

# Stress Management of Women Beedi Workers: A Scenario from Tirunelveli

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## Article Info

Volume 82

Page Number: 9287 - 9292

Publication Issue:

January-February 2020

## Abstract:

*Beedi* also known as poor man's cigarette is manufactured in almost all major states of India. *Beedi* workers are exposed to various health risks. Beedi manufacturing is a traditional home based small scale industry, spread over almost all the major states of India. For the beedi industry Tamilnadu is one of the major hub in India. Women generally take up the jobs out of compelling factors such as family situation and economic dependence. This study is an attempt to analyse the stress caused by the tedious working condition of beedi workers and the ways and means through which they are managing the stress. The researcher has applied the statistical tools like percentage analysis, t test, factor analysis, cluster analysis, chi square, paired correlation and paired sign test to analyse the results. It is observed from the study that the sample group mainly consist of middle aged women with low level of literacy, all married, having reasonably good experience, majority live in nuclear family with 2-6 family members. There is no specific motivator for choosing beedi rolling as a profession. The causes of stress among women Beedi Workers are grouped under three factors such as Self Centered Stress, Skill Centered Stress and Society Centered Stress. The stress management is grouped under two categories such as Self Management and Support Management. The economic impact by taking the parameters of income, expenditure and savings has positive relationship and positive impact. Hence it is concluded that irrespective of the stress, the women are empowered to overcome the stress and to earn their living by the employment as there is positive impact of the economic factors. With proper adherence of their grievances they can be relieved from the stress and are able to come up colourfully in their lives by brightening the family.

## Article History

Article Received: 18 May 2019

Revised: 14 July 2019

Accepted: 22 December 2019

Publication: 10 February 2020

**Keywords:** Causes of Stress, Economic Impact, Motivating Factors, Stress Management.

## Introduction

In India Beedi making is an age old industry and one of the largest job providers for women in the unorganized sector. Beedi making started in India as early as 1887 and it has become so popular in the present scenario that it is the second biggest cottage industry which offers huge potential for employment, next to agriculture. Beedi manufacturing is one of the major informal sector activities in India in which a huge numbers of home based women workers are engaged in beedi rolling activities who live below the poverty line. (Ansari, 2015) In Tamil Nadu the biggest centre for Beedi industry is **Tirunelveli district** with close to 400,000 workers. Vellore with 50,000 and

Thoothukudi with around 20,000 **workers** are the other important centres. There are roughly 6000 **workers** in Kanyakumari. The other districts in Tamil Nadu where Beedi workers are working, though in much lower numbers, include Erode, Thiravallur, Chengalpettu, Tiruvanamalai, Salem and Chennai. Beedi industry has a history of 95 years in Tirunelveli district. Although agriculture is their chief occupation, it is dependent on rainfall and labor availability is seasonal. The next non-farming alternative to agriculture is beedi rolling and women and children are involved in large amounts in its manufacturing. Beedi Industry plays a major role in Tirunelveli economy with mostly women being engaged in Beedi Rolling works. Almost all the trade

mark holding companies have their headquarters in Tirunelveli, Melepalayam or Mukkudal. The beedi rolling occupation is mostly concentrated in Alangulam, Pappakudy, Keelpavoor, Kadayam, Shencottai, Tenkasi, Ambasamudram, Cheranmahadevi blocks apart the Melepalayam municipal area. Stress management has become the most important and valuable technique to boost the employee morale and the company productivity in all companies. All the organization has understood that the workers play a vital role and they should be out of the stress to give a high performance atmosphere. There are variety techniques to manage stress in the work place. The research design used for this study is descriptive. The research selected 75 females for the study using a purposive sampling method. Only those female heads of the families who were involved in beedi work and who were willing to answer the scheduled were included for the study. Beedi rolling work is preferred by women because it is done from house. Beedi rolling is an important profession for many women. This study has been carried out among the women beedi workers in Tirunelveli District to know the causes of stress and the ways and means to manage stress. The major objectives of the study are to analyse the causes of stress and the management of stress among women.

