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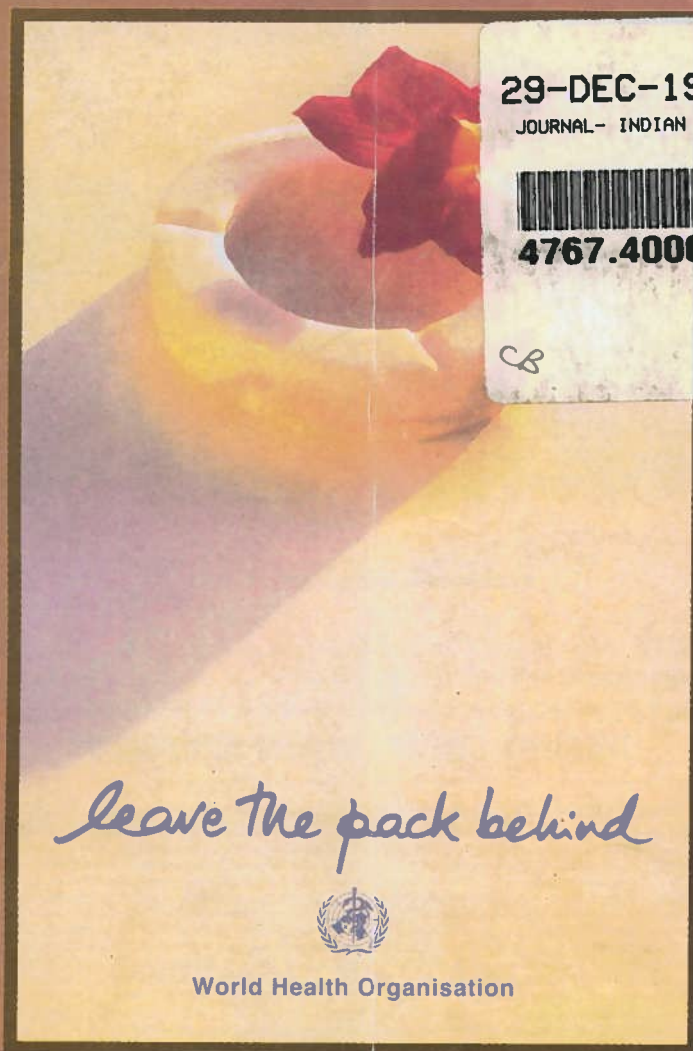
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## Sports Sponsorship by Cigarette Companies Influences the Adolescent Children's Mind and Helps Initiate Smoking : Results of a National Study in India

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To estimate the effect of large scale tobacco sponsorship of cricket, a study was conducted on children's knowledge and perceptions about smoking and their impact on subsequent smoking uptake. Twelve nations played 36 matches in the Wills World Cup-1996 cricket series over one month during which Wills (a cigarette brand) was extensively advertised by live broadcast to a 2-billion viewers with WILLS logo on the players' T-shirts and playground, newspapers, magazines, and hoardings. An anonymous structured questionnaire including 4 knowledge based questions about tobacco, 4 about perceptions directly promoted by Wills and 10 questions related to wrong perceptions about smoking was administered by class teachers six months after the series. A total of 5822 children (65% boys and 35% girls) in Grade 10, aged 13-17 years (median 14) were selected. Smokers increased from 137 (2.4%) before the series to 649 (11.1%) after the series. The smoking initiation rate was 2.04% (13/636) in children with full knowledge and no wrong perceptions, 7.8% (48/618) among those with less knowledge and no wrong perceptions. Among those with less knowledge but believing in at least 2 of Wills related perceptions and 3 of the smoking related perceptions the rate for smoking initiation was 20.55% (127/618). The sponsorship appeared to have a similar effect on initiation rates in both sexes despite the strong social taboo against girls smoking in India. Wrong perceptions about smoking promoted by tobacco sponsorship increases smoking initiation amongst both boys and girls even when they are aware of the risks involved. The study suggests that education, without bans on advertisements is unlikely to stop initiation of smoking among children.

**Key words :** Sports sponsorship, tobacco, questionnaire, smoking initiation rate.

Asia has long been an important growing market for the tobacco industry. The favourite ploy of the industry is to systematically target children and adolescents. We have previously shown that sports sponsorship by tobacco industry significantly increased children's experimentation with tobacco<sup>1</sup>. In this multicentric study, we evaluated the effect of large scale sports sponsorship by tobacco companies on the adolescent mind. The Indian Tobacco Company (ITC), a subsidiary of British American Tobacco (BAT),

sponsored the Wills World Cup-1996 cricket series. In this popular series, 12 nations participated in 36 matches played over a period of one month. The series was broadcast live to a 2-billion viewers worldwide.

The popular cricket matches were broadcast live on national television during which time, Wills was extensively advertised. This included specially made T-shirts with the WILLS logo imprinted on them, and were worn by the players and managers.

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WILLS was displayed prominently at several places on the playground, on hoardings and on strategic spot displays. In addition, there were advertisements in daily newspapers and magazines and there were large cutouts of the brand at public places. Before, during, and after the series there was widespread popular interest especially among the children and adolescents about the Wills cricket series. The WILLS logo was displayed about 158 times during the day.

