CHAPTER - 2

SOCIO ECONOMIC STATUS OF THE BEEDI WORKERS IN MELAPALAYAM, TIRUNELVELI.

2.1 Introduction

Health is an integral part of socio-economic development of any nation. As there is no direct method of measuring health, it can be measured indirectly by finding the incidence of ill health (Anil et al., 2012). Factors that influence the health of the population are housing, water, sewage and waste disposal, nutrition and education. Apart from this the health of any worker is also influenced by the nature of work and working environment. The commercial Indian beedi industry saw a rapid growth in 1930’s (Cornell International Report, 1998) probably driven by an expansion of tobacco cultivation at that time (International Labour Office, 2003). Further Gandhi’s support on Indian industry and Indian products promoted beedi rolling as a cottage industry (Census of India, 1931). Perhaps due to this even educated classes in India preferred beedis over cigarettes (Lal, 2009). Beedi workers in India is the third largest component of the work force after agriculture and textile workers and it provides full and part time employment to nearly 75 lakhs people out of which 90% are women (Anil et al., 2012)

Beedi workers are densely populated in the state of Uttar Pradesh, Madhya Pradesh, Karnataka, Andhra pradsh and Tamilnadu. The workers are mainly women and are exposed to tobacco by dermal contact and also have airborne exposed to tobacco dust and volatile components. Studies of such industries have mainly reported
on the concentration of tobacco dust and particulate matter in the ambient air in the factories. Biomonitoring in the workers and the epidemiological studies on tobacco related health risks in these workers have not been carried out. Rolling beedi is an indigenous technique of producing handmade cigarettes which is the major occupation of Melapalayam in Tirunelveli. It provides employment to many inhabitants of this area, who have a poor socio-economic background. Beedi rolling is taken up by women and children at home and it is regarded as primarily women’s work. A cross sectional study was carried out through a questionnaire which gave information regarding their social and economic background which includes their monthly salary, educational background, dwelling environment, working hours, revenue etc. This pioneer study formed first phase of the present investigation, collecting general information and individual observation of the beedi workers.

2.2 Materials and Methods

As the first phase of present study, a survey of beedi worker population was carried out in Melapalayam of Tirunelveli District during August 2010 to December 2010 through oral questioning and semi structured questionnaire (Annexure 1). Data regarding general information about the family, occupation, annual income, educational background and specific information regarding beedi rolling and working environment were collected(Plate: 1). After analyzing the data a sample of three hundred female beedi workers was selected and a primary data was generated by interviewing the selected respondents. Data were coded and analysed using statistical packages such as Microsoft Excel and SPSS version 16.0. Analysis included tabulation and diagramatic presentation. For statistical test Independent sample t-test (2-tailed) \( P < 0.05 \) was taken as the level of significance.
PLATE : 1

Fig 1: Raw tobacco dust.

Fig 2: Tendu leaf used in beedi making.

Fig 3&4: Cut leaf pieces and rolled beedis.

Fig 5&6: Process of rolling beedis by women.
PLATE - 1

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6
PLATE : 2

Fig 7: School children.

Fig 8: Middle age.

Fig 9: Aged.

Fig 10: Aged.
PLATE - 2

Figure 7

Figure 8

Figure 9

Figure 10
PLATE: 3

Fig 11: A women residing in thatched house involved in beedi rolling.

Fig 12: A women occupying a house with only one room a roll beedis.

Fig 13: Women using a small sit out to roll beedies.

Fig 14: A beedi rolling women living in a house which not completely constructed.
PLATE : 4

Fig 15: A single room in which all members reside and use for cooking dining, sleeping and also rolling.

Fig 16: Elderly women in beedi rolling occupation.

Fig 17: Women rolling beedi along with collecting drinking water.