**Table 1 Demographic Profile of the Sample Respondents**

Category	Frequency	Percent	Cumulative %
<b>Educational qualification</b>			
Illiterate	26	40.0	40.0
Primary School	15	23.1	63.1
Middle School	12	18.5	81.5
SSLC	8	12.3	93.8
HSC	4	6.2	100.0
Total	65	100.0	
<b>No. of Family Members</b>			
0-2	4	6	6
2-4	27	42	48
4-6	34	52	100
Total	65	100	
<b>Type of Family</b>			
Joint Family	19	29.2	29.2
Nuclear Family	46	70.8	100.0
Total	65	100.0	
<b>Type of Residence</b>			
Owned	48	73.8	73.8
Rented	17	26.2	100.0
Total	65	100.0	
<b>Age</b>			
20-30	1	1.5	1.5
30-40	26	40.0	41.5
40-50	22	33.8	75.4
50-60	15	23.1	98.5
60-70	1	1.5	100.0
Total	65	100.0	
<b>Experience</b>			
0-10	29	44.6	44.6
10-20	15	23.1	67.7
20-30	11	16.9	84.6
30-40	5	7.7	92.3
40-50	5	7.7	100.0
Total	65	100.0	

Source: Primary Survey

The sample women who took up the job of beedi rolling have low level of literacy rate as to Illiterates (40%), Primary School completed (23%), Middle School completed (19%), SSLC holders (12%) and HSC holders (6%). With regards to the number of family members, maximum of two members (6%), 2-4 members (42%) and 4-6 members (52%), 29 percent live in Joint Family while 71 percent live in Nuclear Family, 74 percent have Own houses while 26 percent have rented houses, in case of age groups, those who fall under the category of 20-30 (2%), 30-40 (40%), 40-50 (34%), 50-60 (23%) and 60-70 (2%). As far as the experience in the work is concerned, 45 percent have the maximum of 10 years of experience, 10-20 (23%), 20-30 (17%), 30-40 (8%) and 40-50 (8%). Hence it is observed that the sample group mainly consist of middle aged women with low level of literacy, all married, having reasonably good experience, majority live in nuclear family with 2-6 family members.

**Table 2 t test for the Motivators of Beedi Women Workers**

No	Statements	t	Sig. (2-tailed)	Mean	Std. Deviation	95% Confidence Interval of the Difference	
						Lower	Upper
1	Previous Experience	34.39	0.00	4.37	1.02	4.12	4.62
2	Easy job	21.97	0.00	3.92	1.44	3.57	4.28
3	To make use of the Acquired Skills	21.52	0.00	3.62	1.35	3.28	3.95
4	Convenience	20.92	0.00	3.43	1.32	3.1	3.76
5	Flexible Working Time	20.61	0.00	3.63	1.42	3.28	3.98
6	Self-motivation	20.19	0.00	3.26	1.3	2.94	3.58
7	To be economically independent	19.61	0.00	3.68	1.51	3.3	4.05
8	Unemployment	19.56	0.00	3.23	1.33	2.9	3.56
9	To earn more money for a comfortable Living	18.35	0.00	3.55	1.56	3.17	3.94
10	Low level of literacy	18.25	0.00	3.09	1.37	2.75	3.43
11	To get job satisfaction	18.21	0.00	3.2	1.42	2.85	3.55
12	As an alternative to the unemployed situations	16.61	0.00	3.2	1.55	2.82	3.58
13	To avoid poverty	16.59	0.00	3.34	1.62	2.94	3.74
14	Family situation	15.07	0.00	3.32	1.78	2.88	3.76
15	Utilize idle time purposely	14.19	0.00	2.82	1.6	2.42	3.21

Source: Primary Survey

Motivators of Beedi Women Workers is tested through t test which reveals that majority of the women took up the job of beedi rolling just because they have Previous Experience (t: 34.39, Mean: 4.37, SD: 1.02, p: 0.00), considering the job as Easy job (t: 21.97, Mean: 3.92, SD: 1.44, p: 0.00), To make use of the Acquired Skills (t: 21.52, Mean: 3.62, SD: 1.35, p: 0.00), Convenience (t: 20.92, Mean: 3.43, SD: 1.32, p: 0.00), Flexible Working Time (t: 20.61, Mean: 3.63, SD: 1.42, p: 0.00), Self-motivation (t: 20.91, Mean: 3.26, SD: 1.3, p: 0.00), To be economically independent (t: 19.61, Mean: 3.68, SD: 1.51, p: 0.00), Unemployment (t: 19.56,

