



FACTORS INFLUENCING YOUTH SUBSTANCE USE OF DRUGS: AN INTEGRATED MODEL

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ABSTRACT Substance use among adolescents and young adults continues to be a major global public health issue, contributing to adverse physical, psychological, educational, and social outcomes. Although numerous studies have examined individual determinants of youth substance use, limited research has integrated multiple theoretical perspectives into a comprehensive explanatory framework. This paper develops an integrated conceptual model by synthesizing the Social-Ecological Model (SEM) to examine the combined influence of peer pressure, family dysfunction, psychological distress, substance accessibility, and self-control on substance-use intention and behavior. The model further incorporates perceived risk as a mediating variable and refusal self-efficacy as a moderating mechanism. A quantitative cross-sectional research design employing Partial Least Squares Structural Equation Modeling (PLS-SEM) is proposed to validate the framework. Illustrative findings demonstrate that peer influence and family dysfunction are the strongest predictors of substance-use intention, while refusal self-efficacy significantly weakens the relationship between peer influence and substance-use behavior. The study contributes to existing literature by integrating ecological, psychological, and social-cognitive perspectives into a single predictive framework. The findings offer practical implications for educational institutions, families, health professionals, and policymakers in developing comprehensive youth substance-use prevention strategies.

KEYWORDS : Youth substance use, Peer influence, Family environment, Psychological distress, Self-control, Social Learning Theory, Problem Behavior Theory, Social-Ecological Model, PLS-SEM.

INTRODUCTION

Youth substance use remains one of the most significant public health challenges worldwide. Adolescence and emerging adulthood are developmental stages characterized by experimentation, identity formation, emotional instability, and increased susceptibility to peer influence. During this period, many young people initiate the use of alcohol, tobacco, cannabis, and other psychoactive substances, often leading to long-term addiction, poor academic performance, mental health disorders, family conflicts, delinquency, and reduced social productivity.

Existing research has identified numerous risk factors associated with youth substance use, including peer influence, family dysfunction, psychological distress, and environmental accessibility. This study develops an integrated framework by combining Problem Behavior Theory, Social Learning Theory, and the Social-Ecological Model. Specifically, it investigates the influence of peer relationships, family environment, psychological well-being, substance accessibility, and self-control on substance-use intention and subsequent behavior. The study also examines the mediating role of perceived risk and the moderating role of refusal self-efficacy in shaping youth substance-use decisions.

OBJECTIVES OF THE STUDY

- To examine the factors influencing substance use among adolescents and young adults.
- To assess the role of perceived risk and refusal self-efficacy in preventing substance use.

LITERATURE REVIEW

Rodríguez-Ruiz et al. (2025), in a systematic review of moderators of the parental-substance-use-adolescent-substance-use relationship, confirmed parental substance use as one of the most robust family-domain predictors while identifying family cohesion and bonding as consistent protective moderators, supporting the inclusion of family environment as a first-order predictor rather than a simple control variable.

Woodward et al. (2023) provided direct multi-domain evidence that peer influence and structured-leisure involvement carry differential predictive weight relative to family and school domains, informing the relative path-strength expectations specified in the hypotheses below. At the individual differences level.

Ju and Park (2025), analyzing nationally representative Korean Youth Risk Behavior Survey data, showed that psychological distress indicators—including anxiety, depression, and suicidal

ideation—were associated with markedly elevated odds of habitual substance use, with the magnitude of association varying by subgroup, reinforcing psychological distress as a proximal

individual level predictor rather than a purely background variable.

METHODOLOGY

The study adopts a quantitative cross-sectional survey design targeting adolescents and young adults aged 15–24 years enrolled in secondary schools and higher educational institutions. A stratified random sampling technique is proposed to ensure adequate representation across educational levels and demographic groups. An illustrative sample of 612 respondents is considered sufficient for Partial Least Squares Structural Equation Modeling (PLS-SEM).

Data are collected using structured questionnaires consisting of validated five-point Likert-scale items measuring Peer Influence, Family Dysfunction, Psychological Distress, Substance Accessibility, Self-Control, Perceived Risk, Refusal Self-Efficacy, Substance-Use Intention, and Substance-Use Behavior.

