

# A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Breathing Exercises among Asthmatic Clients in Selected Hospital of Moradabad

Raveena John<sup>1</sup>, M. Jasline<sup>2</sup>, Jitendra Singh<sup>3</sup>

<sup>1</sup>Msc. nursing Final Year Student, Teerthankar Mahaveer College of Nursing, TMU (Moradabad) U. P., India

<sup>2</sup>Research Guide, Vice Principal, HOD of MSN, Teerthankar Mahaveer College of Nursing, TMU (Moradabad) U. P., India

<sup>3</sup>Research Co – guide, Associate Professor, Teerthankar Mahaveer College of Nursing, TMU (Moradabad) U. P., India

**Abstract:** *Background of the study:* This study was conducted to assess the effectiveness of STP to have knowledge of breathing exercises as a complementary therapy in bronchial asthma among selected client at Cosmos hospital of Moradabad. Asthma is a most common respiratory disease. Asthma works in two ways, it that causes the airways to become inflamed (the body's response to injury and infection, and it causes small tubes of the airways to tighten (called airways obstruction). Breathing exercises have been used to treat people with asthma as a way of controlling the symptom of asthma without medication. People use various breathing techniques to change their breathing pattern. **Objectives:** The main objective of the study is to assess the effectiveness of structured teaching programme on knowledge regarding breathing exercises among asthmatic clients. **Methods:** Quasi experimental design was adopted. The study was conducted among 60 asthmatic clients who are suffering with bronchial asthma 30 in experimental group and 30 in control group in Cosmos hospital, Moradabad, (U. P) Purposive sampling technique was used to select the samples. The investigator 1<sup>st</sup> introduced herself to the client and developed friendly relationship with them. The pre - test was conducted with the questionnaire given to the client regarding knowledge of bronchial asthma and breathing exercises and on 7<sup>th</sup> days the post - test was conducted by using the self - structured questionnaire. **Results:** The tool consists of three sections. Section A consists of demographic data, Section B comprised of 25<sup>th</sup> items to assess the knowledge. The data obtained was analyzed and interpreted in terms of the objectives, Section - C STP on knowledge regarding bronchial asthma and breathing exercises in asthmatic clients. The findings of the study revealed that there was a marked increase in the overall knowledge score of post - test than pre - test score which represents the effectiveness of structured teaching programme. Thus the structured teaching programme was effective in improving the knowledge of asthmatic clients with breathing exercises of bronchial asthma. On the basis of findings the investigator concluded that the STP has improved the knowledge of the patients with bronchial asthma and breathing exercises.

**Keywords:** STP - Structured teaching program, BT - Buteyko breathing, DB - Diaphragmatic breathing

## 1. Summary

The data collected was grouped and analyze by using descriptive statistics inferential statistics.

### Aims

The aim of the examine to evaluate the effectiveness of STP on knowledge regarding breathing exercises among asthmatic clients.

### Objective of the Study

- 1) To assess the level of knowledge regarding breathing exercises among in asthmatic clients in selected demographic variables
- 2) To evaluate the effectiveness of structured teaching programme on breathing exercises among asthmatic clients.
- 3) To find out the association between the knowledge score along with their selected demographic variables.

### Settings and Design:

- **Setting of the study** - Selected hospitals Moradabad
- **Sampling technique** - Non probability purposive sampling technique.

### • Population

**Target population:** Asthmatic clients.

**Accessible population:** Asthmatic clients with bronchial asthma selected hospital of Moradabad.

- **Sample:** Asthmatic clients with bronchial Asthma at selected hospitals of Moradabad
- **Sample size:** Sample size will be determined by power analysis procedure, based on pilot study.

## 2. Methods and Material

### 2.1 Statistical analysis used

#### 2.1.1 Results

- Majority of the asthmatic clients were in the age bunch 31 - 40 years half in the test bunch and 40% were has a place with age bunch 31 - 40 years in control bunch.
- Majority of asthmatic clients in sex in the exploratory gathering 60% were has a place with male sexual orientation and in the benchmark group 56.67% were has a place with male sex.
- Majority of instructive status in the exploratory gathering 76.67% were has a place with higher and in the benchmark group 50 % were has a place with higher.

