

SMOKING AMONG YOUNG PEOPLE FROM THE GUARDA MIRIM ASSOCIATION OF THE MUNICIPALITY OF LONDRINA- PR: PREVALENCE AND PERCEPTIONS

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Abstract: Smoking, with its origins in the USA, has evolved over the centuries, driven by social and cultural factors. Despite growing awareness about the harms of conventional cigarettes over time, resulting in changes in social attitudes and the search for healthier alternatives, the resurgence of smoking products such as electronic cigarettes challenges regulations. The ban in Brazil since 2009 has not prevented the presence of these devices in the lives of young people, as indicated by the National School Health Survey. Alarming data from the World Health Organization on smoking among children and young people highlights the centrality of nicotine in dependence, with significant impacts, especially on oral diseases. The study, conducted with vulnerable young people cared for by Associação Guarda Mirim de Londrina, aimed to examine the prevalence of smoking and young people's perceptions regarding this practice and its connection with oral health. The research adopted a sampling technique based on simple probabilistic analyses, involving statistical tests to compare questionnaires applied before and after an educational lecture. The studied population comprised 86 interviewees aged 12 to 20 years. The prevalence of young smokers was 30.3%. A significant change was noticed in young people's understanding of smoking before and after the educational lecture. The conclusion highlights the effectiveness of health promotion actions, showing a transformation in young people's perceptions after the educational intervention.

Keywords: Electronic cigarette, tobacco, vulnerable, oral health.

INTRODUCTION

Adolescence and youth delineate a stage of existence that is evidenced by outstanding attributes, such as the search for knowledge, learning through experimentation, engagement in adventurous hobbies, critical evaluations through questioning, and resistance to values established by adults. During this memorable period of survival, myths, beliefs and attitudes are reaffirmed or reinvented (ARAÚJO AJ, 2010).

Currently, young individuals demonstrate a strong fascination with a universe of innovations and conveniences, notably on social networks. This virtual environment increasingly replicates the dynamics of the real world, presenting new perspectives that can influence young people in developing their creative potential, while at the same time seeking a compensatory mechanism appropriate to their age group. Despite the ban on tobacco advertising in traditional media, its frequent presence is observed on platforms such as video games, series and films. This constant exposure to tobacco-related content creates a normalization of the habit, in addition, virtual interaction amplifies the dissemination of ambiguous information about the risks associated with smoking, contributing to less cautious attitudes.

Tobacco consumption originated in the United States, and Indians used the substance in religious ceremonies. Around the 15th century, Christopher Columbus observed Indians rolling leaves and inhaling smoke through straws. After the introduction of this practice in Europe, the civilized world came into contact with tobacco for the first time and it spread throughout the continent (LORKIEVEZ D, et al., 2016).

The popularity of tobacco has grown over the centuries, driven by social, cultural and advertising factors, making the habit of smoking widespread globally. Only

from the 1950s and 1960s did awareness about the harm of conventional cigarettes begin to gain momentum. During this period, epidemiological studies began to show strong associations between smoking and various diseases, such as lung cancer and cardiovascular diseases. Public health campaigns, supported by growing scientific evidence, have warned the population about the health risks related to tobacco consumption. Gradually, this awareness led to significant changes in social attitudes, with the progressive reduction of smoking and the search for healthier alternatives.

Nowadays, the media coverage of smoking products has returned with a new proposal, electronic cigarettes (EC), where suppliers encourage the use of this device through claims such as increasing smoking and the advantages of not smoking, comparing conventional cigarettes and electronic cigarettes, highlighting the advantage of electronic devices with a positive and technological image, without harm to health (SILVA, PACHÚ, 2021).

However, in 2009, ANVISA implemented a ban on the sale and promotion of electronic cigarettes (EC) in Brazil. This measure was based on the lack of evidence proving the device's ability to promote smoking cessation, given the scarcity of available data. Furthermore, the release, by the CE cartridge, of variable amounts of nicotine and substances harmful to health constitute additional reasons for the restrictive decision adopted by the regulatory agency (KNORTS et al., 2014).

Even with the ban, CE is present in the lives of the Brazilian population and is increasingly common in the lives of young people. According to PeNSE in 2019, the total proportion of students aged between 13 and 17 who smoked cigarettes in the last thirty days is one for every five young people and the situation becomes even more

worrying when taking into consideration, other forms of consumption, such as EC and hookah (INCA, 2021).

