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Effectiveness of video assisted teaching programme on respiratory tract infection and its prevention among weavers

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Abstract

The levels of occupational health and safety, socioeconomic development of a country, quality of life and wellbeing of working people are not closely linked with each other but also influence each other but also influence each other. This suggests that intellectual and economic inputs on occupational health care are not burdens but have a positive and protective impact on the company and national economy. This occupational health is an important factors for sustainable socio-economic development that enables workers to enjoy a healthy and productive life both throughout their active working years and beyond, especially after their retirement. The present study aims to assess the effectiveness of video assisted teaching program on respiratory tract infection and its prevention among weavers. A quasi experimental research design was conducted among 60 weavers. The demographic data was collected using structured interview questionnaire. The pre-test knowledge was assessed using the structured questionnaire. The samples were given video assisted teaching on respiratory infection and its management and then after 2 days, the post test was done. The study results show that the level of knowledge considerably increased in the post test at $p<0.005$. This indicates video assisted teaching is cost effective and can be easily understood by the weavers to gain knowledge. The result of the study is it was concluded that that video assisted teaching is the effective and easy method to improve knowledge among weavers. The knowledge on prevention helps to reduce the morbidity rate of respiratory infection among weavers.

Keywords: Knowledge, weavers, respiratory tract infection

Introduction

Respiratory tract infection is an infection that may interfere with normal breathing. It can affect just your upper respiratory system, which starts at your sinuses and ends at your vocal chords, or just your lower respiratory system, which starts at your vocal chords and ends at your lungs. The levels of occupational health and safety, socioeconomic development of a country, quality of life and wellbeing of working people are not closely linked with each other but also influence each other but also influence each other. This suggests that intellectual and economic inputs on occupational health care are not burdens but have a positive and protective impact on the company and national economy. Some industries and countries have demonstrated that it is technically feasible and economically productive to prevent and minimize hazards at work. This occupational health is an important factors for sustainable socio-economic development that enables workers to enjoy a healthy and productive life both throughout their active working years and beyond, especially after their retirement [1, 2].

Cotton is a natural fibre used in production of cloth. When cotton is being processed it emits fine dust particles into the air. These particles are breathed into the lungs by the person working with the lungs by the person working with the fibre and develop a permanent decrease in their breathing ability. The cotton dust related disease is known as brown lung (or) byssinosis and effects of people in the textile industry who are exposed to large quantity of dust [3].

Inhalation of dust is an important causes of interstitial lung disease in the tropical countries, such as India. The occular and nasal irritation, byssinosis, chronic bronchitis, persistent cough, non byssinotic work related chest tightness are being the most common symptoms complained by both cotton and synthetic fibre textile workers and the prevalence rate was higher among cotton workers than synthetic fibre handloom workers.

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Occupational health is branch of community medicine which deals with the effects of occupation of work place on human health (park, 2009). Every occupation is associated with one or the ill effects on health, one such occupational group is cotton handloom workers [4, 5].

Indian journal of Occupational and environmental medicine (2018) Occupational health is a branch of community medicine which deals with the effects of occupation or workplace on human health. We have already seen that every occupation is associated with one or the other ill effects on health and cotton mill workers are not an exception to this fact. These workers are susceptible to various morbid conditions by virtue o workplace and working condition. These morbid conditions may range from chronic respiratory disease due to cotton dust inhalation to anaemia because of nutritional deficiency. Although many studies on chronic respiratory disease among cotton mill workers have been carried out, a study including complete health profile of cotton mill workers is limited and is need of further research [6].

Acute respiratory tract infections (ARTIs) considered as the most common acute illness in the general population, its related serious complication may results in significant mortality and morbidity specially in children, elderly and immunocompromised patients. The rate of morbidity and mortality is higher in developing countries. The problem is more serious in children under 5 years old [7].

According to the report of World Health Organization and global burden of disease study, it is estimated that ARIs are related to 112,900,000 disability adjusted life years and 325 million deaths. If would contain all respiratory tract infections each year [8].

The purpose of the study is [1] To assess the knowledge regarding respiratory infections and its prevention among weavers [2] To determine the effectiveness of video assisted teaching programme regarding respiratory tract infection and its prevention among weavers [3]. To associate between the post-test scores on knowledge regarding respiratory tract infection and its prevention among weavers.

