# 64 - SOCIOCULTURAL AND ECONOMIC FACTORS INVOLVED IN THE HABIT OF SMOKING: AN EPIDEMIOLOGIC INQUIRY.

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# INTRODUCTION

Smoking means tobacco abuse or addiction. Tobacco is a plant of Solanacea family, *Nicotiana tabacum*, that contains nicotine, as suggested by its name. Its leaves are dried and processed chiefly for use in cigarettes, cigars, and the like, or snuff or for smoking in pipes or chewing. (1)

Smoking results in a worldwide loss of 200 billion dollars yearly. This amount encompasses the cost of treatment for tobacco-related diseases, deaths of subjects at productive age, early retirements, increased absenteeism, and lower productive yield. (2)

Subjects begin smoking mainly because of cultural habits. Parents, stars, friends, and mass media advertising play a role in leading subjects to start smoking. Publicity usually combines the social demands of different groups and leads those from poorer groups to believe that, by smoking, they will see their dreams and social expectations to come true, thus increasing smoking among more easily influenced people. (1) Starting is easier than quitting smoking, as usually said. Tobacco addiction presents itself as the need and intense desire for smoking as early as the subject awakes. (3)

Many are the reasons leading a subject to smoke a cigarette for the first time. However, advertising plays an important role in encouraging smoking. (4)

Smoking is an acquired behavior highly prevalent throughout Brazil and raises a greatly relevant public health issue. A question still to be answered is why subjects continue to smoke despite the fact that devastating effects of smoking upon health are widely known.

The present study aimed to characterize smokers' psychological profile and the factors associated with this habit.

#### METHOD

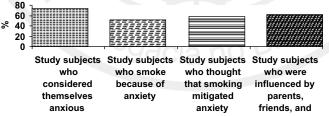
The present epidemiological cross-sectional descriptive study evaluated 152 male and female smokers of different ages from different cultural and socioeconomic groups through direct information collection. The present study was carried out at public places where smoking was allowed and at Higher Education Institution located in Osasco city in 2006. After authorization was obtained by the coordinator of Physical Therapy Graduation Course, the students from the Higher Education Institution who were candidates to study subjects were invited to fill out a previously validated standardized questionnaire and the Fagerström Tolerance Questionnaire (FTQ) (5, 6). The present study complied with ethical requirements: the authorization of the coordinator of the Physical Therapy Graduation Course, São Paulo) was obtained, and study subjects were asked to sign the Freely Given Informed Consent Form before their admission in accordance with MS/CNS Resolution. Study results are presented as percentages and absolute numbers in simple frequency graphs and tables.

# RESULTS

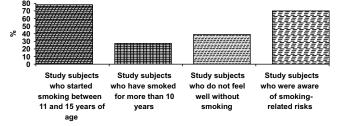
The convenience sample included 70 (46.05%) female and 82 (53.95%) male subjects, totaling 152 study subjects.

The present study found that 73.03% of study subjects considered themselves anxious, 51.97% of study subjects established a relationship between their smoking habit and anxiety, and 57.90% believed that smoking mitigated anxiety. Another relevant finding is that 62.50% of study subjects reported TV and social influences that led them to smoke, which emphasizes their role in encouraging smoking.

**Graph 1:** Percentage distribution of study subjects who consider themselves anxious; smoke because of anxiety; think that smoking mitigates anxiety; were influenced by parents, friends, and teachers



Graph 2: Percentage distribution of age at onset of smoking, smoking duration, study subjects feeling when they do not smoke, and awareness of smoking-related risks



The graph above shows that 78.3% of study subjects started smoking between 11 and 15 years of age, 26.97% have smoked for more than 10 years, 38.81% did not feel well without smoking, and 69.74% were aware of smoking risks but did not want to quit this habit.

