

## A STUDY ON WOMEN BEEDI WORKERS AT VELLORE DISTRICT IN TAMILNADU

Dr. N. Fathima Thabassum\*

### ABSTRACT

Beedi making is a small scale Industry of rural India. This study focuses particularly on status of women involved in the Beedi labour in the district of Vellore in Tamil Nadu state. Factor analysis is employed to find out the major factors influencing the causes for the difficulties. It was found out from the study that five major factors such as “Social travails and misery”, “Psychological factors leading to Low Productivity”, “Job monotony”, “Low income Labour”. And “Workplace discomfort” were the a main causes of occupational complexities. The weighted average method is employed to know the major health problems faced by women beedi workers. The results of weighted average reveal that anemia and nutritional deficiency, neck shoulder and back pain and asthma are the major health problems faced by the women beedi workers at Vellore.

\* Assistant Professor, Department of Commerce, Shri Krishnaswamy College for Women, Chennai

## INTRODUCTION

Beedi Rolling is one of the informal sector employing around 3 million people in India. There are nearly 2.4 Lakh beedi workers in Tamil Nadu according to Labour and Employment (K2) Department, G.O. Ms. No. 43. The majority of them are home based women workers. They are basically illiterates living below the poverty line. They earn their livelihood by engaging in Beedi rolling. Because of this occupation, there are various maladies that creep in to their lives. In order to make both ends meet, these labourers especially women undergo hardships without any choice. The skills required in this job are not very complicated but nevertheless laborious and stress prone. Their work consists of acquiring the materials, cutting the tendu leaves, tying them with thread and rolling them into bundles. Beedi and Cigar Workers (Conditions of Employment) Act, 1966 came into being to minimize exploitation of the workers. It was an attempt to improve the working condition of the labourers and provide for their general welfare and wellbeing.

## REVIEW OF LITERATURE

**Mohandas (1984)** analyzed the economic conditions of Beedi workers in Kerala where the occupational hazards were heavy workload, low wages, poor savings and heavy debts. **Sri Narayana Rao (1998)** stated that the large number of Beedi workers are women and treated like bonded labourers. **Panchamukhi (2000)** states that when Beedis are stored in the house, food spoils quicker and family members experience nausea and headache. According to **Kumar (2003)**, Beedi rollers are constantly exposed to Tobacco, dust and hazardous chemicals and they face illness like Tuberculosis, Asthma, Anemia, and giddiness and eye problems.

## OBJECTIVES OF THE STUDY

1. To measure the demographic variables of women Beedi workers at Vellore district of Tamil Nadu state in India.
2. To find out the factors influencing the common causes of stress among women Beedi rollers.
3. To identify the major list of health problems faced by the women Beedi workers.

**RESEARCH METHODOLOGY:**

The research used a descriptive design. Information has been collected using Primary and Secondary data. A closed ended questionnaire was constructed to collect the response of Beedi workers in Vellore district. The questionnaire comprises of three parts –The first part deals with demographic details, the second part constitutes the factors determining the health of Beedi rollers. The third part represents the health problems faced by the women Beedi Workers due to Beedi rolling occupation. Direct observation Direct Interview method is also adopted to ascertain the views of women Beedi workers.

The sample for the study comprises of hundred female Beedi workers from the areas of Ranipet Vellore town, Gudiyatham and Katpadi . Non probability convenient sampling technique is adopted. Secondary information has been collected through text books, internet sites, newspaper articles and reports. The period of the study was from September 2012 to January 2013.

**TOOLS FOR ANALYSIS**

1. Percentage analysis is used to ascertain the demographic profile of the women Beedi rollers
2. Factor analysis is employed to find the underlying factors determining the health conditions of Beedi workers
3. Weighted average method is adopted to find out the list of critical health problems among Beedi workers.

