

Original Research Article

Knowledge, attitude and practices regarding tobacco-free educational institution guidelines among personnel of tribal ashram schools: a cross-sectional study

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ABSTRACT

Background: Tobacco use remains a major global public health challenge, with initiation commonly occurring during adolescence. School personnel significantly influence students' health behaviors, including tobacco use. However, data on awareness and compliance with Tobacco-Free Educational Institution (TOFEI) guidelines among tribal ashram school personnel are limited. This study aimed to assess the knowledge, attitude, and practices (KAP) of school personnel in tribal ashram schools regarding TOFEI guidelines and determine the prevalence of tobacco use among them.

Methods: A cross-sectional, questionnaire-based study was conducted among 138 personnel working in tribal ashram schools of the Nagpur Division, Maharashtra. A prevalidated World Health Organization Global School Personnel Survey (GSPS)-India questionnaire was used. Data were analysed using SPSS v22. Descriptive and inferential statistics were applied, and $p \leq 0.05$ was considered significant.

Results: Most respondents were aged 40-49 years (47.8%), with 55.1% females. Teachers constituted 40.6%, clerical staff 35.5%, and caretakers 23.9%. Tobacco use was significantly higher among males (53.2%) than females (1.3%) ($p < 0.001$). About 37.1% of male personnel reported tobacco use within school premises. Although 80% knew about tobacco-control policies, only 42% had access to training or teaching materials.

Conclusions: Despite adequate awareness and positive attitudes toward tobacco control, high tobacco use among male staff especially caretakers undermine the implementation of tobacco-free norms. Strengthening policy enforcement, training, and cessation support can promote a healthier, tobacco-free educational environment.

Keywords: Attitude, Knowledge, Practice, Tobacco-free educational institution, Tribal schools, Tobacco control

INTRODUCTION

Tobacco use has become very common and addictive among youth hence it is one of the global epidemics which require constant monitoring and timely appropriate action to prevent usage. Tobacco uses among the adolescence usually starts during the school days and the school personnel and administration can potentially influence student's tobacco use.¹ The awareness and enforcement of the legislation banning tobacco use in school environment seems to be a significant role for the

prevention of tobacco use among young people. Teachers and administrators play an important role in shaping of student's behaviour towards smoking.^{2,3} Government of India prepared the "guidelines for tobacco free schools/educational institutions" in 2008 and "step by step guidelines for implementation of section 6 (b) of the act and rules" in 2017 for making tobacco free educational institutions (TOFEI).⁴ Teachers with no tobacco use status acts as role model and also provides motivation and impact the enforcement of school-based

tobacco intervention at the individual, inter-personnel and inter-staff level.⁵

Despite these legal and programmatic measures (including the National Tobacco Control Programme launched in 2007-08), enforcement gaps persist: tobacco products are still observed being sold and used in and around many educational settings, undermining prevention efforts.⁶ This problem is particularly acute in tribal and remote areas, where prevalence of tobacco use is substantially higher than national averages and where social, economic, and cultural determinants facilitate early initiation and sustained use.^{7,8}

Tribal ashram schools present a unique vulnerability. The students live on-campus under the supervision of caregivers and teachers, so staff behaviour, the presence (or absence) of TOFEI signage and enforcement, and availability of prevention resources directly shape students' exposure and norms. Because the prevalence of tobacco use among tribal adolescents is rising, assessing school personnel's knowledge, attitudes, and practices regarding TOFEI is essential for tailoring interventions that protect these adolescents from initiation and long-term addiction.^{9,10}

METHODS

A descriptive cross-sectional study was conducted between February 2024 to June 2024 among personnel working in government-run tribal ashram schools located in the Nagpur Division of Maharashtra, India. These residential schools cater primarily to children from tribal communities and function under the Department of Tribal Development, Government of Maharashtra. The study population comprised all categories of school personnel employed in the selected tribal ashram schools, including teachers, clerical staff, and hostel caretakers.

A total enumeration (census) sampling approach was adopted. All eligible personnel present at the time of data collection in the selected schools were invited to participate, thereby minimizing selection bias. A total of 138 tribal ashram schools were included in the study based on administrative feasibility and permission granted by the Office of the Additional Tribal Commissioner, Nagpur Division.

