A survey of high school athletic coaches in Oregon was made to determine their smoking habits and their attitudes. Because coaches present important examples to teenagers, educational antismoking programs should be directed toward them.

SMOKING HABITS AND ATTITUDES OF OREGON SECONDARY SCHOOL COACHES

James F. Morris, M.D., and Michael W. Tichy, Ed.D.

Introduction

A MAJOR target in the national effort to reduce the prevalence of cigarette smoking in the youth of America. For example, much of the program of the National Interagency Council for Smoking and Health is designed to discourage young people from becoming regular cigarette smokers. The influence of the example set by adults occupying authoritative positions was suggested by the study of Horn, et al.,[1] in Portland, Oregon, in 1957, which showed a correlation between smoking habits of school children and their parents. Horn reports this is still true in 1968.[2] Others who might provide exemplary patterns of smoking behavior are teachers and athletic coaches, but studies of their smoking habits are meager. Thorough search of the literature both by us and the National Clearinghouse on Smoking and Health revealed no studies of coaches, and only one survey of teachers.[3]

Antedating the widespread antismoking educational programs, athletic coaches advised their competing athletes to abstain from smoking in the belief—now extensively documented—that it would impair their respiratory function, and thus their athletic performance. Most coaches today in junior and senior high schools also function as teachers in such health-related subjects as health, physical education, and general science.

The present study represents an attempt to determine their past and present smoking habits, and their attitudes toward cigarette smoking as a health hazard. In this way, we hoped to determine the impact of the available information regarding the detrimental effects of cigarette smoking upon the behavior and beliefs of coaches who are in a strategic position to have an important influence upon the smoking habits and attitudes of school-age children.

Method of Procedure

Subjects

The population in this study was 931 athletic coaches in Oregon high schools. This was the complete list of names which appeared in *The Oregon Coaches Directory of 1966*, the official membership of the Oregon Coaches Association for that year.

The questionnaires were mailed during September, 1966, and all were re-

Figure 1

QUESTIONNAIRE ON SMOKING

		Yes	No
1.	Have you ever smoked regularly?. . . . . (That is at least one cigarette, cigar or pipe nearly every day for at least one year.)	☐	☐

If "No" skip to Question #9.

		Yes	No
2.	Do you smoke now?.	☐	☐

If not, the approximate month or year you last smoked . . . . _____

Why did you stop smoking? (select one)

☐ 1. Because of scientific evidence stating its harmful effects.
☐ 2. Because of your own symptoms.
☐ 3. Orders of a physician.
☐ 4. Persuaded by others.
☐ 5. Other (Please state) _____

3. At what age did you begin to smoke regularly?

0-9 ☐ 10-14 ☐ 15-19 ☐ 20-24 ☐ 25-29 ☐ 30 or over ☐

4. Please indicate the total number of years during which you smoked regularly.

0-9 ☐ 10-19 ☐ 20-29 ☐ 30-39 ☐ 40 or more ☐

5. How many times in the past have you stopped smoking completely for more than one month?

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐ Never stopped ☐

6. How many times have you changed your habit of smoking for more than one month? (such as switching from cigarettes to pipe, or cigars, reducing your consumption by more than one-half, etc.)

Never ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 or more ☐

7. What is your smoking pattern now?

Cigarettes How many per day?	Pipe How much per month?	Cigars How many per day?
None	None	None
1-9	Less than 1/2 lb.	0-4
10-19	More than 1/2 lb	5-9
20-29	but less than	10 or more
30-39	1 lb.	
40 or more	More than 1 lb.	

8. Please indicate your previous regular smoking habit. If unchanged from Question #7 check only at "Same." Same ☐

Cigarettes How many per day?	Pipe How much per month?	Cigars How many per day?
None	None	None
1-9	Less than 1/2 lb.	0-4
10-19	More than 1/2 lb.	5-9
20-29	but less than	10 or more
30-39	1 lb.	
40 or more	More than 1 lb.	

For how long was this your regular smoking habit? _____

Figure 1 (continued)

Please indicate approximately how long ago you changed your habit from that listed in #8 to that in #7. _____

9. Grade level you teach or coach. Junior High ☐ Senior High ☐

10. How would you describe smoking as a hazard to health? _____

A. No hazard ☐ B. Mild hazard ☐ C. Moderate hazard ☐

D. Severe hazard ☐

11. What do you consider are the main health hazards of smoking? _____

_____

_____

		Yes	No
12.	Do you believe smoking has an adverse effect on athletic performance?	☐	☐
13.	Do you believe smoking has an adverse effect on physical fitness?	☐	☐
14.	Do you believe your personal attitude toward smoking influences your students and athletes?	☐	☐
15.	Do you teach a class in Health Education?	☐	☐

ceived by January, 1967. Of the 931 questionnaires mailed, 666 (72%) were returned completed. The respondents were not identified because preliminary study indicated reluctance of many coaches and teachers to publicly admit their smoking habits. Lack of identification precluded the use of follow-up invitations to nonrespondents. It should be considered that the nonrespondents may represent a higher percentage of smokers than the respondents.

