



RESEARCH ARTICLE

OPEN ACCESS

PREVALENCE OF ERAIPU NOI (BRONCHITIS) AMONG THE SPINNING MILL WORKERS IN NANGUNERI TALUK, TIRUNELVELI (DISTRICT)

*¹Dr. T. Susmitha, ²Dr. A. Rajarajeshwari and ³Dr. M. Thiruthani

¹PG Scholar, Department of PG Nanju Maruthuvam, Govt. Siddha Medical College, Palayamkottai, Tirunelveli, Tamil Nadu, India

²Lecturer, Department of PG Nanju Maruthuvam, Govt. Siddha Medical College, Palayamkottai, Tirunelveli, Tamil Nadu, India

³Head of the Department, Department of PG Nanju Maruthuvam, Govt. Siddha Medical College, Palayamkottai, Tirunelveli, Tamil Nadu, India

ARTICLE INFO

Article History:

Received 10th June, 2019

Received in revised form

26th July, 2019

Accepted 27th August, 2019

Published online 28th September, 2019

Key Words:

Bronchitis, Spinning Mill, Descriptive Cross Sectional Study.

ABSTRACT

Siddha is one of the ancient medical systems in India considered as the mother medicine of ancient Tamils/ Dravidians in South India. The word Siddha means “Established Truth” or “One who is accomplished. Bronchitis is the inflammation of the mucous lining of the bronchial tree (air passages) of the lungs. The process of making yarns from the textile fiber is called spinning. There are various type of spinning methods producing various types of yarns such as stable yarn, spinning filament yarn and multi-component yarns. Their aim and objective of the study were; The aim was ensure and reduce the bad impact of spinning mill workers in bronchitis with clarify between spinning mill and bronchitis. To evaluate the prevalence of bronchitis among the spinning mill workers. To determine the interrelation between the bronchitis and spinning mill workers. To find the ratio of per day working hours of spinning mill workers. methodology of this research; the research conducted in Nanguneri Taluk, Tirunelveli District. Study period; April 2019 to August 2019, study design; descriptive cross sectional study, sample size was 81 as per Epi.info calculation and data collected by questionnaire. This research result were obtained as sex distribution – 60.49% male and 39.51% female, working years less than 5 years 30.86%, 5 to 10 years 40.74%, more than 10 years 28.40%, respiratory symptoms were observed as dry cough 83.95%, wet cough 16.05%, dyspnoea – 83.95% and not repeated by bronchitis. Finally, concluded as there was no significant correlation in between the spinning mill workers and bronchitis. However, the major symptoms that could be interpreted 83.95% of dyspnea and dry cough during working hours none of them had developed bronchitis. Which marked the conclusion of this study. The respondents had other symptoms but were free from bronchitis and the findings are presented in this research work.

Copyright © 2019, Dr. T. Susmitha, Dr. A. Rajarajeshwari and Dr. M. Thiruthani. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. T. Susmitha, Dr. A. Rajarajeshwari and Dr. M. Thiruthani. 2019. “Prevalence of Eraipu Noi (bronchitis) among the spinning mill workers in Nanguneri Taluk, Tirunelveli (District)”, *International Journal of Development Research*, 09, (09), 29721-29729.

INTRODUCTION

Bronchitis is inflammation of the mucus lining of the bronchial tree (air Passage) of the lungs. The inflammation affects the trachea the large bronchial tubes (bronchi) and the smaller bronchial tubes (bronchioles). Acute bronchitis refer to the sudden onset of this inflammation, while the term chronic bronchitis, refers to the more serious long term conditions that follows repeated attack of acute bronchitis. Common cause of bronchitis is respiratory virus. Another cause is inflammation from breathing air that contains airborne pollutants such as chemical fumes, dust and smoke which irritate the bronchial tree. Yarn spinning is a process of making or converting fiber materials into yarns for making textile fabric or products.

In spinning mills the fibers pass through various process to convert them into yarn. All the processes of spinning mill lead to fiber dust and its quantum vary from section to section the workers engaged in spinning mills encounter different occupational health problems and for identification of the health problem a questionnaire was developed. The spinning mill workers were facing the problems related to coughing and sneezing, eye pressure. Workers while taking precautionary measures to avoid the inhalation of the fiber dust. This being predisposing factor causing health problem. Hence, the need arises for the use of appropriate protective clothing for prevent them to expose to fiber dust. Especially lung diseases caused by prolonged inhalation of textile fiber dust known as byssinosis. Due to exposure to cotton dust in inadequately ventilated working environments. Although lung function seemed to be affected by high dust exposures. Over all

*Corresponding author: Susmitha, T.

PG Scholar, Department of PG Nanju Maruthuvam, Govt. Siddha Medical College, Palayamkottai, Tirunelveli, Tamil Nadu, India

problems faced by the workers during spinning in order were headache, fatigue, coughing and sneezing, eye irritation and itching, skin allergy, nose irritation, throat irritation, nausea and allergic bronchitis.

Aim and objectives

Aim: Ensure and reduce the bad impact of spinning mill workers in bronchitis with clarify between spinning mill and bronchitis (Eraipu noi).

Objectives

Primary

- To evaluate the prevalence of bronchitis (Eraipu noi) among the spinning mill workers.

Secondary

- To determine the interrelation between the bronchitis (Eraipu noi) and spinning mill workers.
- To find the ratio of per day working hours of spinning mill workers.