**PERCENTAGE ANALYSIS ON DEMOGRAPHIC PROFILE****Table No. 1: Percentage analysis on Demographic Profile**

S. No.	Particulars	Categories	Frequency	Percentage	Cumulative Percentage
1.	Age	18 – 28	23	23	23
		29-39	35	35	58
		40-50	26	26	84
		51-61	12	12	96
		Above 61	4	4	100
2.	Marital Status	Married	75	75	75
		Unmarried	12	12	87
		Widow/	13	13	100

		Divorcee			
3.	Educational Qualification	Primary	40	40	40
		Secondary	24	24	64
		Higher Secondary	5	5	69
		Graduate	1	1	70
		uneducated	30	30	100
4.	Family Size	< 3	21	21	21
		4-5	66	66	87
		6-7	11	11	98
		Above 7	2	2	100
5.	Wage / week (Approx. in Rs.)	50	12	12	12
		51-150	30	30	42
		151-300	39	39	81
		301-450	13	13	94
		Above 451	6	6	100
6.	Hours spent on the job each day	< 3 hours	23	23	23
		3-6 Hours	54	54	77
		7-10 Hours	9	9	86
		11-14 Hours	4	4	90
		Above 14 Hours	10	10	100
7.	How long you had been working	< 10 years	39	39	39
		11-20 years	28	28	67
		21-30 years	24	24	91
		31-40 years	6	6	97
		Above 40 years	3	3	100
8.	Precautions taken while in occupation	No Precautions	87	87	87
		Gloves/Masks/Lungi/Sheet	13	13	100
9.	No. of Children	1	10	10	10
		2	38	38	48
		3-5	45	45	93
		More than 6	7	7	100
10.	Assistance of your children in Beedi Rolling	Yes	97	97	97
		No	3	3	100

From the demographic profile of the workers, it can be analyzed that the highest number of women Beedi workers is around 35% and they are in the age group of 29-39 years. 75% of them are married. 40 % of the respondents are educated up to primary level, 66% have 4-5 members in the family. 39% of them were earning Rs. 151- Rs.300 per week. 54% of the workers work for 3 to 6 hours per day. 39% of the respondents were in this occupation for less than 10 years.. 45% of the respondents have 3 to 5 children and 97% of the children assist them in Beedi rolling occupation.

### FACTOR ANALYSIS

All 15 items of the questionnaire were factor analysed using principle component analysis with an orthogonal (Varimax rotation). The number of factors was unconstrained for the sake of convergent validity. 0.50 was used as a factor loading cutoff point. By means of factor analysis, 5 factors are identified.

Table No. 2 shows the reliability statistics and proves that data could support 66.98% reliability to do this analysis. Table No. 3 indicates that the Kaiser – Mayer Olkin (KMO) measure of sampling adequacy in the study is 0.607 . This result exceeds 0.5, Bartlett’s measure of Sphericity meaning that the factors that form the variables are adequate.

**Table No. 2 : Reliability Statistics**

Cronbach’s alpha	Number of items
0.6698	15

**Table No. 3 KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.607
Bartlett's Test of Sphericity	Approx. Chi-	326.127

	Square	
	df	105
	Sig.	.000

**Total variance explained**

The total Variance is explained with rotation. The Eigen values are different for all the five factors identified. The eigen values for factor 1, 2, 3, 4 and 5 are 2.662, 1.977, 1.543, 1.454 and 1.400. The percentage of variance for these factors are 17.74, 13.179 10.2383, 9.690 and 9.332 .It indicates that 5 factors extracted from 15 factors have cumulative percentage up to 60.232% of variance. The 15 statements, were reduced into 5 underlying factors given in the Table No. 4 below.

**Table No. 4 Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.050	20.333	20.333	3.050	20.333	20.333	2.662	17.747	17.747
2	1.981	13.209	33.543	1.981	13.209	33.543	1.977	13.179	30.926
3	1.641	10.939	44.482	1.641	10.939	44.482	1.543	10.283	41.209
4	1.291	8.608	53.090	1.291	8.608	53.090	1.454	9.690	50.900
5	1.071	7.143	60.232	1.071	7.143	60.232	1.400	9.332	60.232
6	.989	6.596	66.828						
7	.884	5.893	72.721						
8	.855	5.700	78.421						
9	.695	4.633	83.054						
10	.673	4.484	87.538						
11	.527	3.510	91.048						
12	.409	2.724	93.772						
13	.364	2.426	96.198						
14	.315	2.100	98.298						
15	.255	1.702	100.000						

Total Variance Explained

Extraction Method: Principal Component Analysis.