- Majority of religion in the exploratory gathering 63.33% were has a place with Muslim religion and in the benchmark group 60% were has a place with Muslim religion.
- Majority of rate and conveyance of occupation in the exploratory gathering 53.33% were has a place with private area and in the benchmark group, 56.67% were has a place with private area.
- Majority conveyance of conjugal status were in exploratory gathering is 33.33% are Married and in the benchmark group 53.33 % are Married.

Frequency & percentages conveyance of members dependent on degree of information mean post - test information 21.33, mean pre - test information 11.67, consequently it shows the viability of STP.

Frequency & percentages appropriation of members dependent on degree of information during pre - test and post - test in trial bunch. The recurrence and rates of members dependent on information level of asthmatic customers at pre - test and post - test.

It uncovered that in the test bunch all the member at pretest 56.67 % were has a place with gentle 43.33% had moderate information level and 0% were has a place with serious where as in the post - test 0 % were has a place with gentle 30% are has a place with moderate information level and 70 % were has a place with extreme in the benchmark group.

Frequency & percentages conveyance of members dependent on degree of information mean post - test information 11.93, mean pre - test information 12, in control bunch henceforth it shows the viability of STP.

Larger part mean of post – test information score 11.93 in control bunch. Appearance the recurrence and rates of members dependent on information level of asthmatic customers at pre - test and post - test.

It uncovered that in the benchmark group all the member at pretest 60 % were has a place with gentle 40 % had moderate information level and 0 % were has a place with serious where as in the post - test 63.33 % were has a place with gentle, 36.67% are has a place with moderate information level.

In lion & #39; s share 60 % of the members moderate information level at pre - test and 63.33% of the members have moderate information level at post - test in the benchmark group.

Significant relationship ( $p < 0.001$ ), (HS: Highly – Significant)

Uncovered that there was genuinely significant contrast noted in the mean pre - test esteems (11.67) and mean post grade is (21.33) of information level ( $p < 0.001$ ) in the trial bunch.

Significant relationship ( $p < 0.05$ ), (NS: Non – Significant)

Exposed that there was measurably significant difference stated in the imply pre - test esteems (12) and mean submit grade is (11. ninety three) of data level ( $p > 0.05$ ) within the benchmark institution.

\*Significant relationship ( $p < 0.05$ ), (NS: Non – Significant)

Revealed that there was no measurably significant distinction noted in the mean qualities in control bunch (12) and in trial bunch (11.67) of information level ( $p > 0.05$ ) in the benchmark group. Significant relationship ( $p < 0.001$ ), (HS: Highly - Significant)

Uncovered that there was genuinely significant distinction noted in the mean qualities in control bunch (11.93) and in exploratory gathering (21.33) of information level ( $p < 0.001$ ) in the benchmark group ( $p < 0.05$ : substantial level, S: substantial, NS: Non - crucial)

1 suggests the affiliation between pre - trial of records level with their chose phase elements among asthmatic customers in test bunch. Chi square take a look at was figured to music down the vital relationship among submit - test statistics degree with their chose segment factors.

It uncovered that, in trial bunch there was no critical relationship between post - test level of information with their chose demographical variable  $p > 0.05$ .

Henceforth speculation H3 was not acknowledged. ( $p < 0.05$ : massive stage, S: full - size, NS: Non - massive)

In desk 4.2 suggests the association between pre - trial of information stage with their chose segment elements amongst asthmatic customers in control bunch. Chi rectangular check turned into processed to music down the big dating among post - check statistics level with their selected segment elements.

It uncovered that, in Control bunch there was no huge relationship between post - test level of information with their chose demographical variable  $p > 0.05$ . Subsequently speculation H3 was not acknowledged.