Review of Literature

Modern Aspect

Introduction of Respiratory System:

The respiratory system (also respiratory apparatus, ventilatory system) is a biological system consisting of specific organs and structures used for gas exchange in animals and plants. The anatomy and physiology that make this happen varies greatly, depending on the size of the organism, the environment in which it lives and its evolutionary history. In land animals the respiratory surface is internalized as linings of the lungs. [1] Gas exchange in the lungs occurs in millions of small air sacs called alveoli in mammals and reptiles, but atria in birds. These microscopic air sacs have a very rich blood supply, thus bringing the air into close contact with the blood. [2] These air sacs communicate with the external environment via a system of airways, or hollow tubes, of which the largest is the trachea, which branches in the middle of the chest into the two main bronchi. These enter the lungs where they branch into progressively narrower secondary and tertiary bronchi that branch into numerous smaller tubes, the bronchioles. In birds the bronchioles are termed parabronchi. It is the bronchioles, or parabronchi that generally open into the microscopic alveoli in mammals and atria in birds.

Air has to be pumped from the environment into the alveoli or atria by the process of breathing which involves the muscles of respiration. Developmentally the respiratory system is an outgrowth from the ventral wall of the foregut. The organs of the respiratory system are nose, pharynx, larynx, trachea, two bronchi (one bronchus to each lung), bronchioles and smaller air passages, two lungs and their coverings- the pleura, muscles of respiration –the intercostals muscles and the diaphragm. The upper respiratory tract includes the nose, nasopharynx and larynx. It is lined by vascular mucous membranes with ciliated epithelium on their surfaces. The lower respiratory tract includes the trachea and bronchi. These form an inter connecting tree of the conducting airways eventually

joining, via around 64000 terminal bronchioles, with the alveoli to form the a cini. The lower respiratory tract is lined with ciliated epithelium as far as the terminal bronchiole.

Bronchitis: Bronchitis is an inflammation of the lining of your bronchial tubes, which carry air to and from your lungs. People who have bronchitis often cough up thickened mucus, which can be discolored. Bronchitis may be either acute or chronic. Often developing from a cold or other respiratory infection, acute bronchitis is very common. Chronic bronchitis, a more serious condition, is a constant irritation or inflammation of the lining of the bronchial tubes, often due to smoking.

Acute Bronchitis: Acute bronchitis is almost always caused by one of the many common respiratory viruses most causes begin with an upper respiratory infection such as the common cold. The infection spreads from the nose and throat down the trachea into the bronchial tubes acute bronchitis refers to the sudden onset of this inflammation, while the term chronic bronchitis refers to the more serious long-term condition that follows repeated attacks of acute bronchitis. Another cause is inflammation from breathing air that contains airborne pollutants such as chemical fumes, dust and smoke, which irritate the bronchial tree.

Causes: Acute bronchitis is usually caused by viruses, typically the same viruses that cause colds and flu (influenza). Antibiotics don't kill viruses, so this type of medication isn't useful in most cases of bronchitis. The most common cause of chronic bronchitis is cigarette smoking. Air pollution and dust or toxic gases in the environment or workplace also can contribute to the condition.

Chronic Bronchitis: It is a persisting inflammation of the bronchial tree (air passages) of the lungs. It is a potentially dangerous problem because it starts so quietly that many people do not realise that they have it. Repeated irritation thickens and damages the delicate lining of these important tubes. This leads to lots of mucus and thus narrowing of the tubes. However, if you have repeated bouts of bronchitis, you may have chronic bronchitis, which requires medical attention. Chronic bronchitis is one of the conditions included in chronic obstructive pulmonary disease (COPD).

Causes: Smoking is the main cause of chronic bronchitis. people who work in dusty atmosphere are also at risk factor. Air pollution is also a factor. At first the bronchitis gets worse with bad colds or influenza, but eventually even a mild cold can bring on a nasty flare-up. Colds or other infections can cause deterioration, especially in winter. However, chronic bronchitis is not caused by chronic infection. It is usually caused by chronic irritation from smoke. The most common cause of chronic bronchitis is cigarette smoking. Air pollution and dust or toxic gases in the environment or workplace also can contribute to the condition.

Symptoms

For either acute bronchitis or chronic bronchitis, signs and symptoms may include:

- Cough
- Production of mucus (sputum), which can be clear, white, yellowish-gray or green in color — rarely, it may be streaked with blood

- Fatigue
- Shortness of breath
- Slight fever and chills
- Chest discomfort

If you have acute bronchitis, you might have cold symptoms, such as a mild headache or body aches. While these symptoms usually improve in about a week, you may have a nagging cough that lingers for several weeks. Chronic bronchitis is defined as a productive cough that lasts at least three months, with recurring bouts occurring for at least two consecutive years.

Outcome

At least 85% of healthy people who get an episode of acute bronchitis find it improves by itself without treatment in about 4 to 8 days. Sometimes especially in those in the risk categories mentioned, the infection can be complicated by an additional bacterial infection in the lungs these patients may get worse, with increasingly severe symptoms and cannot shake off the infection. In Australia about 4500 people die of chronic bronchitis each year.

Risk Factors

Factors that increase your risk of bronchitis include:

- **Cigarette smoke.** People who smoke or who live with a smoker are at higher risk of both acute bronchitis and chronic bronchitis.
- **Low resistance.** This may result from another acute illness, such as a cold, or from a chronic condition that compromises your immune system. Older adults, infants and young children have greater vulnerability to infection.
- **Exposure to irritants on the job.** Your risk of developing bronchitis is greater if you work around certain lung irritants, such as grains or textiles, or are exposed to chemical fumes.
- **Gastric reflux.** Repeated bouts of severe heartburn can irritate your throat and make you more prone to developing bronchitis.

