



EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF BRONCHIAL ASTHMA AMONG THE WORKERS IN SELECTED CEMENT INDUSTRY.

Ajaya Ghosh R U*

Staff Nurse, Department of Nursing, AIIMS Bhubaneswar, Bhubaneswar
*Corresponding Author

Athuldev Thulaseedharan

Junior Lecturer, Department of Medical Surgical Nursing, Govt College of Nursing, Thiruvananthapuram

Shinedev Thulaseedharan

Nurse Educator, Pediatric Hospital, Nursing Staff Development Department, King Saud Medical City, KSA

ABSTRACT

The present study evaluated the effectiveness of structured teaching programme on knowledge regarding the prevention of bronchial asthma among the workers in selected cement industries at Hassan district. The research approach adopted for this study was experimental in nature. The objective of study was to determine the level of knowledge of cement workers regarding the prevention of bronchial asthma. A pre-experimental single group pre-test post-test design was used to evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of bronchial asthma among cement workers. The sample consisted of 60 cement workers, who were available at the time of study. Non-Probability sampling method by purposive sampling technique was used for the selection of samples. The data obtained were analyzed by using descriptive and inferential statistics. The results indicated that cement workers had inadequate knowledge in various aspects of prevention regarding bronchial asthma. Structured teaching programme was found to be a very effective method of providing information regarding prevention of bronchial asthma. The mean post-test level of knowledge was significantly higher than the mean pre test knowledge scores and that were 32.21% for pre test and 61.71% for post test.

KEYWORDS : Bronchial Asthma Prevention; Cement workers; Structured Teaching Programme; Evaluate; Effectiveness; Knowledge

Introduction

Asthma, a Greek word meaning- "panting", is a common chronic inflammatory disease of the airways characterized by variable and recurring symptoms, reversible air flow obstruction, and bronchospasm. Symptoms include wheezing, coughing, chest tightness, and breathlessness. Asthma attacks all age groups irrespective of the gender. The immediate effect of air pollution is on human respiratory system which causes asthma, bronchitis and later may progress to chronic obstructive pulmonary disease. The workers in the industries are facing same health problem in larger amount when compared with the common non working men. The health of the industrial workers in large measure will be influenced by conditions prevailing in their work place. One of the declared aims of occupational health is to provide a safe 'occupational environment' in order to safe guard the health of workers and to step up industrial production. Out of 11 million cases of occupational diseases in world 1.9 million cases, 17%, are contributed by India and out of 0.7 million death in the world 0.12 million is from by India. The Cement industry is one of the fastest developing sectors and India is a biggest exporter of cement to foreign countries. So evaluating the cement workers knowledge can bring changes in the bronchial asthma prevention among workers.

Methodology

The present study was conducted among cement workers of The Hemavathi Spun Concrete Pipes Hassan District of Karnataka. The population for the study was 60 cement workers. In the present study non -probability sampling method by purposive sampling technique was used. Socio-demographic variables such as age, sex, type of family, educational status, religion, monthly income, residence, sources of information, duration of work and years of exposure. The instrument for data collection has three parts; SECTION A: Consist of socio-demographic data. It contains 10 items such as age, sex, religious status, place of residence, educational status, family income, exposure to mass media, type of family, duration of work per day and years of experience. SECTION B: Consist of 28 items (structured questionnaire) to assess the knowledge regarding prevention of bronchial asthma. It consists of the questionnaire with 28 items based on general aspects of

bronchial asthma, aetiology, signs and symptoms, treatment of bronchial asthma and preventive measures of bronchial asthma among cement workers. SECTION C: Consist of structured teaching programme on "prevention of bronchial asthma among cement workers". The data obtained was analyzed by using descriptive and inferential statistics in terms of frequency distribution, percentage, mean, standard deviation, paired 't' test and Chi-square test.

Results

- The results showed that Pre-test knowledge scores were 39%. Post-test knowledge scores were 73.87%. Further 't' value was computed to find out the significant difference between the pre-test and post-test scores. Therefore the findings revealed that subjects performed better after administration of structured teaching programme.

Table I : PRE TEST KNOWLEDGE SCORE ON DIFFERENT ASPECTS OF PREVENTION OF BRONCHIAL ASTHMA.

| Area of Knowledge | No of items | Range | | Pre-test Knowledge | | |
|---|-------------|-------|-----|--------------------|-------|--------|
| | | Min | Max | Mean score | SD | Mean % |
| General aspects Asthma | 07 | 0 | 5 | 2.47 | 0.982 | 35.29 |
| Etiology, signs & symptoms | 06 | 1 | 4 | 1.97 | 0.802 | 32.83 |
| Treatment of Bronchial Asthma | 01 | 0 | 1 | 0.28 | 0.454 | 28.00 |
| Preventive Measures of Bronchial Asthma | 14 | 2 | 8 | 4.30 | 1.139 | 30.71 |

Table I shows the assessment of knowledge among cement workers in terms of pre test scores regarding various aspects on prevention of bronchial asthma. In general aspects of asthma the mean score is 2.47 with a mean percentage of 35.29 and a standard deviation of 0.982. In aetiology and signs and symptoms, the mean score is 1.97 with a mean percentage of 32.83 and a standard deviation of 0.802. In treatment of bronchial asthma the mean score is 0.28 with a mean

percentage of 28.00 and a standard deviation of 0.454. In preventive measures of bronchial asthma the mean score is 4.3 with a mean percentage of 30.71 and a standard deviation of 1.139.

