	1.00%	32.00%	49.00%	82.00%	5.871	4	0.216	NS	
		N	1	5	7	13					
	Widow	%	1.00%	5.00%	7.00%	13.00%					
		Single parent	N	0	0	5					5
			%	0.00%	0.00%	5.00%					5.00%
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
6 Monthly Family Income	< Rs 10000	N	1	24	24	49	13.518	6	0.036	*	
		%	1.00%	24.00%	24.00%	49.00%					
	Rs 10001-20000	N	1	10	14	25					
		%	1.00%	10.00%	14.00%	25.00%					
	Rs 20001-30000	N	0	3	10	13					
		%	0.00%	3.00%	10.00%	13.00%					
	> Rs 30000	N	0	0	13	13					
		%	0.00%	0.00%	13.00%	13.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
7 Type of family	Nuclear	N	1	27	40	68	2.048	4	0.727	NS	
		%	1.00%	27.00%	40.00%	68.00%					
	Joint	N	1	9	16	26					
		%	1.00%	9.00%	16.00%	26.00%					
	Extended	N	0	1	5	6					
		%	0.00%	1.00%	5.00%	6.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
8 Place of Residence	Rural	N	1	26	29	56	6.645	4	0.156	NS	
		%	1.00%	26.00%	29.00%	56.00%					
	Urban	N	1	11	27	39					
		%	1.00%	11.00%	27.00%	39.00%					
	Semi Urban	N	0	0	5	5					
		%	0.00%	0.00%	5.00%	5.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
9 Childrens Age	2 years - 5 years	N	2	29	43	74	1.563	4	0.815	NS	
		%	2.00%	29.00%	43.00%	74.00%					
	6 years - 9 years	N	0	5	10	15					
		%	0.00%	5.00%	10.00%	15.00%					
	10 years - 12 years	N	0	3	8	11					
		%	0.00%	3.00%	8.00%	11.00%					
Total		N	2	37	61	100					
		%	2.00%	37.00%	61.00%	100.00%					
10 Gender of child	Male	N	1	22	36	59	0.070	2	0.966	NS	
		%	1.00%	22.00%	36.00%	59.00%					
	Female	N	1	15	25	41					
		%	1.00%	15.00%	25.00%	41.00%					

Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
11 Duration of Asthma Diagnosis	< 1 year	N	1	16	30	47	0.912	4	0.923	NS
		%	1.00%	16.00%	30.00%	47.00%				
	1-3 years	N	1	13	20	34				
		%	1.00%	13.00%	20.00%	34.00%				
	> 3 years	N	0	8	11	19				
		%	0.00%	8.00%	11.00%	19.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
12 Frequency of Asthma attacks in last 6 months	Treatment Received	N	1	12	4	17	14.126	6	0.028	*
		%	1.00%	12.00%	4.00%	17.00%				
	Only inhalers	N	1	8	24	33				
		%	1.00%	8.00%	24.00%	33.00%				
	Inhalers + oral medications	N	0	14	28	42				
		%	0.00%	14.00%	28.00%	42.00%				
	Complementary therapies (if any)	N	0	3	5	8				
		%	0.00%	3.00%	5.00%	8.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
13 Source of Health information about Asthma	Doctor	N	1	14	30	45	4.413	8	0.818	NS
		%	1.00%	14.00%	30.00%	45.00%				
	Nurse/health worker	N	1	14	15	30				
		%	1.00%	14.00%	15.00%	30.00%				
	Media (TV, internet, newspaper)	N	0	5	12	17				
		%	0.00%	5.00%	12.00%	17.00%				
	Family/friends	N	0	2	3	5				
		%	0.00%	2.00%	3.00%	5.00%				
None		N	0	2	1	3				
		%	0.00%	2.00%	1.00%	3.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
14 Previous exposure to Asthma education programs	Yes	N	0	23	36	59	3.031	2	0.220	NS
		%	0.00%	23.00%	36.00%	59.00%				
	No	N	2	14	25	41				
		%	2.00%	14.00%	25.00%	41.00%				
Total		N	2	37	61	100				
		%	2.00%	37.00%	61.00%	100.00%				
15 Awareness	Yes	N	1	6	12	19				
		%	1.00%	6.00%	12.00%	19.00%				
	No	N	1	31	49	81				

ss about Butekyk o Breathing Technique before		%	1.00%	31.00%	49.00%	81.00%	1.453	2	0.484	NS
Total	N	2	37	61	100					
	%	2.00%	37.00%	61.00%	100.00%					

Note : ** = Significant at 0.01 level

* = Significant at 0.05 level NS = Not Significant

INFERENCE

The findings show that after the intervention, 61 (61%) mothers attained adequate knowledge, 37 (37%) had moderate knowledge, and only 2 (2%) remained with inadequate knowledge regarding the Buteyko breathing technique. Post-test knowledge was found to be significantly associated with educational status, religion, monthly family income, and frequency of asthma attacks at 0.05 and 0.01 levels. Other socio-demographic variables such as age, occupation, marital status, family type, place of residence, child's age and gender showed no significant association.

