ASSOCIATION BETWEEN OCCUPATIONAL TOBACCO EXPOSURE OF HEALTH HAZARDS IN WOMEN LABOURERS OF BIDI-INDUSTRY OF AJMER

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INTRODUCTION

India is a diverse country, with marked regional variation in life-style. Among adults, most deaths are from respiratory, vascular or neoplastic diseases or from tuberculosis. The death rates from these diseases can be increased by the use of tobacco also. Tobacco is commonly consumed in the form of bidis, which are smaller than cigarettes and typically contain only about a quarter as much tobacco, wrapped in the leaf of tendu plant.

The present study aims to identify the effects of occupational exposure of tobacco on the general health of women labourers of Ajmer district, Rajasthan.

MATERIALS AND METHODS

Total 200 female bidi workers were considered as the subject of this study, actively involved in Bidi-rolling. The subjects were divided into 2 groups – tobacco users & Non tobacco users. A standard questionnaire related to health problems, tobacco use and smoking habit was used to observe the health hazards of female workers.

RESULTS

Tobacco pose many health risks for human beings (directly or indirectly). Our present study included 200 female bidi workers. Among these, 100 were tobacco users and 100 non tobacco users respectively. The demographic details and
systemic features of 200 women labourers were given in tables 1 and 2.

Results indicate that prevalence of headache, nausea, irritation and dryness of throat, weakness, sneezing and nail decolouration were higher in non tobacco users because they are much more sensitive towards tobacco and its exposure than tobacco users.

<table>
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<tr>
<th>Table 1: Background of the Respondents</th>
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<tbody>
<tr>
<td>Information</td>
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<tr>
<td>(a) Total number of respondents</td>
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<tr>
<td>(Female Labourers)</td>
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<tr>
<td>Work characteristics</td>
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<tr>
<td>(b) Socio-economic status</td>
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<td>(c) Working years</td>
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<td>(d) Working hours per day per labourer</td>
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<td>(e) Bidis rolled per day</td>
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<tr>
<th>Table 2: Health Status of Women Labourers of Bidi-Industry</th>
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<tr>
<td>Symptoms</td>
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<td></td>
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<tr>
<td>1. Headache</td>
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<td>2. Backache</td>
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<td>3. Skin irritation</td>
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<td>4. Eye irritation</td>
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<td>5. Tiredness</td>
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<td>6. Vomiting / Nausea</td>
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<td>7. Nail decolouration</td>
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<td>8. Difficulty in breathing</td>
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<td>9. Loss of appetite</td>
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<td>10. Irritation &amp; dryness of throat</td>
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<td>11. Morning cough</td>
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<td>12. Breath lessness</td>
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<td>13. Weakness</td>
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<td>14. Sneezing</td>
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<td>15. Nose irritation</td>
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DISCUSSION
Bidi manufacturing is the second largest industry in India (Shimkhada and Peabody, 2003). It provides employment to women and children mostly from the poor socio-economic strata (shimkhada and Peabody, 2003; Aghi 2003). Considering the high content of nicotine and other chemicals in bidi tobacco (compared with cigarette tob), these workers are at an extremely high risk of systemic illness (Malson et al., 2001).

Nicotine is the major component of tobacco. Tobacco has about 4000 active chemical compounds which includes nitrosamines, polycyclic aromatic hydrocarbon elements and cadmium (Robert, 1988).

Mittal (Mittal et al., 2008) have theorised that ocular manifestations are also present in bidi rollers. The result of our study correlate well with his theory. Eye irritation was found in almost 13.5% of female Bidi workers.

The tobacco dust contains toxic substances. The dust mainly contain nitrosamines, which are readily absorbed by the body tissues like skin, respiratory epithilium and mucous membrane of Mouth, nose, etc. (Chattopadhyay et al., 2006). The prevalence of cough with breathlessness, morning cough, difficulty in breathing etc. were higher in tobacco users, which is highly corroborated by the study result of Chattopadhyay.

CONCLUSION
Our conclusion is based on health hazards, so the subjects were aware about the harmful effects of tobacco use. There is a need to improve knowledge of the dangers of smoking among the disadvantaged segments of the population. Results of the present study prove that bidi tobacco is very harmful for the workers who actively or passively inhale tobacco during bidi rolling. The health impact on bidi workers is visible
on all age groups. Continuous bidi rolling leads to nicotine directly through skin (The CNN freedom project, 2012).

Various welfare schemes are being implemented by the Govt. for welfare of bidi workers in the field of health, education, housing, recreation and social security etc. Recently, govt. has sanctioned 4 new hospitals and 40 dispensaries for bidi workers. Govt. has also extended Rashtriya Swasthaya Bima Yojna (RSBY) to bidi workers. (Ministry of labour & employment, 12 Dec., 2011).

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