



## Effectiveness of video assisted teaching on knowledge and practice of using metered dose inhaler with spacer among Patients with bronchial asthma.

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Received 21 May, 2015; Accepted 05 June, 2015 © The author(s) 2015. Published with open access at [www.questjournals.org](http://www.questjournals.org)

**ABSTRACT:** Patient education is becoming an essential area of service provision, with our increasing population of people with chronic diseases and conditions requiring long-term management in the community. Bronchial Asthma is one of the chronic inflammatory disorders of the airways in which inflammation causes varying degrees of obstruction in the airway. In Asia, the prevalence of asthma varies between 2% and 23% in western countries. Nurses have a unique responsibility as front line care givers and patient educators to recognize assess and effectively treat the widespread problem of uncontrolled asthma. Hence the researcher felt the need for conducting a study to assess the effectiveness of video assisted teaching on knowledge of asthma and practice regarding metered dose inhaler with spacer among patients with asthma. The study result shows that in pre-test 77% of patient had moderate level of knowledge, 23% had inadequate level of knowledge and in post-test 92% of adequate knowledge and only 8% had moderate knowledge. Regarding practice ,the results shows that in pre-test 60% of patient had poor practice, 40% had moderate practice and in post-test they improve their practice to 92% of excellent practice and 8% of moderate practice. The study result also reveals that the mean post test practice score (8.50) was higher than the mean pre test score (5.10). The t value shows that there was a significant difference between the two mean practice score. This indicates video assisted teaching is effective in increasing the practice of using metered dose inhaler with spacer in bronchial asthma patients. The result shows that the age ( $x^2=4.596$ ), patient education status ( $x^2=2.59$ ) and occupation( $x^2 =6.37$ ) have significant association with the post test score at 0.01 level. The study result also shows that there was a moderately positive correlation between knowledge and practice of using meter dose inhaler with spacer at 0.05 level.

**Keywords:** Video Assisted Teaching, Knowledge, Practice, MDI with spacer, Bronchial Asthma Patients.

### I. INTRODUCTION

Bronchial Asthma is one of the chronic inflammatory disorders of the airways in which inflammation causes varying degrees of obstruction in the airway. A large number of patients still experience a high level of morbidity. According to WHO report the people suffer from asthma at worldwide is about 235 million. The number of asthma patients has increased by nearly 10% in the last two years. In India, an estimated 57,000 deaths were attributed to asthma in 2004 and it was seen as one of the leading cause of morbidity and mortality in rural India. Asthma's increasing prevalence, severity, and associated medical costs have triggered interest in new physiological and psychological intervention strategies, including self-management such as breathing-exercise techniques, inhaler technique in administering medicine, group and family therapy. Educational and self-management programs have shown positive results in terms of reducing asthma signs/symptoms, school absenteeism, number of days of restricted activity, and improved lung function.

### II. OBJECTIVES

- To assess the pre-test and post-test level of knowledge and practice of using metered dose inhaler with spacer among bronchial asthma patients.

- To assess the effectiveness of video assisted teaching on knowledge and practice of using metered dose inhaler with spacer among bronchial asthma patients.
- To correlate post test level knowledge on using metered dose inhaler with spacer and practice of using metered dose inhaler with spacer among bronchial asthma patients.
- To associate the post-test level of knowledge and practice using meter dose inhaler with spacer and with selected demographic variables among bronchial asthma patients.

### III. METHODS

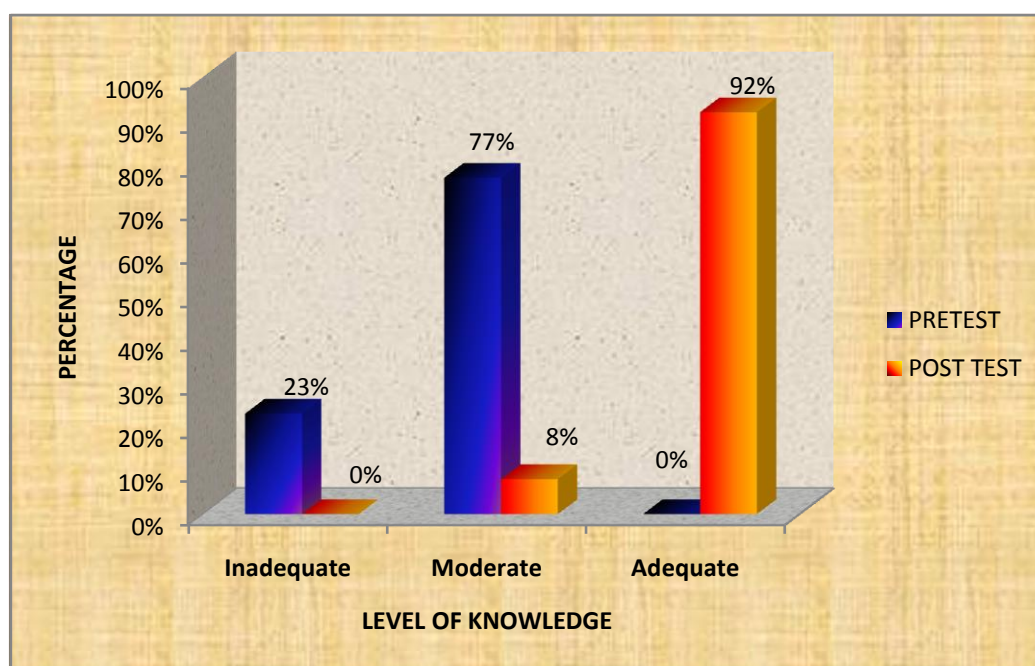
The Conceptual framework used in this study was Wiednbach's Helping Art of clinical nursing Theory. A quantitative evaluative approach, one group pre-test post-test design was used for the present study. Using purposive sampling technique 40 samples were selected from pulmonary medicine OPD, Chettinad Hospital and Research Institute, Kelambakkam. The tool used was structured knowledge questionnaire and practice assessment tool and Video assisted teaching on knowledge and practice of using metered dose inhaler with spacer. The collected data was analyzed using descriptive and inferential statistics.

