

# Prevention of smoking in schools: An integrative review

**RESUMO** | Objetivo: Identificar como a prevenção do tabagismo tem sido conduzida em crianças e adolescentes em fase escolar. Método: Trata-se de uma revisão integrativa da literatura, realizada nas bases de dados Lilacs, Scielo, Pubmed, BVS, Web of Science, CINAHL e SCOPUS. A busca dos estudos foi realizada entre junho e outubro de 2020, considerando estudos de 01/01/2008 até o ano de 2019. Resultado: Foram selecionados 20 artigos para a análise, dos quais emergiram duas categorias: Eficácia das intervenções de prevenção ao tabagismo nas escolas do Brasil e Eficácia das intervenções de prevenção ao tabagismo nas escolas internacionais. Conclusão: Os programas de educação em saúde no combate ao tabagismo desenvolvidos nas escolas obtiveram impacto positivo, ressaltando a importância da temática, a necessidade de pesquisas adicionais que investiguem e trabalhem a prevenção da iniciação tabágica em escolares, além de reforçar a relevância do desenvolvimento de políticas públicas direcionadas a esse público.

**Descritores:** Adolescente; Escolas; Prevenção do tabagismo; Tabagismo.

**ABSTRACT** | Objective: To identify how smoking prevention has been conducted in school-aged children and adolescents. Method: This is an integrative literature review, carried out in Lilacs, Scielo, Pubmed, BVS, Web of Science, CINAHL and SCOPUS databases. The search for studies was carried out between June and October 2020, considering studies from 01/01/2008 to the year 2019. Result: 20 articles were selected for analysis, from which two categories emerged: Effectiveness of smoking prevention interventions in Brazilian schools and Effectiveness of tobacco prevention interventions in international schools. Conclusion: The health education programs to combat smoking developed in schools had a positive impact, highlighting the importance of the theme, the need for additional research to investigate and work on the prevention of smoking initiation in schoolchildren, in addition to reinforcing the relevance of the development of public policies aimed at this audience.

**Keywords:** Adolescent; Schools; Smoking prevention; smoking.

**RESUMEN** | Objetivo: Identificar cómo se ha realizado la prevención del tabaquismo en niños y adolescentes en edad escolar. Método: Se trata de una revisión integrativa de la literatura, realizada en las bases de datos Lilacs, Scielo, Pubmed, BVS, Web of Science, CINAHL y SCOPUS. La búsqueda de estudios se realizó entre junio y octubre de 2020, considerando estudios del 01/01/2008 al año 2019. Resultado: 20 artículos fueron seleccionados para análisis, de los cuales surgieron dos categorías: Eficacia de las intervenciones de prevención del tabaquismo en escuelas brasileñas y Eficacia de las intervenciones de prevención del tabaquismo en escuelas internacionales. Conclusión: Los programas de educación en salud para combatir el tabaquismo desarrollados en las escuelas tuvieron un impacto positivo, destacando la importancia del tema, la necesidad de investigaciones adicionales para investigar y trabajar en la prevención de la iniciación al tabaquismo en escolares, además de reforzar la pertinencia de la desarrollo de políticas públicas dirigidas a este público.

**Palabras claves:** Adolescente; Escuelas; Prevención del tabaquismo; de fumar.

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## INTRODUÇÃO

According to estimates by the World Health Organization (WHO), 1.1 billion people are tobacco users and approximately seven million die each year as a result of smoking. Tobacco consumption is the main risk factor for the development of Chronic Non-Communicable Diseases (NCDs), such as cardiovascular diseases, especially strokes that contribute to about three million deaths per year. <sup>(1)</sup>

In addition to NCDs, smoking is associated with several diseases, since the habit of smoking exposes the individual to approximately 7,000 toxic substances existing in the composition of the cigarette, which have a high carcinogenic content and with short and long-term effects. <sup>(2)</sup>

Brazil was one of the pioneer countries in offering tobacco treatment in the Public Health System, being considered an international reference in tobacco control. <sup>(3)</sup> Since 1980, the National Tobacco Control Program (PNCT - Programa Nacional de Controle do Tabagismo) has been developed in the country, from the perspective of prevention and health promotion. The PNCT has contributed to reducing the individual, social and environmental damage caused by tobacco, and consequently reducing the prevalence of smokers in society. <sup>(4)</sup>

