

A Scoping Review: Comparison of Cigarette Consumption among Adolescents in Asia

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ABSTRACT

Background: Adolescent smoking has a significant impact on public health. Adolescent smoking is a global health problem that requires serious attention since it causes long-term public health impacts, including an increased risk of chronic diseases. **Objectives:** This review aims to examine the comparisons and factors affecting adolescent cigarette consumption in Asian countries. **Methods:** This study used a scoping review method to explore and understand the level of cigarette consumption among youth in various Asian countries. This study used various sources from PubMed, Google Scholar, and Springer Link databases. The keywords used in this article include youth cigarette consumption, Asia, Factors, Prevalence, and Comparison. This review was conducted on 400 articles that were screened and analyzed into 10 articles. The selected articles were free and full text in English, within five years between 2019 and 2023. The selected articles covered various fields namely medicine, health, healthcare, environmental science, and social science. The selected articles provided data from Malaysia, Japan, China, Taiwan, Indonesia, and East Timor. **Results:** The results are used to detail a comparison of youth cigarette consumption in Asia countries, thereby supporting more effective and contextualized public health. **Conclusion:** We identified that personal, environmental, and societal factors are the main causes of youth cigarette consumption in Asia.

Keywords: Adolescent cigarette consumption, Asia, Comparison, Factors, Prevalence.

INTRODUCTION

Smoking among adolescents in Asia is an issue that requires serious attention, given its negative impact on the health and development of the younger generation. Asia, as a continent with diverse geography and culture, presents challenges in understanding the factors influencing smoking behavior among adolescents (TCSC, 2018).

Efforts to address this issue require a profound understanding of smoking consumption trends and variables involved in various Asian countries. This research aims to explore and comprehend the levels of cigarette consumption among adolescents in different Asian countries. Smoking habits among adolescents have significant impacts on public health and constitute a global health issue that requires serious attention. Asia, with its diverse cultural and demographic landscape, offers a rich context for understanding smoking consumption

patterns among adolescents (Masturoh, 2019).

This research tries to understand the differences and similarities in cigarette consumption among adolescents in various Asian countries. This research will also identify factors that influence the level of cigarette consumption in adolescents (Gafur, 2021).

Smoking during adolescence can have long-term impacts on public health, including an increased risk of chronic diseases later in life. Understanding the levels of cigarette consumption in Asia can aid in designing more effective public health interventions (Putri, 2021).

This research builds upon previous studies using the scoping review method by comparing cigarette consumption among Asian adolescents. In the context of globalization, comparative objectives can provide a more comprehensive insight into smoking trends among Asian adolescents. The selection of this title is based on the urgency to address the issue of cigarette

consumption among adolescents, which is a severe challenge in Asia. Through this research, it is hoped that differences in factors driving adolescents to start smoking will be revealed. Preventive measures and more effective interventions can be formulated to protect the younger generation from the adverse effects of smoking. This research is relevant as it contributes to the global understanding of this pressing public health issue.

Research on the comparison of cigarette consumption among teenagers in Asia requires a strong theoretical framework to understand the factors influencing smoking behavior. One theory that can be applied is the theory of planned behavior (TPB). According to TPB, an individual's behavior is influenced by three main factors: attitude toward the behavior, subjective norms, and perceived behavioral control. Attitude toward smoking encompasses an individual's evaluation of the positive and negative consequences of that behavior. Subjective norms reflect individuals' perceptions of support or disapproval from those around them regarding smoking behavior. Perceived behavioral control includes individuals' perceptions of their ability to control smoking behavior (Ajzen, 1991).

Research employing TPB in the context of cigarette consumption among teenagers in Asia can examine how attitudes toward smoking vary among teenagers from different Asian countries, influenced by cultural, social, and economic factors. Additionally, subjective norms affecting acceptance or rejection of smoking can also be studied, whether from peers, family, or other social environments. The influence of behavioral control factors such as cigarette availability, pricing, and regulation is also important to consider in this comparative analysis. By understanding the psychological and social factors influencing smoking behavior among teenagers in various Asian countries, this research can provide valuable insights into the development of more effective interventions to reduce smoking prevalence and promote healthy lifestyles among teenagers.

METHODS

The research design used in this research is a scoping review. The subject

of this research is international journals related to the Comparison of Cigarette Consumption among Adolescents in Asia. The research sample consisted of 31 research articles from international journals that discussed the comparison of cigarette consumption among teenagers in Asia. The inclusion criteria used in this research were articles originating from the PubMed and Springer Link databases.

Table 1. Database and Keywords.