Table II: DISTRIBUTION OF SUBJECTS ACCORDING TO PRE TEST LEVEL OF KNOWLEDGE

| Level of Knowledge | Frequency | Percentage |
|---------------------|-----------|------------|
| Moderately adequate | 40 | 66.7 |
| Inadequate | 20 | 33.3 |
| Total | 60 | 100 |

Table II describes pre test level of knowledge regarding prevention of bronchial asthma. In the pre test 66.7% of cement workers have moderately adequate knowledge, 33.3% of cement workers have inadequate knowledge and none of them have adequate level of knowledge.

Table 3: POST TEST KNOWLEDGE SCORE ON DIFFERENT ASPECTS OF PREVENTION OF BRONCHIAL ASTHMA.

| Area of Knowledge | No of items | Range | | Post-test Knowledge | | |
|--|-------------|-------|-----|---------------------|-------|--------|
| | | Min | Max | Mean score | SD | Mean % |
| General aspects of Asthma | 07 | 2 | 7 | 4.53 | 1.186 | 64.71 |
| Etiology, signs & symptoms | 06 | 2 | 6 | 3.73 | 0.954 | 62.17 |
| Treatment of Bronchial Asthma | 01 | 0 | 1 | 0.55 | 0.502 | 55 |
| Preventive Measures of Bronchial Asthma | 14 | 4 | 14 | 8.47 | 1.818 | 60.5 |

The table II reveals the assessment of knowledge among the cement workers in terms of post test scores regarding various aspects of prevention of bronchial asthma. In general aspects of asthma, the mean score is 4.53 with a mean percentage of 64.71 and a standard deviation of 1.186. In etiology, signs & symptoms, the mean score is 3.73 with a mean percentage of 62.17 and a standard deviation of 0.954. In treatment of bronchial asthma, the mean score is 0.55 with a mean percentage of 55 and a standard deviation of 0.502. In preventive measures of bronchial asthma, the mean score is 8.47 with a mean percentage of 60.5 and a standard deviation of 1.818.

Table 4: DISTRIBUTION OF SUBJECTS ACCORDING TO POST-TEST LEVEL OF KNOWLEDGE.

| Level of Knowledge | Frequency | Percentage |
|---------------------|-----------|------------|
| Adequate | 30 | 50 |
| Moderately adequate | 30 | 50 |
| Total | 60 | 100 |

The table IV exhibits the distribution of subjects according to post test level of knowledge. 50% of workers were having adequate knowledge and remaining 50% were having moderately adequate knowledge.

Discussion

The objective of the study was to determine the level of knowledge among cement workers regarding the prevention of bronchial asthma as measured by using a structured knowledge questionnaire. The study reveals that the workers in pre test were having a mean percentage score of 32.21% of knowledge regarding prevention of bronchial asthma measures in overall aspects. Pre test level of knowledge among workers shows that 66.7% of workers had moderately adequate knowledge and 33.3% of workers had inadequate knowledge. Considering the aspects of prevention of bronchial asthma they were having below average knowledge. Based on the above part of the study, findings of the post test

knowledge score among cement workers regarding prevention of bronchial asthma shows that workers got overall 61.71% score after structured teaching programme. Post test level of knowledge on prevention of bronchial asthma says that 50% of workers have adequate knowledge, 50% of them got moderately adequate and none of them have inadequate knowledge. Considering the post test scores, workers have shown adequate knowledge on all aspects.

Conclusion

Respiratory illnesses have significant effects on the lives of millions of people. The disease may affect different categories of population and common among industrial workers. Than cure, prevention is important for bronchial asthma among workers. From the data analysis and findings of the present study, it is concluded that there is significant difference between the pre test and post test knowledge on prevention of bronchial asthma measures among the cement workers. The mean knowledge score of the workers during the pre test is 32.21% whereas it was increased to a mean percentage score of 61.71% during the post test as an effectiveness of Structured Teaching Programme. The difference in the mean percentage score is 29.5%. Hence ongoing teaching and health education programs can further improve the knowledge of cement workers regarding asthma prevention.

Based on the findings of the study there is significant association between the knowledge score of cement workers with socio demographic variables educational status and exposure to mass media. There is no relation between socio demographic variables such as Age, Sex, Religious status, Place of residence, Family income, Type of family, Duration of work per day and Years of experience.

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