



Impact Of Advanced Teaching Program On Knowledge Regarding Bronchial Asthma And Health-Related Quality Of Life Among Peoples

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Abstract

The current study has been undertaken to assess knowledge score regarding Bronchial Asthma and Health-Related Quality of Life among peoples by advanced teaching programme in Gram Mangliya, Indore. The research design used for study was pre- experimental in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts-PART- I consisted questions related to Socio-demographic data, PART-II consisted of self -structured knowledge questionnaire to assess knowledge score regarding Bronchial Asthma and Health-Related Quality of Life among peoples. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that 29.4% of peoples were having average knowledge regarding Bronchial Asthma and Health-Related Quality of Life whereas 70.6% had fair knowledge after post-test. It was suggested that nurses must educate peoples regarding Bronchial Asthma and Health-Related Quality of Life.

Keyword- Impact, advanced teaching programme, knowledge & Bronchial Asthma and Health-Related Quality of Life..

1. Introduction

Bronchial asthma is a chronic inflammatory disease of the airways characterized by episodes of wheezing, shortness of breath, chest tightness, and coughing. It is a major public health concern affecting millions of people worldwide, with significant morbidity and economic burden. Asthma can be triggered by various factors, including allergens, pollutants, respiratory infections, physical activity, and stress. Despite advancements in medical science, asthma remains a challenge in both diagnosis and management, especially in resource-limited settings. Bronchial asthma is primarily an inflammatory disorder of the airways that results in hyperresponsiveness to various stimuli. The underlying pathophysiology involves chronic inflammation, airway remodeling, and increased mucus production. The key players in asthma pathogenesis include immune cells such as eosinophils, mast cells, and T-helper type 2 (Th2) cells, which release inflammatory mediators like histamines, leukotrienes, and cytokines. These mediators cause bronchoconstriction, airway edema, and increased mucus secretion, leading to airflow obstruction.

2. Need for study

Despite extensive research on bronchial asthma, gaps remain in understanding the factors influencing asthma control, treatment adherence, and quality of life among patients. This study aims to explore the prevalence, risk factors, and management strategies for asthma among patients with bronchial asthma. Additionally, it seeks to assess the impact of asthma on daily life and evaluate the effectiveness of current interventions in improving patient outcomes. By identifying key challenges and barriers to asthma management, this study will provide valuable insights for healthcare professionals, policymakers, and public

health practitioners. The findings can contribute to the development of targeted interventions, improved patient education programs, and better healthcare policies to enhance asthma care and reduce disease burden

3. Objective of the study

1. To assess the pre-test & post-test Knowledge score regarding Bronchial Asthma and Health-Related Quality of Life among peoples.
2. To assess impact of advanced teaching programme on knowledge regarding Bronchial Asthma and Health-Related Quality of Life among peoples.
3. To find out association between pre-test knowledge score regarding Bronchial Asthma and Health-Related Quality of Life among peoples with their selected demographic variables.

4. Hypotheses:

RH₀: There will be no significant difference between pre test & post-test knowledge score on Bronchial Asthma and Health-Related Quality of Life among peoples.

RH₁: There will be significant difference between pre test & post-test knowledge score on Bronchial Asthma and Health-Related Quality of Life among peoples.

RH₂: There will be significant association between pre-test score on Bronchial Asthma and Health-Related Quality of Life among peoples with their selected demographic variables.

5. Assumption

1. Peoples may have deficit knowledge regarding Bronchial Asthma and Health-Related Quality of Life.
2. Advanced teaching programme will enhance knowledge of peoples regarding Bronchial Asthma and Health-Related Quality of Life.

6. Methodology

An evaluative approach was used and research design pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 68 peoples selected by Non probability convenient sampling technique. The setting for the study was Gram Mangliya, Indore. Data was gathered with help of demographic variables & administering a self-structured knowledge questionnaire by analyst prior & after advanced teaching programme. Post-test was done after seven days of pre-test. Data were analysis using descriptive & inferential statistics.

7. Analysis and interpretation

SECTION-I Table -1 Frequency & percentage distribution of samples according to their demographic variables.
n = 68

S. No	Demographic Variables	Frequency	Percentage
1	Age in Years		
a.	19-23	12	17.6
b.	24-28	34	50.0
c.	≥29	22	32.4
2	Educational Status		
a.	No formal education	5	7.4
b.	Primary	7	10.3
c.	Secondary	16	23.5
d.	Higher secondary	34	50.0
e.	Graduate and above	6	8.8
3	Family type		
a.	Nuclear	27	39.7
b.	Joint	32	47.1
c.	Extended	9	13.2
4	Previous knowledge related to Bronchial Asthma and Health-Related Quality of Life		
a.	Yes	9	13.2
b.	No	59	86.8

SECTION-II- Table- 2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects:

Category and test Score	Frequency (N=68)	Frequency Percentage (%)
POOR (1-10)	58	85.3
AVERAGE (11-20)	10	14.7
GOOD (21-30)	0	0.0
TOTAL	68	100.0

The present table 2.1.1 concerned with the existing knowledge regarding Bronchial Asthma and Health-Related Quality of Life among peoples were shown by pre-test score and it is observed that most of the peoples 58 (85.3%) were poor (01-10) knowledge & some peoples have 10 (14.7%) were from average category.

