

Original Research Article

Gutkha ban in Chennai, India: is there any impact?

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ABSTRACT

Background: Gutkha is banned under Food Safety Act, India, effective from May, 2013 in Tamil Nadu. The current study is to find out the impact of Gutkha ban on sale and consumption in Chennai city.

Methods: Shop keepers (n=90) selling Gutkha and tobacco users (90) were chosen using stratified simple random sampling method from 15 zones of Chennai. Three different types of shops (platform/permanent/petty) were identified and a structured questionnaire was used. The questions included for shopkeepers were awareness about Gutkha ban, supply mode, sale and price difference and questions for users included motivation to quit, reduction in use, availability and price difference.

Results: No shop had open display of Gutkha and all the shopkeepers and users were aware of the ban. Shopkeepers either bought Gutkha from the whole sale market (58.9%) or the agent (41.1%). Raid was conducted at 81% of the shops. There was a significant reduction in the sale after the ban ($p < 0.05$). Users did not find it difficult to procure as it was easily available; however, price has increased up to 300%. Users felt guilty (18.9%) and fearful (23.3%) when using banned products. Users were motivated to quit (22.4%), made attempts to quit (58.9%) and felt the need for professional support to quit (38.9%). Significant difference was observed in the number of sachets used before and after ban ($p < 0.05$) by the users.

Conclusions: The ban did not have any impact on the availability of Gutkha, however it had a little impact on users. Stringent enforcement is crucial to achieve the purpose.

Keywords: Gutkha ban, Sale, Motivation to quit, Availability, Price

INTRODUCTION

Tobacco is consumed in various forms in India such as smoking, chewing and snuff. The usage of smokeless tobacco was 25.9% in India according to the 'Global Adult Tobacco Survey', 2010 (GATS-2010).¹ Smokeless tobacco causes cancer of the mouth, tongue, cheek, gum, throat, esophagus, stomach and pancreas. It also increases the possible risk of heart disease, heart attacks, and stroke. Considering the health impacts, gutkha has been banned under the 'Food Safety and Standards Authority of India' (FSSAI) regulation no. 2.3.4 to prohibit the

addition of tobacco or nicotine in food (and thereby banning gutkha) which was issued on 1st August, 2011.² As of May 2013, gutkha is banned in 24 states and three Union Territories. Tamil Nadu has banned gutkha and paan masala in May 2013 and it states that the manufacture, storage, distribution or sale of any food products containing tobacco or nicotine as ingredients, by whatsoever name it is available in the market, has been prohibited.³ Two studies were conducted evaluating the impact of gutkha ban in few states. A study conducted in Maharashtra revealed that the ban has not changed the density and proximity of tobacco shops nor has it affected

in any significant way, the creation of new shops.⁴ A study conducted by World Health Organization in seven states of India reported that the ban motivated people to quit.⁵ The current study attempts to assess the impact of gutkha ban on the sale and consumption in Tamil Nadu after 11 months of its notification.

METHODS

The study was conducted in April, 2014, 11 months after the gutkha ban in Tamil Nadu. Chennai city was divided into 15 administrative zones. Within each zone, one main road and one street branching out from the main road were randomly chosen. Three types of shops selling tobacco from the chosen main road and the street (permanent shop, petty shop, bunk shop) were identified by ascertaining the availability of products by the first author through discrete enquiry. The first shop on the road that was open was included after taking the shopkeeper's consent. If they did not consent to participate, the next shopkeeper was identified in the same manner as before. Targeted sample of shopkeepers selling tobacco was 90 for this study. A total of 100 shopkeepers were approached, of them 10 did not consent to participate in the study. Similarly, the targeted number of consumers was one from each chosen shop totaling 90. The first consumer found to purchase gutkha was approached by the investigator and requested to participate in the study. There was not a single instance of refusal by the consumer to participate in the study. The participants were assured confidentiality of their identity. The first author conducted the interview for both shopkeepers and consumers. Two separate questionnaires were administered for shopkeepers (number of items-20) and consumers (number of items-18) respectively.

The questions included were; awareness about gutkha ban among the shop keepers, reduction in sale and cost difference before and after ban, their opinion about gutkha ban, source of gutkha supply, sale around educational institutions and information on the raids conducted by the Government. The items included in the consumer questionnaire were; awareness about the gutkha ban, motivation to quit, attempts to quit, availability and access of the gutkha products and cost difference. Paired responses before and after the ban were elicited wherever applicable. The investigator (first author) waited near the identified shops and observed any sales of gutkha products in a 30-min time period during the peak hours. About three fourth of the shops were observed between 6pm -8pm (73.3%) and one fourth were observed between 8am -10am (26.7%).

The data was analyzed using paired sample 't' test. The qualitative responses such as the reason for reduced consumption and shopkeepers' opinion on the ban of gutkha were transcribed. The verbatim was analyzed and the key points were included in the results.

