Exploring the Impact of Family Risk Factors on Adolescent Attitudes Towards Substance Use: The Role of Social Problem-Solving Skills as a Mediator

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ABSTRACT

Background: Substance use among adolescents is a global concern, necessitating comprehensive examination. While previous studies have identified family and individual factors as influencers, the mediating role of social problem-solving skills remains underexplored. This research aims to predict adolescent attitudes towards substance use based on familial risk factors, mediated by social problem-solving skills, to formulate a comprehensive model elucidating substance use tendencies.

Methods: This descriptive, correlational study surveyed students across educational levels in Ghaemshahr (n=378) using Cochran's formula. Questionnaires covering parenting styles, Bamrind parenting styles, addiction attitudes, social problem-solving skills, and socioeconomic status were administered. Path analysis was employed, with model adequacy assessed using various statistical indicators.

Findings: Family socioeconomic status demonstrated a significant positive direct relationship (trajectory

coefficient 2.35) with adolescent attitudes towards substance use. Adaptive problem-solving skills exhibited a positive but non-meaningful direct relationship (path coefficient 1.33), while maladaptive problem-solving skills demonstrated a significant negative relationship (path coefficient -0.27). Parenting styles displayed a significant negative direct relationship (trajectory coefficient -2.19) with adolescent attitudes towards substance use.

Conclusion: Parenting styles, maladaptive social problem-solving skills, and attitudes towards addiction significantly influence adolescent attitudes towards substance use, highlighting the complexity of familial risk factors. However, adaptive problem-solving skills did not significantly impact substance use attitudes. Understanding these dynamics is crucial for intervention design and preventive strategies.

Keywords: Atrial Fibrillation; Adverse Prognostic Indicator; Dilated Cardiomyopathy; Heart Failure; Left Ventricle Enlargement; Systolic Dysfunction; Arrhythmia; Cardiovascular Complications; Disease Progression.

INTRODUCTION

In recent years, the pervasive issue of drug use has become a profound challenge for human societies, significantly impacting the foundations of societal well-being. Addressing this complex problem requires the application of diverse theories across scientific disciplines, employing a range of methodologies and techniques. Research findings underscore that drug use conveys multiple negative implications, influenced by factors such as family dynamics, social circles, individual traits, and broader societal elements [1].

The triadic interplay of biological, psychological, and social dimensions in adolescent drug use stands out as a pressing concern in contemporary societies. Substance use, particularly involving alcohol and tobacco, among adolescents aged 12 to 18, remains a substantial problem across various countries. The vulnerability of the middle school period emerges as a critical juncture for the initiation of drug use. Recent studies reveal concerning statistics, with 31 percent of eighth graders reporting a history of alcohol use and 19.6 percent acknowledging past drug use. Numerous investigations highlight the correlation between dysfunctional family dynamics and increased likelihood of drug use. Factors such as inadequate parental supervision, family discord, improper parenting practices, and lack of emotional connection contribute to the risk. Social issues, insufficient environmental support, and association with high-risk friends further compound these risks. Individual factors, including outbreaks of violence, aggression, stress, anxiety, and academic struggles, are also identified as risk factors.

A 2018 study indicates that nearly 30 percent of teenagers have encountered drug use experiences, with 23.9 percent of them falling between the ages of 12 and 17. Addressing addiction proves challenging, requiring diverse approaches encompassing medication, psychotherapy, rehabilitation, and community support. In this context, prevention emerges as a crucial strategy to mitigate the onset of drug use, averting substantial societal costs related to health, productivity, and crime. Educating individuals about drug dangers, shifting attitudes from positive to negative, and fostering effective social problem-solving skills become paramount.

Recent research highlights the influential roles of parenting methods and social problem-solving skills,

both adaptive and maladaptive, in shaping adolescents' drug use tendencies. Strong family bonds, manifested through social interaction, emerge as significant predictors, influencing drug use directly and indirectly through individual and social capabilities. The study by M-JS Kafman (2013) underscores higher drug use rates among adolescents in maladaptive families characterized by emotional and behavioral issues.

Claund Mark T. Finberg's findings emphasize the critical role of harmful family factors, risk factors, and social influences in adolescent drug addiction. Correcting and addressing social problems emerges as a more effective determinant of adolescents' inclination toward drug use, surpassing the impact of social factors. Official statistics from Iran's anti-narcotics agencies reveal a staggering 2 million and 880 thousand individuals engaged in drug consumption. Globally, the United Nations Office on Drugs and Crime reported that about 35 million people required medical care for drug-related disorders in 2019. While numerous studies highlight family and individual variables as risk factors for drug use, the precise nature of their direct and indirect relationships remains elusive. Understanding adolescents' attitudes toward drug use necessitates a comprehensive consideration of risk and educational factors, coupled with an emphasis on social problem-solving skills, to formulate effective models of intervention [2].