Source: Primary data

### Rotated Component Matrix

The Rotated Component Matrix is discussed in the Table No.5. After the factor solutions has been obtained, 5 factors have been given appropriate names on the basis of the variables represented in each case .

**Table No 5 : Rotated Component Matrix**

No.	Variables	Factors				
		1	2	3	4	5
1	Drunkard Husband	.740				
2	Domestic Quarrel	.802				
3	Beedi Occupation affecting the family life	.766				
4	Bonded labour	.639				
5	Long hours of work per day			.816		
6	High Volume for work				.881	
7	Sleepy and Lethargic all the day		.796			
8	Low wages				.589	
9	Low focus or concentration		.701			
10	Unable to meet the daily Targets		.724			

11	Cheating/commission/bribes	.502				
12	Inadequate food					
13	Posture at work					.704
14	Repetitive work of action			.648		
15	Physical disability					.679
<p>Extraction Method: Principal Component Analysis.                  Rotation Method: Varimax with Kaiser Normalization.                  Rotation converged in 8 iterations</p>						

Factor 1 is the most important factor which explained 17.747% of the variation . The factors were Drunkard husband (0.7470 ) , Domestic quarrel , ( 0.802 ) , Beedi occupation affecting the family life ( 0.766 ) , Bonded labour ( 0.639 ) and cheating commission and bribes ( 0.502 ) are highly correlated with each other. These factors affect the social life of the Women Beedi workers. Hence, the researcher names this segment as “ **Social travails and misery**” of women Beedi workers.

The second kind of factor explained 13.179% of the variances. In this segment, the researcher took the 3 important variables such as sleepy and lethargic all the day ( 0.796), Low focus or concentration ( 0. 701) and Unable to meet the Targets ( 0.724) . These statements affect the mental state of the Beedi workers which in turn affects the Target set. Hence this segment is named as “**Psychological factors leading to Low Productivity**” of women Beedi workers.

The third factor explained 10.283% of the variations. The statements are long hours of work (0 .816) and repetitive work of action (0.648). This statement shows mundane and laborious nature of Beedi rolling as occupation. Hence this factor is termed as “**Job monotony**”

The fourth factor explained 9.690 % of variations. The statements are high volume of work (0. 881) and low wages (0.589). This factor clearly shows the hand to mouth survival. The female

