

“A Study to assess the effectiveness of planned teaching on knowledge regarding selected respiratory diseases among workers working in cotton mills of Sangli district”.

Mr. Swapnil Yakub Madrasi¹, Mrs. Shilpa Parag Satralkar²

¹M.Sc Nursing (Medical Surgical Nursing), Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India 416414. Email ID: swapnilmadrasi96@gmail.com

²Assistant Professor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India 416414. Email ID: shilpasatralkar56@gmail.com

ABSTRACT “A Study to assess the effectiveness of planned teaching regarding selected respiratory diseases on knowledge among workers working in cotton mills of Sangli district”.

Objectives of the study-

1. To assess the pre-test knowledge regarding respiratory diseases.
2. To assess the post-test knowledge regarding respiratory diseases.
3. To compare the pre-test knowledge with post-test knowledge score.
4. To find out the association between pre-test knowledge scores with demographic variables.

Hypothesis of the study-

Ho - There is no effect of planned teaching on knowledge regarding selected respiratory diseases.

H1 - There is effect of planned teaching on knowledge regarding selected respiratory diseases.

Research methodology:

The present study was carried out by using a quantitative research approach with Quasi-experimental one group-pre-test-post-test-design. In the present study the independent variable was planned teaching and dependent variable was Knowledge. The study was conducted at selected cotton mills of Sangli District. The samples were cotton mill workers of Sangli District. Researcher considered inclusion and exclusion criteria to select samples for the study. The appropriate sample size for a study was determined as per calculation was 120. Taking the factors into consideration those 120samples were selected for final data collection. Sampling technique used was the cluster method by using simple random sampling technique. Data collection was done using structured knowledge questionnaire and data was analysed using descriptive and inferential statistics

Results and Conclusion:

The findings of the study showed that, at the time of pre-test majority 52.5% of cotton mill workers had poor knowledge ,while 47.5 % had average knowledge regarding selected respiratory diseases. At the time of post-test, majority 87.5% of cotton mill workers had good knowledge while 12.5 % had average knowledge regarding selected respiratory diseases. In comparison of pre test and post-test knowledge score, The pre-test average score was 10.24 with S.D 2.24, while the post-test average score was 18.63 with S.D 2.0. The table value was 36.000416, while the value of 'p' was 0.00001, which is less than 0.05 and therefore H1 hypothesis was accepted . This indicates that the planned teaching was productive and showed an increase in the level of knowledge among cotton mill workers regarding selected respiratory diseases. The p value of the variables like age (0.355791), education (0.537944), work of experience (0.761489) of cotton mill workers was less than 0.05, hence there was no significant association of these demographic variables with the pre-test knowledge score regarding selected respiratory disease.

KEYWORDS: Knowledge, Respiratory diseases, Cotton mill workers, Demographic Variables, Prevention.

INTRODUCTION

Respiratory issues are one of the main health risks to NCOH, according to Staff in the cotton industry. In exposed workers, it contributes to certain systemic symptoms, in addition to a variety of other physical conditions, such as hearing loss or noise issues, Low back pain occurs with respiratory symptoms. Byssinosis is a respiratory illness caused by Cotton, flax, soft hemp employees and is classically defined as shortness of Breath; on the first day itself, cough and chest tightness emerge. Bronchial byssinosis and asthma will evolve then. It is noted that the maximum allowable level of noise for 8 hours in the workplace is the change is 90 dB, as recommended by the Ministry of Labour, the Government of India, Factories Act model laws, 1948 (corrected up to 31-03-1987), Occupational Law, 1948 (corrected up to 31-03-1987), OSHA (Organization for Protection and Health Administration) and the International Organization of Standardizing (ISO).

Continuous noise levels were revealed to the cotton mill workers. In the range of 89 to 106 db. This leads to a mild, moderate, moderately extreme level of impaired hearing. Approximately more than 30 million people in the year, the planet is vulnerable to dangerous noise in the office, and most people.

It was an accident. Occupational injuries occur from the joint action of both Therefore, environmental and human factors are dealt with separately. "Kurdish saying "Security is a state of mind - an absence of mind is an accident.

The relationship between man and his working environment can contribute to. Health enhancement, where work is fully tailored to individual needs and variables, or to illnesses Health, if it is beyond human resistance to job stresses. Workplace illnesses and Injuries arise from specific occupational exposure.

The key targets of occupational health programs are, according to the WHO. Promoting and achieving the highest degree of physical, behavioural and mental wellbeing Employ' social well-being in all professions. Prevention of health departures among employees triggered by their work.

The security of employees in the sense of their employment. For prosperity and sometimes for the survival of an individual, industrialization is important. Output is a nation's real wealth. Industrialization alone is not.

A appropriate, real advantage is given by the worker's continuous top output, which is only their good health will make it possible, Industrial employees represent only a segment of the workforce. The general population and the factors affecting the population's health are also

Industrial employees are similarly affected. Unquestionably, occupational health is a problem that calls for more expert and activist studies.

