"A STUDY TO ASSESS THE EFFECTIVENESS OF AUDIO ASSISTED TEACHING ON SELECTED RESPIRATORY PROBLEMS KNOWLEDGE AMONG FLOUR MILL WORKERS IN SELECTED AREAS OF PUNE CITY."

Dr. Mrs.Bhagyashree Jogdeo[1a], Mrs. Shaheen shikalgar[2b], Mr. Vaibhav Patil[3c], Ms. Kanchan Dhaygude[4c], Ms. Rutuja Gaikwad[5c], Ms. Priyanka Ghaytidak[6c], Mr. Aniket Gavade[7c]

a. I/C Principal , Bharati Vidyapeeth (Deemed to be University)College of Nursing, Pune.
b. Assistant Professor Bharati Vidyapeeth (Deemed to be University)College of Nursing, Pune.
c. P.B.B.Sc Nursing students, Bharati Vidyapeeth (Deemed to be University)College of Nursing, Pune.

Abstract

Dust is a mini, dry frozen piece that mixture from 1 to 100 mm in diameter measurements and created by human made action like (crushing, grinding, milling, drilling as well as sweeping)That small frozen piece is affecting the respiratory problem. also, they affect the lung function dust is a heterogeneous biological material they can cause respiratory diseases.**The present study title:** "A study to assess the effectiveness of audio assisted teaching on selected Respiratory problems knowledge among flour mill workers in selected areas of Pune city."**Material and Methods**: A quantitative research design used in this study. A study was conducted in selected areas of Pune city, India. Non- probability purposive sampling technique was used. Total 50sample of flour mill workers were included in this study. Self-structure questionnaire was prepared to identify the risk for respiratory infection. The collected data were analyses by using descriptive, frequency and percentage statistics and logistic regression analysis. The chi-square is used to see the association between demographic variable and outcome variable.**Result:** Paired t-test is carried out for comparison of mean score pretest and posttest. Above table shows that, mean value at pretest was 11.40 with standard deviation 0f 1.44 while mean value posttest was 13.96 with standard deviation of 1.55. P-Value 0.00015 shows that, there is significant change observed in mean score at pre –test and post-test knowledge score is significantly increased post intervention. H0 is rejected and H1 is accepted. **Conclusion** : A study was undertaken on "A study to assess the effectiveness of audio assisted teaching on selected Respiratory problems knowledge among flour mill workers in selected areas of Pune city" among so flour mill workers. The study clearly portrays that planned teaching program was effective and there was increase in posttest mean knowledge score.

Keywords: Audio assisted teaching, knowledge, respiratory problem, flour mill workers.

Introduction

Dust is a mini, dry frozen piece that mixture from 1 to 100 mom in diameter measurements and created by human made action like (crushing, grinding, milling, drilling as well as sweeping)That small frozen piece is affecting the respiratory problem. also, they affect the lung function dust is a heterogeneous biological material they can cause respiratory diseases.The working place there is high exposure of dust that dust is affected respiratory

symptoms. The flour mill worker at high risk due to affected respiratory problem exposure to flour dust they leaders to spread long term respiratory disorder. A complex organic dust from a flour mill contains a wide range of allergenic and antigenic elements.

Findings showed that respiratory issues are worsened by prolonged exposure to high dust concentrations. Regarding the current study, comparatively prolonged exposure, unsanitary circumstances, & poorly ventilated work environments where study was conducted may be reasons for the higher occurrence of respiratory problems. When someone is exposed, those flour dust particles freely enter their respiratory system. The process of breathing in and breathing out air is hampered by these particles because they adhere to the interior layer of the respiratory tract. The basic an indication of a respiratory disease is a minor respiratory tract discomfort brought on by foreign particles (flour dust) that the internal cell wall of the respiratory system cannot accept. In this current study, flour mill employees had higher rates of all respiratory.

When processing or manufacturing flour, dust is frequently seen in the air. Workers exposed to fine particulate matter in mills often acquire respiratory symptoms such a chronic cough, increasing dyspnea, chest tightness, and asthma or COPD as a result of the high percentage of micro dust that develops during processing. When processing or manufacturing flour, dust is frequently seen in the air.