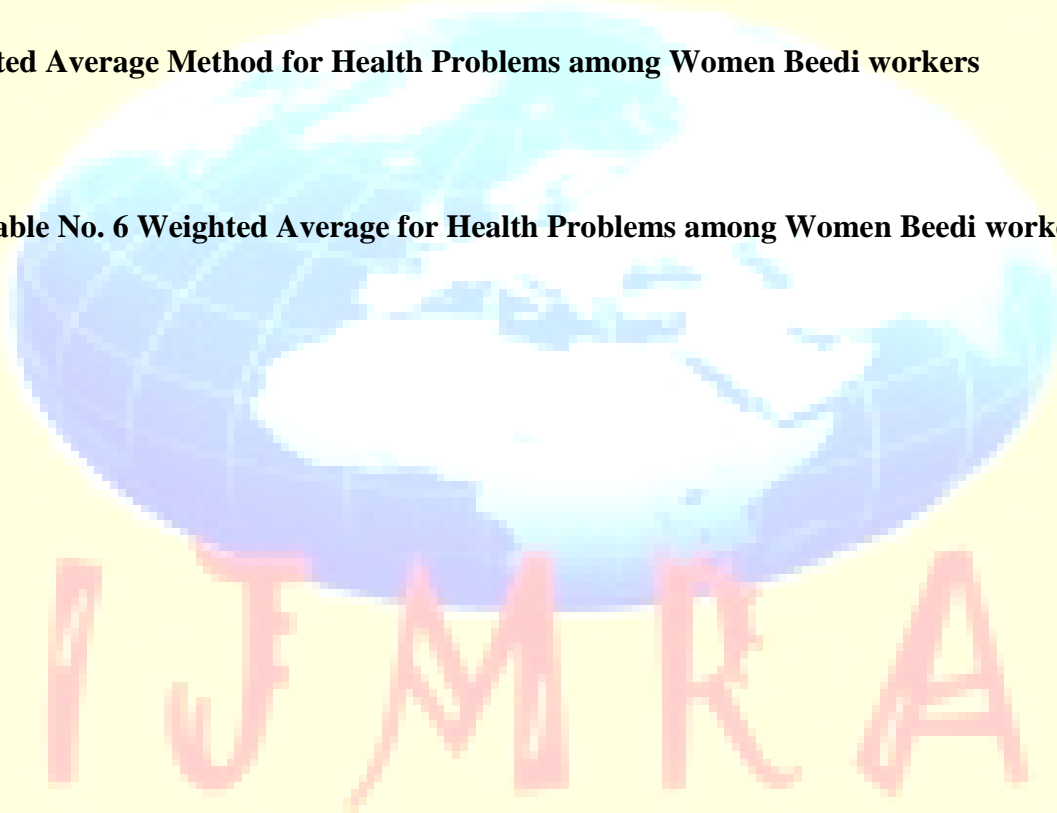


workers work for long hours to get small amount of money to feed their family or to clear their debts. The researcher has named this segment as “**Low income Labour**”.

The fifth factor explained 9.332% of variables i.e. Posture at work (0.704 ) and Physical disability ( 0.679). This factor reveals that posture of work affected due to shack and small pigeon hole like work places, which clearly corresponds in reality to the female bidi workers, having pregnancy related complications, disability by birth like loss of limbs, debilitating diseases like polio etc. The researcher has named these factors as “**Workplace discomfort**”.

### **Weighted Average Method for Health Problems among Women Beedi workers**

**Table No. 6 Weighted Average for Health Problems among Women Beedi workers**



Sl No	Health Problems	Weight (X)	12	11	10	9	8	7	6	5	4	3	2	1	Total	Weighted average $\sum fx / \sum x$	Rank
1.	Anemia & nutritional deficiency	Frequency (f)	12	17	15	7	9	13	11	5	4	3	2	2	10	10.628	1
		fx	144	187	150	63	72	91	66	25	16	9	4	2	829		
2.	Asthma	Frequency (f)	18	8	11	9	12	7	12	5	6	4	5	3	10	10.077	3
		fx	216	88	110	81	96	49	72	25	24	12	10	3	786		
3.	Eye Problems	Frequency (f)	20	10	6	5	4	3	5	7	6	9	13	12	10	8.4872	11
		fx	240	110	60	45	32	21	30	35	24	27	26	12	662		
4.	Gastrointestinal problems	Frequency (f)	20	10	7	12	4	6	12	8	3	7	5	6	10	9.7821	7
		fx	240	110	70	108	32	42	72	40	12	21	10	6	763		
5.	Nervous problems	Frequency (f)	10	18	12	4	3	7	12	15	6	3	7	3	10	9.5385	9
		fx	120	198	120	36	24	49	72	75	24	9	14	3	744		
6.	Osteological problems	Frequency (f)	14	9	9	12	5	7	6	3	6	7	14	8	10	9.859	5
		fx	168	99	90	108	40	49	36	15	24	21	28	8	769		
7.	Respiratory problems	Frequency (f)	18	6	5	9	13	14	15	4	2	1	7	6	10	9.6923	8
		fx	216	66	50	81	104	98	90	20	8	3	14	6	756		
8.	Lack of sleep anxiety	Frequency (f)	11	6	12	9	13	9	5	6	5	7	8	9	10	8.8718	10
		fx	132	66	132	99	135	99	55	66	55	77	88	99	692		