MATERIAL AND METHODS

In the study, quantitative research approach was used to assess the effectiveness of planned teaching regarding selected respiratory diseases among workers working in cotton mills of Sangli district. Pre-experimental one group pre-test-post-test research design was used. For assessing the knowledge and effect of planned teaching, one group was selected followed by pre-test and post-test on knowledge regarding selected respiratory diseases. The study consisted variables such as the independent variable i.e. planned teaching and dependent variable i.e. knowledge. It also includes demographic variables, that are as age, work of experience and education. Setting of the research study was selected cotton mills of sangli district. The population of the study were cotton mill workers. Workers who are willing to participate in study and Workers who understand Hindi, Marathi, English were included in the study while Workers who were absent at the time of data collection were excluded from the study. The sample size was calculated by using power analysis. The study consisted of 120 cotton mill workers. Probability Cluster Random Sampling method was used to select the samples.

The data collection tool consisted two sections. Demographic Variables of the cotton mill workers were included in first section while 21 multiple-choice questions with four choices were included in Second section. Questions were based on the planned teaching of selected respiratory diseases.. The correct response receives one point, incorrect response receives zero point, and the overall score was 21 points. To assess the level of knowledge regarding selected respiratory diseases, grading was made in structured questionnaires. The tool was divided into 3 categories based on the knowledge score- 1-7 (Poor), 8-14 (Average), 15-21 (Good).

In front of the Institutional Ethical Committee, research proposal with research tool was presented. After approval of the institutional ethical committee the study was conducted and all the data gathered was been kept confidential. Samples were willingly involved in the research study. Pre-approval from the relevant superiors was obtained, as well as informed written consent from each sample.

RESULTS

Table no 1: Frequency and percentage distribution of demographic variables.

Variables	Groups	Frequency	Percentage n=120
Age in years	20-30	98	81.67
	31-40	20	16.67
	41 and above	2	1.67
Education	No formal education	0	0
	Primary	96	80.00
	secondary	24	20.00
Work experience	6 month-1 year	4	3.33
	1-5 years	99	82.50
	5-10 years	17	14.17

In the study, according to the age, maximum cotton mill workers were between the age group of 20-30 (81.67%), most of the cotton mill workers were primary education (80.00%), 82.50% of the cotton mill workers were having 1 to 5 years' experience.

Table no 2: Frequency and percentage distribution of Pre-test Knowledge score.

Level of Knowledge	Frequency (f)	Percentage (%) n=120
Poor (0-7)	63	52.5
Average (8-14)	57	47.5
Good (15-21)	----	----

The Above table shows that in knowledge scores, at the time of pretest, 52.5% of the cotton mill workers were having poor knowledge, 47.5 %were having average knowledge

Table no 3: Frequency and percentage distribution of post- test knowledge score.

Level of Knowledge	Frequency (f)	Percentage (%) n=120
Poor (0-7)	-----	-----
Average (8-14)	15	12.5
Good (15-21)	105	87.5

The Above table shows that in knowledge scores, at the time of post- test, 87.5% of the cotton mill workers were having good knowledge, 12.5% were having average knowledge.

Table no 4: Comparison between pre-test and post-test knowledge score.

n=120

Test	Mean	S.D	t value	p value
Pre-test	10.24	2.24	36.000416	0.00001
Post-test	18.63	2.0		

comparison of the pre-test and post-test means of the knowledge were done by the paired t test. The pre-test average score was 10.24 with standard deviation of 2.24. The post-test average score was 18.63 with standard deviation of 2.0. The test statistics value of the paired t test was 36.000416 with p value 0.00001. Shows that planned teaching on knowledge regarding the selected respiratory diseases on cotton mill workers was effective.

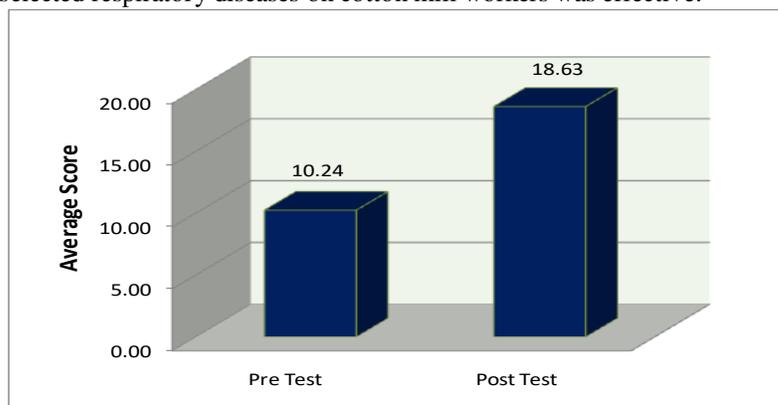


Fig no 1: Bar diagram for comparison between pre-test and post-test knowledge mean.