### 3. Discussion

The findings of current study, based on the formulated research hypothesis, objectives, and theoretical based literature. Thus the major results analysis of data are as follows: -

### 4. Conclusion

The findings of the study revealed that there was a marked increase in the overall knowledge score of post - test than pre - test score which represents the effectiveness of structured teaching programme.

### 5. Introduction

Asthma means difficult to take breath, it's a major health

problem and prevention. Asthma management is a world's major plan for asthma to manage and prevent from Chronic inflammation of the airway that increase severe responsiveness, wheezing sound, difficulty breath and feeling tightness in the chest. This respiratory disorder is a spasm in bronchi of the lungs and it makes hard when person take breath. The symptom of asthma is coughing, wheezing sound and shortness of breath this can attack any age and the tendency to develop the condition is often inherited. Asthma is one of the most common long term disease in the world wide. It considerable high morbidity rete in the hospital in adulthood and childhood

## 6. Background of the Study

Asthma is a chronic condition caused by inflammation of the airways in the respiratory system. There are many triggers to asthma such as allergies such as pollen, animal, ragweed, dust, stress, pollution respiratory virus such as cold or flu. Asthma may cause difficulty breathing, chest tightness, cough can occur at night during exercise with phlegm mild or severe or early morning. There are many complementary and alternative therapies used for asthma treatment. Asthmatic clients beliefs that breathing exercises are good perception to communicate between health professionals and client's. According investigator felt that addressing the patient's knowledge will help to focus on breathing exercises to manage asthmatic clients in hospital.

## 7. Need of the study

Prevalence of asthma has increased in many countries even though chronic respiratory burden is either preventable or treatable with affordable low cost of interventions.

Konstantin Buteyko Ukrainian (born1923) He was first scientist who describe the mechanism of breathing techniques on asthmatic clients in 1962 after he filled in as chief in the examination research center of utilitarian diagnostics in Siberian part of the foundation of clinical science establishments of test science and medication, Novosibirsk.

Six breathing technique exercises medically reviewed by Adyta cattamanchi MD written by Stephanie Watson - up dated on oct.18, 2019.

- Buteyko breathing.
- Diaphragmatic breathing.
- Nasal Breathing.
- The pap worth method.
- Pursed lip breathing and
- Yoga.

## Subjects and Methods

- **Setting of the study** - Selected hospitals Moradabad
- **Sampling technique** - Non probability purposive sampling technique. □ Population
- **Target population:** Asthmatic clients.
- **Accessible population:** Asthmatic clients with bronchial asthma selected hospital of Moradabad.

- **Sample:** Asthmatic clients with bronchial Asthma at selected hospitals of Moradabad
- **Sample size:** Sample size will be determined by power analysis procedure, based on pilot study.

## Description of Tool:

### Structured Questionnaire

**Part A:** - Consists of socio - demographic characteristic (contains 6 questions which include age, gender, marital status,, education, occupation, Marital status). **Part B:** - Structured questionnaire (contains 25 multiple choice questions regarding asthma and breathing exercises) to assess knowledge regarding Bronchial asthma and breathing exercises among asthmatic clients.

## References

- [1] Mike Thomas, Anne Bruton, "Breathing exercises for asthma"2014 10: 312 - 322; DOI: 10.1183/20734735.008414
- [2] Masoli M, Fabian D, Holt S, et al. The global burden of asthma: executive summary of the GINA Dissemination Committee report. *Allergy* 2004; 59: 469–478. CrossRefPubMed Google scholar
- [3] Barnes PJ, Jonsson B, Klim JB. The costs of asthma. *Eur Respir J* 1996; 9: 636–642. Abstract Google Scholar
- [4] Chung KF, Wenzel SE, Brozek JL, et al. International ERS/ATS guidelines on definition, evaluation and treatment of severe asthma. *Eur Respir J* 2014; 43: 343–373. Abstract/FREE Full Text: Google Scholar
- [5] Spinhoven P, Peski - Oosterbaan AS, Van der Dooes AJ, et al. Association of anxiety with perception of induced bronchoconstriction in patients with asthma. *Thorax* 1997; 52: 149–152. Abstract - Google scholar
- [6] Holloway EA, West RJ. Integrated breathing and relaxation training (the Papworth method) for adults with asthma in primary care: a randomised controlled trial. *Thorax* 2007; 62: 1039–1043.
- [7] Opat AJ, Cohen MM, Bailey MJ, et al. A clinical trial of the Buteyko breathing technique in asthma as taught by a video. *J Asthma* 2000; 37: 557–564. - Cooper S, Osborne J, Newton FS. Effect of two breathing exercises (Buteyko and pranayama) in asthma: a randomised controlled trial. *Thorax* 2003; 58: 674–679 Google scholar review