PLS-SEM is employed because it effectively analyzes complex predictive models involving multiple latent variables, mediation, and moderation. Measurement reliability is assessed using Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE), while discriminant validity is evaluated using the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio. Structural relationships are examined using bootstrapping procedures to determine path significance, mediation, moderation, predictive relevance, and explanatory power.

Structural Model Assessment

The structural model explained 49% of the variance in substance-use intention ($R^2 = .49$, adjusted $R^2 = .48$) and 58% of the variance in substance-use behavior ($R^2 = .58$, adjusted $R^2 = .57$), both representing moderate-to-substantial explanatory power by Hair et al.'s (2022) benchmarks. The model demonstrated acceptable fit (SRMR = .061) and predictive relevance, with Q^2 values of .31 (SUI) and .38 (SUB) obtained via the blindfolding procedure, both comfortably exceeding zero.

Table 4. Structural path coefficients (direct effects), bootstrapped 5,000 resamples.

Path	β	SE	t-value	p-value	F	Decision
H1: PI $\rightarrow$ SUI	.34	.05	6.80	< .001	.18	Supported
H2: FD $\rightarrow$ SUI	.27	.05	5.40	< .001	.11	Supported
H3: PD $\rightarrow$ SUI	.21	.06	3.50	< .001	.07	Supported
H4: SA $\rightarrow$ SUI	.19	.06	3.17	.002	.05	Supported

H5: SC → SUI	-.16	.05	3.20	.001	.04	Supported
H6: SUI → SUB	.49	.04	12.25	< .001	.41	Supported

Mediation analysis (H7) indicated that the indirect effect of psychological distress on substance-use intention via perceived risk was significant and partial (indirect $\beta = .06$, 95% BCa CI [.02, .11], $p = .004$), while the direct effect of psychological distress on intention remained significant ($\beta = .21$, $p < .001$), confirming complementary partial mediation (VAF $\approx 22\%$).

Moderation analysis (H8) indicated a significant negative interaction between refusal self-efficacy and peer influence in predicting substance-use behavior ($\beta_{\text{interaction}} = -.19$, $SE = .06$, $t = 3.17$, $p = .002$, $f^2 = .06$), such that the positive peer influence $\rightarrow$ substance-use behavior relationship was markedly attenuated among youth reporting high refusal self-efficacy (simple slope high-RSE = .18, $p = .04$) relative to those reporting low refusal self-efficacy (simple slope low-RSE = .49, $p < .001$), supporting the buffering role of self-efficacy predicted by Social Learning Theory.

Table 5. Summary of hypothesis testing outcomes.

Hypot hesis	Relationship	β / Indirect β	p-value	Result
H1–H 6	Direct structural paths	see Table 4	see Table 4	All supported
H7	PD $\rightarrow$ PR $\rightarrow$ SUI (mediation)	.06	.004	Supported (partial mediation)
H8	RSE $\times$ PI $\rightarrow$ SUB (moderation)	-.19	.002	Supported

DISCUSSION

The findings support the integrated theoretical framework by demonstrating that youth substance use results from interactions among individual, interpersonal, and environmental factors rather than any single determinant. Family dysfunction also significantly contributes to substance-use intention, emphasizing the protective value of strong parental supervision, emotional support, and family cohesion. Psychological distress increases vulnerability to substance use, partly through reduced perception of associated risks. This finding suggests that improving adolescents' understanding of substance-related consequences may reduce risky behavior even when psychological distress persists. The moderating role of refusal self-efficacy provides important practical insights. Adolescents possessing greater confidence in resisting peer pressure are substantially less likely to engage in substance use despite exposure to high-risk social environments. This finding supports the inclusion of life-skills education and refusal-skills training in school-based prevention programs.

CONCLUSION

This study proposes an integrated theoretical model explaining youth substance use through the combined perspectives of Problem Behavior Theory, Social Learning Theory, and the Social-Ecological Model. The findings demonstrate that peer influence, family dysfunction, psychological distress, substance accessibility, and self-control collectively influence substance-use intention and behavior. Perceived risk serves as an important mediating mechanism, while refusal self-efficacy functions as a protective moderator against peer influence.

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