



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BREATHING EXERCISES AMONG BRONCHIAL ASTHMA PATIENTS IN SELECTED HOSPITALS AT UDAIPUR CITY.

Nursing Science

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ABSTRACT

A one group pre-test and post-test pre- experimental study to assess the effectiveness of structured teaching programme on knowledge regarding breathing exercises among bronchial Asthma patients. The sample consists of 54 bronchial asthma patients admitted in MBGH Udaipur and TB and Chest hospital Badi. Who were selected by purposive sampling technique. The data was collected prior to and after the structured teaching programme by self-administered structured knowledge questionnaire. The mean post-test knowledge score of bronchial asthma and breathing exercises was higher(62.80%) than mean pre-test knowledge scores(31.32%) indicating that the structured teaching programme was effective in increasing the knowledge of bronchial asthma patients regarding bronchial asthma and breathing exercises.

KEYWORDS

Knowledge, Effectiveness, Structured teaching programme, breathing exercises.

I. INTRODUCTION

All living organism needs air for the survival. It's one of the basic psychological needs of the human beings. The psychological need of the human body is maintained by the respiratory system. Our body needs a constant supply of oxygen to support the metabolic need.

The respiratory system brings oxygen through the airways of the lungs into the alveoli where it diffuses, into the blood for transport to the tissues. This process is so vital that difficulty in breathing is experienced as a threat of life itself. (Black 2001)

In developing countries like India air pollution is common due to industrialization. Air pollution is common causes for the respiratory problems. Chronic respiratory problems include asthma, chronic bronchitis, emphysema and cystic fibrosis. Asthma is the most common lung disease for which pulmonary rehabilitation is needed. (WHO 2000)

Asthma is a lung disease characterized by airway obstruction, inflammation and increased responsiveness to a variety of stimuli. The airway obstruction may resolve spontaneously or with treatment. Some of patients it may not resolve completely. The clinical course of asthma is unpredictable ranging from paroxysms of dyspnea, wheezing and cough. This may be mild, and difficult to detect to severe and unremitting symptoms such as status asthmatics.

II. Research Elaborations

Statement of problem –

“A Study to assess the effectiveness of structured teaching programme on knowledge regarding breathing exercises among bronchial Asthma patients in selected hospitals at Udaipur city”

III. OBJECTIVES

- To assess pre-test knowledge scores regarding breathing exercises among bronchial asthma patients.
- To develop and administer structured teaching programme regarding knowledge on breathing exercises among bronchial asthma patients.
- To assess the effectiveness of Structured teaching programme on knowledge regarding breathing exercises.
- To find out the association between mean pre-test knowledge scores and selected socio-demographic variables.

IV. Hypothesis

- H_{01} - There will be no significant difference between pre-test and post-test knowledge scores regarding breathing exercises among Bronchial Asthma Patients.
- H_{02} - There will be no association between pre-test knowledge scores and socio-demographic variables regarding breathing exercises among bronchial asthma patients.

V. MATERIALS AND METHODS

Population – bronchial asthma patients

Sample – bronchial asthma patients of MBGH, Udaipur and TB Hospital, Badi.

Sampling Technique - purposive sampling technique

Sample size – 54 bronchial asthma patients

Setting – MBGH, Udaipur and TB Hospital, Badi, Udaipur, Rajasthan, India

Conceptual framework –

The theoretical framework of the present study is based on concept of general System's theory by Von Bertalanffy. According to the theory, to achieve a system is a group of elements that interact with one another in order the goal. This system depends on the quality and quantity of the input, throughput, output and feedback. The input consists of information material or energy that enters the system, after the input is observed by the system. It is processed in a way useful to the system. This information is called throughput / process. The output form a system of energy, matter or information given out by the system as a result of its process, feedback is the mechanism by which some of the output of a system is returned to the system as input.

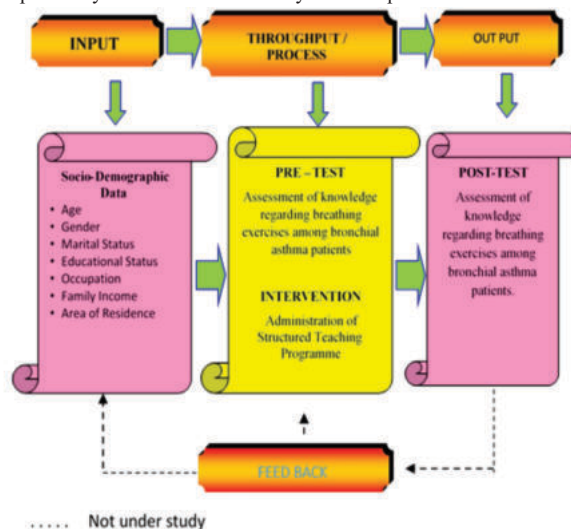


Figure 1.1 Modified Conceptual Framework Based on the Von Bertalanffy

VI. Research Design

Research approach adopted in this study was Pre- Experimental design- one group pre test and post test design.

Table 3.1: Pre-Experimental One Group Pre-Test Post-Test Design.

Pre-test	Intervention	Post test
O1	X	O2

The interpretations of the symbol are as below:

O₁=Pre-test, X= Intervention (STP), O₂= Post-test.

Ethical Consideration

After obtaining permission from research committee of RNT Medical College Udaipur, permission was obtained from Medical superintendent of MBGH Udaipur and TB Hospital, Badi, Consent was taken from each respondent who had participated in the study.

Description Of The Tool

The tool consisted of two sections:

Section I:

Consisted of selected Socio-demographic variables which include age, gender, educational status, occupation, family income, marital status and area of residence.