Procedure and Experimental Design

Data were collected pertaining to a 15-item, primarily precoded questionnaire. This instrument was a modification of the form used by Meighan and Weitman[4] in studying the smoking habits and beliefs of Oregon physicians.

This revised form was a single-sheet questionnaire which appeared under the letterhead of the Oregon Tuberculosis and Health Association. The questionnaire is shown in Figure 1.*

Results

Two open-ended questions were, "Why did you stop smoking?" and "What do you consider are the main health hazards of smoking?" Responses to the first question were classified into five groups: (1) because of scientific evidence stating its harmful effects; (2) because of your own symptoms; (3) orders of a physician; (4) persuaded by others; (5) other. Of the 666 respondents, replies to this question ranged from citation of all to mention of none of these reasons.

The second open-ended question was, "What do you consider are the main health hazards of smoking?" Responses

* Dr. Morris Weitman assisted with the preparation of the questionnaire and data processing.

Table 1—Past and present smoking practices

	Yes		No		No answer	
	No.	%	No.	%	No.	%
Ever smoked regularly	296	44.4	368	55.3	2	0.3
Presently smoking	193	29.2	103	70.8		

Table 2—Reasons for stopping smoking

	No.	%
Scientific evidence	48	46.6*
Own symptoms	29	28.2
Persuaded by others	11	10.7
Other	60	58.3†

* Some respondents cited more than one reason.
† See text for subgrouping.

Table 3—Age at which smoking was begun

Age	No.	%
0–9	0	0
10–14	13	4.4
15–19	88	29.7
20–24	150	50.7
25–29	34	11.5
30 and over	10	3.4
No answer	1	0.3
Total	296	100.0

Table 4—Number of times smoking stopped for more than one month

Number of times	No.	%
1	59	19.9
2	48	16.2
3	24	8.1
4	11	3.7
5 or more	36	12.2
Never stopped	106	35.8
No answer	12	4.1
Total	296	100.0

to this question were classified into 14 groups of disease entities: (1) lung cancer; (2) chronic obstructive bronchopulmonary disease (chronic bronchitis and emphysema); (3) respiratory function impairment; (4) respiratory disease, unspecified; (5) cardiovascular disorders; (6) cancer of the upper airway (mouth, throat, larynx); (7) cancer unspecified; (8) psychological disturbances (habit-forming, nervousness); (9) interference with digestion (ulcers); (10) predisposition to infections of respiratory system; (11) general physical and health impairment; (12) cosmetic and esthetic disorders (bad breath, yellow teeth); (13) other; (14) no answer. The category "other" included primarily nonmedical conditions, but some, however, had medical connotations.

Six hundred and sixty-six respondents varied considerably in their answers to this question. Some gave one or two reasons which fell into one or two categories and others gave a larger number of reasons which covered several of the first 12 categories.

The study showed that whereas 296 (44.4%) had previously smoked cigarettes regularly, only 193 (29.2%) were smoking cigarettes regularly at the time of the questionnaire (Table 1). Reasons for discontinuance of cigarette smoking are shown in Table 2. The chief reason given was the scientific evidence stating its harmful effects. The second most frequent reason was concern about their own symptoms, usually respiratory. None of the coaches stopped smoking because of physicians' advice. Of the 60 who stopped because of other reasons, these reasons included the following: 18.3 per cent of the 60 stopped smoking to set a good example for their own families and the athletes they coach; 30 per cent stopped because of the negative effect they were experiencing. This group considered that smoking was a poor health habit, was a nuisance, gave a foul smell, and produced a bad taste in the mouth.

Thirty-three per cent stopped because they did not want to be a slave to the cigarette habit; 23 per cent stopped smoking due to external considerations and pressures. These included religion, to help the wife quit her habit, unhappiness on the job, and because of objections by members of the family.

Of particular interest is the age at which smoking was begun regularly. The largest number, 50.7 per cent, began between ages 20-24, and the next largest, 29.7 per cent, between ages 15-19 (Table 3).

Of those who stopped smoking for at least one month, 19.9 per cent stopped only once, 16.2 per cent twice, 8.1 per cent three times, 3.7 four times, and 12.2 per cent five or more times (Table 4). The commonest smoking pattern was one-half to one pack daily, true of 25 per cent of the respondents (Table 5). Of the respondents who said they had ever smoked, one-third had changed their smoking habits. The change represented a decrease in cigarette smoking, and an increase in the use of pipes and cigars.