Methods and materials

A quantitative approach with quasi experimental research design with pre-test and post-test was used to conduct the study among weavers. 60 samples were selected by using a conveinient sampling technique. The criteria for sample selection are Workers who are willing to participate in the study, Weavers who are working in the area. The exclusion criteria for the samples are people who are not willing to participate in the study, weavers who had already attended the program. The data collection period was done with prior permission from the industry. The purpose of the study was explained to the samples and written informed consent was obtained from them. The demographic data were collected using a semi structured interview questionnaire. The pre-test knowledge was assessed using the structured questionnaire. The samples were given video assisted teaching on respiratory infection and its management and then after 2 days, the post test was done. The data were analyzed using descriptive and inferential statistics. The sample characteristics were described using frequency and percentage. Pearson's co-relation coefficient was used to assess the effectiveness of video assisted teaching on respiratory tract infection. Chi square was used to associate the post-test level of knowledge with the selected demographic variables.

Results and discussion

Section A: Sample characteristics

Regarding age out of 60 sample, 11.6% samples were under the age group of 11-20, 30% sample were under age group of 21-30, 40% samples were under the age group of 31-40, 18.33% samples were under age group of 41-50. Regarding gender out of 60 samples, 26.67% samples were under the group of male, 73.33% samples were under the group of female. Regarding education out of 60 samples, 51.67% samples were no formal education, 10% samples were primary education, 18.33% samples were secondary education, 20% samples were graduate. Regarding period of working experience out of 60 samples, 6.67% samples were <5 years, 35% samples were 5-10 years, 58.33% samples were more than 10 years. Regarding type of family out of 60, 28.33% samples were nuclear family, 71.67% samples were joint family.

Section B: Frequency and percentage distribution of level of knowledge on weavers

Among 60 samples out of 49 sample (81.67%) have inadequate knowledge, 11 samples (18.33%) have moderate knowledge and 0 samples (0%) have adequate knowledge in pre-test. Among 60 samples out of 6(10%) have, moderate knowledge, 54 (90%) have adequate knowledge and none of them had inadequate knowledge in post-test. (Table 1)

Table 1: Frequency and percentage distribution of level of knowledge on weavers, (n=60)

Level of Knowledge	Pre Test			Post Test	
	Frequency	Percentage		Frequency	Percentage
Inadequate	49	81.67%	Inadequate	0	0
Moderate	11	18.33%	Medium	6	10%
Adequate	0	0	Adequate	54	90%

The study findings is supported by Sahar AhmedShafik (2018) A quasi experimental study was conducted among workers of spinning mills are exposed to many occupational hazards which may contribute to disease and work injuries. The results Show that two thirds of studied workers were exposed to respiratory disorders (65.7%and 62.8%). Nearly two thirds of the studied and workers had poor knowledge about different types of protective equipment occupational diseases in spinning mill, almost two thirds of the studied workers (67.1%) complained from musculoskeletal disorders, (56.1%) from hypertension. There were statistically significant difference between before implementation concerning workers health (*P*<0.01) [9].

Section C: Effectiveness of video assisted program on respiratory tract infection among weavers

Among 60 sample shows the mean score of knowledge for inadequate (7.021), moderate (17) and adequate (23.6) and standard deviation score for inadequate (2.284), moderate (0.89) and for inadequate (0.54) in pre test.

Among 60 sample shows the mean score of knowledge for moderate (21.5) and adequate (26.96) and standard deviation score for moderate (0.5774) and for inadequate(1.20) in post test.(table 2)

Table 2: Effectiveness of video assisted program on respiratory tract infection among weavers

Level of Knowledge	Pre-Test		Post-Test	
	Mean	Standard Deviation	Mean	Standard Deviation
Inadequate	7.02	2.28	0	0
Moderate	17	0.89	21.05	0.5774
Adequate	23.6	0.54	26.96	1.20

The present study is supported by George Jacob (2015) study evaluates the effectiveness of a Video assisted teaching programme on Prevention of Byssinosis among Cotton Textile workers. The video assisted teaching programme was given to enhance their knowledge regarding prevention of byssinosis. The post test was conducted after one week. Data was analyzed by using descriptive and inferential statistics. After the intervention, the mean knowledge & Attitude score was 66.3 which was higher than pre test mean knowledge & Attitude score (52.67) among the workers and the standard Deviation value in pre test was 5.52 & post test was 2.59 which was significantly improved ($p<0.05$). This shows that the video assisted teaching was highly effective in improving the knowledge of cotton textile workers towards prevention of Byssinosis [10].

Section D: Association between knowledge with selected demographic variables
The study shows that there is association between the demographic variables of weavers. There was statistically significant found in significant period of working and significant types of family

Conclusion
This indicates that video assisted teaching is the effective and easy method to improve knowledge among weavers. The knowledge on prevention helps to reduce the morbidity rate of respiratory infection among weavers.

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Author's contribution
All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

Conflicts of interest
The authors declare no conflicts of interest.

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