Complication: Although a single episode of bronchitis usually isn't cause for concern, it can lead to pneumonia in some people. Repeated bouts of bronchitis, however, may mean that you have chronic obstructive pulmonary disease (COPD).

Prevention

To reduce your risk of bronchitis, follow these tips:

- **Avoid cigarette smoke.** Cigarette smoke increases your risk of chronic bronchitis.
- **Get vaccinated.** Many cases of acute bronchitis result from influenza, a virus. Getting a yearly flu vaccine can help protect you from getting the flu. You may also want to consider vaccination that protects against some types of pneumonia.
- **Wash your hands.** To reduce your risk of catching a viral infection, wash your hands frequently and get in the habit of using alcohol-based hand sanitizers.

- **Wear a surgical mask.** If you have COPD, you might consider wearing a face mask at work if you're exposed to dust or fumes, and when you're going to be among crowds, such as while traveling.

Self-Help

Acute Bronchitis

- Rest at home, not necessarily in bed
- A warm, well – ventilated, smoke free room is best.
- Drink plenty of fluids.
- A heat pack or hot water bottle placed on the chest may relieve discomfort.
- Some people find that steam inhalations using a mentholated preparation in very hot water can clear the nasal and bronchial passages.
- In some cases your doctor may prescribe a bronchodilator drug administered by aerosol inhalation to relieve any wheezing.

Chronic bronchitis

- If you smoke, you should stop. This is the vital first step.-it
- Will stop further damage.
- The lungs may return to normal.
- Avoid smoke-filled rooms.
- If you work in a polluted or dusty atmosphere, it
- Would be wise to change your job.
- A warm, dry climate is preferable to a cold, damp place:
- It may make you feel more comfortable and may make you less susceptible to winter colds and flu.
- Avoid close contact with people with colds or influenza,
- Since any viral respiratory infection is a problem to your
- Lungs.

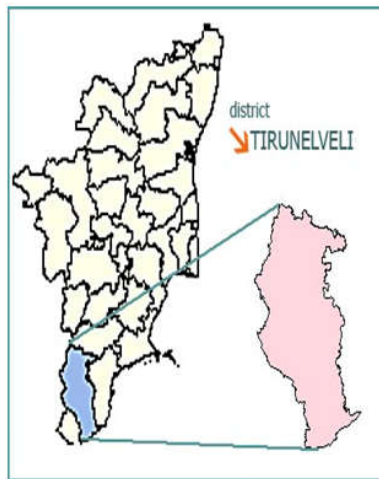
PROPOSED METHODS

Study population: This research work conducted in Nanguneri Taluk, Tirunelveli District, among the spinning mill workers which has 3500 workers itself 2019 .Age group between 15 to 55, both sex worked there

Study period: From April 2019 to mid of august 2019 (4 ½ months) frequently visited to spinning mills to data collection.

Study design

Descriptive cross-sectional study is a study in which the disease or condition and potentially related factors are measured at a specific point in time for a defined population. This type of data can be used to assess the prevalence of conditions in a population. A study design in which both exposure and disease is determined simultaneously for each subject is called cross sectional study design. Collecting the primary data from direct interview among Eraipunoi (Bronchitis) persons in spinning mill, Nanguneri (TK),



RESULTS

Sl.no	AGE	SEX	EDUCATIONAL STATUS	DIET	WORK YEARS	WORK HOURS	RES- COMP	CLINIC VISIT	MEDICAL HISTORY	TYPE COUGH	DYSPNOEA	PRECAUTIONS
1	1	1	2	3	2	1	1	5	2	1	1	2
2	2	1	1	3	2	2	1	5	2	1	1	2
3	4	2	3	3	3	1	1	5	2	1	1	2
4	4	1	4	3	3	1	1	5	2	1	1	2
5	1	2	3	3	2	1	1	4	2	1	1	2
6	4	1	1	3	3	1	1	4	1	1	1	1
7	2	2	4	3	1	1	1	4	2	1	1	2
8	4	1	1	3	3	1	1	5	1	1	1	2
9	2	2	3	3	1	1	1	3	2	1	1	1
10	4	1	4	3	3	2	1	5	1	1	1	1
11	1	2	3	3	2	2	1	3	1	1	1	1
12	3	1	1	3	3	2	1	5	2	1	1	2
13	5	1	1	3	3	1	1	5	2	2	2	2
14	3	2	2	3	2	1	1	5	2	1	1	2
15	2	1	4	3	2	3	1	5	2	1	1	1
16	5	1	1	3	3	2	1	4	2	1	1	2
17	1	1	3	3	1	1	1	3	2	1	1	2
18	3	1	2	3	3	2	1	5	2	1	1	1
19	1	1	3	3	1	3	1	5	2	1	1	2
20	2	2	2	3	1	2	1	3	2	2	1	2
21	1	2	3	1	1	1	1	5	2	1	1	2
22	3	2	2	3	2	3	1	4	2	1	1	2
23	4	1	3	3	3	2	1	4	2	1	1	2
24	5	2	3	1	3	2	1	4	2	1	2	1
25	1	2	1	3	2	2	1	4	2	1	1	2
26	3	2	2	1	2	3	1	5	2	1	1	2
27	2	2	2	3	1	2	1	5	2	1	1	1
28	1	1	1	3	2	2	1	5	2	1	1	2
29	5	1	4	3	1	2	1	5	2	1	1	2
30	1	1	1	1	1	2	1	5	2	1	2	2
31	4	1	3	3	1	1	1	5	2	1	1	2
32	1	2	2	3	2	1	1	5	2	1	1	2
33	2	2	2	3	1	2	1	3	2	1	1	1
34	1	2	1	3	3	3	1	5	2	1	1	1
35	4	2	3	1	3	1	1	3	2	1	1	2
36	2	1	2	3	1	2	1	5	2	1	1	1
37	2	2	2	3	2	3	1	5	2	1	2	2
38	1	2	1	3	2	2	1	5	2	1	2	1
39	5	2	4	3	2	3	1	5	2	1	1	2
40	2	1	2	3	3	2	1	5	1	1	1	2
41	3	2	2	3	3	1	1	5	1	1	1	1
42	5	2	3	3	3	3	1	4	2	1	1	2
43	1	1	2	3	4	2	1	4	1	1	2	1
44	4	1	3	3	2	1	1	4	2	1	1	2
45	1	2	2	3	1	2	1	4	1	1	1	1

Continue.....