RESULTS

Shopkeeper's responses

The observations and responses of the shopkeepers and consumers were presented in Table 1. No shop had open display of gutkha products at the time of study after 11 months of ban and all the shop keepers and consumers were aware of the ban. The number of consumers that purchased gutkha during the 30 minutes interval, ranged from 2 to 20. Commonly sold brands were 'MDM, HANS, MAWA, RMD (previously known as Manikchand), Rajnigandha and Shanthi'. When enquired about the source of supply of gutkha products, shopkeepers reported that they bought gutkha products either by themselves from the whole sale market (58.9%) or the agent supplied the products directly to the shop (41.1%). Majority of the shopkeepers (81%) reported that the Government had conducted raids in their shops after the ban and before the study, 83.3% reported difficulty in selling gutkha products fearing Government raids.

The shopkeepers reported that there was a reduction in the number of consumers purchasing gutkha after the ban. A paired-sample 't' -test was conducted to compare the number of consumers per day; before and after the ban as reported by the shopkeepers. There was a significant difference in number of consumers before (M=85.56, SD=50.72) and after (M=63.3, SD=40.68) the ban; $t(89) = 6.37, p=0.005$ (Table 2). The cost of MDM increased from 33.3% to 300% after the ban. The cost of HANS increased from 20% to 166% after the ban. The cost of RMD increased from 37% to 166% after the ban. The cost of Mawa increased from 0% to 100% after the ban. A few Mawa sellers, did not increase the price, however they reduced the quantity of Mawa by 50%. Of the shops that sold gutkha, 23% were located near educational institutions. When enquired about the effect of the ban, their responses were, 'no difference (10%)', 'no effective enforcement'(17.7%), 'no use and the production needs to be stopped(10%)', 'products need to be seized at the entry point as it comes only from other states (3.3%)', 'officials are targeting only the small shop keepers (2.2%)', 'the users are addicted, they will continue to use anyway (3.3%)', 'smoking increased'(2.2%), 'price has gone up and loss to the consumers (6.6%)', 'even if I stop selling, the neighboring shops are going to sell (3.3%), So I am selling to keep up my business to sell other products (2.2%)'. A few welcomed the ban (44.4%), however, they blamed the Government for not being efficient in enforcing it (13.3%).

Consumers' responses

The consumer's response data was analyzed separately and the results were as follows: MDM (40%), HANS (26.7%), MAWA (20%), RMD (12.2%) and Shanthi (1.1%) were the products used by the study participants. All the consumers were aware of the ban and 90%

reported that it was available at the regular shops they purchased at, 63.3% reported that it was available everywhere. The gutkha users (60%) reported that they did not have any difficulty in procuring the product. However, 85.6% of them reported that the price of gutkha had increased after ban. A few users (18.9%) felt guilty and 23.3% of them reported the fear of using banned products. One fourth of the consumers (24.4%) reported that the ban has motivated them to quit and 58.9% reported that they made an attempt to quit. The number of attempts ranged from 2 to 10. A few (13.3%) made multiple attempts to quit. Users (28.9%) reported that they felt the need for help to quit tobacco. Reduction in consumption was reported by 35.6% of the users. A paired sample 't' -test was conducted to compare the number of sachets used before and after the ban. There

was a significant difference in the number of sachets used before (M=5.64, SD=3.41) and after (M=4.42, SD=2.91) the gutkha ban; $t(89) = 5.55, p = 0.000$ (Table 2). These results suggest that the number of sachets used by consumers decreased significantly after the ban. When enquired about the reasons for the reduction in use, the responses were 'advice from family and friends (2.2%)', 'awareness about the ill effects of gutkha (4.4%)', 'price increase (21.1%)', 'guilty of using banned products (2.2%)', 'non availability (7.7%)'. Similarly, the consumers reported that the cost had increased after ban. The cost of MDM increased from 33.3% to 300% after the ban. The cost of HANS increased from 20% to 233% after the ban. The cost of MAWA increased from 0% to 100% after the ban.

Table 1: Percentage distribution of shopkeepers' and consumers' responses.

