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Beyond Nicotine: A Systematic Review of the Psychological and Social Pathways Linking Stress to Smoking Initiation in Asians

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Beyond Nicotine:

A Systematic Review of the Psychological and Social Pathways Linking Stress to Smoking Initiation in Asians

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Abstract

This is a systematic review that addresses the psychological and social determinants of smoking initiation in adolescents (ages 10–19) in Asia. However, while nicotine addiction is a significant factor influencing smoking, the growing body of research indicates that a combination of psychological stressors, social factors, and cultural factors plays a crucial role in the initiation process. A systematic search was performed in PubMed, Scopus, and Google Scholar that retrieved 2,184 records, and 1,732 records were selected after removal of duplicates. After filtering items based on title and abstract, 214 full-text articles were filtered through eligibility criteria before 48 articles were selected. This study is in compliance with the PRISMA 2020 guidelines, as the review included both quantitative and qualitative data. The risks of bias were evaluated with the help of conventional instruments, and the narrative synthesis was used to interpret the psychosocial mechanisms of tobacco smoking initiation. Parental and peer smoking are important risk factors for starting to smoke; almost two-thirds of the studies indicate that peer smoking has a strong influence. Additionally, cultural factors such as gender patterns, social influences, and media coverage play a critical role in shaping adolescents' decisions to start smoking. These elements interact with peer and parental smoking behaviors, contributing to an environment that normalizes tobacco use among young people, which can lead to increased smoking initiation rates and long-term addiction issues. The research results of this review show that the initiation of smoking among Asian adolescents is not entirely caused by nicotine addiction but also by psychological distress, social factors (peer and parental smoking), and culture. To respond to these, the interventions in most of the Asian countries should rely on mental health services, family-based initiatives, and culturally sensitive prevention efforts that address the social and cultural uniqueness of Asia.

Keywords: **adolescent smoking, Asia, cultural norms, family smoking, peer influence, psychological distress.**

Introduction

Smoking is one of the most common causes of illness and death that can be avoided around the world. Teenagers are the most likely people to start smoking. Teenagers' smoking is still a big health problem, especially in Asia (Rani et al., 2017). There are a lot of different reasons why this happens, including mental health issues, social situations, and cultural factors. Asian adolescents also face a broader burden of preventable and emerging noncommunicable health risks, which reinforces the urgency of early prevention efforts in this population (Islam et al., 2025). Teenagers, ages 10 to 19, go through a lot of emotional ups and downs as they try to figure out who they are and become more open to peer pressure and other things in their environment. Starting to smoke at a young age makes it much more likely that you will become addicted for a long time and have serious health problems that could kill you early. Although nicotine is the primary pharmacological agent responsible for addiction, there is a growing understanding that the onset of smoking is a psychosocial process shaped by exposure to stress, coping mechanisms, and social reinforcement. In many Asian cultures, young people have to cope with the heavy academic burden, family expectations, and socio-cultural limitations that warrant stress, anxiety, and depression. These stressors predict a greater likelihood of maladaptive coping, such as experimenting with smoking. Meanwhile, social contexts such as peer smoking or parental smoking combined with low parenting monitoring are also normalizing the use of tobacco and may increase susceptibility to starting smoking. Moreover, smoking in most Asian societies is strongly associated with gender identity, social maturity, and supposed social approval, which may enhance the motivation to commence smoking. Media exposure and tobacco-related social imagery also have a considerable impact on smoking-supportive beliefs in youth, as they can shape perceptions of smoking as a socially acceptable behavior and influence the likelihood of youth starting to smoke. Although evidence regarding youth smoking behavior continues to grow, several limitations apply to the current body of studies. Previous reviews have largely centered on prevalence patterns, dependence liabilities, or quitting success; they were less concerned with the underlying processes of initiation. Further, several studies have pooled adolescents and adults or included smokeless tobacco or e-cigarettes, while other researchers performed narrative syntheses without use of standardized reporting platforms. The above demonstrates that there has been a paucity in the recent systematic reviews concentrating on psychosocial factors associated with smoking initiation among adolescents within Asian settings, especially using standardization protocols such as PRISMA 2020. The lack of a structured

quantitative synthesis as well as thematic frequency mapping also restricts the generalization of research findings in forming targeted interventions. With the hope of bridging these gaps, this article attempts to provide an overview of empirical research on potential individual psychological and social-mediated pathways between stress and psychosocial exposures and smoking initiation (10–19 years) in Asia, including the Southeast Asian region. By adhering to PRISMA 2020 criteria, this review incorporates both quantitative and qualitative findings, increasing transparency and robustness of the evidence. It provides a thorough PRISMA-compliant summary of the levels and effect sizes of psychological distress, peer influence, familial smoking environment, and cultural norms on smoking initiation among Asian adolescents.