46	5	2	3	1	1	3	1	5	2	1	1	2
47	2	2	2	3	1	2	1	5	1	1	1	2
48	3	2	2	3	1	1	1	5	2	1	1	2
49	4	2	3	1	1	1	1	5	1	1	1	2
50	3	1	1	3	2	3	1	5	1	1	1	2
51	2	2	2	3	1	2	1	5	1	1	1	2
52	4	2	3	1	1	2	1	4	1	1	1	2
53	3	2	2	3	1	3	1	4	1	1	1	2
54	2	1	2	1	1	2	1	4	1	1	1	1
55	4	1	3	3	2	1	1	4	1	1	1	1
56	2	1	2	3	1	1	1	4	2	1	1	1
57	5	1	3	3	2	2	1	5	2	1	1	1
58	2	1	2	3	1	2	1	5	1	1	1	1
59	1	1	1	3	2	2	1	5	2	1	1	2
60	3	1	2	3	3	2	1	5	2	1	2	2
61	1	1	2	3	3	2	1	5	1	1	1	1
62	1	1	1	3	3	2	1	3	2	1	1	2
63	2	1	2	3	2	2	1	3	2	2	1	1
64	3	1	3	3	2	2	1	4	2	1	1	1
65	1	1	1	1	2	2	1	4	2	1	2	1
66	2	1	2	3	3	2	1	5	2	1	1	2
67	4	1	3	1	2	2	1	5	2	1	1	2
68	5	2	4	3	2	1	1	5	2	2	1	1
69	5	1	3	1	1	1	1	3	1	1	1	1
70	4	1	3	3	2	1	1	3	2	1	1	2
71	1	1	1	3	3	1	1	5	1	2	1	2
72	4	1	3	3	2	2	1	5	2	2	2	2
73	2	1	2	3	2	2	1	5	1	2	1	1
74	4	1	4	1	2	1	1	4	2	2	1	1
75	1	1	2	1	2	1	1	4	1	2	2	1
76	3	2	2	1	1	2	1	5	2	2	1	2
77	4	1	3	3	2	1	1	5	1	2	2	2
78	5	1	4	3	2	2	1	3	1	1	2	1
79	1	1	1	3	3	1	1	4	1	2	2	2
80	4	1	3	1	2	2	1	5	1	2	1	1
81	4	1	2	3	2	2	1	5	2	1	1	2

Analysis work

In statistical result of all collected data

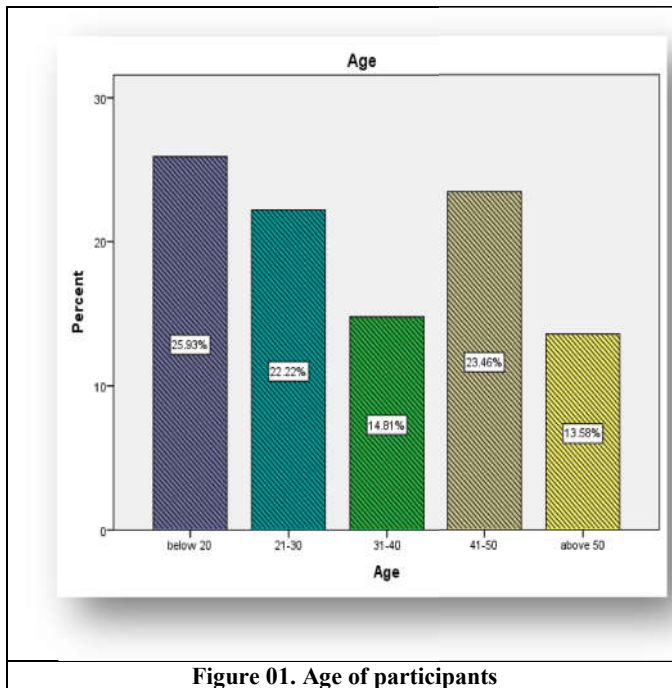


Figure 01. Age of participants

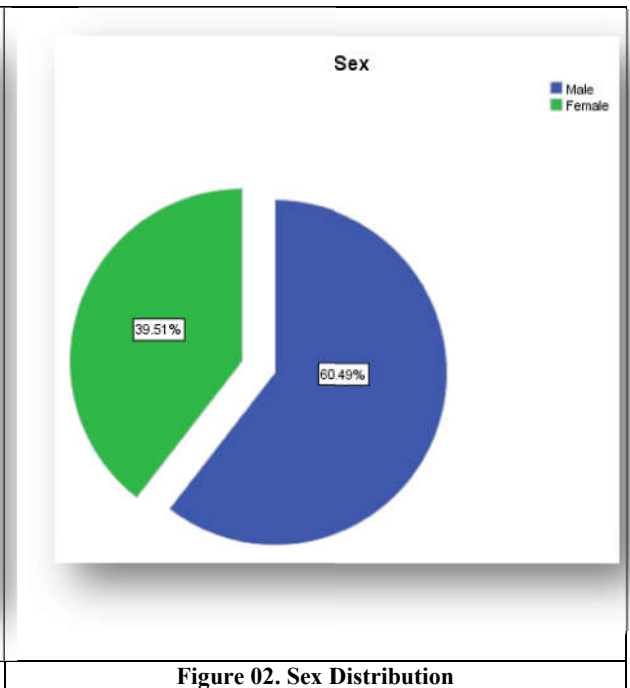


Figure 02. Sex Distribution

Tirunelveli (DT) with the permission of proper channel of hierarchy through our college principal.