The prevention of smoking initiation is one of the main objectives proposed by the PNCT, since children and adolescents have been exposed to smoking at an earlier age. According to the National School Health Survey (PeNSE - Pesquisa Nacional de Saúde do Escolar), in 2019, the total proportion of smokers among students aged 13 to 17 years was 6.8%, being higher among boys (7.1%) compared to girls (6.5%). <sup>(5)</sup> Most Brazilian adult smokers started smoking before 19 years of age, and for this reason, smoking is also considered a pediatric disease. <sup>(1)</sup>

Adolescence, a stage between 12

and 18 years old, according to art. 2 of the Child and Adolescent Statute (ECA - Estatuto da Criança e do Adolescente) under Law No. 8069, of 1990, is a transition phase, marked by behavioral changes and the construction of critical-reflexive thinking. At this stage, external factors, such as social circles, can directly influence decision-making, including the use of licit and illicit substances, such as tobacco and its derivatives. <sup>(6)</sup> This consumption is also associated with emotional factors, as it makes adolescents feel more sociable, having a false sense of improving their self-image and managing psychological and social issues. <sup>(7)</sup>

Studies show that adolescents are unaware of the real damage that smoking can cause to health, since early experimentation with these substances is linked to the development of long-term dependence disorders. <sup>(8)</sup> In addition, the increasing use of multiple tobacco products, such as hookah and electronic cigarettes, is associated with greater chances of nicotine dependence, giving a false sense of being less harmful when compared to conventional products. <sup>(9-10)</sup>

Thus, it is essential to educate children and adolescents about the risks that exposure to these substances can cause. The introduction of guidelines and healthy lifestyle habits in school life can guarantee the well-being of adolescents, develop positive behaviors in relation to health, improve the perception of themselves and life <sup>(11)</sup>, as well as contributing to delaying the onset of smoking and enhancing the chances of reducing tobacco use in this specific age group. <sup>(4,12)</sup>

In view of this, since 2007, the Ministry of Education, in conjunction with the Ministry of Health, has been developing the "Health at School Program (PSE)" under presidential decree nº 6,286, of December 5, 2007. The PSE aims to guide adolescent students from public and private schools on various

topics emerging at this stage, such as tobacco use and its harm to health, as well as bringing training to education and health professionals who work with this public. <sup>(13)</sup>

In this sense, the school environment can be recognized as a strategic location for the development of actions to prevent and combat the early use of tobacco, considering that smoking in adolescence is also related to the environment in which the individual is inserted, including the school environment. <sup>(14)</sup>

From this perspective, this review is justified as it points out to managers of public health and education networks the efficiency of smoking prevention actions implemented in schools in the last decade, enabling the development of new actions to combat smoking in public and private educational institutions, with a consequent reduction in smoking initiation and consumption among schoolchildren. From this context, it aims to identify how smoking prevention has been conducted in school children and adolescents.

## METHOD

The research method used was the integrative literature review, which was based on six stages for its elaboration: definition of the research question, establishment of inclusion and exclusion criteria by searching the literature, defining the information to be extracted from the studies, evaluating the included studies, interpreting the results and synthesizing the data. <sup>(15)</sup>

The research question was elaborated according to the PICo strategy - Population Interest Context. <sup>(16)</sup> The following structure was considered: P - children and adolescents; I - smoking prevention; Co - school phase. Thus, the following question was elaborated: "How has the prevention of smoking in school children and adolescents been conducted? "

The search for studies was carried out between June and October 2020 through the Capes Journal Portal, with access through the Federated Academic Community (CAFe), in the following databases: Virtual Health Library (VHL), Latin American and Caribbean Literature on Health Sciences (LILACS), Scientific Electronic Library Online (SCIELO), Pubmed, Web of Science, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and SCOPUS.

The combination with the following Health Sciences Descriptors (DeCS) and Medical Subject Headings (Mesh) was used: Tobacco (Tabaco); Adolescent (Adolescente); Schools (Escolas); Smoking Prevention (Prevenção do tabagismo), associated by the Boolean connector "AND".