International Journal of Physical and Social Sciences  
 A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories  
 Indexed & Listed at: Ulrich's Periodicals Directory, U.S.A., Open J-Gate, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A.  
<http://www.ijmra.us>

9.	TB	Frequency (f)	18	16	7	13	7	4	6	4	5	10	5	5	10	10.051	4
		fx	216	176	70	117	56	28	36	20	20	30	10	5	784		
10	Skin Problems	Frequency (f)	17	5	7	8	3	16	2	7	4	9	1	4	10	8.1154	12
		fx	204	55	70	72	24	112	12	35	16	27	2	4	633		
11	Ulcer	Frequency (f)	15	12	18	15	2	6	5	4	3	5	2	1	10	9.8333	6
		fx	180	132	180	135	16	42	30	20	12	15	4	1	767		
12	Shoulders, neck and backpain	Frequency (f)	17	14	15	6	5	10	8	7	6	5	4	3	10	10.321	2
		fx	204	154	150	54	40	70	48	35	24	15	8	3	805		

The table no. 6 reveals the major and often overlooked health factors among female Beedi workers. The female respondents have ranked anemia and nutritional deficiency as first with the score of 10.628 followed by shoulder, neck and back pain(10.231) as second rank. Asthma (10.077), TB (10.051), Osteological Problems (9.859), Ulcer(9.8333),Gastro intestinal problems (9.7821),Respiratory problems( 9.6923), Nervous Problems (9.5385), Lack of Sleep and anxiety (8.878), Eye Problems (8.4872) are ranked third to eleventh sequentially. Skin problems with a score of 8.1154 is ranked in the final place.

### Major Findings:

1. Percentage analysis on demographic profile of Beedi rollers reveal that majority of the women workers are in the age group of 29% to 39%. 40 % of the respondents are primary educated, 66% have 4-5 members in the family. 54% of the workers toil for 3 to 6 hours per day. 39% of the respondents were in this occupation for less than 10 years.. 45% of the respondents have 3 to 5 children and 97% of the children assist them in Beedi rolling.

2. From the factor analysis, five main causes for stress among the women Beedi workers are determined. They are named as “Social travails and misery”, “Psychological factors leading to Low Productivity”, “Low income Labour” and “Workplace discomfort”.
3. Weighted average ranks reveal female workers are highly affected due to anemia and nutritional deficiency followed by shoulder pain, Asthma and TB.

**Conclusion:**

Though the Beedi rolling industry has faded due to the chewing of Gutka and Cigarette smoking, still Beedi is widespread in rural India. The findings reveal the common malaise of the women Beedi workers. Through direct interview and observation, it was noted that the raw materials supplied were not good and sometimes Signatures are taken on a higher amount than the amount actually paid. It was expressed by many women Beedi workers that they suffer atrocities and injustice because they fear that employers would stop giving work to them if they raised their voices. The female workers feel that though the nature of the job is tedious, they find the job easier and lucrative due to flexible working hours. Because of the financial insecurity of women Beedi workers the state has constituted a Beedi workers welfare fund by collection of cess on Beedi sales of Rs. 5/- per 1000. the income generated for the fund was Rs. 12751 Lakhs in the year 2006 -07 . This revenue was allotted for health, education, housing , water supply recreation and administration.

**References:**

1. Nakkeeran Senthilkumar A Study on Occupational Health Hazards Among Women Beedi Rollers In Tamilnadu, India
2. Dharmaliagam.A (1993), Female Beedi Workers in a South Indian-Village, Vol – XXVIII No. 27-28, July 03, Economic Political Weekly
3. Srinivasan.S and Illango.P “ Occupational Health Problems Faced By Female Beedi Workers at Khajamalai, Trichy District, Tamil Nadu “Volume 3, Issue 2, February 2013, International Journal of Scientific and Research Publications,
4. “Pocket Book of Labour Statistics 2007” , Social Security , Table 6.6  
<http://labourbureau.nic.in/PBLS%20K7%20E2%20%20%206.6.htm>