Mean: 3.23, SD: 1.33, p: 0.00), To earn more money for a comfortable Living (t: 18.35, Mean: 3.55, SD: 1.56, p: 0.00), Low level of literacy (t: 18.25, Mean: 3.09, SD: 1.37, p: 0.00), To get job satisfaction (t: 18.21, Mean: 3.2, SD: 1.42, p: 0.00), As an alternative to the unemployed situations (t: 16.59, Mean: 3.34, SD: 1.62, p: 0.00), To avoid poverty (t: 16.61, Mean: 3.2, SD: 1.55, p: 0.00), Family situation (t: 15.07, Mean: 3.32, SD: 1.78, p: 0.00) and Utilize idle time purposely (t: 14.19, Mean: 2.82, SD: 1.6, p: 0.00). All the statements are statistically significant as the p values are less than 0.05.

**Table 3 Reliability Statistics for the causes of stress among women Beedi Workers**

ANOVA					
Category	Sum of Squares	df	Mean Square	F	Sig
Between People	605.640	64	9.463	11.323	.000
Within People	Between Items	318.858	15		
	Residual	1802.267	960		
	Total	2121.125	975	2.176	
Total	2726.765	1039	2.624		
Grand Mean = 2.44					
Reliability Statistics					
Cronbach's Alpha			N of Items		
.802			16		

Source: Derived

A total of 23 statements were taken for study and as per reliability statistics, only 16 statements were filtered as valid. The reliability statistics for the causes of stress by the sample beedi workers with 16 statements reveals that the value of Cronbach's Alpha is .802 indicating the adequacy of reliability. The ANOVA test reveals that all the 16 statements are significant as the p value (0.000) is less than 0.05, the F value (df: 64, 15) is 11.323. The Grand Mean for ANOVA test is 2.44. Hence it is concluded that the statements taken for study are significant as per reliability test and so further tests can be conducted and so the statements are further tested through factor analysis.

**Table 4 KMO test for the causes of stress among women Beedi Workers**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.644
Bartlett's Test of Sphericity	Approx. Chi-Square	488.787
	df	120
	Sig.	.000

Source: Derived

As per the test, it is noted that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.644 which is moderate and Bartlett's Test of Sphericity is statistically significant as the p value is 0.000 which is less than 0.05. The value of chi square is 488.787 for degrees of freedom of 120.

**Table 5 Factor Analysis for the causes of stress among women Beedi Workers**

Rotated Component Matrix <sup>a</sup>			
Statements	Component		
	Self Centered Stress	Skill Centered Stress	Society Centered Stress
Marital disagreement	.760	-.157	.263
Procrastination (postponement)	.743	.084	.061
Lack of assertiveness	.702	.042	-.241
Husband's unhealthy habit	.681	.312	-.166
Perfectionism	.607	.162	.428
Pessimistic Attitude	.599	.170	.559
Unnecessary worries	.585	-.199	-.203
Temperament / anger	.523	.271	-.393
Husband's job insecurity	.517	.516	-.370
Low level of literacy	.167	.832	.029
Lack of knowledge	.206	.778	.155
Compulsory socialization	-.138	.560	.318
Low self esteem	.368	.503	.187
Financial pressures	-.140	.468	-.029
Lack of social support	-.035	.256	.761
Troubles with in-laws	-.082	.022	.654
% of Variance	24.66	16.96	13.47
Cumulative Variance	24.66	41.62	55.09
% to total	45	31	24
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 7 iterations.			

Source: Primary Survey

**Self Centered Stress:** The eight statements filtered under this head are Marital disagreement (.760), Procrastination (postponement) (.743), Lack of assertiveness (.702), Husband's unhealthy habit (.681), Perfectionism (.607), Pessimistic Attitude (.599), Unnecessary worries (.585), Temperament/anger (.523) and Husband's job insecurity (.517). The percentage of variance under this factor is 24.66 and it forms 45 percent out of total.

**Skill Centered Stress:** The six statements filtered under this head are Low level of literacy (.832), Lack of knowledge (.778), Compulsory socialization (.560), Low self esteem (.503) and financial pressures (.468). The percentage of variance under this factor is 16.96 and it forms 31 percent out of total.