The following inclusion criteria were adopted: original article, published in full and available electronically, from 01/01/2008 (implementation date of the Programa Saúde na Escola) until the year 2019.

Duplicate studies, literature reviews/reflection, editorials, annals abstracts, theses, dissertations, course conclusion work, epidemiological bulletins, management reports, research carried out with animals, official documents from national or international programs and books were excluded.

A total of 587 studies were found, being: 116 in the VHL, 4 in LILACS, 8 in SCIELO, 3 in PUBMED, 358 in WEB OF SCIENCE, 97 in CINAHL and 1 in SCOPUS. After reading the title and abstract, 127 studies were selected for analysis. Of these studies, 107 were excluded after reading. The search and selection process of studies was simplified through the flowchart recommended by the Preferred Reporting of Systematic Reviews and Meta-Analyses <sup>(17)</sup> and is represented in Figure 1.

Critical analysis and qualitative synthesis of the selected studies were carried out in a descriptive way, in two categories. As this research is an inte-

grative review, it was not submitted to the Research Ethics Committee. However, the ideas of the authors of the publications used in the development of this study were maintained.

**RESULTS**

The articles under analysis were published in several public health journals and journals. The years of publication of the works were from 2008 to 2019. The study populations were school-age students, mainly adolescents, from public and private schools, which had programs or interventions for the prevention of smoking.

Of the selected studies, there were

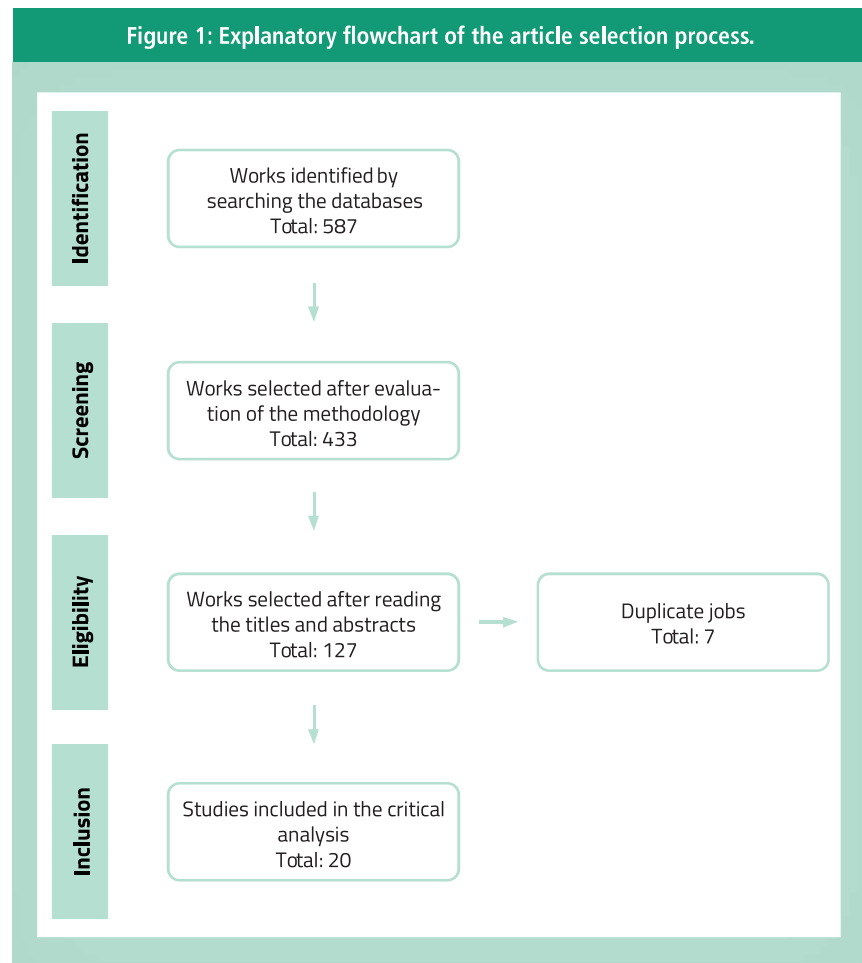
studies carried out in India (1), Scotland (1), Iran (1), Brazil (3), Netherlands (2), Romania (1), Spain (2), Germany (1), Portugal (1), China (1), Italy (1), Canada (1), United States (2), Saudi Arabia (1) and England (1), 19 of which were published in English and one in Portuguese.