Description of items	Responses (yes) n (%)
Shopkeepers' responses (n=90)	
Open display of gutkha products (as observed by the field investigator)	90 (100)
Are you aware of the ban of gutkha products?	90 (100)
Has the government taken any action against you for selling gutkha products?	73 (81.1)
How do you get gutkha products?	
Buy from wholesale market	53 (58.9)
Supplier by agent	37 (41.1)
Do you find it difficult to sell gutkha after ban?	75 (83.3)
Is there any educational institution around your shop?	21 (23.3)
Consumers' responses (n=90)	
Are you aware of the ban of gutkha products?	90 (100)
Do you get gutkha products, at the regular shops you purchase from, after the ban?	81 (90)
Is gutkha freely available?	57 (63.3)
Do you find it difficult to get gutkha after the ban?	36 (40)
Do you get gutkha products at same cost after ban?	77 (85.6)
Do you feel guilty of using gutkha products after the ban?	17 (18.9)
Do you feel fear of using gutkha products after the ban?	21 (23.3)
Did the ban on gutkha motivate you to quit?	22 (24.4)
Have you ever tried to quit gutkha products?	53 (58.9)
Have you ever tried to stop using gutkha products?	
Do you feel you need help to quit gutkha?	26 (28.9)
Have you reduced the consumption of gutkha products after ban?	32 (35.6)

Table 2: Sale, consumption and price difference before and after gutkha ban.

Variables	N	Mean	SD	t value	P value
Sale of gutkha products (as reported by shopkeepers)					
Before ban	90	85.56	50.72	6.37	0.005*
After ban	90	63.33	40.68		
Consumption (as reported by consumers)					
Number of sachets used before ban	90	5.64	3.41	5.55	0.000*
Number of sachets used after ban	90	4.42	2.91		
Cost of gutkha (as reported by consumers)					
Before ban	90	3.43	2.050	14.05	0.000*
After ban	90	6.12	2.828		

Note: SD: Standard Deviation; *Significant level at <0.05.

The packets of the commonly sold gutkha products were reviewed for the manufacturer details. None of the products were manufactured in Tamil Nadu. These products were manufactured and supplied from North Indian states, namely Haryana and Delhi (HANS), Bangalore (RMD and Shanti), and Assam and Delhi (Rajnigandha). The information on the manufacturing state for MDM and MAWA was unknown. MAWA was packed in a thin transparent cover.

DISCUSSION

The banned gutkha products were found to be easily available. The shopkeepers and users did not face any difficulty in the procurement of these products which were being sold at increased prices. The gutkha ban has motivated the users to reduce the usage and think about quitting.

Studies have reported that the gutkha sellers and users, though aware of the ban on gutkha products, continued to sell/use tobacco. The shopkeepers did not make special efforts to obtain the products as they were easily available in the wholesale market or were supplied by agents. Similar observations were made by other studies conducted in Maharashtra, Delhi, Andhra Pradesh and Karnataka.^{4,6-10} Shopkeepers stockpiled gutkha products believing that the ban would be for a short period of time or that the surveillance would stop after a period.^{4,7} The ban also had an impact on gutkha consumption. It motivated the gutkha users to quit or reduce their consumption. They attributed their quitting and reduction in consumption to the non-availability of the product.^{6,7} However, some users shifted to using other forms of tobacco.^{8,9} Though the ban has helped in constraining the use of gutkha, it was found to be still openly available in the market at an increased price.^{4,6,8}

In the current study, similar results were seen, with the users reporting that they had reduced their use after the ban. However, the effect on quitting was not studied as the subjects included in the current study were the current users who were procuring the chewing tobacco products from the shops, the prices of which had increased, ranging from 100% to 300% depending on the product. Though the gutkha products were not kept on display, its availability was not found to reduce even after the ban.

On the contrary, two other studies revealed that several tobacco outlets openly displayed and sold gutkha and paan masala after the ban. Though other outlets did not have products on display, gutkha and paan masala sachets were found outside these outlets indicating sale of banned tobacco products by them.^{9,10}

Though the shopkeepers are aware of the ban and the government has conducted several raids, the shopkeepers continue to sell the gutkha products openly. In an article in Firstpost India, a cigarette vendor who stocked gutkha, said candidly that "those who have to get gutkha, will get

gutkha." And that "There is always a black market", he added wryly.⁸ The penalties for the sale of banned gutkha products are as meager as INR 200, and the raids were not done on a regular basis. Some of the shopkeepers included in the study reported that the penalties were reimbursed by the suppliers in exchange of the receipts. There have been no instances where shopkeepers were prosecuted for repeated violations. Since none of the commonly sold/used tobacco products reported in the study were manufactured in Tamil Nadu, the shopkeepers also opined that the Government needs to take stringent action at the borders and against manufacturers and not just against the shopkeepers. The above study results indicate that the enforcement is ineffective, and the penalty is not severe enough to create a consideration among shopkeepers about the ban.

CONCLUSION

The gutkha ban has motivated tobacco users to a certain extent to quit their habit. However due to the availability and accessibility of the products despite the ban, the goal of reducing the morbidity and mortality related to gutkha products cannot be achieved. So far, action has been taken against shopkeepers who sell gutkha products but no action has been taken against the manufacturers or suppliers. Stringent action and continuous law enforcement needs to be taken at all levels, especially against the manufacturers for the ban to have any effect, which means that action against those bringing gutkha into the state has to be made stringent.

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