Section II:

Consist of structured knowledge questionnaire on bronchial asthma and breathing exercises. This section consists of 25 items on selected aspects.

Each items had only one correct response and each correct response had scored one. The total possible score of the structured questionnaire was 25. The same questionnaire was used for the assessment of knowledge level in pre- test and post- test.

VII. RESULTS

Table: 4.10 Effectiveness of STP on Knowledge Regarding Bronchial Asthma and Breathing Exercises
N=54

S. No.	Knowledge	Pre-Test		Post-Test		Mean difference	t-value	DF	Level of Significance
		Mean	SD	Mean	SD				
1	Bronchial Asthma	4.2	1.62	6.7	1.77	2.5	10.66	53	S
2	Breathing exercises	3.6	2.0	8.9	2.10	5.3	16.68	53	S

S= Significant P<0.001

Table 4.10 and Figure 4.8 revealed that the mean pre-test knowledge scores regarding Asthma was 4.2 with SD 1.62. The mean post-test knowledge scores regarding Asthma was 6.7 with SD 1.77 and mean difference was found to be 2.5. The mean pre-test knowledge scores in the area of knowledge regarding breathing exercises was 3.6 with SD 2.0. The mean post-test knowledge scores in the area of knowledge regarding breathing exercises was 8.9 with SD 2.10 and mean difference was found to be 5.3.

Table 4.11 Comparison of Mean Pre-Test and Post-Test Knowledge Scores
N=54

	Mean	Mean (%)	SD	Df	t-value	Level of Signify.
Pre-test	7.83	31.32	3.17	53	16.99	S
Post-test	15.7	62.8	3.55			

S= Significant P<0.05

Table 4.11 and Figure 4.9 revealed that the mean pre-test knowledge scores was 7.83 with SD 3.17 and mean percentage was 31.32%. The mean post-test knowledge scores was 15.7 with 3.55 and mean percentage was 62.8%.The calculated t-value was 16.99 at df 53. Statistical analysis showed that there was significant difference between mean Pre- test knowledge scores and Post- test knowledge scores. Hence H₀: There will be no significant difference between mean pre-test and post-test knowledge scores regarding breathing exercises among Bronchial Asthma Patients was rejected.

VIII. CONCLUSION

The overall mean pre-test knowledge scores regarding breathing exercises was 31.32%.The overall mean post-test knowledge scores regarding breathing exercises was 62.8%.Enhancement overall mean knowledge scores was 31.48%.The paired t-test value was 16.99.There was significant difference between mean pre-test knowledge scores and post-test knowledge scores.There was no

significant association between mean Pre-test knowledge scores and socio- demographic variables (gender ,marital status, monthly income, area of residence and occupation) but there was significant association between mean Pre-test knowledge scores and socio- demographic variables (age and educational status).

IX. REFERENCES

1. Ashi Jas "Breathing exercise for asthma patient", www.yourasthmaitreatment.com
2. Pamela Becker: "Nursing care in obstructive pulmonary disease". Medical-Surgical nursing fourth edition 1996; 682-684
3. B.T Basavanthappa: "respiratory Nursing". Medical-Surgical Nursing first edition; 2003; 169-71
4. Editorial "Asthma are you control" Health screen; October 2006; 10-16
5. SubhraSircar "Breathe esy" Times of India; May 2004
6. Carlin kishner; Lean Allen Colley; "Breathing exercise and Ventilatory Training", Text Book of Therapeutic Exercise: 2002; 749-50
7. Scichilone N et, al, "Inhaled Corticosteroids and the beneficial effect of deep inspiration in Asthma", Am J Respir Crit Care Med., 15 September 2014; 172(6):693-9
8. Ritz et, al, "2014 Relaxation Therapy in Adult Asthma. Is there new evidence foreffectiveness", Behavior modification: 25, 640-66.
9. Holloway, "Breathing exercise for Asthma", Respir Med., 2013 May; 97(5): 501-7.
10. Ram F S, "Breathing returning for Asthma". Cardiopulmrehabli, 2014 Jan -Feb; 22(1): 7-21.
11. Black L D , "Relating maximum airway dilation and subsequent reconstruction to reactivity in Human lungs", J Appl Physiol, 2014 may; 96(5); 1808-14.
12. Thorpe C W, "Modeling airway resistance dynamics after tidal and deepinspirations", J Appl Physiol., 2012 Nov; 97(5); 1643-53
13. Wang L , "Deep inspiration and airway smooth muscle adaptation to length change", Respir Physio. Neurobiol, 2012 sep 16; 137(2-3).
14. Prakasamma, M. and Bhaduri; Journal Abstract: 'A study of yoga as a nursing intervention incase of patient with pleural affusion' A "Journal of Advanced Nursing" 9(2), 127-133. 3-2014
15. SladerCA, "Double blind control trial of two breathing techniques in management of asthma". Thorax 2013 Sep; 62 (9) : 835
16. Cooper S, "Effect of breathing exercises in asthma randomized controlled trial". Thorax. 2013 Aug; 58 (8) :674-90
17. Von Steinecker, "Pilot study on breathing therapy in group of patients with bronchial asthma". ForschKomplementarmed. 2012 Apr; 14 (2):86-91.
18. Prys-Picards C.O , "Disproportionate breathlessness associated with deep sighing breathing in a patient presenting with difficult-to-treat asthma" Chest 2012 Dec; 130 (6) : 1723-5.
19. Gyorik S.A, Brutsche M.H, "Complementary and alternative medicine for bronchial asthma: is there new evidence". CurrOpinPulm Med. 2013 Jan; 10 (1):37-43.
20. Bruton A, Holgate S.T, "Hypocapnia and asthma: mechanism for breathing retraining?" Chest 2013 May; 127(5): 1808-11.