Based on the included studies, a table was created containing the categorization of articles according to content similarity (Table 1).

**DISCUSSION**

Based on the analysis of the selected studies, two categories were created: Effectiveness of smoking preven-

Figure 1: Explanatory flowchart of the article selection process.



Source: Adaptation of the Flow Diagram. (17)

tion interventions in schools in Brazil and Effectiveness of smoking prevention interventions in international schools.

### EFFECTIVENESS OF SMOKING PREVENTION INTERVENTIONS IN BRAZILIAN SCHOOLS

Most people start smoking in their teens, believing that it will help them increase their status with their friends and contribute to belonging to a group. In this way, strategies that aim to combat the early initiation of tobacco consumption have been shown to be effective, especially in the school environment, in which they promote knowledge of the harmful effects of cigarettes and their derivatives.<sup>(22)</sup>

Three national surveys were found<sup>(21,22,32)</sup> which describe the results of interventions applied against smoking in schools, in line with the policy established by the PSE developed by the Ministry of Health and the Ministry of Education applied by the SUS.<sup>(13)</sup> Of these articles, only one showed little effectiveness in combating smoking in schools, as it stated that it did not produce significant behavioral changes in students, although it recognizes that there was an increase in the level of knowledge among them.<sup>(32)</sup> In the other two articles, it was possible to identify that the educational actions developed in the school environment helped to quit smoking among those who already used it, and to prevent the beginning of smoking.<sup>(21,22)</sup>

The intervention applied by medical students who used a facial aging cell phone application stands out, with the aim of demonstrating to adolescents the long-term effect of tobacco on physical appearance. The results of this intervention were satisfactory, as it was an attractive strategy to draw the students' attention, allowing them to pay attention to the content covered and, consequently, understand the harmful effects of smoking in practice.<sup>(22)</sup>

The implementation of actions

**Table 1 - Characterization of selected studies on smoking prevention in schools, 2020.**

ID	TITLE	OBJECTIVE	RESULTS/CONCLUSIONS
01 <sup>18</sup>	Does adding a psychosocial cessation intervention to an existing life-skills and tobacco-prevention program influence the use of tobacco and supari among secondary school students? Findings from a quasi-experimental trial in Mumbai, India.	To test whether school-age adolescents who report tobacco use and/or supari are more likely to quit smoking if a psychosocial intervention for in-school cessation is added to an existing tobacco prevention and life skills program.	The combination of a cessation intervention along with life skills and tobacco prevention program appears to have stopped tobacco-only use in the intervention group. Future research needs to determine whether students are switching from tobacco to supari and understand the psychological mechanisms underlying the cessation intervention and the interaction between cessation and prevention-only interventions.
02 <sup>19</sup>	Implementation of a peer-led tobacco prevention program in schools: an evaluation of the mixed methods process. (Implementação de um programa de prevenção do tabagismo liderado por pares em escolas: uma avaliação do processo de métodos mistos.)	ASSIST is a peer-led, school-based smoking prevention program, which encourages the diffusion of non-smoking norms among high school students (ages 12 to 13) and has been shown in a randomized control trial (conducted in 2001 - 2004) to reduce the prevalence of weekly smoking. This article presents the results of an evaluation of the ASSIST implementation process in Scotland in 2014-2017.	The ASSIST program in Scotland was delivered with a high degree of loyalty to the licensed program and was acceptable from the perspective of schools, students and instructors. Targeting ASSIST to underserved areas with a higher prevalence of youth smoking or in other countries where youth smoking rates are increasing or are higher than in Scotland could be particularly relevant for the foreseeable future.
03 <sup>20</sup>	Effectiveness of a peer-led behavioral intervention program on tobacco use-related knowledge, attitude, normative beliefs, and intention to smoke among adolescents at Iranian Public High Schools.	To assess the effectiveness of this peer-led intervention on tobacco use-related knowledge, attitude, normative beliefs, and tobacco use intention of school-children 14-17 years of age.	Participation in the peer-led education program for tobacco use prevention can improve knowledge, normative beliefs and intention to use tobacco.
04 <sup>21</sup>	A Smoking Prevention Program Delivered by Medical Students to Secondary Schools in Brazil Called "Education Against Tobacco": Randomized Controlled Trial.	Measure the long-term effectiveness of the latest version of the EAT curriculum in Brazil.	To the best of our knowledge, this is the first randomized clinical trial on smoking prevention in schools in Brazil that shows significant long-term favorable effects. The EAT program encourages quitting the habit and prevents the initiation of smoking, especially among men and students with low levels of education.
05 <sup>22</sup>	Facial-Aging Mobile Apps for Smoking Prevention in Secondary Schools in Brazil: Appearance-Focused Interventional Study.	To test the perception and implementability of facial aging apps for smoking prevention in high schools in Brazil according to the theory of planned behavior and in relation to different genders.	Our data indicate the potential of facial aging interventions to reduce the prevalence of smoking in Brazilian high schools according to the theory of planned behavior. Most students perceived the intervention as fun, claimed that the intervention motivated them not to smoke, and claimed that they learned new benefits of not smoking.
06 <sup>23</sup>	Impact of an Outdoor Smoking Ban at Secondary Schools on Cigarettes, E-Cigarettes and Water Pipe Use among Adolescents: An 18-Month Follow-Up.	To assess the long-term impact of smoking bans outside schools among high school adolescents on the use of conventional cigarettes, e-cigarettes (with/without nicotine) and hookahs.	The ban could have a reverse effect when schools find it difficult to enforce it or when teenagers still see others smoking. Additional research is needed with follow-up longer than 18 months.