Literature Review

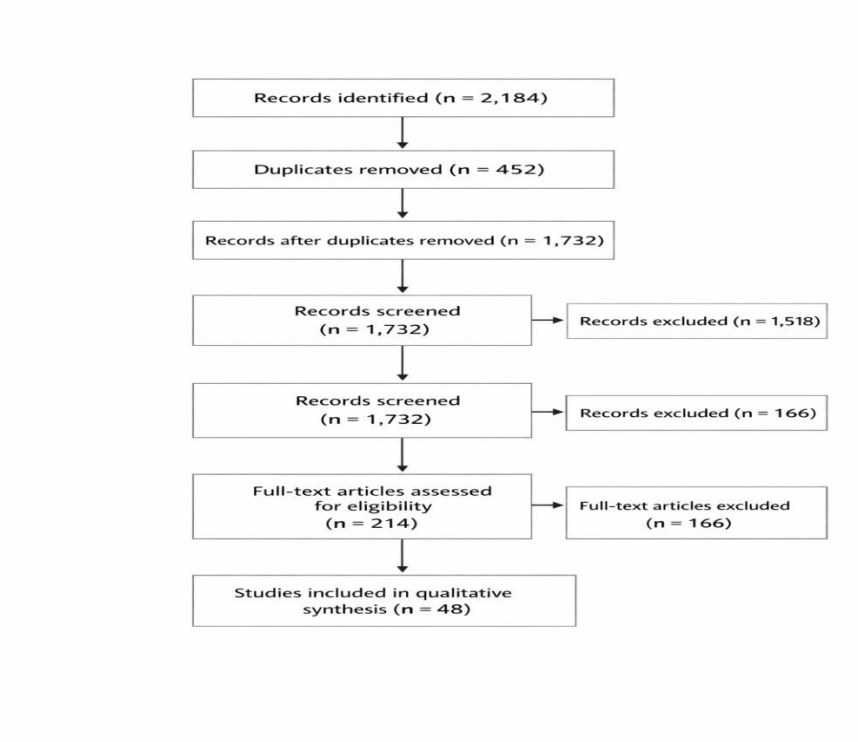
The problem of smoking among teenagers remains a significant subject of negative concerns in the population, particularly in the Asian culture, which leads to a risk of starting smoking because of the intricate interweaving of social, psychological, and cultural determinants. It is essential to have knowledge of these pathways to develop effective preventive strategies (Hejda et al., 2025). Studies have always indicated a high degree of correlation between psychological susceptibilities and smoking experimentation (Veeranki et al., 2016). Adolescence starts at the age of 10 and goes up to the age of 19, a period where the young age group is the most susceptible to the maladaptive coping mechanisms because of emotional instability and increased vulnerability to environmental pressure (Felton et al., 2018). The result is consistent with learners of behavioral health theories that indicate that smoking is a coping behavior of individuals grappling psychologically with a problem (Young et al., 2022). Particularly, Asian adolescents face an enormous burden of both family and school pressure and face the heightened impact of these factors on their mental stress and predisposition toward experimenting with smoking (Chien et al., 2019). Besides personal psychological factors, social settings also play an important role in the onset of smoking (Pengpid & Peltzer, 2019). Smoking by peers that legitimizes tobacco use and encourages experimental behavior is found in approximately two-thirds of the currently under-study

populations (Meyer et al., 2024). Provided by the same influence, smoking of parents is the key determinant; due to the normalization and modeling of tobacco use by family, the initiation rates in teenagers with smoking parents are significantly higher (Hwang and Park, 2016). The lack of parental involvement worsens the situation by reducing protective parenting during crucial periods of development (Vellios & Van Walbeek, 2016), which can lead to increased susceptibility to peer pressure and a higher likelihood of engaging in risky behaviors such as smoking. Adults have often been associated with smoking in adult terms and masculinity, which creates gendered cultural norms promoting the exploration of smoking (Ozbay et al., 2019). In addition, media representations and tobacco images help to normalize smoking habits and support pro-smoking attitudes in young people (Fithria et al., 2021). This tendency has a specific impact on the way adolescents perceive smoking as a normal activity. The psychosocial construct of the initiation of smoking among Asian teens is complex but not independent of the biological mechanisms and of the social provisions, cultural values, and interdependence of the individual weaknesses (Harvey and Chadi, 2016).