# Table 1: Absolute and percentage distribution of answers to the Fagerström Tolerance Questionnaire (FTQ)

First Question:	Number	%
How soon after you wake up do you smoke your first cigarette?		
Within the first 5 minutes	35	23.03
Between 6 and 30 minutes	44	28.95
Between 31 and 60 minutes	19	12.50
After 60 minutes	48	31.57 <sup>(1)</sup>
Number of study subjects who did not answer	6	3.95
Second Question:		
Do you find difficult to refrain from smoking in places where it is forbidden, e.g., in church, at the library, at the movies, etc)?		
Yes	55	36.18
No	92	60.52 <sup>(1)</sup>
Number of study subjects who did not answer	5	3.30
Third Question:		1
Which cigarette are you more pleased to smoke? (or which cigarette, if not smoked,		
would make you feel more annoyed?		
The first cigarette in the morning	60	39.47
Others	86	56.58
Number of study subjects who did not answer	6	3.95
Fourth Question:		
How many cigarettes per day do you smoke?		
10 or less	72	47.37
11 to 20	55	36.18
21 to 30	15	9.87
31 or more	5	3.29
Number of study subjects who did not answer	5	3.29
Fifth Question:		
Do you smoke more often during the first hours after awakening than the rest of the		1
day?		
Yes	57	37.50
No	89	58.55
Number of study subjects who did not answer	6	3.95
Sixth Question:		1
Do you smoke even when you are sick and bed rest is required?		
Yes	57	38.82
No	87	57.23 <sup>(1)</sup>
Number of study subjects who did not answer	6	3.95

<sup>(1)</sup> Number not rounded in order that the sum be 100%.

As shown in Table 1, 31.75% of smokers lighted their first cigarette more than 60 minutes after awakening (first question), which indicates a very low degree of nicotine addiction. The majority of study subjects (60.52%) answered that it was not hard for them not to smoke in public places (second question), which also indicates a low degree of nicotine addiction. The majority of smokers (56.85%) said that the cigarettes smoked during the day (third question) gave them more pleasure than the first cigarette, which indicates a low degree of nicotine addiction. The majority of study subjects (47.37%) smoked  $\leq 10$  cigarettes daily (fourth question), which suggests a very low degree of nicotine addiction. Many smokers (58.55%) were used to smoking at wide intervals during the day and not in the morning (fifth question). Approximately 38.82% of study subjects smoked even when the were sick (sixth question), a finding that indicates a moderate or high degree of nicotine addiction.

### DISCUSSION

Smoking is one of the most serious public health problems. The epidemic of tobacco-related diseases affects not only the health of population, but also the economics of a country and environment. Smoking is one of the main determinant factors of the two main causes of death in the world and in Brazil, that is, cardiovascular diseases and cancer. (7).

Ribeiro (8) observed that smoking was more prevalent in women than in men (63% female and 37% male smokers) and found that smokers were 31 to 40 year-old and were university-graduated. However, the present study found that smoking was more prevalent in male subjects (53.95%). One must remember that the study sample consisted of university students.

Subjects start smoking at a very young age, that is, when they are 11- to 19-year old, as confirmed by the present study (Graph 2). Some factors accounting for this includes the stress, insecurity, and misunderstanding feeling associated with adolescence (9; 10; 11).

A finding of considerable concern is the fact that 26.9% of smokers have smoked for more than 10 years. This was also shown by Levi (12) who found that 34.5% started smoking within the last 9 years, with 23.5% starting between the age of 10 to 20 years.

In one study carried out in two study subjects by Valença (13), it was reported that smoking relieved anxiety episodes; study subjects reported dizziness, shortness of breath, at least three anxiety episodes, and frequent panic attacks when they did not smoke. In the present study, similar findings were observed: 51.9% of study subjects smoked because of anxiety; 57.90% believed that cigarettes reduced anxiety; and 73.03% considered themselves anxious (Graph 1).

Many are the reasons leading a subject to smoke, advertising and TV influences playing an important role in encouraging smoking, as well as cultural habits acquired through examples given by parents, teachers, and friends. This was confirmed in the present study where 62.50% were reportedly influenced by parents and friends. In contrast, in the study carried out by Caramori (4), only 14.9% were influenced by parents and friends. In the latter study, curiosity played a significant role in starting smoking (1; 4; 11).

In Brazil official data show a increase of 32% in the number of smokers when the number of smokers in the last half of the eighties was compared to that found in the last half of the nineties. (14)

As for the time interval between awakening and smoking the first cigarette, investigated through the Fagerström Tolerance Questionnaire, Halty (6) reported that nicotine addiction was inversely proportional to the time interval. In the present study 31.57% of study subjects smoked their first cigarette within more than 60 minutes after awakening. This finding suggests a very low degree of nicotine addiction in this subgroup (Table 1).