among students contributes positively to their social and professional training, since adolescence is a period of construction of opinions and thoughts, helping them in this process promotes autonomy in relation to decision-making about their own health, which reduces injuries and favors the fight against smoking.<sup>(38)</sup>

Since the school is an essential environment for such strategies, linked to the Brazilian Law of Directives and Bases (LDB) - Law No. 9,394/1996 - on the right to education and the duty to educate, states that the attendance to schoolchildren must consider supplementary educational programs of social support and health assistance.<sup>(39)</sup>

A study carried out by nursing students at a public school in Minas Gerais showed positive results after the smoking prevention intervention. According to the researchers, the actions brought adolescents closer to health professionals, and also contributed to the academic development of students.<sup>(38)</sup>

Therefore, new strategies are needed in Brazil, mainly of a technological nature, that add to the PSE and seek to achieve the prevention of early smoking initiation and are capable of promoting health in the school environment.

### EFFECTIVENESS OF SMOKING PREVENTION INTERVENTIONS IN INTERNATIONAL SCHOOLS

Regarding the international scenario of combating smoking among children and adolescents in school age, it is observed that although the countries do not have a structured public health system like Brazil, as well as specific school public health programs, several educational actions to prevent smoking have been developed for the school population.

A study carried out in Mumbai, India, showed that in addition to the use of conventional tobacco, the consumption of supari (betel nut - seed of the