Database	Keywords
PubMed, Google Scholar	Keywords: ("Cigarette Consumption"[Mesh]) and ("Asian Adolescents"[Mesh]) Filter: Adult
Springer Link	Keywords: (Comparison of cigarette consumption), Filter: Discipline: Asian Adolescents Subdiscipline: Health

The selected articles were chosen based on publications released between 2019 and 2023 (5 years) and were written in English. The exclusion criteria are articles requiring full text in languages other than English or Indonesian, articles published before 2019, articles with unclear publication sources, research results unrelated to health impacts, and articles requiring ISSN or ISBN. The eligibility criteria for this research were based on the PICOS criteria (population, intervention/exposure, outcome, study):

- The population in this study does not consist of cigarette consumers.
- The exposure in this study was not smoking.
- The outcomes evaluated in this study were not related to cigarette consumption in Asian adolescents.
- This research is not an observational study.

RESULTS AND DISCUSSION

Based on the search results for articles with the keywords above, it shows that there are 140 articles from Google Scholar, 135 articles from Springer Link, and 125 articles from PubMed. The next step is abstract review. After reviewing the abstracts of the 100 selected articles, 30 articles were excluded because they were not research on Comparative Adolescent

Cigarette Consumption In Asia, and 170 articles were included in the next step, namely full-text review. From a full-text search of 170 selected articles, articles were excluded because they did not meet

the criteria. Ten were identified for inclusion in the analysis.

Table 2. Summary of discussion data.

Countries	Prevalence (man)	Most Influential Factor			
		Friendship	Family	Ads	Unexplained
South Asia	(Unexplained)	✓	✓	✓	
Southeast Asia	40%				✓
Malaysia	14,8%	✓	✓	✓	
Japan	(Unexplained)	✓	✓		
China	95%				✓
Taiwan	(Unexplained)	✓	✓	✓	
East Timor	55,5%				✓
Indonesia	60%	✓	✓	✓	

1. Comparison of Adolescent Cigarette Consumption in Asia Based on Table

The studies above provide a profound understanding of the prevalence and factors influencing smoking habits among adolescents in various countries in Southeast Asia. Personal, environmental, and societal factors emerge as key relevant points in the analysis.

a) Friendship and smoking behavior

A study by Forster et al. (2003) highlights the role of peer influence in shaping smoking behavior among teenagers. This research found that teenagers are more likely to smoke if they have peers who smoke. The theory of planned behavior (TPB) can be used to explain these findings in more detail. TPB suggests that subjective norms, which are individuals' perceptions of support or disapproval from those around them regarding specific behaviors, greatly influence an individual's intentions and behavior. Teenagers tend to mimic the behavior of their peers as a form of social norm that affects their decision to smoke. Therefore, it is important to consider the influence of peer groups when designing interventions aimed at reducing cigarette consumption among teenagers.

b) Family and Smoking Behavior

Research by Mays et al. (2011) highlights the impact of having family members who smoke on teenagers' risk of initiating smoking. The results of this study indicate that teenagers who have family members who smoke are more likely to start and continue smoking. TPB can also be used to understand these findings. Family plays a significant role in shaping subjective norms and behavioral control among teenagers. Teenagers' perceptions of how their families view smoking behavior can influence their intentions and ability to control that behavior. Therefore, interventions targeting teenagers need to take into account the influence of family in smoking prevention efforts.

c) Advertising and Smoking Behavior

A study by Lovato et al. (2011) emphasizes the impact of cigarette advertising on smoking behavior among teenagers. This research shows that exposure to cigarette advertising can increase the likelihood of teenagers starting to smoke. In this context, TPB can be used to explain how cigarette advertising can influence teenagers' attitudes and subjective norms toward smoking. Cigarette advertising can create a positive perception of smoking and establish subjective norms that

support smoking behavior among teenagers. Therefore, restricting cigarette advertising and effective promotion of smoking risks are crucial in smoking prevention efforts among teenagers.

d) Cross-Country Comparison

Based on the prevalence of smoking data and the most influential factors presented in the table, it can be seen that friendship, family, and advertising factors have a significant impact on smoking behavior in different Asian countries. For example, in Malaysia, teenagers who have smoking peers, exposure to family members who smoke, and exposure to cigarette advertising significantly affect smoking prevalence among teenagers. In Taiwan, similar factors also have an impact, while in China high smoking prevalence can also be associated with exposure to cigarette advertising. However, in some countries, like East Timor, these factors may not explain the high smoking prevalence, indicating other variables that need to be considered.

