Tobacco use among school attending adolescents in Pakistan

Masood Ali Shaikh

Madam, tobacco use would cause over ten million deaths globally by 2020.[1] This preventable public health problem among adolescents has been associated with anxiety disorders, truancy, depression, suicidal ideation,

Table-1: Survey respondent's demographic, and psychosocial description; and associations with tobacco use in bivariate and multivariate analyses.

Factor	Total n* (%)**	Unadjusted OR§ (95% CI***)	Adjusted OR§ (95% CI***)
Age (years)	966 (22.7)	1	N/A
<14	2148 (38.9)	1.23 (0.86, 1.76)	
14	1899 (35.3)	1.44 (1.05, 1.97)	
15	172 (3.1)	1.48 (0.72, 3.06)	
>=16			
Sex			
Male	3897 (61.2)	8.76 (4.64, 16.52)	6.42 (3.45, 11.93)
Female	1287 (38.8)	1	1
During the past 7 days, on how many days have people smoked in your presence?			
Never	2373 (50.6)	1	1
One or more days	2767 (49.4)	2.81 (2.04, 3.88)	1.54 (1.13, 2.09)
Which of your parents or guardians use any form of tobacco?			
None	3668 (72.7)	1	1
One or both	1505 (27.3%)	2.39 (1.79, 3.20)	1.55 (1.22, 1.97)
During the past 30 days, how often did your parents or guardians check to see your homework was done?			
Sometimes/most of the time/Always	3625 (71.0)	1	1
Never/rarely	1526 (29.0)	1.82 (1.42, 2.32)	1.38 (1.03, 1.86)
During the past 30 days, how often did your parents or guardians understand your problems and worries?			
Sometimes/most of the time/Always	3643 (71.6)	1	1
Never/rarely	1490 (28.4)	1.76 (1.27, 2.44)	1.44 (1.006, 2.07)
During the past 30 days, how often did your parents or guardians really know what you were doing with your free time?			
Sometimes/most of the time/Always	3626 (71.1)	1	1
Never/rarely	1480 (28.9)	1.32 (1.0, 1.74)	1.08 (0.84, 1.39) Not Significant
During the past 12 months, how often have you felt lonely?			
Never/Rarely	3190 (61.3)	1	1
Sometimes/Most of the time/Always	1943 (38.7)	1.53 (1.16, 2.03)	1.53 (1.4, 2.06)
During the past 12 months, how often have you been so worried about something that you could not sleep at night?			
Never/Rarely	3754 (72.7)	1	1
Rarely/Sometimes/Most of the time/Always	1413 (27.3)	1.59 (1.28, 1.97)	1.26 (0.96, 1.67) Not Significant
During the past 12 months, did you ever seriously consider attempting suicide?			
No	4738 (92.8)	1	1
Yes	375 (7.2)	2.46 (1.74, 3.47)	1.95 (1.39, 2.73)
During the past 30 days, on how many days did you miss classes or school without permission?			
0 Days	3837 (76.6)	1	
1 or more days	1315 (23.4)	3.63 (2.80, 4.70)	2.22 (1.87, 2.63)

Totals vary across different factors owing to missing information by factor. *Unweighted frequencies. **Weighted percents. ***Confidence Intervals. §Odds Ratio.
N/A - Factor not included in the final logistic regression model.

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Independent Consultant, Gulshan-e-Iqbal, Karachi.
Correspondence: Email: masoodali1@yahoo.com

inadequate parental monitoring, and parental smoking.[1-4] To describe factors associated with self-reported tobacco use in the past 30 days in Pakistani students of

class 8-10 and its prevalence; Data was reviewed from the two-stage cluster sample-based nationally representative Global School-Based Health Survey for Pakistan, conducted in 2009 by the Ministry of Health in collaboration with the World Health Organization and Centers of Disease Control and Prevention, United States.[5] Design-based analysis using STATA-12 was done using simple and multivariate logistic regression; factors found statistically significant at p<0.10 level on simple logistic regression were used for multiple logistic regression.

In the Global School-Board Health Survey of Pakistan[5] tobacco use was defined as having smoked cigarettes or used any tobacco products i.e. hukka, bidi, niswar, shisha, on one or more days during the past 30 days. The overall prevalence of tobacco use in the past thirty-days was 10.1% [95% confidence interval (CI): 7.2%, 13.1%] (n = 5191). In male students the prevalence was 15.3% (95% CI: 13.1%, 17.5%), while among females the prevalence was 2.0% (95% CI: 0.8%, 3.2%). Table provides the respondent's demographic and psychosocial factors description, as well as association with tobacco use in bivariate and multivariate analyses. Age was not found to be statistically significant in the bivariate logistic regression model, and hence was dropped from the final multivariate logistic regression model. Final model included others smoking in respondent's presence, sex, having felt lonely, having seriously considered attempting suicide, worrying to the point of not being able to sleep, having missed classes without permission, parental/guardian use of tobacco, parents/guardians understanding respondent's problems/worries,

parents/guardians checking respondent's homework, and parents/guardians knowing what respondent's were doing in their free time. Results of the goodness-of-fit-test concluded that this model was a good fit for the survey data. All the factors were found to be statistically significant save worrying to the point of not being able to sleep in the past twelve months, and parents/guardians knowing what respondent's were doing in their free time in the past 30 days.

Compared to girls, boys were almost six and a half times more likely to have used tobacco. Results indicate the need for smoking-prevention health education campaigns in schools and media; involving students, teachers, parents, and healthcare providers to combat the scourge of tobacco use.

References

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