According to the World Health Organization (WHO, 2022), smoking is a serious public health problem worldwide, being responsible for around eight million deaths annually. With the emergence of new technologies on the market such as electronic cigarettes and hookahs, tobacco consumption has increased among young people, making it especially attractive to this audience. According to the World Health Organization, around thirty-eight million children around the world use tobacco, which highlights a high number of smoking among children and young people (PAHO, 2021).

According to the Brazilian Medical Association (2022), nicotine plays a central role in inducing physiological dependence associated with the consumption of conventional cigarettes, electronic cigarettes and hookahs, the latter often containing nicotine in its essences, composed of tobacco, aroma and flavor. A single hookah session can be equivalent to 6.5 cigarettes. Addiction is just one of the many harms attributed to tobacco, as it is recognized as a risk factor for several diseases.

In the context of oral diseases, tobacco consumption can compromise the immunological response, increasing the susceptibility of periodontal tissues to microbial plaque, influencing healing, reducing salivary flow, causing bad breath and staining teeth (CAMARGO et al., 2016). This practice is also directly associated with oral cancer, due to the more than 70 carcinogens present in tobacco. The contact of these agents with the oral mucosa causes thermal aggression to the tissues, resulting in chronic inflammation and favoring the emergence of predisposing lesions (LEITE et al., 2021).

Given the complexity of the topic and

the impacts observed on oral health, the central purpose of this study is to examine the prevalence of smoking in vulnerable young people, cared for by Guarda Mirim de Londrina, investigating their perceptions about consumption modalities and knowledge about the impact of this habit on oral health. The conclusion is not intended to close or diminish the discussion, but rather to provide a critical analysis of this issue.

METHOD

This research constitutes an analytical and interventionist study of a quantitative nature. Two questionnaires with objective questions were used, together with an informative presentation aimed at raising awareness about oral manifestations resulting from tobacco use. The presentation included case reports from smoking patients and addressed the importance of oral self-examination, explaining how to perform it. The first questionnaire was administered before the presentation, while the second was administered after. The selection of participants took place through volunteering among young people aged 12 to 20 linked to the Associação Guarda Mirim de Londrina. Participants signed an informed consent form before receiving the questionnaires.

The first questionnaire covered information such as age group, biological sex, considerations about being a smoker, frequency of the habit, experience with some type of tobacco, age at first experimentation, presence of smokers in their social environment, relationship between smoking and everyday life, perceptions about the influence of smoking on oral health, knowledge about oral diseases and oral self-examination. The second questionnaire, administered after the lecture, aimed to assess changes in perceptions about tobacco, oral health and the importance of oral self-examination.

Associação Guarda Mirim de Londrina, a non-profit entity, is recognized for promoting social and professional inclusion of young people in situations of social vulnerability. Three informative lectures were held, reaching around 150 people in the study age group, considering this total population to be observed, a sampling error of 0.7, a confidence level of 95% and the heterogeneous distribution of the population, we obtained a sample parameter of 86 validated participants, corresponding to 57% of the estimated population.

The sampling technique was based on simple probabilistic analyses, while data analysis involved statistical comparison tests between the questionnaires. The bibliographic review explored the epidemiologies of tobacco in young people and its effects on oral health, consulting sources such as Scielo, PubMed, Google Scholar, World Health Organization (WHO), National Cancer Institute (INCA) and National School Health Survey (Think).

The data were subjected to descriptive statistics and presented through tables and graphs, using an Excel spreadsheet and freely distributed applications. The research was duly submitted and approved by the Research Ethics Committee (C.E.P.) of Universidade Cesumar Unicesumar by Plataforma Brasil, under opinion number: 6,145,397.

RESULTS AND DISCUSSION

Over a period of six months, 92 questionnaires were administered at each stage of the research, totaling 184 questionnaires. After excluding 12 questionnaires due to erasures or lack of clarity in the answers, 172 questionnaires were validated, guaranteeing the integrity of the results. The participating population consisted of 47 males (54.7%), 37 female (43%) and 2 unidentified (2.3%) individuals, with ages ranging from 13 to 23 years. All interviewees were in a situation of social vulnerability.

The descriptive analysis of the characteristics of the studied population (table 1) revealed that 30.3% of the sample had a smoking habit, with a prevalence of 16 men (61.5%), 9 women (34.6%) and 1 unidentified (3.8%). As for experimenting with tobacco, 65.2% said they had tried some type, while 31.4% had never tried it. Of those who have already tried it, 27.9% have tried up to three types of tobacco (vaper, conventional cigarette and hookah), with 48.9% of the sample trying it for the first time between 10 and 15 years old. Regarding the perception of the effects of tobacco on oral health, 87.1% of young people stated that they were aware of the risk of oral cancer associated with smoking, while 81.4% believed that tobacco is related to tooth loss or bad breath. In relation to cavities and dental aesthetics, 90.7% believed that tobacco can cause stains and cavities in the teeth.