Operational definitions: In this research defined as key features of samples are the person who complained dry cough and dyspnoea there included into the study to analyze the

bronchitis (eraipu noi). Spinning mill defined as spinning or wearing machinery for the production of yarn or cloth from cotton.

Sampling procedures

Sample size: Use population survey or descriptive study using random (not cluster) sampling in epi info. Confidence level

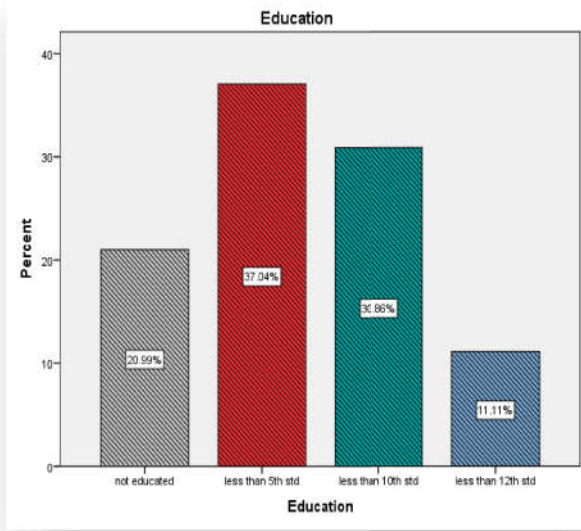


Figure 03. Educational Status

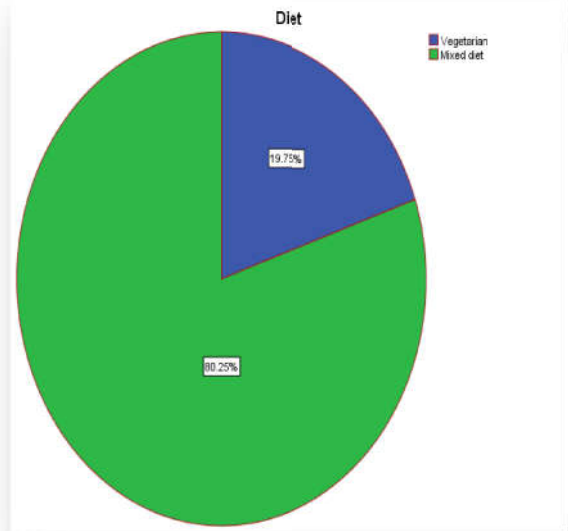


Figure 04. diet pattern

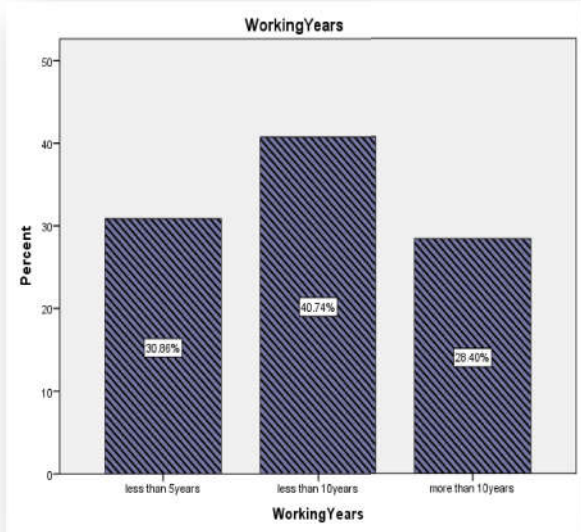


Figure:05 Working Years

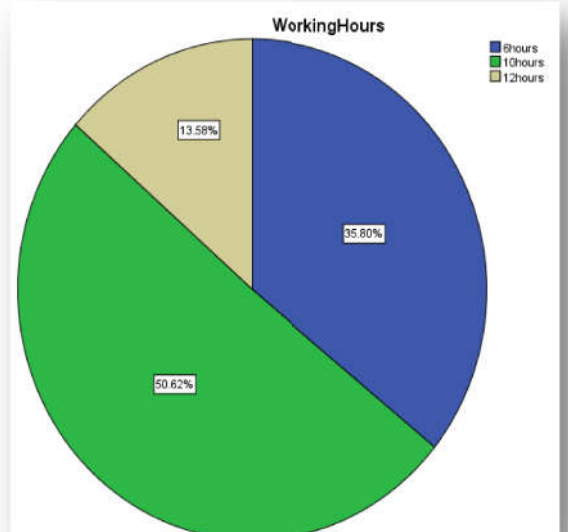


Figure:06 Working Hours

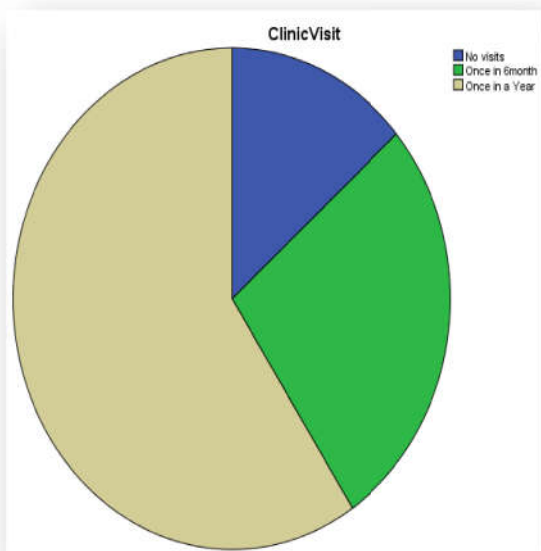


Figure:07 Clinical visit

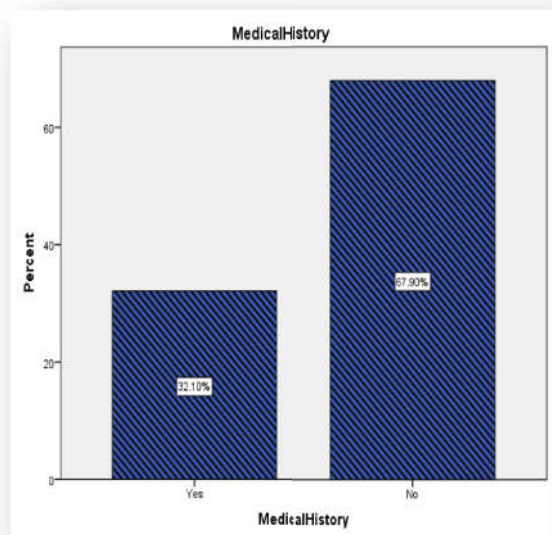


Figure:08 Medical History

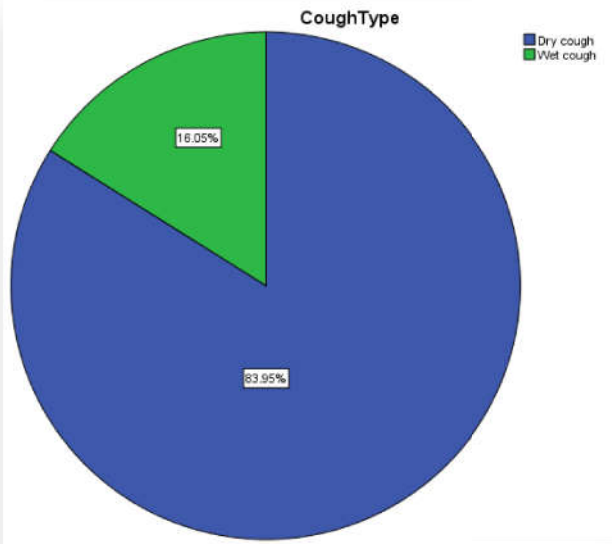


Figure 09.Type Of cough

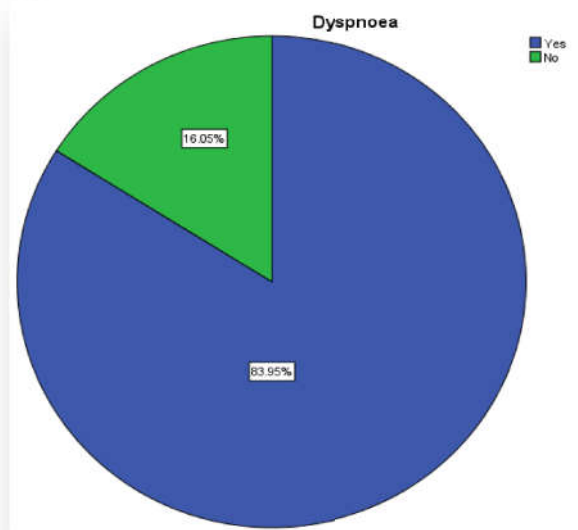


Figure 10. Dyspnoea

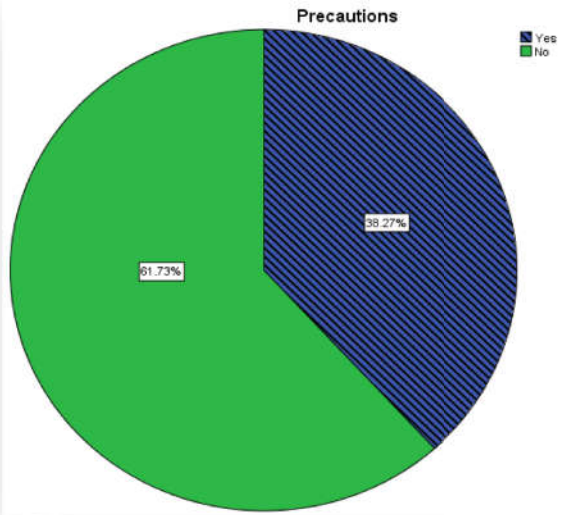


Figure:11 Precautions

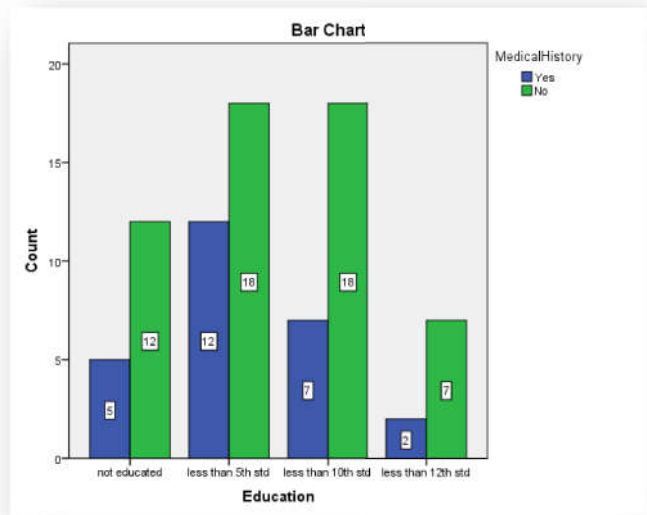


Figure:12 Cross comparison of Education status with Medical history

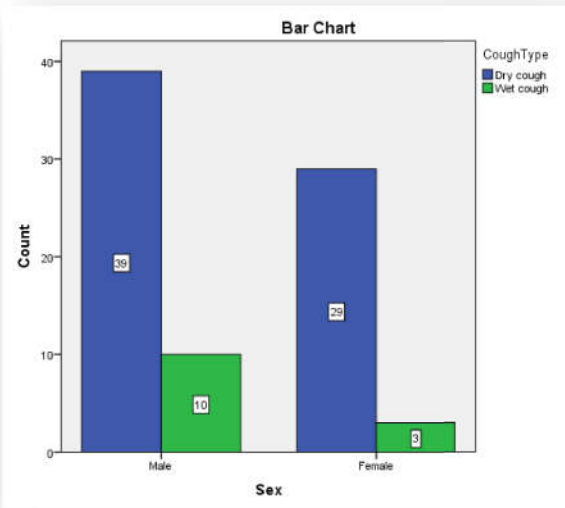


Figure 13 Cross comparison of individual Sex ration on cough type