Table no 5: Association between pre-test knowledge score with demographical variables

n=120

Variable	Groups	Knowledge Pre test			Chi square	d.f.	P Value	Significance
		Poor	Average	Good				
Age	20 years - 30 Years	13	82	3	4.39	4	0.355791	Not significant
	31 years - 40 Years	6	14					
	41 years and above		2					
Work Experience	< 1 year		4		1.86	4	0.761489	Not significant
	1 year - 5 years	16	81	2				
	Above 5 years	3	13	1				
Education	Primary	14	79	3	1.24	2	0.537944	Not significant
	Secondary	5	19					

Age and knowledge

The p value of the association test between Age and knowledge was 0.355791, more than 0.05 it shows, there was no significant association between age of the cotton mill workers and their knowledge regarding the respiratory diseases among cotton mill workers.

Education and knowledge

The p value of the association test between Education and knowledge was 0.537944, more than 0.05 it shows, there was no significant association between education of the patients and their knowledge regarding the respiratory diseases among cotton mill workers.

Work of experience

The p value of the association test between work of experience and knowledge was 0.761489, more than 0.05 it shows, there was no significant association between work of experience of the cotton mill workers and their knowledge regarding the respiratory diseases among cotton mill workers.

DISCUSSION

The study's findings are discussed in relation to the objectives and hypothesis of the study-

The first objective of this study was to assess the pre-test knowledge regarding respiratory diseases.

The finding showed that majority of cotton mill workers had poor knowledge 52.5% regarding selected respiratory diseases, 47.5 %were having average knowledge regarding selected respiratory diseases among cotton mill workers of Sangli district.

The above results are consistent with the findings of a cross-sectional study conducted by Paramasivan to assess the level of health problems occurring among cotton mill workers with respect to selected respiratory diseases. All employees had some understanding of personal protection measures to avoid health problems operating in cotton mill units, but only a few employees (4%) used personal protection equipment.

The second objective of this study was to assess the post-test knowledge regarding respiratory diseases.

The finding showed that majority of cotton mill workers had good knowledge 87.5% regarding selected respiratory diseases, 12.5 %were having average knowledge regarding selected respiratory diseases among cotton mill workers of Sangli district.

Similar type of quasi-experimental study conducted by Jessica S Kale in Belgaum, Karnataka, with the aim of evaluating the knowledge of occupational health hazards prevention among cotton mill workers with a sample size of 55 by implementing the planned teaching program. The results showed that during the pre-test, 11% (6) had good knowledge and improved to 100% (55) during the post-test. The researcher further recommended that same study can be conducted in other setting.

To determine the effectiveness of planned teaching regarding selected respiratory diseases on knowledge and to compare the pretest knowledge score with the posttest among the cotton mill workers at Sangli district.

The post-test level of knowledge regarding selected respiratory diseases shows that workers had 87.5% good knowledge level and 12.5% had average knowledge level. While none of them had poor knowledge level.

The pre-test average is 10.24, while the post-test average is 18.63. In the S.D. The pre-test amount is 2.24, while the S.D. The post-test option is 2.00. The value of the table is 36.000416, while the value of 'p' is 0.00001, which is less than 0.05 and is therefore accepted as H1. This indicates that the expected teaching was productive and showed an increase in the level of knowledge of selected cotton mill workers' respiratory diseases at $p < 0.05$.

The above findings are consistent with the findings of a study conducted in 2012 by Iftikhar ahmad, Muhammed, Samina, (et.al) among 50 cotton mill workers by race, age group, residence and language to determine the awareness of respiratory disease workers. The findings show that the expertise of employees was statistically important.

To associate the pretest knowledge score regarding selected respiratory diseases with demographic variables.

The p value of the variables age (0.355791), education (0.537944), work of experience (0.761489) received by cotton mill workers was less than 0.05, hence there was not significant association of these demographic variables with the pretest knowledge score regarding selected respiratory disease.

(Akknatol) The Chi square value for information association with qualification is 16 and was relevant at level 0.001, year of experience 12.6, and at level 0.05. Attitude Association with Qualification 15.72 was relevant at level 0.001, Year of Experience 16.16, and was meaningful at level 0.01. It shows that there was a substantial 67 association with selected demographic variables such as educational status and year of experience between awareness and attitude and there was no association between age, sex, matrimonial status, wages, family form and working hours.

CONCLUSION

The study was conducted to assess effectiveness of planned teaching, regarding selected respiratory diseases on knowledge among workers working in cotton mills of Sangli district. The findings of the study showed that the planned teaching was effective in improving the level of knowledge. There was not significant association found between the levels of knowledge regarding selected respiratory diseases of cotton mill workers with the demographic variables. This will also help the health care professional to develop their knowledge. The planned teaching is a proven method to improve the knowledge so the health care professionals can use this method of teaching in educating the cotton mill workers, factory workers, visitors to facilitate the healthy growth and development and healthy practices in day-to-day activities.

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