### IV. DATA COLLECTION AND ANALYSIS

The study was approved by the Institutional Human Ethical Committee prior to the conduction of study. The aim of the study was explained to the study participants and informed consent was obtained by explaining in their own vernacular language. Descriptive statistics like mean, frequency, percentage were used for demographic data. Effect of video assisted teaching was evaluated by paired 't' test and correlation assessed by Karl Pearson correlation coefficient and association of post test level of knowledge and practice of using MDI with spacer with demographic variables was done using Chi square test. And 'P' value less than 0.05 was considered as statistically significant.

### V. RESULTS AND DISCUSSION

The study result shows that in pre-test 77% of patient had moderate level of knowledge, 23% had inadequate level of knowledge and in post-test 92% of adequate knowledge and only 8% had moderate knowledge. Regarding practice, the results shows that in pre-test 60% of patient had poor practice, 40% had moderate practice and in post-test they improve their practice to 92% of excellent practice and 8% of moderate practice. The study result also reveals that the mean post test practice score (8.50) was higher than the mean pre test score (5.10). The t value shows that there was a significant difference between the two mean practice score. This indicates video assisted teaching is effective in increasing the practice of using metered dose inhaler with spacer in bronchial asthma patients. The calculated t value (16.10) is greater than the table value (8.09) at 0.01 level.



**Figure 1: Percentage distribution of sample according to their Pre test and post test level of Knowledge of using metered dose inhaler with spacer.**

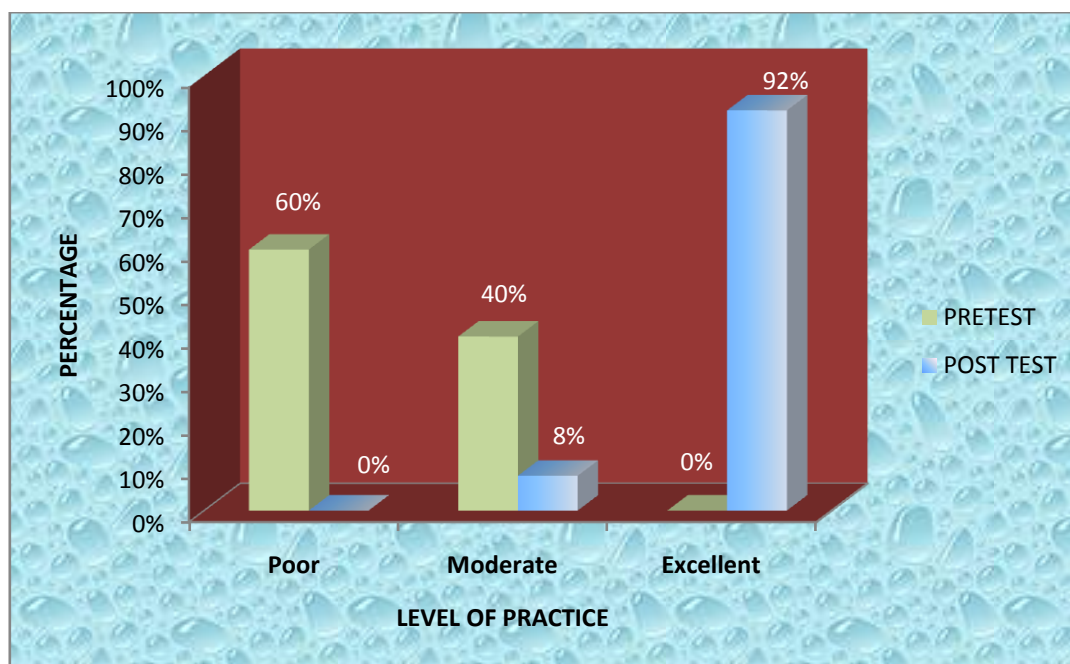


Figure 2: Percentage distribution of sample according to their Pre test and post test level of Practice of using metered dose inhaler with spacer.

Correlation between the post test level of knowledge and practice of using metered dose inhaler i.e. “r” value was 0.640. The study result shows that there was a moderately positive correlation between knowledge and practice of using meter dose inhaler with spacer at 0.05 level. The study result shows that the patient education status ( $x^2=2.59$ ) and occupation( $x^2=6.37$ ) have significant association with the post test knowledge score at 0.01 level. The result also depicts that the age ( $x^2=4.596$ ), patient education status ( $x^2=2.59$ ) and occupation( $x^2=6.37$ ) have significant association with the post test practice score at 0.01 level. Hence  $H_0$  is rejected and the research hypothesis is accepted.

## VI. IMPLICATIONS FOR NURSING PRACTICE AND RESEARCH

The present study will enable, nurses to apply theory into practice as the use of metered dose inhaler with spacer are currently playing major part in management of asthma and use this in their daily practice for patients to reduce the acute asthmatic attack. There is a need for extensive and intensive research in this area to provide evidence based care.

## VII. CONCLUSION

The result from this study reveals that the knowledge and practice of using metered dose inhaler with spacer among patient with bronchial asthma was inadequate and moderately adequate. This has to be taken into consideration. There may be many reasons for patients’ inadequacy in knowledge and practice of using metered dose inhaler, which can be improved upon. Video assisted teaching is one of the effective method in increasing the knowledge and practice regarding use of metered dose inhaler with spacer among patient with bronchial asthma. The findings of the study revealed a significantly increased in the post test knowledge and practice scores after administration of video assisted teaching.

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