



Original Article

Morbidity Profile among Women Beedi Workers in the Urban Slum of Kurnool Town, Andhra Pradesh

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Abstract

Background: Rolling Beedi is an indigenous method of making smokable tobacco using tobacco leaves that provided employment for millions of Indians. Beedi rolling is mostly made by women and girls sitting at home and is regarded as primarily as women's work. Objectives: 1.To estimate the morbidities among women Beedi workers 2.To determine association between different factors influencing the morbidities.

Methodology: A community based cross sectional study conducted among 203 female Beedi workers in the Budhawarpet, urban slum of the Kurnool town which is the field practice area of Kurnool medical college from September-2017 to October 2017. Data was collected by face to face interview using predesigned structured questionnaire after approval from institutional ethical committee and by taking informed consent from participants. Data was analyzed by using MS Excel. Results: The study comprised of 203 women Beedi workers. Mean age of the study subjects was 43±0.94 years and 145 (72.5%) subjects were illiterates and most of them are belongs to Muslim community. Out of the 203 study subjects most common morbidity was musculoskeletal problems in 125(62.5%) and then followed by eye problems in 80(40%) and respiratory problems in 70(35%), neurological in 40(20%), skin problems in 15(7.5%), gynaecological problems in 4 (2%).

Conclusion: Most common morbidities among women Beedi workers were Muskulosketal problems, and then eye problems and respiratory problems.

Keywords: Women, Beedi workers, Morbidity profile.

Introduction

Beedi industry provides a potential employment opportunity to a large number of people. It is estimated that around one million workers mostly woman and children are employed in Beedi making¹. Most of the Beedi making is carried out

by the contractual, home-based, daily base system. In this women and children are involved quite easily³.Beedi is made by two main raw materials, tendu leaves (Beedi wrapper) and tobacco flakes. A single woman on an average rolls 500-1000 Beedi's per day, using an average of 500 grams of

tobacco flake². A Beedi worker in the process of rolling may inhale tobacco dust and other harmful components. Women spend hours sitting, rolling Beedi's, surrounded by this harmful tobacco dust⁴. Most of them live in one small room where they do the Beedi rolling along with cooking, sleeping and other daily activities⁵. The health hazards of tobacco exposure through smoking have been well documented and exposure to tobacco smoke, active and passive, has a significant impact on women's health. Beedi rolling cause's serious health hazards⁶. In view of the high content of nicotine and other harmful chemicals in Beedi tobacco (compared with cigarette tobacco), these workers are at extreme risk of developing systemic illness¹. Hence the study was carried out to understand the socio demographic profile, and health hazards of female Beedi rollers residing in an urban slum, field practice area of Kurnool Medical College, Kurnool.

Methodology

This cross sectional study was conducted in the urban slum of Kurnool town, field practice area of Kurnool medical college from September-2017 to October 2017 among women who are Beedi rollers from at least for past 6 months. The present study was carried out after obtaining the Ethical committee clearance of the Medical College. Written and informed consent was taken from all the participants. A sample of 203 women Beedi rollers who are currently working from at least 6 months were included in the study. Those who left the job or below 10 years were not included in the study.

In the defined study area, house to house survey was done. Women Beedi rollers who had come under the inclusion criteria were taken. An assurance to the subjects regarding the confidentiality of subject's data was assured. The pre designed, structured questionnaire was administered for collecting the demographic profile, and the health problems of the subjects. Statistical analysis: Statistical analysis was done using MS Excel Results were expressed in number

and percentages. Descriptive Statistics and Chi-square Test were employed to analyse the data, statistical significance was fixed at $p < 0.05$.