Regarding beliefs about the hazards to health represented by smoking, only 0.3 per cent of the coaches believed there was no health hazard from smoking. On the other hand, 84.5 per cent believed there was a moderate or severe health hazard (Table 6). Contrasting with this, 92.3 per cent believed that smoking had an adverse effect upon physical fitness and athletic performance. Finally, 73.9 per cent expressed a belief that their own personal attitudes toward smoking influenced their students and athletes.

Discussion

The cigarette smoking habits of Oregon high school coaches have undergone changes smiliar to those of other groups, particularly physicians. The study in 1964 of the smoking habits and attitudes of Oregon physicians by Meighan and Weitman[4] revealed 24 per cent were still smoking cigarettes, compared with 29 per cent of our group of Oregon high school coaches. These two groups represent health professions, well informed of the harmful effects of tobacco smoking, and appearing as authoritative figures to those seeking guidance or information. Most educational antismoking campaigns report a maximum conversion rate of about 80 per cent. Thus, the 29 per cent of Oregon physicians and 24 per cent of Oregon coaches may represent the best result achievable by presentation of scientific evidence. The remaining individuals, despite their belief that smoking is a definite health hazard, may be emotionally unable or unwilling to discontinue their habit. These smokers may well be described as psychologically addicted to the practice of cigarette smoking and resistant to any educational program.

Table 5—Present daily cigarette consumption

Number cigarettes per day	No.	%
0	100	33.8
1–9	49	16.6
10–19	74	25.0
20–29	32	10.8
30–39	1	0.3
40 or more	0	0
No answer	40	13.5
Total	296	100.0

Table 6—Health beliefs about smoking

	No.	%
No health hazard	2	0.3
Mild health hazard	66	9.9
Moderate	274	41.1
Severe	289	43.4
No answer	35	5.3
Total	666	100.0

The relative value of an educational program is indicated by our finding that almost one-half of the coaches who stopped smoking did so because of the scientific information available describing the harmful effects. Tomkins[5] pointed out that individuals continue to smoke for certain emotional reasons, such as habit, to increase positive effect, to decrease negative effect, or because of psychological addiction. Attempts to alter smoking habits may best be directed at the particular motivation of the individual smoker. Possible motivations for change are example, economics, esthetics, effects on health, and effects other than those involving health. In this regard, three-fourths of the coaches believed their own attitude toward smoking influenced their students and athletes, illustrating the exemplar motivation.

The difficulty of permanently discontinuing smoking is illustrated by the 12 per cent of the coaches with a history of smoking, who had stopped five or more times. At the time of the study, however, only one of the 666 respondents smoked in excess of 29 cigarettes per day.

It would appear that of the high school coaches studied, only one-fourth still smoke, and those who do, smoke fewer cigarettes. This, combined with the reasons for discontinuing, suggests a significant benefit from the presentation of the evidence for health damage from inhaling tobacco smoke, as well as a good example to high school students. Not known is the influence the coaches have upon the students' smoking behavior. Studies[6] have suggested that the habits and attitudes of adolescents' own peers are a major determinant. The attempt to identify with their friends and with older students and siblings who smoke is a powerful motivation. It has been widely recognized that participation in competitive sports activities either deters individuals from beginning smoking or causes those who smoke regularly to discontinue. This effect combined with the example of a nonsmoking coach may have considerable impact upon a student's present and future smoking pattern. The present concept appears sensible that an equally aggressive, simultaneous educational effort be directed toward both children and adults to reduce their cigarette smoking.

Summary

The high school athletic coaches in Oregon were surveyed by a questionnaire to determine their smoking habits and attitudes. Of 931 questionnaires mailed, 666 or 72 per cent were returned with satisfactory completion by January, 1967. Although 44.4 per cent of the respondents had previously smoked cigarettes, only 29.2 per cent were still smoking cigarettes regularly. Almost one-half of the 15.2 per cent who had discontinued smoking did so because of the scientific evidence indicating hazards to health.

Present smoking patterns indicated that, in addition to fewer smokers, the coaches were smoking fewer cigarettes. None were smoking two or more packs daily, and only one smoked more than 29 cigarettes daily. The most common daily consumption (47%) was 10-19 cigarettes daily.

Ninety-two per cent of coaches expressed belief that smoking adversely affected physical fitness and athletic performance, and that their own personal smoking attitudes and habits definitely influenced their students and athletes. Because the coaches—in addition to teachers, parents, and physicians—represent important examples to teenagers, antismoking educational programs should be vigorously directed toward these groups as well as the students if maximum benefit is to result.

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Dr. Morris is Associate Professor of Medicine, University of Oregon Medical School, and Chief, Pulmonary and Infectious Diseases, Veterans Administration Hospital (Sam Jackson Park), Portland, Oregon 97207. Dr. Tichy is Professor of Health and Physical Education, Portland State College.

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Urgently Needed

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