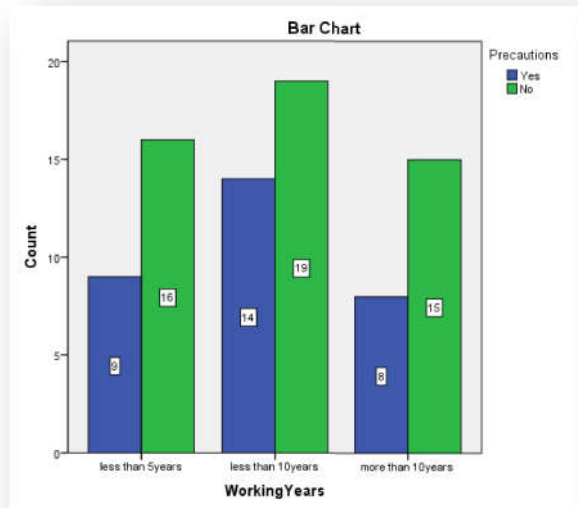


Figure 14 Cross comparison of Working years and Precautionary measure usage

Table 1. Age distribution of the participant over this study

Age classification	Frequency	Percent	Cumulative Percent
below 20	21	25.9	25.9
21-30	18	22.2	48.1
31-40	12	14.8	63.0
41-50	19	23.5	86.4
above 50	11	13.6	100.0
Total	81	100.0	

Table 2. Sex differentiation of the participants

Sex	Frequency	Percent	Cumulative Percent
Male	49	60.5	60.5
Female	32	39.5	100.0
Total	81	100.0	

Table 3. Education status of the participants

Education status	Frequency	Percent	Cumulative Percent
not educated	17	21.0	21.0
less than 5th std	30	37.0	58.0
less than 10th std	25	30.9	88.9
less than 12th std	9	11.1	100.0

Table 4. Diet pattern

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Vegetarian	16	19.8	19.8	19.8
Mixed diet	65	80.2	80.2	100.0
Total	81	100.0	100.0	

Table 5. Working Years in the industry

Years	Frequency	Percent	Cumulative Percent
less than 5years	25	30.9	30.9
5- 10years	33	40.7	71.6
more than 10years	23	28.4	100.0
Total	81	100.0	

Table 6. Working hours in the industry

Working Hours	Frequency	Percent	Cumulative Percent
6hours	29	35.8	35.8
10hours	41	50.6	86.4
12hours	11	13.6	100.0

Table 7. History of respiratory complaints

	Frequency	Percent	Cumulative Percent