**Society Centered Stress:** The two statements filtered under this head are Lack of social support (.761) and Troubles with in-laws (.654). The percentage of variance under this factor is 13.47 and it forms 24 percent out of total.



**Table 6 Cluster Analysis for Stress Management**

	Final Cluster Centers	
	Cluster	
	Self Management	Support Management
Meditation	16	15
Yoga	16	10
Exercises	15	12
Sleeping	14	8
Breathing exercises	12	7
Walking	12	5
Jogging	11	8
Time Management	10	6
Watching Television	4	2
Balanced diet	12	12
Psycho-therapy	18	20
Body massage	18	19
Smartphones	10	16
Tranquilizers (medicine)	10	13
Watching Music	6	13
Sleeping pills	4	13
Social support	11	12
Chatting	3	10
Entertainment and fun	6	9
Laughing	3	6
N	63	2
%	97	3

Source: Primary Survey

It is understood from the cluster analysis that the sample group is sub divided into two segments known as Self Management and Support Management. Self Management includes Meditation, Yoga, Exercises, Sleeping, Breathing exercises, Walking, Jogging, Time Management, Watching Television and Balanced diet. Support Management includes Psycho-therapy, Body massage, Smartphones, Tranquilizers (medicine), Watching Music, Sleeping pills, Social support, Chatting, Entertainment and fun and Laughing. Out of the total sample respondents, 97 percent practicing self management techniques while only 3 percent seek support services to get rid of stress.

**Table 7 ANOVA for Cluster Analysis for Stress Management**

ANOVA						
	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Chatting	106.971	1	3.800	63	28.147	.000
Sleeping	159.797	1	7.311	63	21.857	.000
Yoga	74.476	1	5.965	63	12.486	.001
Walking	101.779	1	13.118	63	7.759	.007
Watching Music	84.927	1	9.347	63	9.086	.004
Watching Television	92.205	1	21.835	63	4.223	.044
Time Management	30.770	1	9.095	63	3.383	.071
Smartphones	68.865	1	21.685	63	3.176	.080
Breathing exercises	39.392	1	12.250	63	3.216	.078
Laughing	8.065	1	2.510	63	3.213	.078
Exercises	15.649	1	7.848	63	1.994	.163
Entertainment and fun	11.062	1	6.043	63	1.831	.181
Jogging	12.192	1	17.202	63	.709	.403
Tranquilizers (medicine)	11.062	1	16.964	63	.652	.422
Psycho-therapy	1.969	1	3.909	63	.504	.480
Sleeping pills	8.191	1	17.620	63	8.191	.498
Meditation	2.032	1	5.876	63	.346	.559
Body massage	2.393	1	8.384	63	.285	.595
Balanced diet	1.729	1	19.461	63	.089	.767
Social support	.010	1	10.856	63	.001	.976

Source: Primary Survey

As per ANOVA test for clusters, it is ascertained that Chatting (Mean Square: 106.971, F: 28.147, p: .000) tops in the score which is followed by Sleeping (Mean Square: 159.797, F: 21.857, p: .000), Yoga (Mean Square: 74.476, F: 12.486, p: .001), Walking (Mean Square: 101.779, F: 7.759, p: .007), Watching Music (Mean Square: 84.927, F: 9.086, p: .004), Watching Television (Mean Square: 92.205, F: 4.223, p: .044), Time Management (Mean Square: 30.770, F: 3.383, p: .071), Smart phones (Mean Square: 68.865, F: 3.176, p: .080), Breathing exercises (Mean Square: 39.392, F: 3.216, p: .078), Laughing (Mean Square: 8.065, F: 3.213, p: .078), Exercises (Mean Square: 15.649, F: 1.994, p: .163), Entertainment and fun (Mean Square: 11.062, F: 1.831, p: .181), Jogging (Mean Square: 12.192, F: .709, p: .403), Tranquilizers (medicine) (Mean Square: 11.062, F: .652, p: .422), Psycho-therapy (Mean Square: 1.969, F: .504, p: .480), Sleeping pills (Mean Square: 8.191, F: 8.191, p: .498), Meditation (Mean Square: 2.032, F: .346, p: .559), Body massage (Mean Square: 2.393, F: .285, p: .595), Balanced diet (Mean Square: 1.729, F: .089, p: .767) and Social support (Mean Square: .010, F: .001, p: .976). Further it is noted that the Stress Management activities Chatting, Sleeping, practicing Yoga, Walking, Watching Music and Watching Television are statistically significant and so it is concluded that these are the best stress relievers of women who work in beedi rolling.

