

Short Reports

Tobacco water: A special form of tobacco use in the Mizoram and Manipur states of India

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ABSTRACT

Background. *Tuibur* and *hidakphu* are watery tobacco products made by passing tobacco smoke through water. These have neither been described in the health literature nor are there any reports of epidemiological studies on these products. We collected information on the use of these products in Mizoram and Manipur.

Methods. We conducted two surveys. In the first, we spoke to personnel involved in tobacco water manufacturing, marketing and sale. In the second, we carried out a house to house survey of adults on the attitude and behaviour towards the use of tobacco products in 25 randomly selected villages each in Aizawl district of Mizoram and Churachandpur district of Manipur.

Results. About 7% of persons surveyed in Aizawl (872 of 12 185) and Churachandpur (139 of 2137) used tobacco water, which is stored and sold in bottles. It is sipped and retained in the mouth for 5–10 minutes and then spat out. Among tobacco water users, about 90% of users in Churachandpur and about 40% in Aizawl sipped tobacco water more than 5 times a day. The use of other tobacco products in both districts was also high.

Conclusion. The use of tobacco water has been a part of the culture of some communities in Mizoram and Manipur for a long time. These communities also have a very high incidence of tobacco use. To discourage the use of such tobacco products, these communities should be educated about the harmful effects of tobacco use as a priority.

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INTRODUCTION

Tobacco is used in many forms. The most common of these is as a cigarette. However, in India, a wide range of smokeless tobacco products are also used.¹ While conducting the Global Youth Tobacco Survey² in the states of Mizoram and Manipur in the northeastern region of India, we came across the use of a hitherto undescribed tobacco product called *tuibur* in Mizoram and

METHODS

Trained investigators (both men and women) collected information from different parts of Mizoram and Manipur. We obtained information about the different types and cost of tobacco water from 42 personnel involved in its manufacture, marketing and sale. We also conducted an attitude and behaviour survey among the population during September–December 2001.

A village-wise population list was obtained from the district offices in Aizawl district in Mizoram and Churachandpur district in Manipur. These districts had 358 and 107 villages, respectively. A random sample of 25 villages from each district was selected. All adults (>15 years of age) were eligible to participate in the survey. A house to house survey was conducted using a structured interview format by trained investigators. The survey was repeated on a sample of 5% of the surveyed population. The results were analysed with SPSS.

RESULTS

Information on tobacco water production, marketing and sale

A small amount of tobacco water may be prepared at home for household use and sale. Tobacco water production is a small scale industry. Imported tobacco from Myanmar is cheaper compared to tobacco from other parts of India. A typical factory set-up may produce 500 L of tobacco water in one month. A space of 8'x 8' is sufficient for one small production unit located near a source of water (such as a waterfall or fountain). One iron oven with a few pipes and containers is required and costs around Rs 3000 (about US\$ 70). The average monthly income from one such unit is Rs 7000 (about US\$ 155). The *tuibur* manufacturing units are run in bamboo thatched structures in Mizoram (Fig. 1).

The quality of tobacco water is graded according to the concentration of tobacco smoke in the water. This is based on the quantity of tobacco used and the time taken for production—higher the concentration, better the quality (Table I). Tobacco water is sold in used glass bottles at many places such as stationery shops, daily markets or weekly markets (Fig. 2).

Survey on the use of tobacco water

Of the 25 villages selected in each district, 23 villages in Aizawl district and 24 in Churachandpur district were surveyed. Two villages in Aizawl and 1 in Churachandpur districts were uninhabited. A total of 14 322 adults responded to the survey (response rate 100%). Six houses were found to be locked (three in each district). An almost equal proportion of men and women were included in both the districts (Table II).

About 7% of men and women reported the use of tobacco water, although the use of other forms of tobacco was much higher (Table II). The frequency of use of tobacco water varied from 1 to 30 times a day. Tobacco water was used >5 times a day by 36.7% of users in Aizawl district and 92.1% of users in Churachandpur (Table III).

About 90% of the people in both districts believed that tobacco water protects against the bites of insects and *paalu* (a common insect in the region). They believe that it acts as an antiseptic, protects the teeth and has antsnake venom properties.

DISCUSSION

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The use of tobacco water is integrated with the social and cultural rituals of communities in Mizoram and Manipur. Misconceptions about the benefits of using tobacco water are widespread.

The overall use of tobacco in the two districts surveyed was very high (78.3% and 78.7%); among men it was 83% and 80% and among women it was 73% and 77%, respectively. It can be hypothesized that a very high prevalence of tobacco use could be attributed to the widespread cultural acceptance of the use of tobacco water in the community.

Like other tobacco products, tobacco water is used many times a day by most users and therefore seems to be equally addictive. Tobacco smoke contains nicotine and thus tobacco water is likely to have different concentrations of nicotine. Thus, even in low concentrations one would expect tobacco to be present in tobacco water and exert its addictive influence, reinforcing the need for strong economic, legislative and educational means to eradicate this menace.

The local governments and non-governmental organizations have taken some initiatives to educate the people regarding the harmful effects of tobacco and tobacco water. However, much more needs to be done including possibly enacting legislation to stop the use of tobacco water.

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FIG 1. Thatched *tuibur* production unit in Mizoram

TABLE I. Parameters used to grade tobacco water available in the market

Grade	Amount of tobacco required to be burnt (kg)	Time used to process (hours)	Amount of water used (L)	Amount of tobacco water produced (L)	Price in Rs per litre water
First	21	18	20	20	38
Second	14	12	20	20	15
Third	7	6	20	20	12



FIG 2. Sale of tobacco water in the marketplace

TABLE II. Tobacco water use in Aizawl and Churchandpur districts

Gender	Number surveyed	Frequency of tobacco use n (%)	
		Tobacco water	Any form
<i>Aizawl district (Mizoram)</i>			
Men	6154	476 (7.7)	5120 (83.2)
Women	6031	396 (6.6)	4423 (73.3)
Total	12 185	872 (7.2)	9543 (78.3)
<i>Churchandpur district (Manipur)</i>			
Men	1119	69 (6.2)	897 (80.2)
Women	1018	70 (6.9)	784 (77.0)
Total	2137	139 (6.5)	168 (78.7)

TABLE III. Frequency of use of tobacco water per day

Frequency	Aizawl district (%)	Churchandpur district (%)
1-5	552 (63.3)	11 (7.9)
6-10	214 (24.6)	51 (36.7)
>11	106 (12.1)	77 (55.4)