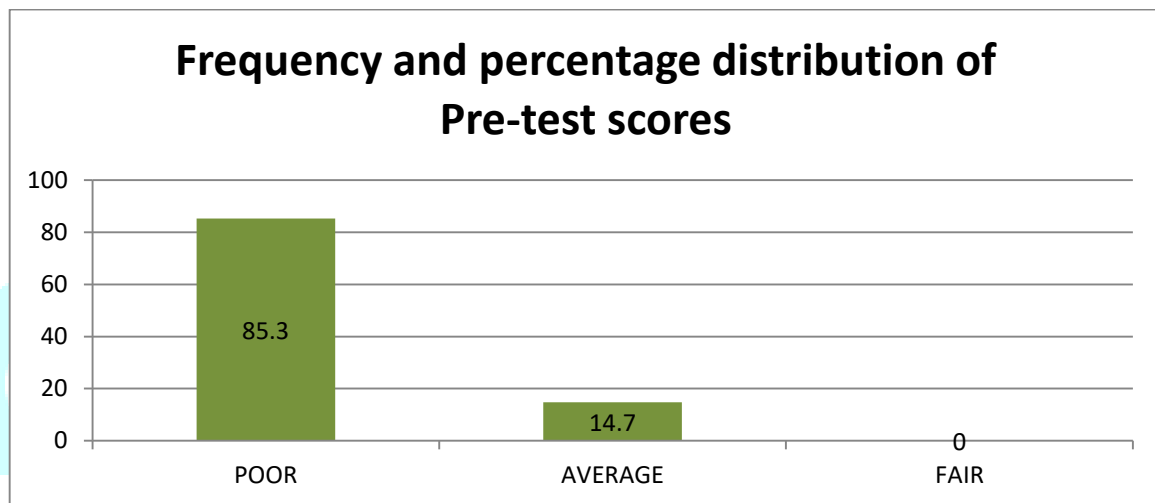


FIG.-2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects

Table-2.1.2. - Mean ($\bar{X}$) and standard Deviation (s) of knowledge scores:

Knowledge Pre -test	Mean ($\bar{X}$)	Std Dev (S)
Pre-test score	1.14	0.35

The information regarding mean, percentage of mean and standard deviation of test scores in shown in table 2.1.2 knowledge in mean pre-test score was 1.14 ± 0.35 while in knowledge regarding Bronchial Asthma and Health-Related Quality of Life among peoples in Gram Mangliya, Indore.