## Obj 2: To assess the level of information on breathing exercise between experimental or control asthmatic patients in selected hospital

Experimental group	Min - Max	Mean	Mean %	SD	CV
Pre - test	4-15	11.67	46.68	3.1	26.56
Post - test	14 - 25	21.33	85.32	3.61	16.92

CV is coefficient of variation i.e. % deviation

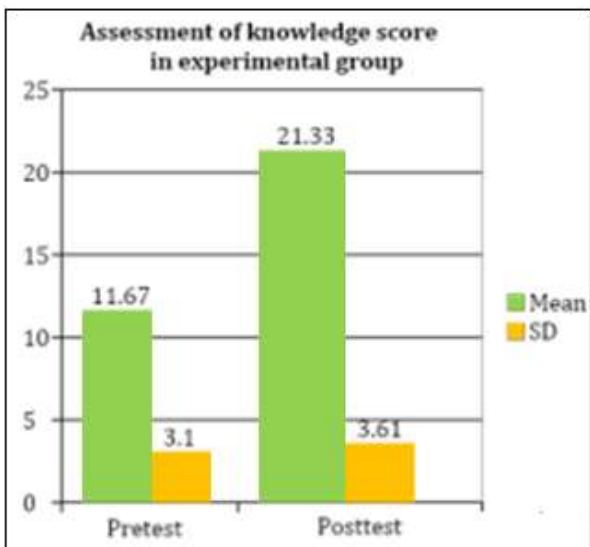
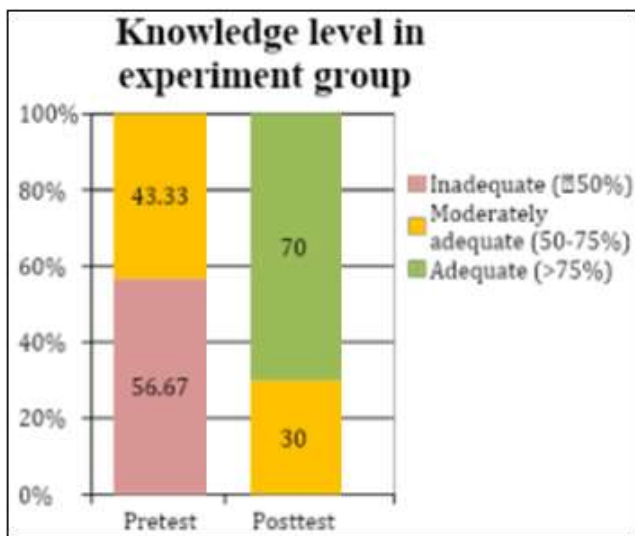


Table 2.2 Frequency & percentages circulation of members dependent on degree of information mean post - test information 21.33, mean pre - test information 11.67. Table 2.2 Frequency & percentages appropriation of members dependent on degree of information during pre - test and post - test in experimental group

Experiment group	Knowledge level			Total
	Mild 50%	Moderate 50 - 75%	High 75%	
Pre - test	17 (56.67%)	13 (43.33%)	0 (0%)	30 (100%)
Post - test	0 (0%)	9 (30%)	21 (70%)	30 (100%)



In table 2.2 and fig 2.2 showing the frequency and percentages of participants based on knowledge level of asthmatic clients at pre - test and post - test. It revealed that in the experimental group all the participant at pretest 56.67 % were belongs to mild 43.33% had moderate knowledge

level and 0% were belongs to severe where as in the post - test 0 % were belongs to mild 30% are belongs to moderate knowledge level and 70 % were has place to severe in the control group.