Yes	81	100.0	100.0

Table 8. Clinic visited in a stipulated period

Clinic visit	Frequency	Percent	Cumulative Percent
No visits	11	13.6	13.6
Once in 6month	22	27.2	40.7
Once in a Year	48	59.3	100.0

Table 9. Medical history

	Frequency	Percent	Cumulative Percent
Yes	26	32.1	32.1
No	55	67.9	100.0

Table 10. Type of cough present in the industrial workers

Type of cough	Frequency	Percent	Cumulative Percent
Dry cough	68	84.0	84.0
Wet cough	13	16.0	100.0

Table 11. Dyspnoea symptoms among the workers

	Frequency	Percent	Cumulative Percent
Yes	68	84.0	84.0
No	13	16.0	100.0

Table 12. Precautionary measures usage among industrial workers

	Frequency	Percent	Cumulative Percent
Yes	31	38.3	38.3
No	50	61.7	100.0

Cross comparison of Education status with Medical history**Table 13. Cross relationship between Education status and Medical history**

		Medical History (in numbers)		Total
		Yes	No	
Education	not educated	5	12	17
	less than 5th std	12	18	30
	less than 10th std	7	18	25
	less than 12th std	2	7	9
Total		26	55	81

Table 14. Chi-square test of Cross relationship between Education status and Medical history

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.511a	3	.680
Likelihood Ratio	1.513	3	.679
N of Valid Cases	81		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 2.89.