07 <sup>24</sup>	The Short-term Effects of ASPIRA: A Web-based, Multimedia Smoking Prevention Program for Adolescents in Romania: A Cluster Randomized Trial.	To assess the short-term effects of ASPIRA among ninth graders who speak Romanian and Hungarian in Tirgu Mures, Romania.	ASPIRA, an adapted version of the evidence-based multimedia program ASPIRE, originally developed and tested in the United States, may decrease smoking initiation among multiethnic adolescents in Central and Eastern Europe. The degree of exposure is critical, only high exposure to the multimedia smoking prevention program is associated with reduced smoking initiation.
08 <sup>25</sup>	One-Year Effects of Project EX in Spain: A Classroom-Based Smoking Prevention and Cessation Intervention Program.	Address the results of a 2-year follow-up evaluation of Project EX.	This study provides evidence on the long-term effectiveness of the Project EX classroom program for the prevention and cessation of smoking among adolescents in Spain, revealing a greater reduction in nicotine dependence, intention to smoke, and in the number of cigarettes smoked in the last month.
09 <sup>26</sup>	Photoaging Mobile Apps in School-Based Tobacco Prevention: The Mirroring Approach.	Using mobile phone technology according to the theory of planned behavior to improve smoking prevention in schools.	Most students stated that the intervention motivated them not to smoke and stated that they learned new benefits from not smoking. Only a minority of students disagreed or strongly disagreed that they learned new benefits from not smoking or that they were motivated to not smoke themselves.
10 <sup>27</sup>	A Web-Based, Computer-Tailored Smoking Prevention Program to Prevent Children From Starting to Smoke After Transferring to Secondary School: Randomized Controlled Trial.	To assess whether personalized feedback messages, with and without immediate messages, are effective in reducing children's smoking intention and behavior after 12 and 25 months of follow-up.	This study showed that personalized web-based feedback messages, with and without immediate messages, were not effective in modifying children's smoking intentions and smoking behavior compared to no information. Future smoking prevention interventions are recommended to start closer to the actual age of smoking adoption. In addition, future studies of web-based and computer-customized smoking prevention programs should focus on assessing and controlling exposure to educational content and responding to immediate messages.
11 <sup>28</sup>	Longitudinal evaluation of a smoking prevention program for adolescents. (Avaliação longitudinal de um programa de prevenção do tabagismo para adolescentes.)	Evaluate a smoking prevention program for adolescents.	The program reduced smoking initiation and regular smoking. Results appeared in the second year and improved in the third. The effectiveness of tobacco prevention programs depends on continuous implementation throughout adolescence and the integration of measures aimed at reaching adolescents directly or indirectly through their social context (school, family and community).
12 <sup>29</sup>	A descriptive study of a Smoke-free Teens Programme to promote smoke-free culture in schools and the community in Hong Kong.	Describe the process and outcomes of this youth program in Hong Kong.	The Smoke-free Teens Program has demonstrated effectiveness in equipping young people with up-to-date information on tobacco use and global trends in tobacco control and encouraging them to play a pioneering role in tobacco control. The smoke-free teens trained not only promoted smoke-free messages among their schoolmates, friends and family, but also rallied community support for a smoke-free Hong Kong. The program was instrumental in promoting a new group of smoke-free teens to champion a smoke-free culture and protect public health.

areca palm) known as "Taiwan gum", which has both stimulating and harmful effects, is also high among teenagers, being acceptable in society and widely used at parties. As there are no smoking cessation programs focused on adolescents in the country, educational interventions focused on psychosocial issues have been shown to be quite effective in combating the use of these substances among adolescents. Thus, increasing rates of smoking cessation among low-income students are identified, highlighting the education of schoolchildren as a positive strategy in combating smoking. <sup>(18)</sup>

Still, it is noted that the environment in which the teenager is inserted influences their way of acting in relation to tobacco, and their network of friends can be preponderant in the decision to start or not to use tobacco, as well as the abandonment of the habit. Therefore, one of the effective strategies is to identify influential students in the class or school, who can be trained to lead conversations about smoking, spreading knowledge and influencing other colleagues to reduce the intention to smoke. <sup>(19, 20)</sup>

In contrast, in countries where smoking bans in schools have been enforced, they have had a negative impact among adolescents on long-term follow-up, causing a reversal of the expected effect, that is, more students started smoking in the monitored period. Therefore, it is demonstrated that there is a need for research on the motivation and emotional effects of adolescents with the intention of smoking or in contact with tobacco to develop such combat actions. <sup>(23, 35)</sup>

Most international articles with tobacco prevention programs in schools were effective, however, contributed more to increasing adolescents' knowledge about the harmful effects of tobacco and its derivatives than actually preventing the intention to smoke or quitting the habit, demonstrating a more