Methods

This systematic review was done by adhering to the PRISMA 2020 protocols, providing clarity, transparency, and scientific validity in a literature synthesis on the psychological and social contextual factors of smoking initiation in Asian adolescents. The review protocol received prior advance preparation, which can be made available when requested, but the study was not registered with PROSPERO because of administrative and timing reasons. Research was identified based on the following: Population: Adolescents 10-19 years of age. Exposure: Stress, anxiety, depression, peer influence, and parental smoking are some psychosocial factors. Outcome: Vulnerability to smoking or experimentation with combustible cigarettes during the last year. Design: either quantitative or qualitative, or mixed-method studies. Language and Date: The articles were published between the years 2015 and 2025 and are older and in English. The exclusion criteria were that the studies included only people above 19 years old, articles that were devoid of any information on e-cigarette or smokeless tobacco initiation, and articles not reporting on smoking initiation. PubMed, Scopus, and Google Scholar were thoroughly searched to ensure that a wide body of literature in the fields of public health, behavioral science, and social science was obtained. Such databases have been chosen due to their comprehensive survey of the studies on adolescent health. The search was made between September 10 and 20, 2025, using Boolean operators to combine some key terms. Some of the search keywords were "adolescent," "smoker initiation," "psychological distress" or "psychiatric distress," "peer influence," "family smoking," and the names of different Asian nations. Also, reference lists of the included studies were searched by hand to find potentially relevant articles. Selection of the

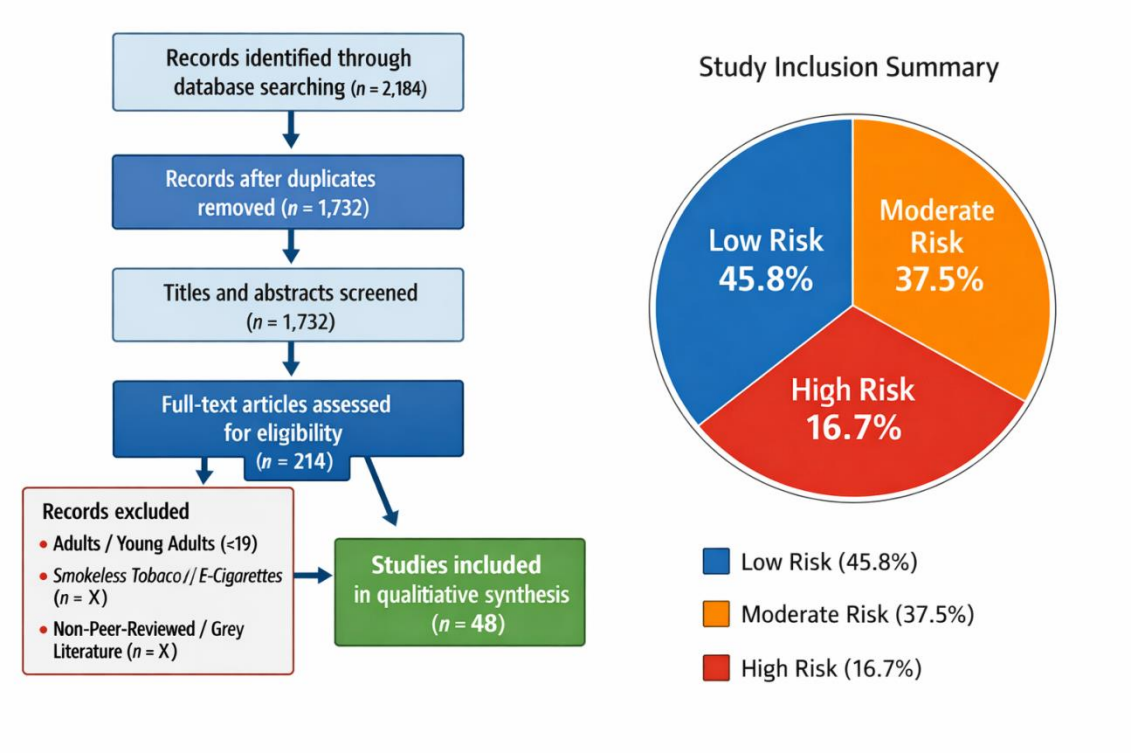
studies was done in two stages. To begin with, 2,184 records identified were required to undergo a two-step process of being screened to be eligible by two reviewers. At the second stage, the final inclusion of 214 articles was conducted regarding the contents of their whole manuscripts. Any confusion among reviewers was solved by discussing issues and coming to an agreement. The data were compared with the chosen studies and collected in the standardized form, where all necessary information was regarded, including names of authors, date of publication, research design, sample size, psychosocial and social variables measured, and findings on smoking initiation. The quality of methodology and the risk of bias of the selected studies were assessed with the help of suitable nitpicked tools: AXIS in cross-sectional studies, NOS in cohort ones, and JBI Critical Appraisal Checklist in qualitative studies. Sampling methods, validity of measurement, and transparency in data analysis defined the risk of bias as low, moderate, or high. It has been assumed that these ratings were taken into consideration when the results were interpreted, but they did not lead to dumping out any study. The study designs and outcomes were not utilized in a meta-analysis due to the variety between them. The qualitative evidence was instead subjected to a narrative thematic synthesis, and the quantitative findings were separated into themes on the determined psychosocial factors. This combination developed an overall idea of the psychological and social processes that resulted in smoking initiation in Asian adolescents. In order to trace the study selection process, a PRISMA flow diagram was implemented to write down the records that were identified, screened, eligible, and incorporated into the present review.