Need of the Study

The mill workers are illiterate and extremely underprivileged. They are therefore unaware of the harmful effects of the flour dust that permeates the workplace on employees' health. As a result, these workers don't take any working precautions to protect themselves from flour dust.Given the fact that they are forced to unfavorable conditions and have little control over the duration and intensity of their exposure, textile workers may face a number of health risks as a result of inadequate information and dangerous practices.As a result of their repeated exposures to flour dust at work, they are more prone to developing a variety of respiratory symptoms and diseases, such as chronic cough, asthma, chest tightness, and others, which can lead to serious pulmonary handicap over time. Unfortunately, there is a paucity of knowledge surrounding respiratory issues.An International Labor Organization (ILO) figure states that each year, over 2.4 million workers pass away from diseases and accidents related to their jobs. Airborne particulate matter, such as dust, is responsible for about 386,000 fatalities as well as 6.6 million years of life lost as a result of illness-adjusted respiratory issues at work.The statistical data of sneezing all over India flour workers was found in 58.3%The cases of death in year 18%In Pune city sneezing cases found in 47.7% According to a study conducted by Kalpana Ramesh K, professor at the Bishops College of Nursing in Dharampuram, and published in the Asian Journal of Nursing Education and` Research, Year 2018 Volume 8, Kalpana Ramesh K evaluated the effectiveness of a video-assisted teaching programme on a number of respiratory issues in terms of workers' knowledge and respiratory status. The study's objectives were to increase understanding and improve the respiratory health of the spinning mill employees. She applied strategy The pre-experiment, one group pre-test and post-test design was utilized to assess 40 mill workers' knowledge of a few respiratory issues as well as their current respiratory state.

Aim of the Study

The aim of study is toA study to assess the effectiveness of audio assisted teaching on selected Respiratory problems knowledge among flour mill workers in selected areas of Pune city. " Respiratory issues are worsened by prolonged exposure to high dust concentrations.

Methodology

In this study, researcher adopted a quantitative research design. A study was conducted in selected areas of Pune city, India. Non- probability purposive sampling technique was used. Total 50sample of flour mill workers were included in this study. Self-structure questionnaire was prepared to identify the risk for respiratory infection. The collected data were analyses by using descriptive, frequency and percentage statistics and logistic regression analysis. The chi-square is used to see the association between demographic variable and outcome variable.

Result

SECTION I: DESCRIPTION OF DEMOGRAPHIC PROFILE:

Majority 40 % are from 40-50 years of age.Majority 100 % are male. Majority 100 % have primary education. Majority 80% have 5000 to 10000 income. Majority of 100% have tobacco addiction.

SECTION II: A: FINDINGS RELATED TO EXISTING KNOWLEDGE ABOUT SELECTED RESPIRATORY PROBLEM

Table 1

n=50

Level of Knowledge	Frequency	Percentage	Mean	SD
Excellent	0	0.00%		
Good	0	0.00%		
Average	35	70.00%	11.4	1.44
Poor	15	30.00%		
TOTAL	50	100.00%		

Table 1: Pretest, Knowledge was average in 70% participants and Poor knowledge was observed in 30% participants.

B. FINDINGS RELATED TO LEVEL OF KNOWLEDGE REGARDING SELECTED RESPIRATORY PROBLEM AFTER AUDIO ASSISTED TEACHING.

Table 2 :

n=50

Level of Knowledge	Frequency	Percentage	Mean	SD
Excellent	9	18.00%		
Good	39	78.00%		
Average	2	4.00%	13.96	1.55
Poor	0	0.00%		
TOTAL	50	100.00%		

Posttest, Excellent Knowledge was observed in 18%, Good Knowledge in 78% participants and average knowledge in 4% participants and Poor knowledge was not observed in any of the participants.

C. Comparison of pretest and post test score:

n=50

Knowledge Score	Mean	N	SD	SE	Df	T-Test	P-Value	Remark
Pre-Test	11.40	50	1.44	0.20	49	11.851	0.00015	Significant
Post Test	13.96	50	1.55	0.22				

Paired t-test is carried out for Pre- and post-test mean scores are compared. Above table shows that mean value at pretest was 11.40 with standard deviation 0f 1.44 while mean value posttest was 13.96 with standard deviation of 1.55. P-Value 0.00015 shows that, there is significant change observed in mean score at pre –test & post-test.

Knowledge score is significantly increased post intervention. H0 is rejected and H1 is accepted

Discussion

In this study Majority 40 % are from 40-50 years of age.Majority 100 % are male. Majority 100 % have primary education. Majority 80% have 5000 to 10000 income. Majority of 100% have tobacco addiction.