13 <sup>30</sup>	Effectiveness of a complex intervention on smoking in adolescents: A cluster-randomized controlled trial. Preventive Medicine.	To assess the effectiveness of a teacher-led school intervention on smoking initiation in adolescents (ITACA tobacco prevention education program).	There was no evidence that the intervention impacted the incidence of regular smoking or smoking initiation.
14 <sup>31</sup>	Are the school prevention programmes - aimed at denormalizing smoking among youths - beneficial in the long term? An example from the Smoke Free Class Competition in Italy.	Assess its effectiveness after a longer follow-up (3 to 5 years) in order to allow enough time for students to mature and internalize the experience and its contents.	These results suggest that SFC can have a positive impact on reducing the prevalence of smoking in the long term (5 years).
15 <sup>32</sup>	Effectiveness of an educational intervention on smoking among school adolescents.	To evaluate the effectiveness of an educational program on smoking, developed by the Instituto Brasileiro do Câncer, among adolescents in the city of Pelotas, RS.	In summary, the intervention was not effective in producing behavioral changes, but it did lead to an increase in knowledge about smoking.
16 <sup>33</sup>	Using the Internet to help with smoking prevention and cessation in schools: a randomized controlled trial. (Usando a Internet para ajudar na prevenção e cessação do tabagismo nas escolas: um ensaio clínico randomizado e controlado.)	To assess the impact of a classroom and web-assisted intervention on tobacco use addressing adolescent smoking prevention and cessation.	The Smoking Zine intervention provided motivation to quit smoking for smokers most resistant to quitting at baseline and prevented non-smoking adolescents from becoming heavy smokers at 6 months. By providing an accessible and engaging method of engaging youth in smoking prevention and cessation, this interactive and integrated program provides a new vehicle for health promotion at school and population levels.
17 <sup>34</sup>	Revealing users' experience and social interaction outcomes following a web-based smoking prevention intervention for adolescents: A qualitative study.	To assess the impact of a web-based intervention, A Smoking Prevention Interactive Experience (ASPIRE), on adolescent smoking intention, considering the experience of interactivity and entertainment as predictors of reduced smoking intention, under a transitional user experience model.	The experience of interactivity and entertainment of adolescents contributed to the expected result of lower intention to smoke. Furthermore, it is necessary to emphasize emotional experience during web-based interventions in order to maximize reductions in smoking intentions. Going beyond the mere assessment of the effectiveness of a web-based smoking prevention program, this study contributes to understanding the psychological experience of adolescents and its effects on smoking intention. With the results of this study, researchers can work to (1) enhance the interactivity and entertainment experience and (2) broaden the concepts of media effects (e.g., presence and emotional involvement) in order to better achieve health behavior outcomes.
18 <sup>35</sup>	Effects of a randomized controlled trial to assess the six-months effects of a school based smoking prevention program in Saudi Arabia.	To examine the effectiveness of a smoking prevention program that aims to address cognitions related to smoking and smoking behavior among Saudi adolescents aged 13 to 15 years.	The prevention program reinforced non-smokers' cognitions and behaviors. Therefore, it is recommended to implement the program at the national level in Saudi Arabia. Future studies are recommended to assess the long-term effects of the program and the conditions that favor the national implementation of the program.
19 <sup>36</sup>	Perceived enforcement of school tobacco policy and adolescents' cigarette smoking.	To examine the relationship between the perception of tobacco policy enforcement at the school level and smoking behaviors among students.	Stricter enforcement of school tobacco policies can help prevent or reduce teen smoking on and off school property.

informative character than smoking cessation itself. (18, 19, 20, 23, 35)

## CONCLUSION

Based on the findings in the literature, it was observed that health education programs to combat smoking in schools had a positive impact for the most part, since the highlighted results were in terms of improving students' knowledge about tobacco and its harmful effects on health. However, for the prevention of the intention to smoke or quit smoking, the interventions were ineffective.

Through the understanding that smoking is a public health problem,

<sup>20</sup> An informal, school-based peer-led intervention for the prevention of adolescent smoking (ASSIST): a randomized clinical trial.

To assess the effectiveness of a peer-led intervention aimed at preventing tobacco use in secondary schools.

The results suggest that, if implemented on a population basis, the ASSIST intervention can lead to a reduction in the prevalence of smoking in adolescents of public health importance.

Source: the authors, 2020.

the fundamental role of nurses in prevention actions is highlighted. Once some of the competencies are considered indispensable for the profession are care management, leadership, decision-making and educating. Enabling health promotion, prevention, harm reduction and rehabilitation strategies in health care networks. Thus, the nurse leads the multidisciplinary health teams on the same principle, setting goals and

planning, acting as a subject of social transformation. (40,41)

Thus, additional research is needed to investigate and work on the prevention of smoking initiation in schoolchildren. Emphasizing the importance of developing public policies aimed at this public, so that interventions to combat smoking in schools are effective in the short, medium and long term. 🌱

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