Results

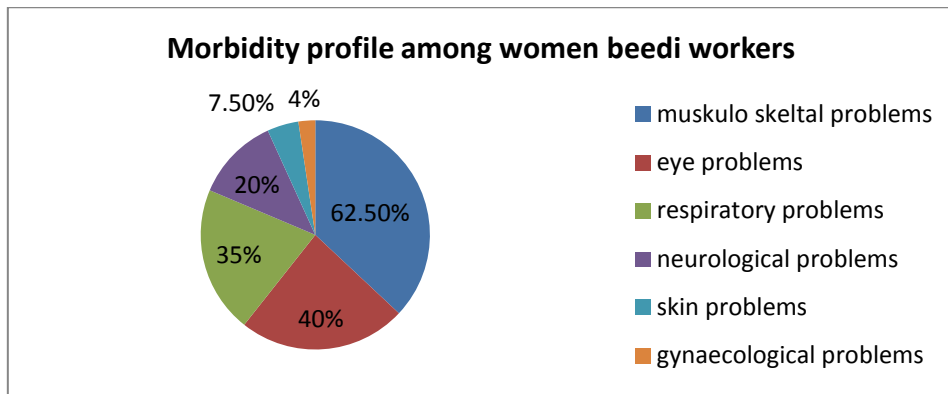
Among 203 Beedi rollers, Mean age of the study subjects was 43 ± 0.94 years. 91.6% of subjects were from the Muslim religion. Most of them were married (72.09%). And 71.42% were illiterate. Among literate, 14%, 20% and 9% studied till primary, middle and secondary schooling respectively. According to type of the ration card they used, 98.5% are belongs to below poverty line and 1.5% were belongs to above poverty line. Overcrowding was seen in almost all the houses. Among 203 female Beedi workers, women of age ranging from 21-40 years were mostly involved in Beedi rolling. Most of the women started this Beedi rolling because of their poor socioeconomic status and also as their family was involved in this occupation. Around 61.05% of the study subjects were in this occupation for >15 years, 7.8% of study subjects were in this for 10 -15 years, and 16.74% ,14.28% of the study subjects were in this occupation 5-10 years and <5 years respectively. Most of them work for an average of 6 days per week and 9 hours per day. Beedi rolling work is done at home along with cooking, feeding children and other daily activities. There was no separate place for Beedi rolling and it was done at areas where other activities were carried out. Women sit for prolonged hours for Beedi rolling. Average number of Beedi's made by a single women were 940 per day. Around 70.9% of subjects make 600-1000 Beedi's per day. Most of subjects work on weekly basis. They get paid on weekly basis.

Table1: Socio Demographic profile and working pattern of Beedi rollers.

s.no	Variables	Values	Percentages
1	Age		
	10-20 years	16	7.88%
	21-40years	75	36.95%
	41-50 years	53	26.10%
	>50years	59	29.07%
2	Religion		
	Hindu	12	5.9%
	Muslim	186	91.6%
	Christian	5	2.5%
3	Marital status		
	Married	148	72.90
	Un married	19	10.40
	Widowed	33	16.70
4	Educational status		
	Literate	49	24.14%
	Illiterate	154	75.86%
5	Socio economic status		
	APL	3	1.48%
	BPL	200	98.52%
6	Duration of Beedi rolling		
	<5years	29	14.28%
	5-10 years	34	16.74%
	10-15 years	16	7.9%
	>15 years	124	61.08%
7	Working hours per day		
	<5hrs/day	58	28.58%
	>5 hrs/day	145	71.42%
8	No of Beedi's rolled per day		
	≤500	38	18.72%
	600-1000	144	70.93%
	≥1000	21	10.35%
9	Protective measures		
	Taken	41	20.92
	Not taken	162	79.08%

Regarding safety measures, only 20 % wash hands after Beedi making. None of the subjects wear gloves or masks. And no one was aware of these safety measures and the need of it. Study showed that among 203 study subjects, 62.5% had musculoskeletal symptoms, 40% had eye symptoms, 35% had respiratory symptoms, 20% had neurological symptoms and 7.5% had skin problems. Among musculoskeletal symptoms most of the subjects had shoulder pain (80%) and among 72% of subjects had with neck pain and knee joint pain, and with back pain(56%). Among eye symptoms the most common symptom was eye watering (81.25%) followed by poor vision

(50%). among the respiratory symptoms are cough (71.42%), sneezing(28.57%), dyspnoea (22.85%) . and three patients are with tuberculosis. Among neural symptoms 33% subjects had headache, 18% had numbness.