Fig 18: Unhealthy working environment while beedi rolling.
2.3 Results

Most of the respondents randomly selected were largely poor and illiterate. 80% women in the age group of 18-60 who were involved in beedi rolling (Plate: 2)(Fig:23) earn only a meagre amount as a contribution to the total income of the family. Men of these of selected families worked mostly as a coolie in the beedi industry indulged in sorting, leveling and packing. Thus the monthly income Rs 2000-2500. Beedi work was found to be by and blending of tobacco. The residential environment was very poor even though they occupy their own houses 50% of the population explored, lived in own houses which mostly consisted of one or two small rooms only. 40% of the respondents occupied rented houses and remaining 10% occupied houses purchased on lease (Fig: 24). Houses were not well planned and the construction was irregular with poor infrastructure. Some respondents lived in that shed houses and the environmental background and situation were very poor. Poor hygiene prevailed throughout their dwellings, where garbage and beedi wastes and tobacco dust scattered (Plate: 3). The environment in which they sat and worked for prolonged hours had poor and unhealthy sanitary conditions with water spills and wastes. Most of them live in one small room where they do the beedi work as also cook and sleep(Plate: 4).

Thus these women beedi rollers with a low socio-economic status had a working environment which was confined to a small area and unventilated houses.

The literacy level of these population was shown in (Fig:25) 45% of the respondents were illiterates, 25% had only primary education, 20% with secondary education and only 10% had higher secondary education. Women constitute a major percentage of beedi manufacturing. Yet, children helped their mothers in the profession
Socio economic background of beedi rollers

Fig :23 Occupation
- B. ROLLER: 10%
- AGRICULTURE: 10%
- FARMHOUSE: 80%

Fig :24 Residential Status
- OWN HOUSE: 40%
- LEASE: 10%
- RENT: 50%

Fig :25 literacy status
- LITERATE: 20%
- PRIMARY: 25%
- H.SCHOOL: 45%

Fig :26 Involvement of children
- WEAK ENDS: 10%
- LEAVE: 10%
- OCCATION: 80%
in the selected families of the present study. 80% of the children engaged themself in beedi rolling during vacation and weekends. 10% of children worked during their holidays and another 10% involved occasionally (Fig: 26).

Working hours among the respondents also differ from 5-8 hours/day to 1-2 hours/day and regarding the number of beedis rolled per day among the respondents also varied. 90% of the respondents rolled 800-1000 beedis/day, whereas 5% of the respondents rolled 500-800 beedis/day and remaining 5% less than 500 beedis. Thus the general information provides the socio economic background of these population and forms the pilot study for the health assessment of these beedi rollers.

2.4 Discussion

The beedi manufacturing industry in India in an age old industry in which a huge population is engaged for their two square meals (Ghosh et al., 2005). Previously beedi rolling was a household occupation but presently it is not only confined to the houses of the workers but also co-operative societies have come up wherein beedi rollers are working together as an industry. The main problem of beedi workers now-a-days is their poor socio economic status, education and living which forces them to work in unsafe environmental conditions and improper working postures. Government of India has provided various schemes for the beedi workers like welfare measures, Health schemes, Education schemes, Housing schemes, Social security etc. Inspite of various welfare measures, the socio economic status of the beedi workers remain at low level since the welfare measures are insufficient in comparison to the numbers of beedi workers in India.
Due to the poor socio economic status, the beedi workers are forced to work continuously for hours in improper working postures and beyond their normal working capacities which lead to the development of serious physiological manifestations.

As per the status report of UNICEF 1995 Tirunelveli and Thoothukoodi district comprise of 5,50,000 women beedi rollers which is very high when compared to other districts(Table:1). According to Kumar et al., (2010) beedi industry provides employment to millions of women and children mostly from the poor socio economic strata. The socio economic status is largely poor and only 50% of beedi rollers population possessed their own house for their dwelling.

