

Attitudes towards Anti-Smoking Legislation in Israel: A Jerusalem Study

Noah Samuels MD

Shoresh Medical Center, Jerusalem, Israel

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Abstract

Background: With smoking on the rise among teenagers, the United States has recently implemented anti-smoking legislation, though with questionable success.

Objectives: To examine the attitudes in Israel to such legislation.

Methods: An interviewer-administered questionnaire was completed by 505 adults: 217 undergoing general employment checkups and 288 amateur athletes requiring medical testing for certification. Smoking habits and attitudes toward anti-smoking legislation were examined.

Results: The overall rate of smoking was 25.3%, with a male:female ratio of 1:24 ($P=0.232$). Most smokers (65.6%) started smoking before the age of 20, and only 47.7% tried to quit at least once. Both the smokers and the non-smokers who were interviewed were in favor of legislation that recognized cigarettes as an addictive substance, restricted the sale of cigarettes to people aged 18 and older, and banned cigarette advertisements.

Conclusions: Anti-smoking legislation is looked upon favorably by Israelis, though the true benefit of such measures is questionable. Priority must be given to primary prevention through education and empowering youth to choose not to smoke.

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In recent years nicotine has become accepted as an addictive substance, perhaps as much as other drugs [1]. With 88% of smokers starting by the age of 18 and smoking rates increasing among adolescents [2,3], the United States government, via the Food and Drug Administration, has implemented certain anti-smoking legislation. Tobacco is now recognized as an addictive substance, the national minimum age at which tobacco can be bought is 18 years old, and restrictions have been placed on cigarette advertising [2,4,5]. The hope is that such measures will help reduce the rates of smoking among American teenagers and, subsequently, adults.

The purpose of our study was to examine attitudes in Israel to such anti-smoking legislation, which has been implemented in this country to only a very limited extent. The value of such measures as enforced in the U.S. model is also discussed.

Methods

The Shoresh Medical Center in Jerusalem, Israel, is an integrated center for preventive medicine. Our study performed testing on two types of examinees: the first comprised employees sent by their respective companies for annual examinations (hence referred to as the "Checkup" group). The second, the "Sport" group, included amateur athletes and non-athletes, both required by law to undergo testing prior to participating in their prospective sports and exercise programs, respectively. In both groups a physician initially conducted a medical interview, questioning the subjects about their smoking habits among other risk factors. It was during these interviews that an interviewer-administered questionnaire was completed on demography (age, gender, place of birth), smoking habits and attitudes regarding anti-smoking legislation. This legislation would recognize cigarettes as an addictive substance, prohibit the sale of cigarettes to minors under the age of 18, and ban the advertisement of cigarettes in the media. The study period lasted from June 1997 to April 1998, and all examinees from age 16 and older were questioned.

The results were tabulated and analyzed using the Microsoft Excel program, and statistical significance tested using the Chi-squared distribution and pooled *t*-test.

Results

During the study period, 505 examinees were interviewed, 288 of them in the Sport group and 217 in the Checkup group. All (100%) agreed to answer the questionnaire. The demographic characteristics of the study group are shown in Table 1. A total of 128 (25.3%) were current smokers – 98 of the male respondents (26.8%) and 30 of the female (21.6%, $P=0.232$). All of the smokers were 20 years old and older, with 30 (23.4%) aged 20–29, 31 (24.2%) aged 30–39, 46 (35.9%) aged 40–49, 15 (11.7%) aged 50–59, and 6 (5.7%) aged 60 and above ($P=0.065$).

The Sport group was younger than the Checkup group, though not significantly ($P=0.260$), with a slightly higher though not significant rate of smoking (27.8% vs. 22.1%, $P=0.148$). Of the smokers, 84 (65.6%) began smoking before the age of 20 compared to only 34 (26.6%) and 10 (7.8%) from the ages of 20 and 30, respectively. This trend was found both among male and female smokers ($P=0.106$). Nearly half the smokers (62, 48.4%) smoked more than 20 cigarettes per day, while 34 (26.6%) smoked between 10 and

Table 1. Characteristics of the study groups

	Checkup group (n=217)	Sport group (n=288)	Total (n=505)
Male	134	232	366
Female	83	56	139
Mean age (yr)	45.8(16-88)	36.4(24-71)	40.5
No. of smokers (% per gender)			
Male	30 (22.4)	68 (29.3)	98 (26.8)
Female	18 (21.7)	12 (21.4)	30 (21.6)
Total	48 (22.1)	80 (27.8)	128 (25.3)

19, and 42 (25.0%) less than 10 cigarettes per day, with similar amounts smoked by both male and female smokers ($P=0.326$).

Less than half (61, 47.7%) of the smokers had tried to quit smoking at least once, both among male and female smokers ($P=0.138$). Of the 377 non-smokers, 99 (26.3%) were prior smokers, with no significant difference between male and female non-smokers ($P=0.233$).

Attitudes toward anti-smoking legislation are summarized in Table 2. Both smokers and non-smokers were in favor of legislation recognizing cigarettes as an addictive substance ($P=0.202$) and prohibiting the sale of cigarettes to youth under the age of 18 ($P=0.631$). Most were in favor of laws prohibiting advertising of cigarettes, though more so among the non-smokers (78.5% vs. 63.3%, $P=0.003$).