#### MATERIAL AND METHOD

About six months after the matches, an anonymous structured questionnaire was administered by class teachers to a total of 5822 children (65% boys and 35% girls) in grade 10 (age 13-17 years) in 93 schools in 6 cities of India. The questionnaire included 4 questions testing knowledge about harmful effects of tobacco, 4 questions related to the perceptions directly promoted by the sponsor and 10 questions probing into the wrong perceptions about smoking. The answers were correlated with the risk of initiation of smoking in a child after the matches. The Epi-info version 6 software programme was used for statistical analysis.

#### OBSERVATIONS

Out of 5822 children, 137 (2.4%) were smokers and 149 (2.6%) were chewers of tobacco before the matches. A total of 5165 children stated that they had not used tobacco prior to the matches and 371 children did not answer this question. Six months after the matches the number of smokers increased to 649 (11.1%). Of the 512 new smokers, only 128 were new smokers of Wills, the advertised brand.

Here in this article an attempt was made to analyse the group of children who were not using tobacco before the matches with respect to the influence of knowledge, perceptions created by tobacco sponsors and the wrong perceptions about smoking.

It was found that 71.1% to 86.5% of children knew about dangers of smoking (Table 1). The risk of initiation of smoking was inversely related to the degree of knowledge (Table 2).

Table 1 — Questionnaire on Testing Knowledge of Smoking and Believers (%)

Questionnaire	Believers (%)
Do cigarettes cause addiction?	71.1%
Does smoking cause serious diseases like cancer and heart attacks?	86.5%
Does smoking lowers the life-span?	71.9%
Is smoking very dangerous?	82.0%

Table 2 — Questionnaire on Smoking, Children (%) Replying and Smoking Initiation Rate

Questionnaire	Children (%)	Smoking initiation rate	Relative risk (p-value)
<b>Smoking about dangers of smoking :</b>			
All 4 correct answers	45.9%	4.7%	1
1 wrong answer	29.4%	9.2%	1.95 (<0.001)
2 wrong answers	16.4%	17.9%	3.79 (<0.001)
3 wrong answers	16.9%	23.9%	5.06 (<0.001)
All 4 wrong answers	1.4%	31.5%	6.66 (<0.001)
<b>Perceptions about Wills :</b>			
No wrong perceptions	43.3%	6.25%	1
1 wrong perception	38.6%	10.0%	1.6 (<0.001)
2 wrong perceptions	13.9%	16.9%	2.7 (<0.001)
3 wrong perceptions	3.8%	24.7%	3.96 (<0.001)
All 4 wrong perceptions	0.4%	19.1%	3.05 (<0.05)
<b>Perceptions about smoking :</b>			
No wrong perceptions	56.9%	6.4%	1
1 wrong perception	18.3%	10.5%	1.63 (<0.001)
2 wrong perceptions	12.0%	12.5%	1.96 (<0.001)
3 wrong perceptions	7.9%	15.2%	2.37 (<0.001)
4 wrong perceptions	4.9%	19.9%	3.11 (<0.001)

We found that the environment and slogans created by the sponsor influenced children's perceptions regarding smoking. The number of wrong perceptions was directly related to the risk of initiation of smoking. The most influential perception was the personalised message: "You become a better cricketer if you smoke Wills." For this message, the initiation rate for believers was 25.5% and for non-believers it was 7.5%. Table 3 shows that the knowledge significantly ( $p < 0.001$ ) reduced the

risk of initiation of tobacco use among the believers as well as non-believers of the sponsorship-created perceptions. However, belief in the two perceptions, "Team with more Wills smokers will fare better" and "You become a better cricketer if you smoke Wills" increased the risk of initiation of smoking even among children with full knowledge.

We found that a significant proportion of children had wrong perceptions about the effect of smoking on performance at sports, self image, mental ability and social image. The smoking initiation rate after the series was significantly higher (12.7% to 18.7%) among the believers of these wrong perceptions as compared with non-believers (8.4% to 9.3%) ( $p < 0.01$ ). We found that belief in increasing number of wrong perceptions increased the risk of initiation of smoking