Excellent Knowledge was observed in 18%, Good Knowledge in 78% participants and average knowledge in 4% participants and Poor knowledge was not observed in any of the participant. In another study can be discussed with Rashmi M. R et al 2022 regarding Effectiveness of Structured Teaching Program on Knowledge regarding Occupational Health Hazards and its Prevention among Flour Mill Workers at selected rural area. Quasi experimental, one group pre test and post test design was adopted.Result showed that The over all knowledge score obtained by the subject in the pre-test was 13.95 with standard deviation of 5.25 and in the post-test was 25.21 with standard deviation of the obtained"t" value for over all knowledge score 15.11 is found to be greater than the table value at the level of p<0.001. It revealed that there is an effectiveness of Structured teaching programme on occupational health hazards and its prevention among flour mill workers, hence the hypothesis H1 was accepted. The study proved that structured teaching programme on occupational health hazards and its prevention among flour mill workers was scientific, logical and coast effective strategy.

CONCLUSION

Study concluded that At every stage, we received support and proper direction from research guide and this enhanced our confidence level to conduct research as per planned schedule. Good cooperation was received from the samples.We faced problem during research studies such as unavailability of flour mill worker inspire scheduled, we got good corporation from them. Flour mill worker also happy because they deemed regarding selected respiratory problem, their prevention.The study clearly portrays that Audio teaching program was effective and there was increase in posttest mean knowledge scores.

Recommendation:

1. Study could be repeated by increasing number of samples.
2. Study could be replicated on other health problems of flour mill worker.

Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source

Acknowledgement

References:

1. Basheerahemad sikandar , Shalmon chopade , et.al., Evaluate the effectiveness of STP regarding prevention of byssinosis disease among cotton mill workers in selected mills at karnataka , International journal of allied medical sciences and clinical research , 2016: vol-4(1), 75to 82.
2. Aneeta khoso and Asaad ahmed nafees, Knowledge, attitude and practices regarding respiratory symptoms among textile workers of Karachi, Pakistan, 2015: 1-14
3. Dr. Helen shalji john Cecily et.al., Effectiveness of breathing exercises on pulmonary function parameters and quality of life of patients with chronic obstructive pulmonary disease, 2013:wwwijhsr.org.
4. Farooque. et. al, Byssinosis, as seen in cotton spinning mill workers of Karachi, J.Pak.Med. Association, 2018: 58, 95-98.
5. N Sujita Devi,Dr.Nilima Bhore National Journal of Multidisciplinary Research and Development ISSN (ONLINE) 2455-9040,:1(4),Impact factor(2016): RJIF5.22 20-23 "To prepare and test effectiveness of video assisted teaching programme on practice regarding postnatal care"
6.
7. Bhatta.k, et.al, Respiratory morbidities of cotton mill workers in pakisthan, 2012: 10(3),181-186. Jaisal. A, A study of the occupational health function among female textile workers, Int. J. Social Anthropology, 2011: 3, 109-114.
8. Kamalesh. J. Dube, Lalit T. Ingale, Sopan. T. Ingale, Respiratory Impairment in cotton workers exposed to cotton dust. International journal of occupational safety and ergonomics (JOSE), 2013: 19(4), 3-12.
9. Maibam Anjubala and Dr. Veena D Sakhardande, A comparative study to assess the effectiveness of demonstration vs video assisted teaching on knowledge and practices regarding ECG among staff nurses working in the critical care unit from selected hospitals of Pune city. The pharma innovation Journal, SSN (E): 2277- 7695ISSN (P): 2349-8242NAAS Rating: 5.03TPI 2021; 10(1): 467-475,
10. Shine.G, et.al., Comparison of effectiveness of diaphragmatic breathing and pursed lip expiratory flow rate an chest expansion in patients with bronchial asthma, Int. J. physiother, 2016: 3(2), 154-158.

11. Mohamed-Hussein A, Elzayet H, Ezzeldin A, Khair A, Elkhayat M. Risk factors associated with respiratory symptoms among cementworkers. Chest. 2019;156(4):A1718. doi: 10.1016/j.chest.2019.08.1504.

12. Gizaw Z, Yifred B, Tadesse T. Chronic respiratory symptoms and associated factors among cement factory workers in Dejen town, Amhara regional state, Ethiopia, 2015. Multidiscip Respir Med. 2016;11(13):1–9.

13. Demeke D, Haile DW. Assessment of respiratory symptoms and pulmonary function status among workers of flour mills in Addis Ababa, Ethiopia: comparative cross-sectional study. Pulmonary Med. 2018.

14. Rafiee-Pour A, Rafiee-Pour E, Asghari M, Zadeh NG, Dehghan SF. Respiratory effects of exposure to flour dust: a case study among workers of flour production factories in Arak. J Paramed Sci. 2015