Overall, personal, environmental, and social factors play a significant role in shaping smoking behavior among teenagers in Asia. The use of theoretical frameworks such as TPB helps in understanding the complexity of these factors and designing effective interventions to reduce cigarette consumption among teenagers.

2. Factors of Cigarette Consumption in Adolescents

Cigarette consumption in adolescents is a serious concern in the context of public health. Several factors may influence levels of cigarette consumption among adolescents, and a deeper understanding of these factors is an important step in developing effective prevention strategies. A teenager's surrounding environment can play a key role in forming smoking habits. Exposure to passive smoking at home, tobacco company policies that facilitate cigarette accessibility, as well as advertising and promotion of

cigarettes around teenagers, can have a significant influence (Salman et al., 2021).

Social factors include influence from peers, social norms, and exposure to tobacco advertising. Adolescents are often influenced by the decisions of their peers, and social norms that support smoking can create social pressure to follow the trend. In addition, tobacco advertising that is attractive and targets teenagers can also be an influencing factor. Some teens may seek out cigarettes as a stress coping mechanism or a way to manage emotional distress. Cigarette use can be considered as a form of escape from personal problems or the pressures of daily life (Sawitri & Maulina, 2020).

To reduce cigarette consumption in adolescents, a holistic approach needs to be applied. Educational programs that focus on the health impacts of smoking, the establishment of anti-smoking social norms, and psychological support for adolescents seeking coping mechanisms for stress could be initial steps. Apart from that, the active role of families, schools, and communities in providing better understanding and creating an environment that supports healthy decisions is also very important. Policies regulating tobacco advertising, increasing cigarette prices, and economic regulatory measures can also help reduce the prevalence of cigarette consumption among adolescents (Nuzula & Oktaviana, 2019).

3. Cigarette Consumption among Adolescents in Asia

Comparison of youth cigarette consumption in Asia is a critical aspect in understanding the public health challenges in this region. Various studies have explored factors influencing smoking behavior in adolescents, presenting in-depth insights that can guide public health policies and effective interventions (Gupte et al., 2020).

First of all, it can be observed that differences in adolescent cigarette consumption levels can be influenced by personal, environmental and societal factors. Several studies highlight the role of pocket money,

exposure to second-hand smoke at home, and peers who smoke as personal and environmental factors that contribute to smoking behavior. Along with this, societal factors, such as tobacco company policies and the prevalence of free cigarettes, also play a significant role in shaping the views and smoking habits of adolescents in various Asian countries (Mishu et al., 2021).

The importance of understanding gender dimensions is also reflected in these studies. The difference between smoking prevalence in male and female adolescents is a prominent highlight. This phenomenon requires a different approach to designing public health prevention and intervention programs that focus on gender diversity (Zanetta et al., 2020).

Adolescent smoking trends can also be seen from a socio-demographic perspective. Differences in prevalence between countries, as illustrated in studies of Brunei, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Thailand, Timor-Leste, and Vietnam, provide insight into the diversity of socio-economic conditions that may influence smoking behavior. Research on the impact of loneliness, relationships with peers, and parental influence provides further insight into the psychosocial factors that may shape smoking behavior. These factors are not only relevant at the individual level but also provide insight into family dynamics and social environments that may play a key role in shaping adolescent smoking behavior (Titova et al., 2023).

In the context of cross-country comparisons, the findings provide a complex picture of the determinants of adolescent smoking behavior in Asia. While some factors may be universal, cultural and policy variations among countries require a contextual and differentiated approach to designing prevention strategies. It is important to underscore that this research sets the stage for further knowledge and cross-cultural comparisons that can provide in-depth insights into optimal ways of addressing youth cigarette consumption in Asia. The continuation of this research will be key to detailing

more effective interventions and designing policies that can address the complex and varied public health problems across the region.

CONCLUSION

Comparative analysis of adolescent smoking consumption in Asia becomes more substantial with the profound understanding derived from these studies. The studies highlight the roles of personal, environmental, and societal factors in shaping adolescent smoking habits, particularly in Asia. Gender differences in smoking prevalence emphasize the need for a gender-sensitive approach in prevention programs, enriching the comparative dimensions of adolescent smoking consumption across various countries. Understanding socio-demographic and cultural diversity among countries, such as advertising, peer relationships, and parental influence, provides a complex context for this comparison. Thus, this research establishes a solid foundation for detailing the comparison of adolescent smoking consumption in Asia, supporting more effective and contextual public health efforts. The importance of ongoing research is reflected in tailoring interventions to the specific needs of each country, supporting holistic prevention measures to promote a healthy lifestyle among adolescents throughout Asia.

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