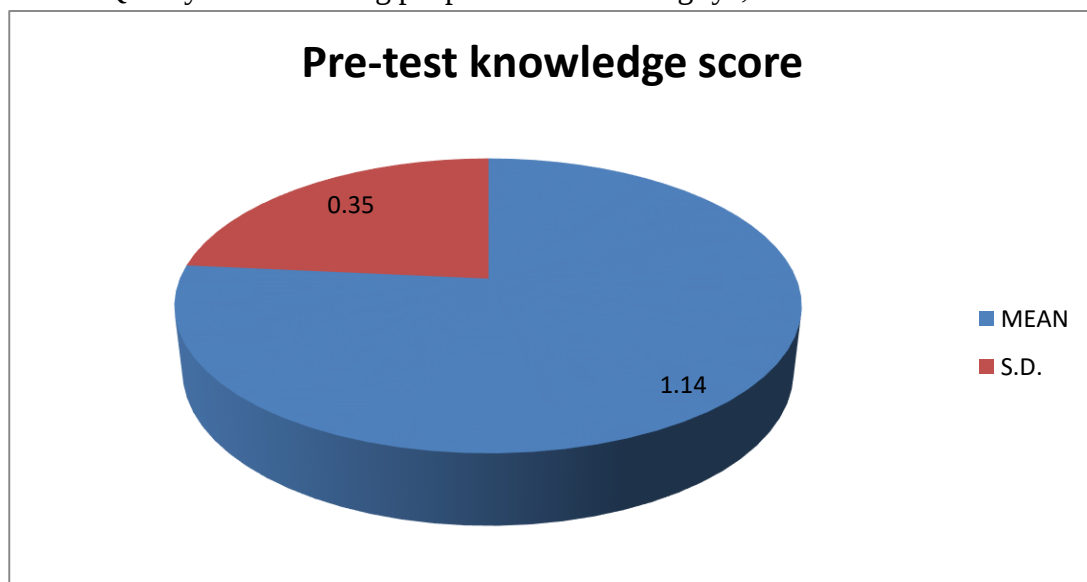
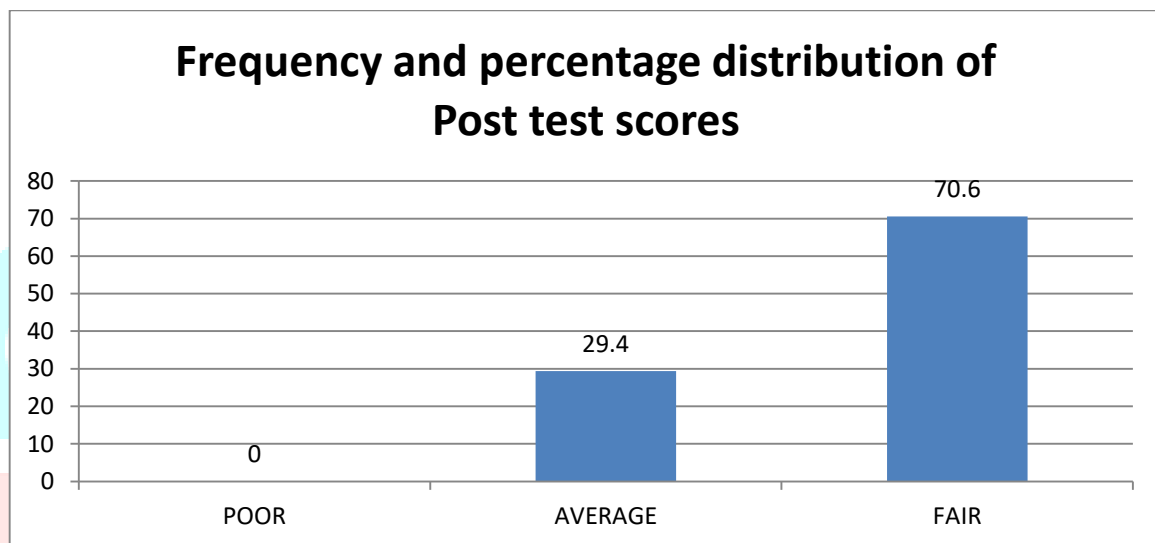


FIG.-2.1.1. - Mean ($\bar{X}$) and standard Deviation (s) of knowledge scores

Table-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects:

Category and post-test Score	Frequency (N=68)	Frequency Percentage (%)
POOR(01-10)	0	0.0
AVERAGE (11-20)	20	29.4
GOOD (21-30)	48	70.6
TOTAL	68	100%

The present table 2.2.1 concerned with the existing knowledge regarding Bronchial Asthma and Health-Related Quality of Life among peoples was shown by post test score and it is observed that most of the peoples 48 (70.6%) were **FAIR** (21-30) knowledge & other peoples have 20 (29.4%) category which are **AVERAGE** (11-20) post test knowledge score in present study.

**FIG.-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects****Table-2.2.2. - Mean ($\bar{X}$) and standard Deviation (s) of knowledge scores:**

Knowledge Test	Mean ($\bar{X}$)	Std Dev (S)
Post-test score	2.70	0.45

The information regarding mean, percentage of mean and SD of post test scores in shown in table 2.2.2 knowledge in mean post test score was 2.70 ± 0.45 while in knowledge regarding Bronchial Asthma and Health-Related Quality of Life among peoples in Gram Mangliya, Indore.