Table 2.3: Frequency & percentages distribution of participants based on level of information during pre - test and post - test in control bunch

Control group	Min - Max	Mean	Mean %	SD	CV
Pre - test	5-18	12	48	3.39	28.25
Post - test	7-17	11.93	47.72	3.3	27.66

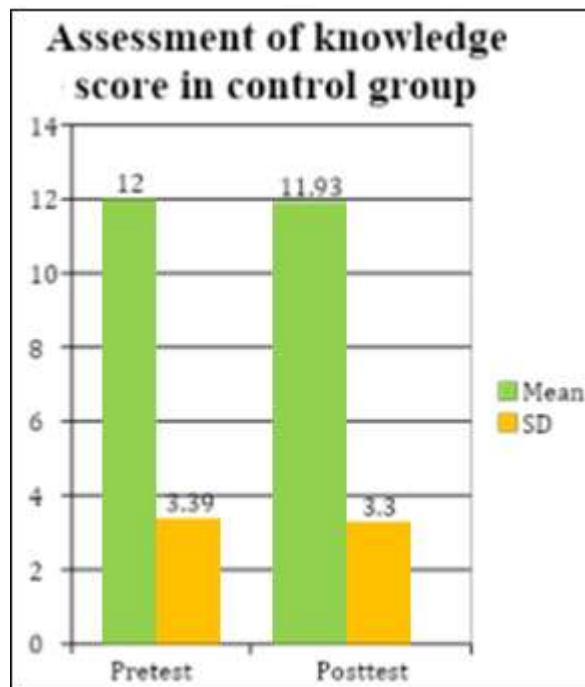
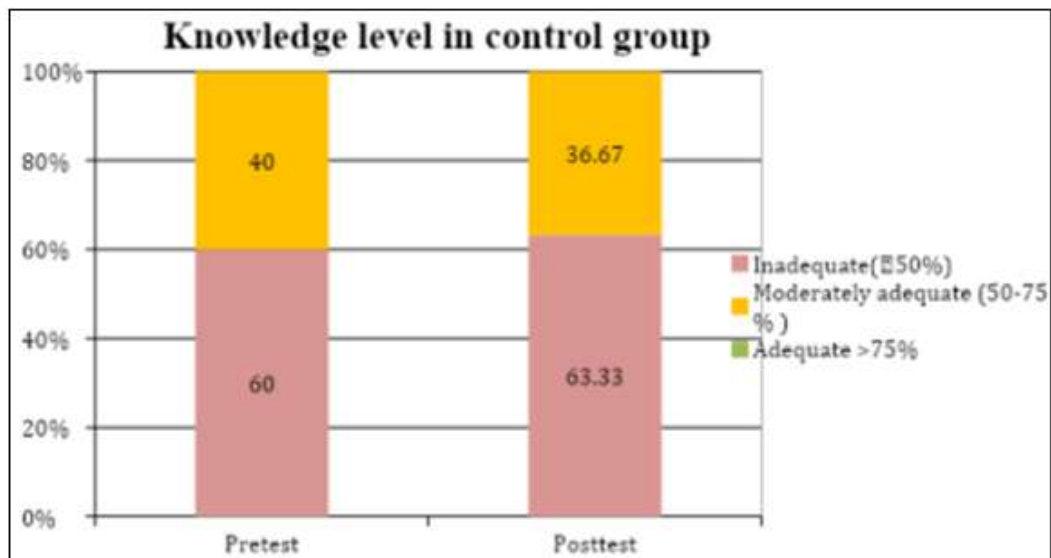


Table 2.2 Frequency & percentages appropriation of members dependent on degree of information mean post - test information 11.93, mean pre - test information 12, in control bunch thus it shows the viability of STP.

