AMERICAN JOURNAL OF ADVANCES IN NURSING RESEARCH

American Journal of Advances in Nursing Research

AJANR

A DESCRIPTIVE STUDY TO ASSESS THE AWARENESS REGARDING BYSSINOSIS & ITS PREVENTION AMONG TEXTILE WORKERS AT JODHPUR, WITH A VIEW TO DEVELOP INFORMATION BOOKLET

Mohammed Rizwan*

M.Sc. Nursing, Medical Surgical Nursing-Critical Care, Mai Khadija Institute of Nursing Sciences, Jodhpur, Rajasthan.

ABSTRACT

Introduction: Byssinosis is one of the oldest occupational lung disease, which is incurable and is caused by inhalation of cotton dust. Byssinosis is preventable disease. Still this disease kills thousands of workers around the worlds every year. Various studies have should that the textile workers due not having awareness regarding byssinosis and its prevention. In this study, distribution of booklet among textile workers is an attempt to improve the knowledge regarding byssinosis and it/s prevention. Aim of the Study: Assess the awareness regarding byssinosis & its prevention among textile workers. Materials and Method: A descriptive study was carried out to assess the awareness of 100 textile workers selected by purposive sampling, who were workers in different textile mill in Jodhpur, Rajasthan, were assessed by using a structured knowledge questionnaire and analyzed by using descriptive and inferential statistics were used for data analysis. Result: The findings of the study reveals that to the level of awareness shows that majority (73%) of the sample had poor awareness, followed by 19% had good awareness and remaining (8%) sample had average awareness regarding byssinosis and its prevention. However, the majority of the demographic variables such as age, level of education, marital status, religion, monthly income, working experience, type of work, working hours per day and existing pulmonary disease were found significant association with the level of awareness regarding Byssinosis and its prevention except age of starting work and duration of smoking. Conclusion: It can be concluded that textile workers have poor awareness regarding byssinosis as per current research recommendations. They require education and to enhance their awareness regarding byssinosis. Self-information booklets were distributed to them to improve the awareness regarding byssinosis and its prevention.

INTRODUCTION

Byssinosis is a form of occupational lung disease when textile workers breath in invisible small cotton dust particle released into the air with the cotton dust by the process of ginning spinning, weaning, dyeing, printing, and finishing generates. The size of the cotton dust particle (15-50 μm) that are the most dangerous. Textile workers initially expose to cotton dust then it causes damage of alveoli, narrowing of airway, dyspnea, & feeling of chest tightness. These symptoms are aggravated

Corresponding Author

Mohammed Rizwan
Email: - rizwan9414866899@gmail.com

Research Article

on return to work on Monday after a week end of absence from the textile mill. In a period of year, symptoms become more severe, "Monday morning fever" continues into later day of the week, with aggravation of symptoms [1,2].

According to WHO 20-50% of workers are exposure in industrialized countries and the rate may be even higher in developing countries [3]. Worldwide, India is the second largest producer of textile goods, there are about 20 million workers are at risk of suffering from various chronic respiratory illness including byssinosis due to exposure to the cotton dust in textile workers.

Western Rajasthan especially Jodhpur, Pali and Barmer about 21,000 workers are engaged in various type of activities in hand processing textile industries. These workers are not only exposed to harsh condition of the desert but also to the hazards of the textile industries both affecting their health adversely [4,5].

To achieve target, awareness about the disease & its prevention among the textile workers are the most important factor. There are hundreds of textile employees who are working in textile mill field for last many year. They are not aware about the byssinosis, even the employers are not taking any venture to educate them regarding the health protective measures. So, the researcher was motivated to conduct this study to find the level of awareness of the textile workers regarding byssinosis and educate them through information booklet.

OBJECTIVES OF THE STUDY
- To assess the level of awareness regarding byssinosis and its prevention among textile worker.
- To find out the association between the level of awareness regarding byssinosis & its prevention among textile worker with selected demographic variables.
- To develop an information booklet regarding byssinosis & its prevention among textile worker.

HYPOTHESIS OF THE STUDY
H$_1$: There is be significant association between the level of awareness regarding byssinosis and its prevention with selected socio- demographic variables among textile workers.