Literature reports that 50.5% of smokers found it difficult for them not to smoke in places where smoking is not allowed while 60.52% of the study subjects of the present study did not find it difficult for them not to smoke in places where smoking was not allowed. This finding suggests a low degree of nicotine addiction in this subgroup. (6)

The nicotine-withdrawal syndrome is mediated by norepinephrine, and the initial symptoms develops within 8 hours after the last cigarette. Their severity increases and reaches the highest intensity three days later. (15). Halty (6), however, showed

that 55.50% of smokers did not smoke as soon as they awoke. His finding is consistent with that of the present study: 56.58% reported that the most pleasant cigarettes were those smoked in the afternoon.

Approximately 50% of university students smoked ten or more cigarettes daily. In contrast, the present study found that 47.37% of study subjects smoked 10 or less cigarettes daily, a percentage that can be associated with a low degree of nicotine addiction. (16)

The occurrence of smoking-related diseases can increase in the future (17). The present study showed that 38.82% of study subjects continued smoking even when they were sick and bed rest was required, a finding consistent with that reported in another study where 58.00% of patients with cancer continued to smoke, even after having been informed of their disease. In many cases, they continued smoking because of behavioral habit, anxiety, stress, or disbelief (18).

Nicotine addiction today is considered similar to addiction to other drugs with abuse potential. Stopping smoking is not always easy since decreased nicotine levels are associated with different symptoms, such as insomnia, dizziness, anxiety, irritability, etc. (19)

# CONCLUSION

The results of the present study suggest that influences of some type play a role in leading subjects to start smoking. Parents, friends, advertising, and television can be involved in encouraging smoking.

From the point of view of smokers, many of them believed that anxiety was one of the reasons why they smoke.

However, despite the fact that they considered smoking an addiction and were informed that smoking can cause many diseases, they would not change their smoking habit because cigarettes, in their opinion, reduced anxiety. Without smoking, they believed they would feel angry and much more anxious, although a low degree of nicotine addiction was associated of smoking in most cases.

As a rule, smokers seem to smoke because they like to do so.

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# SOCIOCULTURAL AND ECONOMIC FACTORS INVOLVED IN THE HABIT OF SMOKING: AN EPIDEMIOLOGIC INQUIRY.

### ABSTRACT:

Parents, stars, friends, and mass media advertising play a major role in leading subjects to start smoking. Publicity usually combines the social demands of different groups and leads those from poorer groups to believe that, by smoking, they will see their dreams and social expectations to come true, thus increasing smoking among more easily influenced people. Aim to define common characteristics of smokers and how they consider their smoking habit. The present epidemiological cross-sectional descriptive study evaluated 152 male and female subjects who filled out a previously validated form and answered the adapted Fagerström Tolerance Questionnaire; both included objective questions. Study results are presented as percentages and absolute numbers in simple frequency graphs and tables. The study was carried out in accordance with ethical and legal requirements. Age of onset: 11-15 years of age in 78.3% of study subjects; smoking duration: > 10 years in 26.97%; anxiety was present in 73.03%; 51.97% smoked because of anxiety; 38.81% did not feel well without smoking; 69.74% were aware of smoking risks but did not want to quit; and 62.50% reported that social and television influences led them to smoke. According to study results, smoking is subject to social, familiar, and psychological influences.

KEY-WORDS: Smoking, Smoking habit, Anxiety

### FACTEUR SOCIAL, CULTURE ET PSICOLOGYQUES EMPLOYANT EN HABITUDE DE FUMER: AN INQUISITIONNER ÉPIDEMIOLOGIQUE. RÉSUMÉ

RESUME:

Le tabagisme c'est um vice qui commence selon l'influence des amis, des parents, des idoles, et surtout, selon l'influence des propagandes publicitaires aux moyens de communication. Plusieurs personnes des classes sociales différentes jugent que le tabac et l'action de fumer sont très importants pour leur ascention sociale. Objectifs pour l'analyse de ce vice, on fait une étude épidemiologique transverselle, quantitative, en employant une montre de convenance, avec la participation de 152 personnes, parmi des hommes et des femmes, qui ont répondu a des questions très objectives, adaptée du Questionnaire de Tolerance Fagesrströn (QTF). Les résultats sont presentés par des graphiques et par des tableaux. Les principes d'éthique et de justice ont conduit touts les pas de cette recherche. Il s'agit de comprover qui, parmi les fumants, 51,32% ont commencé a fumer avec l'âge de 11 ou 15 ans; 26,97% fument dès long temps (plus au moin,10 années); 73;03% sont considérés par lui mêmes très ansieux; 51,97% assurent que sont fumants parce que sont ansieux; 62,50% affirment qui sont fumants à cause des influences sociales et dês moyens de communication. Les résultats ont comprovés qui le vice de fumer souffre une forte influence du moyen social, des amis, des parents et surtout des moyens de communication.