After an informative lecture on the effects of tobacco on health, a second questionnaire was distributed to assess the effectiveness of the lecture (table 2). The results showed that 97.7% of young people considered the lecture enlightening and 96.6% recognized the importance of oral self-examination. Of the 26 interviewees who smoked, 19 expressed the desire to quit after the educational lecture.

Graph 1 presents a comparison between the variables related to smoking and knowledge about oral self-examination before and after the lecture. Before the lecture, 86.03% believed that tobacco is harmful to health, while after the lecture this number increased to 96.5%. Regarding oral self-examination, only 15.1% believed they knew how to perform it before the lecture, compared to 75.6% after the explanation. There was a significant increase in the prevalence of respondents' perception of the harmful effects of tobacco on health and a notable effectiveness in the sample's ability to perform oral self-examination.

Graph 2 compares the interviewees' perception of whether conventional cigarettes or all forms of tobacco are more harmful to health, before and after the informative lecture. Before the talk, 48.8% considered only conventional cigarettes to be harmful, while 8.1% believed that all forms of tobacco are harmful. After receiving detailed information about the composition and harm of tobacco, 88.4% agreed that all forms of tobacco are harmful to health, while only 4.6% maintained the belief that only conventional cigarettes are harmful.

CONCLUSION

The constant exposure of young people to tobacco-related content, whether through virtual platforms or social experiences, contributes to the normalization of this habit, challenging the achievements of recent decades in raising awareness about the harms of smoking.

This research provided a comprehensive view of smoking habits among young people in situations of social vulnerability, as well as their perception of the effects of tobacco on oral health. The results demonstrated a significant prevalence of smoking experimentation and habit in this population, highlighting the need for effective interventions to prevent and reduce smoking among young people. The effectiveness of the informative lecture on the harm of tobacco on oral health was evidenced by the high levels of acceptance and recognition of the importance of oral self-examination, as well as by the significant number of participants who expressed the desire to stop smoking after the educational intervention. These results suggest that awareness and education strategies can play a fundamental role in promoting oral health and preventing smoking among young people.

Longitudinal studies are required to evaluate the effectiveness of awareness and

education strategies on smoking cessation among this young demographic.

Features		
Faixa etária	13-23	
Gender		
Male	47	54,7
Female	37	43,0
Not identified	2	2,3
Do you smoke?	Frequency	Percentage
Yes	26	30,2
No	60	69,8
Smokers by gender		
Man	16	61,5
Woman	9	34,6
Not identified	1	3,8
Have you ever tried any type of tobacco?		
Yes, vaper	9	10,5
Yes, hookah	3	3,5
Yes, traditional cigarette	1	1,2
Yes, vaping and hookah	18	20,9
Yes, vaping and traditional cigarettes	1	1,2
Yes, vaper, hookah and traditional cigarette	24	27,9
I haven't tried	27	31,4
The person did not respond	3	3,5
What was the average age when you first smoked?		
10 to 15 years	41	47,7
16 to 19 years old	19	22,1
More than 20 years	1	1,2
The person has never experienced	22	25,6
Others	1	1,2
The person did not respond	2	2,3
In your opinion, which item is the most harmful?		
Conventional	42	48,8
Electronic	16	18,6
Hookah	9	10,5
Conventional, electronic and hookah	6	7,0
Conventional and hookah	3	3,5
Conventional and electronic	1	1,2
Conventional, electronic, hookah and others	7	8,1
others	2	2,3
Do you believe that smoking causes mouth cancer?		
Yes		86,0
No		2,3
I don't know		10,5
The person did not answer		1,2
Do you believe that smoking causes caries and stains on teeth?		
Yes		90,7
No		4,7
I don't know		4,7
Do you believe that smoking causes bad breath and influences tooth loss?		
Yes		81,4
No		5,8
I don't know		8,1
The person did not answer		4,7
Have you ever heard of or know how to perform oral self-examination?		
I've heard about this, but I don't know how to perform oral self-examination.		22,1
I've never heard of it and I don't know how to perform oral self-examination.		41,9
I know what it is and I know how to do it		15,1
I don't know how to answer that		18,6
The person did not respond		2,3