OPERATIONAL DEFINITION
Awareness - In this study, awareness refers to what is known about byssinosis & its prevention among textile workers and which is measured by a structured knowledge questionnaire.
Byssinosis - Byssinosis is an irreversible & untreatable chronic occupational lung disease caused by prolonged inhalation of Cotton dust.
Prevention- In this study, this term refers to the measures

that are used to prevent the occurrence of byssinosis among textile workers.
Textile workers - In this study, this term refers to the employees who are working in the textile field for prolonged years mainly includes cotton specially yarn, thread and fabric mills are most associated with worker expose to cotton dust.
Information Booklet- In this study, it refers to the educational tool prepared by the researcher to generate the awareness regarding byssinosis & its prevention.

ASSUMPTION
Textile workers may have some awareness regarding byssinosis & its prevention. Textile workers knowledge regarding prevention of byssinosis can be improved by distributing information booklet.

DELIMITATION
The study was delimited to assess the awareness among the textile workers. The study was delimited to the literate textile workers working in the textile mill of Jodhpur.

RESEARCH METHODOLOGY
RESEARCH APPROACH
Quantitative research approach is considered appropriate for the present study.

RESEARCH DESIGN
Descriptive survey design was adopted for this study.

RESEARCH VARIABLE
Research variable
Research variables are those variable which are observed a measured in natural setting as they exist without any manipulation in the descriptive study no last effect relationship is examined. In my study the research variables is awareness level of textile workers regarding Byssinosis & its Prevention.

Demographic variable
Demographic variables are the characteristics and attributes of the study sample. In my study the demographic variables are Age group, Gender, Level of Education, Marital status, Religion, Monthly Income Level, Working Experience in textile, Age of starting work, Type of work, working hours per day, existing Pulmonary Disease and Duration of smoking.

POPULATION
Textile workers working in textile mill and residing in Jodhpur.

SAMPLING SIZE

In this study, the sample consists 100 textile workers working in textile mill and residing in Jodhpur.

SAMPLING TECHNIQUE

Non-probability purposive sampling technique was used for this study.

RELIABLITY OF THE TOOL

The reliability was established by using Cronbach's Alpha Coefficient formula and it is found to be reliable (r = 0.782).

MAJOR FINDING OF THE STUDY

Table 1 Depicted that of textile workers participated in the study, only male workers (100, 100%), majority of age 31-45 (62, 62%), level of education primary (49, 49%), marital status more than married workers (76, 76%), religion Hindu workers (61, 61%), monthly income 5000-10,000 (63, 63%), working experience in textile mill 6-10 (44, 44%), age of starting work most of 16-30 (99, 99%), type of work laboring (35, 35%), any existing pulmonary disease like less than emphysema (37, 37%), and duration of smoking more than works does not smoking (66, 66%)

Table 2 Depicted that the majority (73%) of the textile workers level of awareness was poor with mean ± SD is 8.87 ± 5.336 and mean percent awareness of 44.35%.

Table 3 Depicted shows that the awareness score of textile workers according to the different aspects of the Byssinosis and its prevention was highest (52.67%) regarding the 'Cotton dust Production' with the mean 1.58 and SD of ±1.056, followed by 49.67% regarding the 'Prevention of Byssinosis' with the mean 2.98 and SD of ±1.484, 45.40% regarding 'Management of Byssinosis' with the mean 2.27 and SD of ±1.490, 35.67% regarding 'Causes of Byssinosis' with the mean 1.07 and SD of ±0.967 and lowest (32.33%) in regarding 'symptoms of Byssinosis' with the mean 0.97 and SD of ±1.176. The overall awareness score with mean ± SD is 8.87 ± 5.336 and mean percent awareness of 44.35%.

Based on the findings we can conclude that the awareness of textile workers regarding Byssinosis and its prevention have been poor regarding all different aspects of the Byssinosis and its prevention.