**Table 8 Paired Samples Statistics for the Economic Impact of Employment**

Paired Samples Statistics					
Category		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Income (Before)	5630.77	65	1343.378	166.625
	Income (After)	7758.46	65	1215.896	150.813
Pair 2	Expenditure (Before)	1184.62	65	447.643	55.523
	Expenditure (After)	2088.46	65	593.768	73.648
Pair 4	Savings (Before)	930.77	13	154.837	42.944
	Savings (After)	1815.38	13	632.253	175.355

Source: Derived

The test shows that there is considerable increase in the economic variables like income which is an average of Rs. 5630.77 before employment and Rs. 7758.46 after employment, expenses Rs. 1184.62 before employment and Rs. 2088.46 after employment, Savings Rs. 930.77 before employment and Rs. 1815.381 after employment.

**Table 9 Paired Samples Correlations for the Economic Impact of Employment**

Paired Samples Correlations				
	Category	N	Correlation	Sig.
Pair 1	Income (Before) & Income (After)	65	.857	.000
Pair 2	Expenditure (Before) & Expenditure (After)	65	.538	.000
Pair 4	Savings (Before) & Savings (After)	13	.557	.048

Source: Derived

As per Paired Samples Correlations, the variable Income before & income after has a positive and high degree of correlation of 0.857, Expenses before & expenses after has a positive correlation of 0.538 and Savings before & savings after has a positive correlation of 0.557. The change in income and expenditure are highly significant than savings as per p values which is 0.000, 0.000 and 0.048 respectively for income, expenditure and Savings.

**Table 10 Paired Samples Test for the Economic Impact of Employment**

Paired Samples Test									
Category		Paired Differences					t	df	Sig. (2-tailed)
		Mean	SD	Std. Error Mean	95% Confidence Interval				
					Lower	Upper			
Pair 1	Income (Before) - Income (After)	-2127.69	694.96	86.20	-2299.90	-1955.49	-24.68	64	.000
Pair 2	Expenditure (Before) - Expenditure (After)	-903.85	516.62	64.08	-1031.86	-775.83	-14.11	64	.000
Pair 4	Savings (Before) - Savings (After)	-884.62	561.02	155.60	-1223.64	-545.59	-5.69	12	.000

Source: Derived

As per the Paired Samples Test, it is observed that there is considerable change in the mean values of all the three aspects such as income (2127.67), expenditure (903.85) and savings (884.62). The changes are statistically significant as the p values are less than 0.05. Further the t value is more for income (24.68), Expenditure (14.11) and is less for Savings (5.69). Hence it is suggested that the saving habit should be improved among the women beedi workers.

## Conclusion

Beedi workers in India, the third largest component of the work force in India after agricultural workers and textile workers, live and work in conditions of poverty and exploitation. Given the health problems, the exploitative conditions, lack of regulations for the vast majority of beedi workers and the nature of the industry being home based, serious consideration needs to be paid to the conditions of the workers. Governments, both at Centre and State have enacted various laws for the

welfare of the beedi workers but the reality is that these measures have done little to improve the working conditions and livelihoods and they still remain among the most marginalized and exploited sections of the society. With lakhs of workers in Tamil Nadu and millions across the country, any move towards the banning of tobacco products and discouraging tobacco use must begin with finding and promoting alternatives for workers involved in this industry. It is observed from the study that the sample group mainly consist of middle aged women with low level of literacy, all married, having reasonably good experience, majority live in nuclear family with 2-6 family members. There is no specific motivator for choosing beedi rolling as a profession. The causes of stress among women Beedi Workers are grouped under three factors such as Self Centered Stress, Skill Centered Stress and Society Centered Stress. The stress management is grouped under two categories such as Self Management and Support Management. The economic impact by taking the parameters of income, expenditure and savings has positive relationship and positive impact. Hence it is concluded that irrespective of the stress, the women are empowered to overcome the stress and to earn their living by the employment as t here is positive impact of the economic factors.

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