Table 15. Cross comparison of individual Sex ration on cough type

		Cough Type (in numbers)		Total
		Dry cough	Wet cough	
Sex	Male	39	10	49
	Female	29	3	32
Total		68	13	81

Table 16. Chi-square test of Cross comparison of individual Sex ration on cough type

Chi-Square Tests					
	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.749a	1	.186		
Continuity Correction ^b	1.026	1	.311		
Likelihood Ratio	1.858	1	.173		
Fisher's Exact Test				.229	.156
N of Valid Cases	81				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.14. b. Computed only for a 2x2 table

Table 17. Working years and Precautionary measure usage- Cross comparison

		Precautions		Total
		Yes	No	
WorkingYears	less than 5years	9	16	25
	less than 10years	14	19	33
	more than 10years	8	15	23
Total		31	50	81

95% confidence limits 5% population size – 3500, Expected frequency 5.7%, sample size -81.

Table 18. Chi-square test of Working years and Precautionary measure usage- Cross comparison

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.414a	2	.813
Likelihood Ratio	.413	2	.813
N of Valid Cases	81		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.80.

Data Collection

Information collected: The information will be collected from known spinning mill workers in Nanguneri (TK), Tirunelveli (DT).

Data collection procedure: Main investigator will collect all data from spinning mill workers by questionnaire fill in field survey method.

Data Analysis: In research data Analysis including recording of key exposure / outcome variables, indicators to be calculated for the descriptive analysis (Eg. Measure the Eraipunoi (Bronchitis) persons among the spinning mill workers (Prevalence Incidence, Measures of Central Tendency (Mean, Median). These are attached in appendices.

Quality Assurance: Following procedures are conducted in-time with good planning by chief investigator whole research work himself with time frame schedule.

- Protocol development
- Field procedures
- Data collection
- Data analysis

Bias and Limitations: Will be taken to minimize the impact of the bias / limitation on the quality of the study through primary data confirm by informed reality scores are Good, Fair, Unreliability.

Practical Considerations

Logistics for data collection: Chief investigator arrangements for the data collection time schedule as 3pm-6pm weekdays & particular time of week end.

DISCUSSION

In this research; male samples were 49 and female samples were 32, in age group obtained 15-25 years were 21 maximum and minimum age samples were above 55 was 11. Education status found maximum ≤ 5 was 30 samples and minimum education qualification was ≤ 2 . In diet pattern maximum mixed diet users are 65 and minimum vegetarian users are 16 samples. In this cotton mill 33 members are worked above 5 years and 1 member is worked in above 10 years. And 41 members are worked 10 hours and 11 members are worked 12 hours. Respiratory complaints are present in all workers of this study. 48 workers are not concentrate their health problems so there are not visit in clinical checkup and 11 members are visit clinical checkup in 6 months once according to their economic status. 55 members are doesn't had medical history and 26 members had medical history. Maximum people have dry

cough approximately 68 members. And then 50 members are no further precautions methods and 31 members are follow precautions methods. Maximum 68 members are suffered by dyspnea. For the data collection, the workers who complaints dry cough and dyspnoea those workers included to study because bronchitis patients commonly complaints drycough and dyspnoea. But the bronchitis there are so many sign and symptoms present other than drycough and dyspnoea such as fatigue, running nose, chest pressure, headache, sleeping difficulty, sore throat. The Person chi-square test shows there is no relationship between the sex and its type of cough and it is not significant in 2-tailed analysis shows >0.05 . Though in Fishers test, it is also showing non significance level. The Pearson chi-square test shows there is no relationship between the working years and precautionary measures. It is showing that, not significant in 2-tailed analysis shows >0.05 .

Summary

The scholar has taken efforts to study the spinning yarn workers working at nanguneri taluk, tirunelveli district. On this regard, 81 respondents were observed through descriptive cross sectional study and their respiratory state was evaluated. The major symptoms that could be interpreted are presented in this report and it shows that even when as far as 83.95% of the workers had respiratory symptoms such as dyspnoea and drycough during the working hours non of them had developed bronchitis and this marks the conclusion of this study.

Conclusion

At the end of analysis no significant relation between bronchitis and spinning mill working exposure. But respiratory symptoms of dyspnoea and dry cough were developed. Because dyspnoea and dry cough may develop with the relation between family history, medical history, smoking habits, food habits, precautionary methods for long term workers. According to the analysis the bronchitis not significant for spinning mill workers.

REFERENCES

- Ahasan MR. *et al.* 2000. Occupational Exposure and respiratory symptoms among textile industry workers in a developing country, *Appl Occup Environ Hyg*.
- Fish D. *et al.* 1996. Lung Function in Lancashire cotton and man made fiber spinning mill operatives.
- Hinson AV, *et al.* 2014. The prevalence of byssinosis among cotton workers in the north of Benin, *International Journal of Occupational and Environmental Medicine*, 5:194-200
- Manual of practical medicine, 5th edition, jaypee brothers medical publishers (p) Ltd Alagappan. R.,
- Mishra AK, Epidemiological study of chronic bronchitis among textile workers in pondicherry, *Indian journal of community medicine*, October 2004, vol.xxix no.4 .
- Murtagh's patient education 6th edition, P.no: 127- 128.
- Peggy lai; David christiani, long term respiratory healthy effects in textile workers, current opinion in pulmonary medicine, march 2013,19 (2): 152 -157.
- Siddha Maruthuva Pothu, Kuppusamy Mudaliyar K.N. HPIM, ISM& H publication, P.no: 241- 247 Textilefashionstudy.com
- Vrushali Nalawade, Ramchandra Nalawade, 2017. Prevalence study of respiratory symptoms and disorders among.cotton mill workers, med pulse *International Journal of physiology*, May 2(1): 23-25.