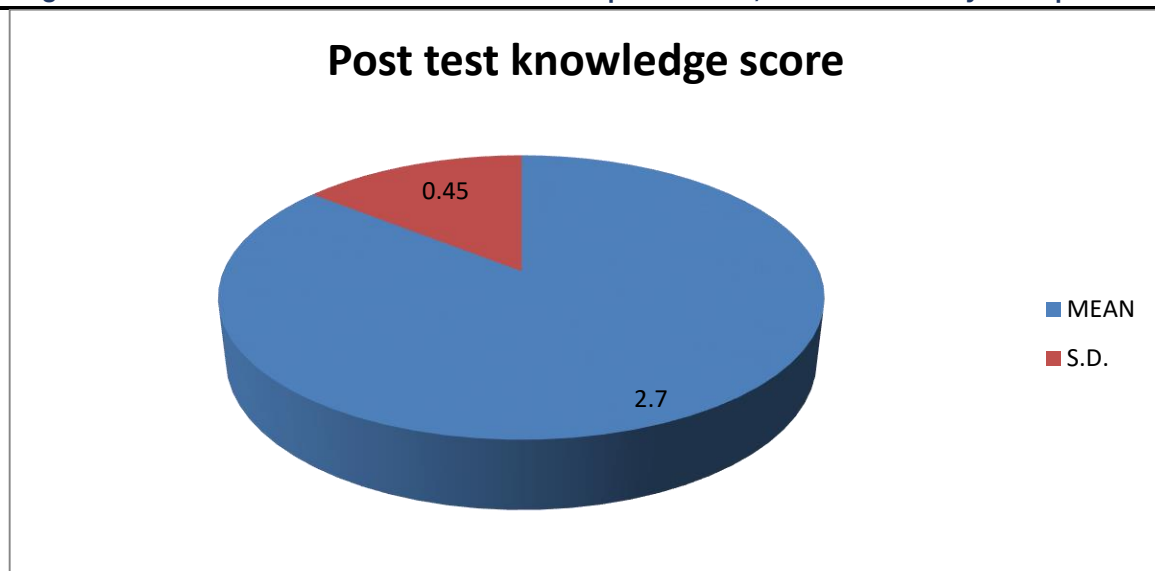


FIG.-2.2.2. - Mean ($\bar{X}$) and standard Deviation (s) of knowledge scores:

TABLE 2.2.3: Impact of advanced teaching programme by calculating Mean, SD, Mean Difference and 't' Value of Pre-test and Post-test knowledge.

Knowledge Score of Peoples	Mean ($\bar{X}$)	S. D. (s)	Std. Error of Mean	D. F.	t-value	Significance
Pre-test	1.14	0.35	0.06	67	-23.09	P<0.0001*
Post-test	2.70	0.45				

When the mean and SD of pre-test & post-test were compared & 't' test was applied. It can be clearly seen that the 't' value was -23.09 and p value was 0.0001 which clearly show that advanced teaching programme was very effective in enhancing the knowledge of peoples.

SECTION-III Association of knowledge scores between test and selected demographic variables:

Table- 3.1 Association of age of peoples with pre-test scores:

Age	Test scores			Total
(in years)	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
19-23	9	3	0	12
24-28	27	7	0	34
≥29	22	0	0	22
Total	58	10	0	68
$X^2=5.74$ $p>0.05(\text{Insignificant})$				

The association of age & test scores is shown in present table 3.1. The probability value for Chi-Square test is 5.74 for 2 DF which indicated insignificant value ($p>0.05$). Hence, it is identified that there is insignificant association between age & test scores. Moreover, it is reflected that age isn't influenced with current problem.

Table- 3.2 Association of educational status with pre-test scores:

Educationa l Status	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
No formal	5	0	0	5
Primary	6	1	0	7
Secondary	12	4	0	16
Higher sec.	31	3	0	34
Graduate & above	4	2	0	6
Total	58	10	0	68
$X^2=4.81$ $p>0.05$ (Insignificant)				

The association of educational status & test scores is shown in present table 3.2. The probability value for Chi-Square test is 4.81 for 4 degrees of freedom which indicated educational & test scores. Moreover, it is reflected that educational status isn't influenced with present problem.

Table- 3.3 Association of family type with pre-test scores:

Family type	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Nuclear	24	3	0	27
Joint	26	6	0	32
Extended	8	1	0	9
Total	58	10	0	68
$X^2=0.78$ $p>0.05$ (Insignificant)				

The association of family type & test score is shown in present table 3.3. The probability value for Chi-Square test is 0.78 for 2 degrees of freedom which indicated family type and test scores. Moreover, it is reflected that family type isn't influenced with present problem.

Table- 3.4 Association of previous knowledge related to Bronchial Asthma and Health-Related Quality of Life with pre-test scores:

Previous Knowledge	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Yes	6	3	0	9
No	52	7	0	59
Total	58	10	0	68
$X^2=2.86$ $p>0.05$ (Insignificant)				

The association of previous knowledge & test scores is shown in present table 3.4. The probability value for Chi-Square test is 2.86 for 1 degrees of freedom which indicated previous knowledge & test scores. Moreover, it is reflected that previous knowledge isn't influenced with current problem.

Results

The result of this study indicates that there was a significant increase in post-test knowledge scores compared to pre-test scores of Bronchial Asthma and Health-Related Quality of Life. The mean percentage knowledge score was observed 1.14 ± 0.35 in pre-test & after implementation of advanced teaching programme post-test mean percentage was observed with 2.70 ± 0.45 .

Conclusion

Thus after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there will be significance difference between pre-test knowledge score with post-test knowledge score at ($P < 0.001$) is being accepted.

Furthermore, advanced teaching programme related to Bronchial Asthma and Health-Related Quality of Life among peoples may consider as an effective tool when there is a need in bridging & modifying knowledge.

Limitations

- This was limited to Gram Mangliya, Indore.
- This was limited to 68 peoples.

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