MOTS CLEFS: tabagisme, vice de fumer, anxiété.

# FACTORES SOCIO-CULTURALES Y PSICOLÓGICOS ASOCIADOS AL HÁBITO DE FUMAR: UNA ENCUESTA EPIDEMIOLÓGICA.

# **RESUMEN:**

El inicio del tabaquismo normalmente ocurre, debido a la influencia de los padres, héroes , amigos, pero fundamentalmente, por la incidencia de la publicidad y la propaganda del cigarro en los medíos de comunicación de masas, dado que allí se alían a las demandas sociales de diferentes grupos, donde las capas populares o económicamente menos favorecidos creen que fumar los aproxima de la realización de sus deseos y expectativas. Por esa razón, se aumenta el consumo de cigarros entre esas personas que son más fácilmente influenciables. Objetivo Identificar las características similares de los fumadores, así como los motivos que los condicionaron a tener ese hábito. Para el análisis del perfil, se realizó un estudio de tipo epidemiológico descriptivo, transversal, con una muestra de conveniencia compuesta por 152 individuos (n=152) de ambos sexos, que concordaron en responder el formulario, previamente validado, así como una adaptación del Cuestionario de Tolerancia Fagerström (QTF), ambos conteniendo preguntas objetivas. Los datos serán presentados en tablas y gráficos de frecuencia simple, expresados en números y porcentajes. Los aspectos éticos y legales fueron respetados. Observase que el 51,32% de la muestra, inicio el tabaquismo en las edades de 11 a 15 años; 26,97% fuman ha más de 10 años; 73,03% consideranse ansiosos; 51,97% relatan que fuman en función de la ansiedad y, 62,50% alegan que sufrieron influencias sociales y de los medíos de comunicación para iniciarse en el tabaquismo. Los resultados presentados sugieren que, el acto de fumar es motivado por influencias sociales, incluso de carácter familiar y psicológico.

PALABRAS-LLAVE: Tabaquismo, Hábito de Fumar, Ansiedad.

# FATORES SÓCIO-CULTURAIS E PSICOLÓGICOS ENVOLVIDOS NO HÁBITO DE FUMAR: UM INQUÉRITO EPIDEMIOLÓGICO.

# **RESUMO:**

O inicio do tabagismo ocorre, normalmente, pela influência dos pais, ídolos, amigos mas principalmente, pela publicidade do cigarro nos meios de comunicação de massa, pois alia as demandas sociais de diferentes grupos, onde as faixas economicamente mais pobres os faz crer que, ao fumar, seus desejos e expectativas sociais serão realizados, aumentando o consumo do tabaco entre as pessoas mais facilmente influenciadas. Objetivo identificar as características semelhantes dos fumantes, bem como os motivos que os condicionam nesse hábito. Para a análise deste perfil, realizou-se um estudo do tipo epidemiológico descritivo, transversal, com uma amostragem de conveniência composta por 152 indivíduos (n=152) de ambos os sexos, que concordaram a responder a um formulário, previamente validado, e a uma adaptação do Questionário de Tolerância Fagerström (QTF), ambos contendo questões objetivas. Os dados foram apresentados em tabelas e gráficos de freqüência simples, expressos em números e percentagens. Os aspectos éticos e legais foram respeitados. Observou-se que 51,32% iniciaram o tabagismo com as idades de 11 a 15 anos; 26,97% fumam a mais de 10 anos; 73,03% consideram-se ansiosos; 51,97% relatam que fumam em função da ansiedade e, 62,50% alegam que sofreram influências sociais e dos meios de comunicação para iniciarem o tabagismo. Os resultados apresentados sugerem que, o ato de fumar é motivado por influências sociais, inclusive familiares e psicológicas.

PALAVRAS-CHAVE: Tabagismo, Hábito de Fumar, Ansiedade.