Sample size

The minimum required sample size was calculated using the standard formula for prevalence studies:

$$N = \frac{Z^2 \times p \times q}{d^2}$$

Where; Z = 1.96 for 95% confidence level, p=23.4% (prevalence of tobacco use among school personnel as reported by the Global School Personnel Survey-India, 2009), q = 1-p, d = 5% absolute precision.

This yielded a required sample size of 138 participants. Since the total number of eligible personnel across the selected schools was comparable to the calculated sample size, finite population correction was not applied. All eligible personnel were approached, and 138 consented and completed the questionnaire, resulting in a 100% response rate.

Teaching and non-teaching staff employed in the selected tribal ashram schools, Personnel present during data collection and Those who provided written informed consent were included in the study. Whereas Staff absent during the data collection period, Individuals unwilling to participate were excluded from the study.

Data were collected using the prevalidated World Health Organization Global School Personnel Survey (GSPS)-India questionnaire. The instrument consisted of five sections assessing: Tobacco use patterns, Knowledge regarding tobacco hazards and legislation, Attitudes toward tobacco control policies, school-level policies and enforcement, access to training and teaching materials. The questionnaire was administered in a self-reported, anonymous format to reduce social desirability bias.

Statistical analysis

Data were analyzed using SPSS v22 (IBM Corp., Chicago, IL). Descriptive statistics were presented as frequencies and percentages. Associations between gender, occupation, and tobacco use were tested using the Chi-square test. p≤0.05 was considered statistically significant.

RESULTS

Total of 138 school personnel from tribal ashram schools participated in the study. The majority of participants were aged 40-49 years (47.8%), followed by 30-39 years (29.0%), 50-59 years (17.4%), and 20-29 years (5.8%). No participants were aged 60 years or above.

Table 1: Demographic data.

Characteristics	Number (%)
Age (years)	
20-29	8 (5.8)
30-39	40 (29)
40-49	66 (47.8)
50-59	24 (17)
60 or older	0
Gender	
Females	76 (55.1)
Males	62 (44.9)
Others	0
Primary position in school	
Teacher	56 (40.6)
Clerical staff	49 (35.5)
Care taker (in hostel)	33 (23.9)

Females constituted 55.1% (n=76) of the sample, while 44.9% (n=62) were males. With respect to professional designation, teachers formed the largest group (40.6%), followed by clerical staff (35.5%) and hostel caretakers (23.9%) (Table 1). Overall, current tobacco use was reported by 34 participants (24.6%). Tobacco use was significantly higher among males (53.2%) compared to females (1.3%), and this difference was statistically significant (p<0.001).

A history of ever tobacco use was reported by 58 males (93.5%) and 5 females (6.6%), showing a significant

gender-based difference (p<0.001). Use of tobacco products within school premises during the past year was reported exclusively by male personnel (37.1%), with no such practice reported among female staff (p<0.001) (Table 2). Tobacco use varied significantly by occupational designation. Among current users, hostel caretakers exhibited the highest prevalence (63.6%), followed by clerical staff (16.3%) and teachers (7.1%). The association between designation and current tobacco use was statistically significant (p<0.001).

Table 2: Frequency of distribution based on practices among various school personnels.

Practices of tobacco use	Females, N (%)	Males, N (%)	P value	Teacher, N (%)	Clerical staff, N (%)	Care taker, N (%)	P value
Have you ever used tobacco products? (yes)	5 (6.6)	58 (93.5)	0.001	20 (35.7)	26 (32.7)	27 (81.85)	0.001
Are you currently using any tobacco products? (yes)	1 (1.3)	33 (53.2)	0.001	4 (7.1)	8 (16.3)	21 (63.6)	0.001
Have you ever smoked or used tobacco products on school property in the past year?	0	23 (37.1)	0.001	4 (7.1)	8 (16.3)	11 (33.3)	0.006

Significant at ≤0.005

Similarly, use of tobacco products on school property was reported most frequently by caretakers (33.3%), followed by clerical staff (16.3%) and teachers (7.1%), with a significant association observed between professional role and tobacco use within school premises (p=0.006). The majority of participants demonstrated adequate knowledge regarding the harmful effects of tobacco. Most respondents correctly identified tobacco as highly addictive and acknowledged its association with serious diseases, including cancer.