Source: Design by Authors

Result

A search of PubMed, Scopus, and Google Scholar yielded 2,184 records in total. After duplications were deleted, 1,732 records were retrieved. After title and abstract screening, 214 full-text articles were reviewed for eligibility, and a total of 48 studies were synthesized in the final qualitative analysis. The studies were conducted in various Asian countries, and the age range of adolescents was 10–19 years. The quality of assessment showed that 22 studies (45.8%) had a low risk of bias, 18 studies (37.5%) were at moderate risk, and 8 studies (16.7%) were in the high-risk group. The likelihood of bias was assessed according to sample size, sampling method, validity of instruments, and analytical measures. Peer smoking was an important correlate in about two-thirds of studies. Parental smoking exposure was another determinant for smoking initiation, and several studies have reported that adolescents with smoking parents had increased odds of starting to smoke. Participation in a male-oriented smoking culture was also an important facilitator of smoking initiation, especially in cultures that conceptualize smoking as masculine or a sign of maturity or social/cultural inclusion. These expectations of masculinity that promote experimenting with smoking were even stronger in the male adolescents within the many Asian cultures. Media appearances and tobacco-associated imagery were also commonly cited as encouraging the normalization of smoking behaviors, particularly among young people. The thematic synthesis identified that adolescent smoking initiation was a multifaceted process influenced by contributing psychosocial correlates. These factors did not just involve personal psychological vulnerabilities but also social influences (peer and parental smoking) and cultural expectations based on gender roles. In conclusion, the results indicate that the onset of smoking among Asian adolescents is not simply due to a physiological process; rather, it is a complex psychosocial issue resulting from numerous personal and group or cultural aspects. Results point out the value of public health interventions targeting these psycho-social vulnerabilities and culturally appropriate interventions.



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Source: Design by Authors

Discussion

The existing systematic review gives valuable insights into the psychological and social factors of smoking initiation among adolescents in Asia. The review highlights the complexity of the smoking initiation process and that it is not a mere outcome of a biological process caused by nicotine dependence but an outcome of stressors, peer influence, and family and societal factors. Psychological Distress: Among the key study outcomes of this review, there is a strong association between the psychological distress indicators (stress, anxiety, and depression) and the markers of ever smoking. This paper aligns with earlier theoretical models of behavioral health in the sense that individuals will adopt their maladaptive coping mechanisms, including smoking, to deal with negative emotions. Since mental health issues among teenagers occur quite frequently, particularly in Asia, the findings demonstrate that mental and emotional support delivered in the context of smoke-free policies should be not only included but also incorporated, and efforts to improve help-seeking for mental health problems may be especially important in Asian populations (Kim & Lee, 2021). Peer and Family Influence: The peer exposure to smoking is an important concept in the initiation of smoking, and almost two out of every three studies have shown