Table 1. Frequency and percentage distribution of demographic variables among textile workers (N=100)

S.No	Socio-demographic variable		Frequency	Percentage
1.	Gender	Male	100	100 %
2.	Age group	≤ 30	20	20 %
		31-45	62	62 %
		46-60	18	18 %
3.	Level of education	Illiterate	15	15 %
		Primary	49	49 %
		Secondary	25	25 %
		Senior Secondary	11	11 %
4.	Marital status	Single	24	24 %
		Married	76	76 %
5.	Religion	Hindu	61	61 %
		Muslim	39	39 %
6.	Monthly income	5000	02	02 %
		5000-10,000	63	63 %
		10,000-20000	25	25 %
		>20,000	10	10 %
7.	Working experience in textile mill	≤ 5	14	14 %
		6-10	44	44 %
		11-20	26	26 %
		≥ 20	16	16 %
8.	Age of starting work	< 15	01	01 %
		16-30	99	99 %
9.	Type of work	Spinning	25	25 %
		Ginning	20	20 %
		Dyeing	20	20 %
		Labouring	35	35 %

10.	Working hours per day	< 8 hr.	32	32 %
		>8 hr.	68	68 %
11.	Any existing pulmonary disease	Asthma	20	20 %
		COPD	12	12 %
		Emphysema	37	37 %
		None of these above	31	31 %
12.	Duration of Smoking	Last 2yr	10	10 %
		Last 5yr	15	15 %
		Last 10yr	09	09 %
		Never	66	66 %

Table 2. Level of awareness regarding byssinosis and its prevention   **(N=100)**

Level of Awareness	Frequency	Percentage
Poor (<50%)	73	73.0%
Average (50-70%)	8	8.0%
Good (>75%)	19	19.0%
Total	**100**	**100.0%**

Table 3. Mean, SD and mean percentage of the textile workers awareness scores regarding byssinosis according to aspects (N=100)

Awareness Aspects	Maximum	Mean	Mean %	±S.D.
Causes of Byssinosis	3	1.07	35.67%	0.967
Symptoms of Byssinosis	3	0.97	32.33%	1.176
Cotton dust Production	3	1.58	52.67%	1.056
Management of Byssinosis	5	2.27	45.40%	1.490
Prevention of Byssinosis	6	2.98	49.67%	1.484
Over all	**20**	**8.87**	**44.35%**	**5.336**

DISCUSSION

The hypothesis made in the study is "There is significant association between the level of awareness regarding byssinosis and its prevention with selected socio- demographic variables among textile workers at the level of $P \leq 0.05$. The study findings reveal that all the demographic variables were significant except age of starting work and duration of smoking association with the level of awareness regarding byssinosis and its prevention. The two assumptions were made in this study. The first one was the finding of the study reveals that textile workers have poor knowledge regarding byssinosis and its prevention.

Above findings supporting the study was conducted by Sikandar B, et al (2016) that similar result were in Bijapur, Karnataka. The study findings show that majority (85%) of the subject had inadequate knowledge regarding byssinosis [5]. One another study done by Nafeees AA, et al (2012) similar result were in Pakistan.

The study findings show that majority (18%) of the subject had high prevention regarding byssinosis [6].

The second assumption was Textile worker's awareness regarding prevention of Byssinosis can be improved by distributing information booklet. The use of information booklet can improve awareness of textile workers regarding byssinosis and its prevention.

CONCLUSION

The finding raised concerns about all aspects of byssinosis. A considerable inadequate awareness about various aspects of byssinosis. However, it was use of information booklet can improve awareness of textile workers regarding byssinosis and its prevention. This study has made some progress in establishing the current status of textile workers awareness regarding byssinosis, and is able to provide a framework for developing textile work for future practice.

REFERENCES

1. Nag PK, Kumar S. (2012), Byssinosis. Environmental information system, (7) p. 81-123 Available from http://www.cdc.gov/niosh/docs /
2. Kalasuramath S, Kumar M, K, SM, Deshpande DV. (2013), Incidence of byssinosis, effect of indoor pollutants and associated risk factors on lungs function among women working in cotton mills, Int. J. Basic Appl. Physiol. p. 152-55.

3. Singh MB, Fotedar R, Lakshminarayana J. (2010), Occupational Morbidities and their association with environmental factor among textile workers off desert area of Rajasthan, India. J. Occup, Health: (47) p. 371-377.
4. World health organization: (1995), Global strategy on Occupational health for all- the way to health at work.
5. Sikandar B, Chopade S, Jawaddgi S, K.K. (2016), Evaluate the effectiveness of structured teaching programme regarding prevention of byssinosis disease among cotton mill workers in selected mill at Bijapur, Karnataka. p. 75-82.Available from: http://www.ijamscr.com.(l4)
6. Nafees AA, Fatmi Z. (2016). Available intervention for prevention of cotton dust associated lung disease among textile workers. JCPS Pakistan, (26) p. 685-91.

Research Article