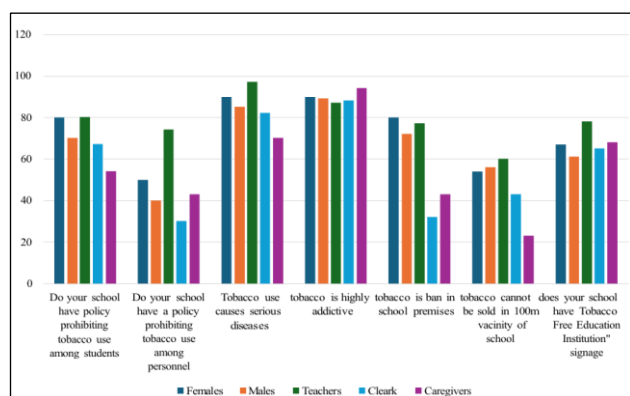


Figure 1: Knowledge among various school personnel.

Approximately 80% of participants reported that their school had a policy prohibiting tobacco use among students and staff, and a similar proportion were aware of the ban on sale of tobacco products within 100 yards of school premises, as mandated under COTPA. Knowledge levels were highest among teachers, followed by clerical staff, and comparatively lower among hostel caretakers

(Figure 1). Overall, participants expressed positive attitudes toward tobacco control measures. Most agreed that tobacco use by school personnel influences youth behavior and supported banning tobacco use in public places and educational institutions.

A large proportion of teachers agreed that increasing the price of tobacco products could reduce tobacco use among youth. Support for school-level policies prohibiting tobacco use among students and staff was high across all occupational categories, with teachers demonstrating the most favorable attitudes (Figure 2).

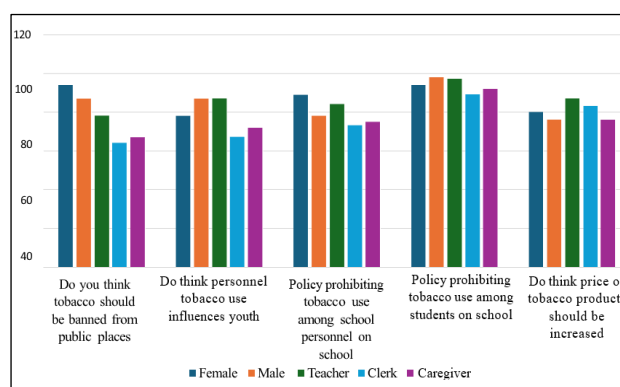


Figure 2: Distribution based on attitude among various school personnel.

Despite favorable knowledge and attitudes, access to formal training and educational resources was limited. Less than half of the participants reported having access to teaching materials on youth tobacco use prevention,

and only a minority had received formal training to help students avoid tobacco use.

Teachers were more likely than clerical staff and caretakers to report inclusion of tobacco use prevention in the school curriculum, although many indicated that such content was limited and not systematically reinforced. Participation in non-classroom tobacco prevention activities was reported inconsistently across schools (Figure 3).

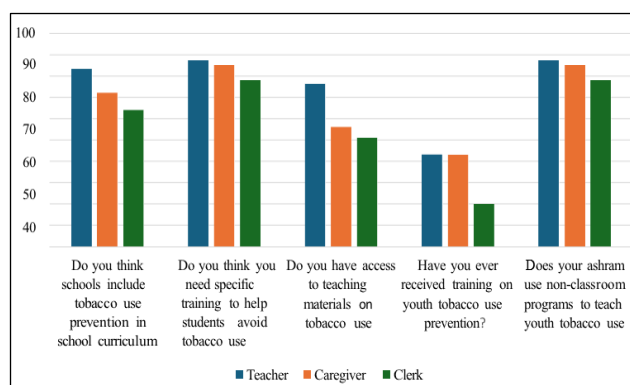


Figure 3: Access to teaching materials and training.