Majority mean of post - test information score 11.93 in control bunch.

2.4 Frequency & percentages distribution of participants based on level of information during pre - test and post - test at control group

Control group	Mild 50%	Moderate High 50 - 75% 75%	Total
Pre - test	18 (60%)	12 (40%) 0 (0%)	30 (100%)
Post - test	19 (63.33%)	11 (36.67%) 0 (0%)	30 (100%)



**Table 2.2 & Fig 2.2** showing the frequency and percentages of participants based on knowledge level of asthmatic clients at pre - test and post - test. It revealed that in the control group all the participant at pretest 60 % were belongs to mild 40 % had moderate knowledge level and 0 % were belongs to severe where as in the post - test 63.33 % were belongs to mild, 36.67% are belongs to moderate knowledge level.

In majority 60 % of the participants moderate knowledge level at pre - test and 63.33% of the participants have moderate knowledge level at post - test in the control group.

### Acknowledgement

No one who achieves success does so without acknowledgement the help of others. The wise and confident acknowledge this help with gratitude.

This thesis owes its existence to the help, Support and inspiration of several people. This thesis has been kept on track and been seen though to completion with support and encouragement of numerous people including almighty, my teachers, my family, Friend and well wishers. There are several hands and hearts behind this work to bring it to this final shape for which I would like to express my gratitude.

"I am grateful to the almighty GOD for bestowing upon me his grace, blessing, strength, guidance, wisdom, love and protection throughout this endeavour." I am indebted to honourable chancellor **Shri. Suresh Jain**, Teerthankar Mahaveer University for his motivation, vision and inspiration is providing us an opportunity to study in this esteemed institution by being a philanthropist with a profound sense of responsibility and immense contribution to society through various educational programmes.

I express my sincere thanks and appreciation to **Shri. Manish Jain**, Group vice Chairman of Teerthankar Mahaveer University, Moradabad for providing me the opportunity to conduct this study and who had to bear a heavy load of responsibility and concern and selfless spirit. I express my gratitude and sincere thanks to **Prof. Raghuvveer Singh**, Honourable vice chancellor, Teerthankar

Mahaveer University, Moradabad, U. P. for providing me the opportunity and from whom I had inspired for undertaking this research project.

We are thankful to beloved **prof. Dr. Shreenath Kisanrao Kulkarni**, principal, Teerthankar Mahaveer College of Nursing who has initiated, motivated, guided and supported us all the way throughout our research study.

I would like to express my thanks of gratitude to **prof. Jasline M**, vice principal, and HOD of medical surgical nursing, Teerthankar Mahaveer College of Nursing, Teerthankar Mahaveer University, Moradabad, U. P. who helped us a lot in finalizing this dissertation within the limited time frame.

As a part of accomplishment, I am thankful to my **guide, Mrs. M jasline** vice principal, Research co - ordinator, Teerthankar Mahaveer College Of Nursing, I am also thankful to my **co - guide, Mr. Jitendra singh** Associate professor, Teerthankar Mahaveer College Of Nursing.

We are deeply thankful to **Mr. Libin Joseph** Associate professor, Research co - ordinator, Teerthankar Mahaveer College Of Nursing, For this guidance, Constant encouragement and support given during the study.

I am thankful to all the **Faculty of Teerthankar Mahaveer College Of Nursing**, TMU for their timely advice, encouragement and support.

I have much desire of expressing my amusing appreciation and thanks to all the **asthmatic clients** who participated in this study with interest and cooperation.

I express my whole hearted gratitude and immense love to my lovable phupee **Mrs. Sona john** and **Mrs. Heera John** for their loving support, encouragement, earnest prayers, which enabled me to accomplish my study.

At final note, I extend my thanks to all those who have been directly and indirectly associated with my study at various stages not mentioned in this acknowledgement