Table 1: absolute frequencies of the first questionnaire administered

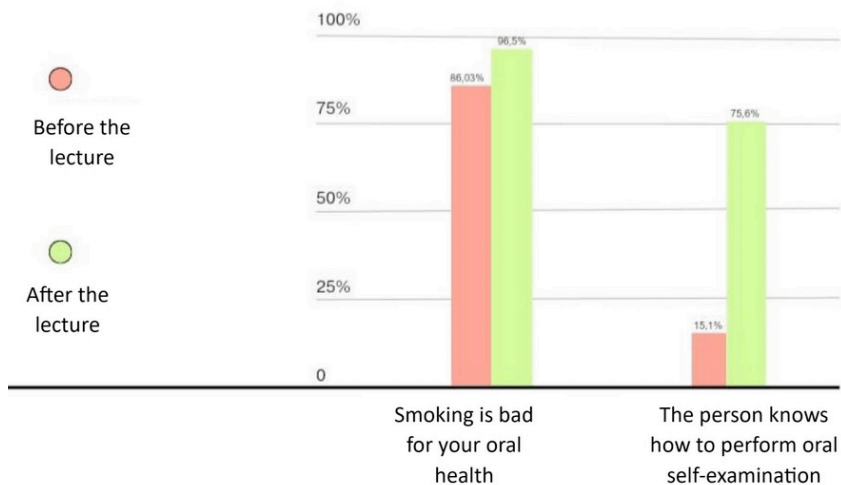
Source: the authors

Features	frequency	percentage
Was the information provided about smoking habits clarified?		
Yes.	84	97,7
I don't know how to answer that.	2	2,3
Smoking is bad for your oral health; did you know that?		
Yes	83	96,5
No	3	3,5
Which of the items below is most harmful to oral health?		
Conventional cigarette	4	4,7
Electronic cigarette	3	3,5
Hookah	3	3,5
All of them	76	88,4
About oral self-examination, have you ever heard of it?		
Yes	37	43,0
No	49	57,0
Did you understand the importance of oral self-examination?		
Yes	83	96,5
No	3	3,5
Do you believe you know how to do a mouth self-examination on your own?		
Yes	65	75,6
No	21	24,4
If you smoke, did you feel like quitting after receiving information about the consequences of smoking?		
Yes		
No	19	22,1
The person did not respond / The person does not smoke	7	8,1
	60	69,8
Do you know if there is any municipal department that offers the opportunity to help you stop smoking?		
Yes		
No	55	64,0
The person did not respond	28	32,6
	3	3,5

Table 2: absolute and relative frequencies of the second questionnaire administered

Source: the authors

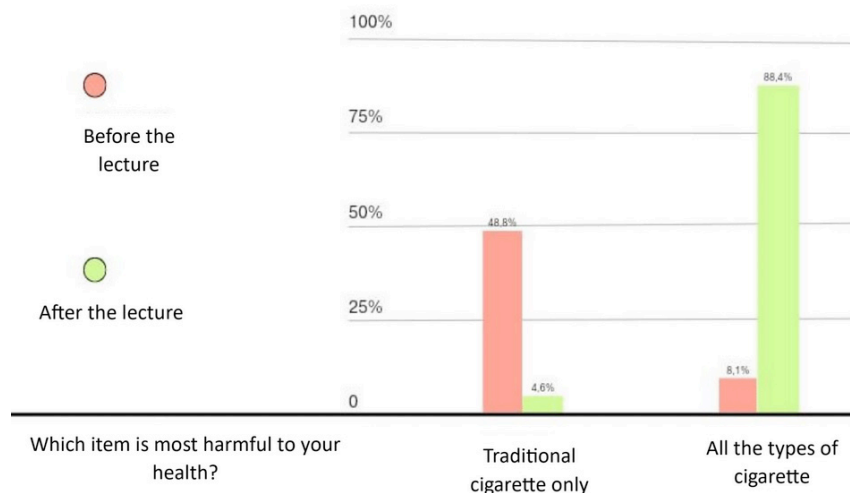
COMPARATIVE GRAPH OF APPLIED QUESTIONNAIRE: BEFORE THE LECTURE X AFTER THE PEDAGOGICAL LECTURE



Graphic 1:

Source: authors

COMPARATIVE GRAPH OF APPLIED QUESTIONNAIRE: BEFORE THE LECTURE X AFTER THE PEDAGOGICAL LECTURE



Graphic 2:

Source: authors

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