It was observed that, as the duration of Beedi rolling increases, morbidities also increases. Among the study subjects with more than 10 years of work duration, 70.80% were having

musculoskeletal symptoms as compared to 42.42% of subjects with 10 years and less than 10 years of work duration.

Table -2: Factors influencing the morbidity profile among women Beedi workers

Factors	Muskuloskeletal problems			χ^2	P-value
	yes	no	Total		
Literacy					
Literates	20(40.81%)	29(59.19%)	49	11.76	<0.005
Illiterates	105(68.18%)	49(31.82%)	154		
Duration of Beedi rolling					
≤10 years	28(42.42%)	38(57.58%)	66	15.16	<0.005
>10 years	97(70.80%)	40(29.20%)	137		
No of working hours per day					
≤5 hours	17(29.31%)	41(70.69%)	58	32	<0.05
>5 hours	40(27.58%)	105(72.42%)	145		

Among the study subjects Muskuloskeletal problems are more among illiterates than literates and it is statistically significant .this is because of taking of protective measures by literates. And there is statistically significance between duration of Beedi rolling, no of working hours per day and morbidity profile (Muskuloskeletal problems) of study subjects.

Discussion

In the present study, among 203 study subjects, most of them lived in one small room where they do Beedi rolling as well as cooking, sleeping and other daily activities. This finding was similar to a study done by Nakkeeran et al¹. Most of the women were in the age group of 21-40 years. Mean age of study subjects was 43±0.94. In a study done by Manjula et al⁹the mean age of Beedi rollers were 34.43 years.

Due to poor socio economic status and poor housing condition, female Beedi rollers were

forced to work continuously for many hours in improper working conditions. Our study showed that women with poor socioeconomic status were involved in Beedi rolling. Illiteracy was found out to be a reason for the women to be involved in this job which was statistically significant with a p - value of <0.005. Lack of protective measures among the majority of the study subjects (79.08%) which was similar to a study done by K P Joshi et al²which showed 83% with poor hygiene. This poor hygiene along with other improper working condition contributes to health hazards in Beedi rollers.

In our present study most of the subjects had musculoskeletal symptoms (59%). This was supported by study done by Manjula et al⁶. Occurrence of musculoskeletal symptoms and the duration of Beedi rolling was found to be statistically significant (p value0.005). Among musculoskeletal symptoms most of the subjects had shoulder pain (80%) and among 72% of

subjects had with neck pain and knee joint pain, and with back pain(56%). Among eye symptoms the most common symptom was eye watering (81.25%) followed by poor vision (50%).among the respiratory symptoms are cough (71.42%) ,sneezing(28.57%), dyspnoea (22.85%) . and three patients are with tuberculosis. Among neural symptoms 33% subjects had headache, 18% had numbness.Ranjith Singh and Padmalatha reported that Beedi rollers were mostly affected by respiratory diseases, followed by skin diseases, gastrointestinal diseases and musculoskeletal diseases. In our study it was noted that most of the women are unaware of the health facilities availed to them.

Conclusion

From the present study it is was concluding that conclude that most of the female Beedi rollers from a poor socio economic status and illiterate were involved in this occupation. As the duration of Beedi rolling increases the health hazards also increases, the most common being the musculoskeletal symptoms followed by visual problems, respiratory and neurological symptoms. Beedi rollers are unaware of the safety measures that have to be followed while being in the job and the health care facilities provided to them. Awareness among Beedi rollers regarding proper safety measures and proper posture should be done to reduce the risk of health hazards. Since Beedi rolling is an organised sector and due to lack of available policies for home based Beedi rollers, steps have to be taken by policy makers to include home based Beedi rollers into the policy.

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