Table 3 — Effects of Knowledge and Wrong Perceptions on Smoking Initiation Rates

Perception (% believing)	With less than full knowledge			With full knowledge		
	Believers	Non-believers	RR (P)	Believers	Non-believers	RR (P)
<b>Perceptions about Wills :</b>						
'Share the magic' means sharing a cigarette or a cigarette packet (29.5%)	19.54 (155/793)	12.45 (198/1590)	1.57 (0.001)	5.88 (43/731)	4.29 (63/1470)	1.37 (0.10)
"Wills is smoked all over the World" (27.1%)	14.98 (114/761)	14.61 (158/1081)	1.02 (0.828)	5.78 (37/640)	4.33 (34/785)	1.33 (0.210)
"Team with more Wills smokers will fare better" (10.0%)	20.53 (70/341)	13.35 (302/2262)	1.54 (0.001)	9.14 (16/175)	4.43 (93/2097)	2.06 (0.005)
"You become a better cricketer if you smoke Wills" (12.6%)	29.04 (133/458)	11.30 (244/2159)	2.57 (0)	17.10 (33/193)	3.55 (73/2058)	4.82 (0)
<b>Perceptions about smoking :</b>						
<i>Performance at sports —</i>						
Smoking makes you run faster (9.5%)	22.3 (73/327)	13.2 (256/1945)	1.70 (0)	11.5 (19/165)	4.2 (80/1917)	2.76 (0)
Smoking makes you score more (10.9%)	21.7 (80/369)	12.9 (244/1896)	1.68 (0)	6.9 (10/145)	4.6 (88/1919)	1.50 (0.290)
Smoking enables you to catch more catches (10.6%)	20.4 (78/383)	13.2 (243/1844)	1.55 (0)	6.7 (11/164)	4.6 (88/1929)	1.47 (0.293)
Smoking gives you more strength (7.9%)	22.5 (59/262)	12.9 (265/2060)	1.75 (0)	11.6 (17/147)	4.4 (88/2006)	2.64 (0.0)
<i>Self image —</i>						
Smoking makes you more manly (13.3%)	21.1 (86/407)	13.3 (233/1748)	1.58 (0)	10.0 (28/280)	4.0 (66/1635)	2.48 (0)
Smoking gives a mature image (16.4%)	20.0 (95/474)	12.8 (209/1637)	1.57 (0)	6.5 (24/372)	4.3 (67/1554)	1.50 (0.081)
<i>Mental ability —</i>						
Smoking improves confidence (9.4%)	19.4 (60/309)	13.4 (262/1959)	1.45 (0.006)	12.0 (21/175)	4.26 (79/1857)	2.82 (0.001)
<i>Social image —</i>						
Smoking makes you feel rich (16.7%)	15.6 (78/499)	14.3 (244/1707)	1.09 (0.457)	8.79 (32/34)	4.0 (63/1586)	2.21 (0.0002)
Smoking makes me feel liberal (14.4%)	18.8 (81/1884)	10.5 (33/315)	1.42 (0.009)	10.5 (33/315)	2.3 (33/1435)	2.64 (0.0)
Smoking gives a sporty image (9.6%)	21.83 (69/316)	12.3 (216/1757)	5.29 (0.0)	9.9 (18/182)	4.5 (78/1714)	2.21 (0.002)

(Table 2). Among children with less than full knowledge, belief in 9 out of 10 wrong perceptions influenced the initiation of smoking ( $p < 0.01$ ). Even among children who had full knowledge, such influence was highly significant ( $p < 0.01$ ) for 7 out of the 10 wrong perceptions (Table 3).

To summarise the results in another way, the smoking initiation rate after the matches was only 2.04% (13/636) in children having full knowledge about dangers of smoking and not believing in any of the false perceptions *vis-a-vis* 7.8% (48/618) among those with less than full knowledge but with no wrong perceptions and 20.55% (127/618) among those with less than full knowledge but believing in at least 2 of Wills related perceptions and 3 of the smoking related perceptions.

The overall initiation rate among girls (7.33%, 130/1772) was less than that in boys (10.8%, 348/3221). Sex was not mentioned by 172 children. However, we found that belief in 3 out of 4 wrong perceptions about Wills and in all but one (sporty image) wrong perceptions about smoking resulted in a similar relative increase in initiation of smoking in both boys and girls.

#### DISCUSSION

Sports sponsorship by tobacco industry is very effective in initiating smoking habit among children. A total of 9.91% of 5165 of previous non-users of tobacco were initiated into the smoking habit after the series. The brand promotion created by sports sponsorship by tobacco companies was so pervasive and persuasive

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found to be high (67%) in the present study as compared to most of the studies<sup>1,2,4</sup>. This may be partly explained by the fact that most of the cases were smokers with >50 years of age and males (since squamous cell carcinoma is more common in smokers, males and in later age).

Though fairly advanced methods were utilised in a government hospital set-up in diagnosing lung cancer, there is a definite need for more efficient methods like cytopathology, tumour markers, histochemistry, cytogenetic studies, etc, for early diagnosis, especially in high risk individuals.

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sive that it appeared to have an overall effect on the peer environment of the child. The fact that the influence of advertising is similar across the sexes is very worrying especially because this has even overcome the strong social taboo against girls smoking in India.

Sports sponsorship creates wrong perceptions about tobacco in the minds of children. We found that the sponsorship promoted not just the advertised brand but also smoking in general. These findings are in agreement with the findings of White *et al*<sup>2</sup>. If a child knew the dangers of smoking, it significantly reduced the risk of taking up the smoking habit. However, even those children having full knowledge, groups with different false perceptions resulted in 6%-17% taking up smoking.

In conclusion, we believe that education about the dangers of tobacco should be accompanied by measures to stop the industry from initiating smoking in children, the least of which would be a total ban on sports sponsorship by tobacco industry or on any type of advertisements. This nationwide study nails down the lie of the tobacco industry<sup>3</sup> that sponsorships do not initiate smoking in children.

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