DISCUSSION

Tobacco use remains one of the leading causes of preventable morbidity and mortality, claiming nearly 8 million lives annually worldwide.¹¹ The present study highlights a paradox observed in many previous surveys: despite having adequate awareness about the health hazards of tobacco and favourable attitudes toward its control, a notable proportion of school personnel particularly males and caretakers continue to use tobacco products. This contradiction between knowledge and practice has been reported in several Indian and international studies.^{12,13}

Our findings revealed that 53.2% of male staff and 1.3% of female staff were current tobacco users, consistent with the Global School Personnel Survey (GSPS, India, 2009), which reported 23.4% overall tobacco use among school personnel.¹⁴ A similar pattern was observed by Bhat et al (2019) in Bangalore, where 27% of respondents used tobacco despite 90% acknowledging its harms.¹³ Studies from the northeastern states of India (Sinha et al, 2003) also showed comparable results, attributing this behavioral inconsistency to social acceptability of smokeless forms of tobacco and insufficient policy enforcement.¹² Internationally, Kaleta et al (2017) in Poland found that 21% of school personnel used tobacco even though 88% supported school tobacco bans, indicating a universal challenge in translating awareness into behavior.¹⁶

Encouragingly, most participants in our study supported strict prohibition of tobacco use within school premises

and endorsed the need for stronger preventive education for students. This mirrors findings by Gajalakshmi et al (2012) and Sorensen et al (2011), who reported that teachers' non-smoking status significantly increases the success of school-based prevention programs.^{17,18} Furthermore, the recognition of second-hand smoke as harmful aligns with Article 8 of the WHO Framework Convention on Tobacco Control (FCTC), emphasizing protection from involuntary exposure.¹¹

However, similar to previous reports, our study identified gaps in policy clarity and training among staff. Less than half of the respondents had access to teaching materials or prior training on youth tobacco prevention. Sinha et al (2007) and Ruhil et al (2023) have both emphasized that lack of structured teacher training remains a major bottleneck in effective enforcement of the Tobacco-Free Educational Institution (TOFEI) guidelines.^{12,19}

The finding that many caretakers and clerical staff continue to use tobacco within campus is of particular concern. Such behavior not only violates TOFEI norms but also serves as a powerful negative role model for students. Similar observations were made by Narain et al (2011) in Noida, where teacher tobacco use correlated with higher student prevalence.^{19,20} These patterns suggest that teacher and staff behavior profoundly shapes youth tobacco initiation.

Strengthening the implementation of COTPA (2003) and TOFEI (2017) in tribal and rural educational settings, combined with tobacco cessation support and community involvement, is crucial. Regular monitoring, availability of tobacco-free signage, and training teachers as "tobacco counsellors" can ensure sustained compliance. As seen in the success stories from Kerala's "Tobacco-Free Schools Initiative" continuous teacher engagement and clear accountability mechanisms significantly reduce campus tobacco use.²¹

CONCLUSION

Tobacco use continues to be one of the most preventable yet persistent public health challenges worldwide. The findings of this study highlight that while awareness and positive attitudes toward tobacco control are widespread among school personnel in tribal ashram schools, actual behavioral compliance remains inconsistent. The continued use of tobacco by certain staff members particularly male caretakers undermines the credibility of school-based prevention initiatives and weakens the example set for students.

Tribal ashram schools play a pivotal role in shaping the health behaviors of children who live under their care, often away from parental supervision. Therefore, ensuring that school environments remain completely tobacco-free is essential to safeguard these impressionable minds. A holistic approach is required—one that combines regular training of school personnel,

strict enforcement of tobacco-free policies, accessible cessation support, and community participation.

By strengthening institutional commitment, empowering teachers as role models, and reinforcing the visibility of tobacco-free messages within and around school premises, tribal ashram schools can become powerful platforms for cultivating lifelong tobacco-free behaviors among children and adolescents. This integrated and sustained approach holds the potential to significantly reduce the burden of tobacco use and promote a healthier, more aware generation.

Recommendations

Enhanced training programs for school personnel should be implemented to focus on youth tobacco prevention, emphasizing effective communication of tobacco-related risks and encouraging staff to model positive behaviors, particularly in high-risk roles such as caretakers. In addition, enforcement of existing tobacco-free policies should be strengthened through periodic monitoring to ensure compliance within school premises and surrounding areas. There is also a need to increase access to educational resources, including teaching materials and interactive tools, to better inform students about the harmful effects of tobacco use, as supported by the resources highlighted in Graph 3. Furthermore, support and cessation programs tailored for staff, especially male caretakers, should be introduced to assist them in quitting tobacco, incorporating counseling, behavioral support, and access to cessation resources. Lastly, engaging the local community and parents is essential to promote a tobacco-free culture around tribal schools, thereby reinforcing anti-tobacco messages beyond the school environment and supporting both staff and students in maintaining tobacco-free lives.

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