**Table : 1 Distribution of Women Beedi workers in Tamilnadu**

<table>
<thead>
<tr>
<th>District</th>
<th>No.of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tirunelveli and tuticorin</td>
<td>5,50,000</td>
</tr>
<tr>
<td>Vellore</td>
<td>1,50,000</td>
</tr>
<tr>
<td>Tiruchirapalli</td>
<td>15,000</td>
</tr>
<tr>
<td>Chennai</td>
<td>15,000</td>
</tr>
<tr>
<td>Chengalpattu</td>
<td>10,000</td>
</tr>
<tr>
<td>Salem</td>
<td>5,000</td>
</tr>
<tr>
<td>Erode</td>
<td>2,000</td>
</tr>
</tbody>
</table>


As per the data explored in the study area 80% of the population depend on the beedi industry for their livelihood. Aghi (2001) has reported there are approximately 4.4 million full time workers and another 4 million beedi industry related jobs and most of them are largely poor and illiterate.
Beedi work was found to be by and large female dominated especially in the rolling of beedi and blending of tobacco (Ghosh et al., 2005). The all India Beedi, Cigar and Tobacco workers Federation estimation comprise 90-95% of total employees in beedi manufacture. They are primarily beedi rollers and typically operate from homes. (Jadhavala, 2000). Suman et al., 2007 has reported that in Solapur around 45,000 women are employed in these industry and majority of them belong to low socio-economic status which compels to work and earn money to supplement a family income. In the present investigation women beedi rollers who work in confined and unventilated houses under poor sanitary and hygienic conditions, predispose chronic inhalation of tobacco dust and accompanying biohazards. Shukla (2011) has reported a similar opinion that working condition is an important factor that contributes to the occupational hazards in the rollers, which is reflected in workers working in confirmed environmental conditions. Further he claims that these beedi rollers who work is such unsafe situation are prone to significantly high genotoxic effects. Srinivasulu (1997) reported that when beedis are stored in the house, food spoils quicken and family members experience nausea and headaches. Anil et al., (2012) who have studied the morbidity pattern of female beedi workers in Mangalore have reported the literacy status. It shows that only 19% are illiterate, 60% had primary education, 17% secondary education and only 4% have higher secondary education. In the present investigation in Melapalayam shows a similar data which comprises of 45% illiterate, 25% possessing primary education, 20% having higher education and 10% of higher secondary education. In the present study 80% of children involved themself in beedi rolling especially during week ends and holidays whereas the remaining 20% work during leave and occasionally. This tendency of children involvement is due to the fact that they want to help their mothers who are engaged in beedi making. On school days
they roll beedis before reaching school and again continue after returning back. Franke (2005) have given a similar report in socialist scholar conference in 1997. Figures relating to full time employment of children is unreliable due to the fact that they are afraid of disclosing because of the Child Labour Act of 1956.

According to Economic and Political Weekly (2002) considerable variation regarding the number of beedi rolled per day among the respondents. About 34 percent were rolling 501-800 beedis, 31 percent 301-500 beedis and 22 percent more than 800 beedis per day. The number of beedis rolled per day was less than 300 in the case of remaining 13 percent respondents.

Ghosh et al.,(2005) has studied the socio-economic status of the beedi workers of Vidharbha region in Nagpur and reported the average family monthly income Rs.1719 where the minimum number of earning member was one. Thus it can be conducted that beedi rollers are exposed to xenobiotics in the course of their occupation due to poor socio-economic status, which includes Housing, Education and Working environment.

Varma and Sasikumar (2005) in their study on impact of anti-tobacco legislation on the livelihood of beedi rollers in West Bengal have reported that most beedi workers are illiterates (42.8%) or literates with formal schooling (14.2%) and of those who have attended school majority have attained primary level of education (20.4%).Gills after their primary or secondary education were not sent to school for further studies since they are forced to take beedi rolling due to their family circumstances. According to Ghosh et al (2005) entry to this profession starts from 15 to 16 years of age for both the sexes. Iqbal and Ghosh (2005) has opined that beedi workers start their work at tender age.