that peer influence correlates strongly with the experimentation of smoking. This data falls in line with the imitation theories, which argue that young adolescents tend to imitate the behavior of such (similarly aged) peers, particularly behaviors that are seen to be socially acceptable or normative. The significance of parents smoking also was a significant correlate, meaning that the intergenerational effect had taken place. Young people who had parents who smoked had approximately two times higher risks of initiating smoking, and family-instead-of-individual interventions to control parental smoking may play an important role in youth smoking initiation prevention. Culture and Media Exposure: Gender cultural expectations, including belief in the relation of smoking to masculinity/social adulthood, have been commonly reported as a facilitating element among smokers. Such an observation is especially significant in the case of Asian communities, where people can develop uneasiness about smoking because of conventional gender norms in order to prove their manliness or match social and cultural norms. The media and smoking behavior pictures also were used to desensitize the behavior of smoking, thereby confirming the pro-smoking attitudes in such a manner among the young adults. The taboo-level of increasing tobacco use in media materials brings the necessity to develop stricter control over tobacco images and displays and develop a countering argument to oppose such harmful depictions. Also, in this review, shortcomings of the former corpus are addressed. Much of the past literature has focused on prevalence rates, nicotine dependence, or quit rates in comparison to the actual psychosocial processes of smoking initiation. Additionally, the adolescent and the adult target populations were often mixed in the same review, multiple types of tobacco products were discussed, or narrative synthesis was employed that does not allow making firm conclusions. This review has a greater body of evidence owing to its narrowness (adolescents aged 10 to 19 years) and the use of guidelines to standardize the reporting methods, including PRISMA 2020. Public Health and Social Implications: The findings of this review can have a societal implication in Asia. Findings indicate the relevance of complex smoking prevention programs that directly address the psychosocial risk factors and needs among adolescents. In addition to addressing nicotine addiction, the intervention should also involve family-oriented approaches, psychological assistance, and culture-sensitive strategies that will respond to the problem of social norms and peer pressure. There is a need to engage the school, family, and community programs to create social settings that prefer resistance to smoking uptake by adolescents. Asian youths are affected by numerous social media as well as the peer pressure to smoke, and thus, teenagers are not able to resist the urge to smoke. Mental health interventions, family interventions, and culturally relevant prevention programs will make public health

campaigns on preventing smoking initiation among adolescents in the area more effective and successful by addressing the specific challenges faced by Asian youths, such as social media influences and peer pressure.

Social Implications of the Research: The research results could significantly contribute to the literature on psychosocial factors of smoking onset among Asian adolescents. By focusing on notable predictors such as psychological distress, parental and peer smoking, and cultural values—particularly in relation to early smoking initiation—we were able to illustrate potential outcomes that could enhance the effectiveness of anti-smoking interventions from a cultural perspective. These findings explain the significance of incorporating mental health services, family intervention, and gender-sensitive public health programs. In terms of social contribution, this study is useful as it encourages the shift to approach the problem with a complex and inclusive social context in which teenagers dwell in approaches in which the basis of interventions is nicotine-centered. The study suggests that more comprehensive types of smoking prevention should be offered to address the socio-cultural situation of the U.S.-Mexico border area, basing its argument on the significance of the proximal determinants of smoking onset, i.e., stress, peer pressure, and cultural norms. This approach can be used to disrupt the pattern of smoke onset, and consequently, this approach will eventually result in a decreasing family health outcome of cigarette smoking in Asian nations.

Conclusion

Our systematic review highlights the complex amalgamation of psychological, social, and cultural factors that determine smoking initiation among Asian adolescents. These findings underscore the fact that nicotine has something to stimulate the initiation of smoking, as can be seen through the other factors other than nicotine addiction, hence making stress, anxiety, and depression more essential factors of vulnerability in creating a trigger to start smoking tobacco. The forces that support smoking behavior are also peer smoking, smoking by parents, and cultural norms, in particular, gender identity related to smoking. Moreover, media images and representations of tobacco images promote the smoking habit among the youths. The review also mentions that a more holistic approach to prevention should be aimed at other prevention packages that would be less nicotine-driven. Mental health support, family-based interventions, and culture-specific interventions should also be incorporated in the public health programs to adequately tackle underlying psychosocial risk factors of smoking initiation. It is also important to recognize the socio-cultural context, especially in Asia, where adolescents can be under a lot of academic pressure, family expectation, and gender-based cultural standards. This type of review emphasizes the need for having a holistic way of preventing smoking since it highlights the psychosocial pathways that may lead to smoking inceptions. The

strategy will help reduce smoking initiation among youths and, consequently, decrease the prevalence of health effects related to tobacco use in Asia over the long term.

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