Discussion

Smoking is still prevalent in Israel today. Studies of varied age groups and settings have shown a certain decrease in smoking rates over the past 30 years (Table 3). There also seems to be a steady decline in the ratio of male-to-female smokers, though more extensive research is required to verify this. Legislation has been passed limiting smoking in public areas and government offices, and the Israeli medical establishment has made efforts to reduce smoking among patients, though more than one in six doctors are themselves smokers [17]. The question that remains to be

Table 2. Attitudes toward anti-smoking legislation [n (%)]

	For	Against	Abstain
Recognizing cigarettes as an addictive substance			
Smokers	97 (75.8)	22 (17.2)	9 (7.0)
Non-smokers	309 (82.0)	42 (11.1)	26 (6.9)
Total	406 (80.4)	64 (12.7)	35 (6.9)
Prohibiting the sale of cigarettes to youth under age 18			
Smokers	100 (78.1)	16 (12.5)	12 (9.4)
Non-smokers	299 (79.3)	52 (13.8)	26 (6.9)
Total	399 (79.0)	68 (13.5)	38 (7.5)
Banning advertising of cigarettes			
Smokers	81 (63.3)	28 (21.9)	19 (14.8)
Non-smokers	296 (78.5)	47 (12.5)	34 (9.0)
Total	377 (74.6)	75 (14.9)	53 (10.5)

answered is whether or not these efforts are effective and thus worthwhile.

In the present study, only 47.7% of the current smokers tried to quit at least once. In the U.S., only 2 to 3% of smokers become non-smokers each year [18]. Studies of smokers in Israel have shown that neither explanations on the risk to health by family physicians to smokers nor efforts by the media to educate about the dangers of smoking have been successful in getting them to stop [12].

Most of the smokers in the study group (65.6%) began smoking before the age of 20 and 92.2% before the age of 30. This finding is similar to the results of another study on soldiers upon completing their obligatory service in the Israeli army [10]. Studies on Israeli youth have found high rates of smoking among high school and even junior high school students [15]. It has been suggested that in order to prevent them from becoming nicotine addicts, three objectives are necessary: reduced access to tobacco products, convincing them that nicotine is dangerous and addictive, and reducing the appealing advertising that induces young people to smoke [19].

Table 3. Studies of smoking in Israel

Author(s)	Study period	Group studied	n	% smokers	M/F
Goldbourt and Medalie [6]	1963-68	Men aged 40+	10,047	51.9	(males only)
Goñn et al. [7]	1969-71	Primary care clinic	4,923	37.52	1.81
Halfon et al. [8]	1976-80	17 year-olds	1,248	25.4	1.65
Carel [9]	1976-84	Pre-employment	8,617	39.5	1.2
Ashkenazi & Shemer [10]	1980-85	Discharged soldiers	32,166	40.5	1.42
Froom et al. [11]	1985-87	Male employees	1209	32.4	(males only)
Kitai et al. [12]	1986-88	Primary care clinics	1027	25.6	1.55
Ben Noun [13]	1987	Primary care clinics	820	42.3	1.83
Palti et al. [14]	1991	10th grade students	1,078	20.1	1.63
Meijer et al. [15]	NA	6-11th grade students	847	13.9	1.0
Bobak et al. [16]	1995-96	Men aged 45-64	162	24.0	(males only)
Samuels [17]	1996-97	Hospital doctors	260	15.7	1.08
Present study	1997-98	Health screening	505	25.3	1.24

NA = not available.

The majority of participants in our study, both smokers and non-smokers, agreed with the legislative measures being implemented in the USA. Nonetheless, in Israel there has been little success in passing more stringent anti-smoking laws [20]. On the other hand, this legislation has yet to prove effective in preventing young people's self-reported access to tobacco from commercial sources, or in altering their smoking behavior [2]. As for efforts by the media, as yet only one newspaper in Israel has voluntarily banned tobacco advertisements in spite of lost revenue [21].

Further study is required, internationally, to find the secret of preventing our youth from even beginning to smoke. The image of smoking cigarettes has always been associated with rebellion and with asserting one's independence among family and society. Perhaps the time has come for the youth of the world to rebel by *not* smoking, to show their independence by taking charge of their own and society's health and welfare. The time has come for them to simply and vehemently say "No!" to cigarettes.

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Correspondence: Dr. N. Samuels, Shores Medical Center, P.O. Box 28048, Jerusalem, Israel. Tel. (972-2) 624 1152; Fax. (972-2) 624 1164.

Capsule



Nipah virus: a recently emergent deadly paramyxovirus

A paramyxovirus virus, termed Nipah virus, has been identified as the etiologic agent of an outbreak of severe encephalitis in people with close contact exposure to pigs in Malaysia and Singapore. The outbreak was first noted in late September 1998, and by mid-June 1999 more than 265 encephalitis cases, including 105 deaths, had been reported in Malaysia, and 11 cases of encephalitis or respiratory illness with one death had been reported in Singapore. Electron microscopic, serologic, and genetic studies indicate that this virus belongs to the family

Paramyxoviridae and is most closely related to the recently discovered Hendra virus. Chua et al. suggest that these two viruses are representative of a new genus within the family Paramyxoviridae. Like Hendra virus, Nipah virus is unusual among the paramyxoviruses in its ability to infect and cause potentially fatal disease in a number of host species, including humans.

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