DISCUSSION

The present study found that most mothers of under-five children with asthma had inadequate knowledge regarding the Buteyko breathing technique before the video-assisted teaching programme. After the intervention, the post-test knowledge scores improved significantly, indicating that the video-assisted teaching programme was effective. These findings are consistent with previous studies by Opat et al. (2000), Singh et al. (2020), Kalyanidevi et al. (2019), and Meena et al. (2021), which also reported that educational interventions improved knowledge regarding the Buteyko breathing technique. The study further found that educational status, religion, monthly family income, and treatment received were significantly associated with post-test knowledge, whereas the remaining demographic variables showed no significant association.

RECOMMENDATIONS

- Similar studies can be conducted in different settings such as urban, rural, and semi-rural areas.
- Similar studies can be done in other areas such as ART centres, emergency departments, and OPDs.
- Programmes can be conducted to improve knowledge on the Buteyko Breathing Technique through video-assisted teaching.
- Experimental studies can be conducted to assess the practice of the Buteyko Breathing Technique.

CONCLUSION

The study concluded that the video-assisted teaching programme was effective in improving the knowledge of mothers of under-five children with asthma regarding the Buteyko breathing technique. Before the intervention, most mothers had inadequate knowledge; however, after the video-assisted teaching programme, the majority of mothers gained adequate knowledge. The significant difference between the pre-test and post-test mean knowledge scores confirmed the effectiveness of the teaching programme. Therefore, video-assisted teaching can be used as an effective health-education method to improve mothers' knowledge of the Buteyko breathing technique and support better asthma care for their children.

REFERENCE

- Buteyko KP. Buteyko Breathing Method. 1st ed. Moscow: Soviet Medicine Publications; 1969. p. 45–78.
- McKeown P. The Oxygen Advantage: The Simple, Scientifically Proven Breathing Technique. 1st ed. London: Piatkus Publishers; 2015. p. 101–145.
- Chaitow L, Bradley D, Gilbert C. Recognizing and Treating Breathing Disorders. 2nd ed. Edinburgh: Churchill Livingstone Elsevier; 2014. p. 189–220.
- Sharma SK. Nursing Research and Statistics. 4th ed. New Delhi: Elsevier India; 2018. p. 210–235.
- Mitchell CA, et al. Buteyko breathing techniques in asthma management: a controlled trial. Medical Journal of Australia. 1998.
- C Foy, et al. Breathing retraining for dysfunctional breathing in asthma: randomized controlled trial. BMJ, 2003.
- Jerath G, et al. Physiology of long pranayamic breathing: neural respiratory elements may provide a mechanism that explains how slow deep breathing shifts the autonomic nervous system. Medical Hypotheses, 2006.
- G. Rajadyaksha, et al. Effect of Buteyko breathing technique on haemodynamic parameters in individuals with hypertension. Indian Journal of Physiotherapy and Occupational Therapy, 2022.
- Mohamed, et al. Effect of Buteyko breathing technique among patients with bronchial asthma. International Journal of Midwifery and Nursing Practice, 2019.
- V.H. Subramanian, et al. Effect of Buteyko breathing technique in patients with obstructive airway disease. International Journal of Health Sciences and Research, 2019.
- V.P.G. Gupta, et al. Immediate effect of Buteyko breathing technique during sub-maximal exercise. International Journal of Health Sciences and Research, 2018.
- Celik, et al. Effect of the Buteyko breathing technique on asthma control and quality of life in children aged 7–12 years. Pediatric Pulmonology. 2020.
- Buteyko Breathing Method – <https://buteyko.org/research>.
- Verywell Health – Buteyko Breathing: A Complementary Technique.
- <https://www.verywellhealth.com/buteyko-breathing>.
- A Clinical Trial of the Buteyko Breathing Technique in Asthma as Taught by a Video – ResearchGate.