MATERIALS AND METHODS

The study was conducted on high school students in Ghaemshahr during the academic years 1397 and 1398. It adopted a descriptive correlational research design, focusing on a statistical population comprising 26,593 adolescent boys and girls in the city. Through stratified random sampling based on educational categories and using Cochran's formula, 378 participants (193 boys and 185 girls) were selected. The subjects ranged in age from 16 to 19 years. Parental characteristics, including income level and occupation, were also examined.

The research instruments consisted of four questionnaires:

a) Attitude Scale:

Comprising 50 questions assessing attitudes toward the physiological, psychological, social effects, dangers, and interest in drug use. Validity coefficients exceeded 0.38, with subscale validity ranging from minimum alpha 0.79 to maximum 0.87, and total validity at 0.94.

b) Social Problem-Solving Skills Scale:

It consisted of 25 questions measuring adaptive and maladaptive problem-solving dimensions. Validity was assessed using Cronbach's alpha method, with coefficients ranging from 0.62 to 0.75 for various factors, and the overall instrument alpha coefficient at 0.69.

c) Parenting Scales:

Including 30 questions categorized into authoritarian, authoritative, and negligent parenting styles. Beria's reliability coefficients for each style ranged from 0.78 to 0.86, while internal consistency coefficients ranged from 0.69 to 0.79.

d) Socioeconomic Status Questionnaire:

Addressing personal, educational, occupational, income, housing, vehicle ownership, and travel frequency among students. Structural equation modeling and LISREL software were utilized for model compilation and analysis. Model adequacy was evaluated using various statistical measures.

Findings

The study investigated the relationship between attitudes toward drug use and four components: family socioeconomic status, adaptive and maladaptive problem-solving skills, and parenting styles. Path analysis results revealed significant associations between these components and attitudes toward substance use among adolescents.

- Family socioeconomic status exhibited a direct, positive, and significant relationship (t=-2.35, coefficient 0.15) with attitudes toward drug use.
- Adaptive problem-solving skills demonstrated a direct positive relationship (t=1.62, coefficient 0.13), albeit nonsignificant.
- Maladaptive problem-solving skills displayed a direct, negative, and significant relationship (t=-3.39, coefficient -0.27) with attitudes toward substance use.
- Parenting styles revealed a direct, negative, and significant relationship (t=-2.48, coefficient -0.19) with attitudes toward substance use.

Further analysis indicated the varying contributions of each component to adolescents' attitudes toward drug use. Physiological effects had the greatest impact (0.95), while physiological effects exhibited the least impact (0.64) on explaining attitudes toward drug use.

Similarly, confirmatory factor analysis underscored the importance of each component in explaining adaptive and maladaptive problem-solving skills, family socioeconomic status, and parenting styles among adolescents.

RESULTS AND DISCUSSION

The primary objective of this study was to forecast adolescents' attitudes toward drug use based on educational and family risk factors and to construct a model elucidating drug use tendencies among adolescents. Table 1 reveals that family socioeconomic status significantly predicts adolescents' attitudes toward drug use (standard coefficient 0.15, t=2.33). Higher socioeconomic levels correspond to more negative attitudes toward drugs, consistent with previous research.

Furthermore, the relationship between adaptive problem-solving skills and adolescent drug use prediction (standard coefficient 0.13, F=1.62) was positive but nonsignificant. This suggests that enhancing adaptive problem-solving skills may ameliorate attitudes toward drugs among adolescents, aligning with findings by Levy et al. [7], Barbara et al. [8], and Michelle J. et al. [10], as well as Ghobadipour et al. [12].

In contrast, maladaptive problem-solving skills exhibited a significant, negative relationship (standard coefficient -0.15, t=2.33) with adolescent drug use prediction. Improved problem-solving skills correlated with diminished tendencies toward drug use, corroborating similar findings from other studies.

Additionally, parenting styles were directly, negatively, and significantly associated (standard coefficient -0.19, t=-2.48) with attitudes toward substance use in adolescents. Notably, authoritative parenting styles emerged as positive predictors of negative attitudes toward adolescent drug use. This underscores the importance of proper parenting practices in shaping adolescents' attitudes toward drugs, consistent with results from Robert et al. [9], Ghobadipour et al. [12], and Johnston et al. [4].

Table 2 highlights that attitudes toward social effects exert the strongest influence on attitudes toward drug use (standard coefficient 0.95, R2=0.90). This finding aligns with research by Sharon Levy et al. [7], Michelle et al. [10], and Louise et al. [1], suggesting the significant influence of peer groups and social influences on adolescents' attitudes toward drug use.

Result	Statistical t	Coefficient of the path	Dimensions
Significant	2/35	0/15	Socio-economic status of the family
Not significant.	1/62	0/13	Adaptive problem-solving skills
Significant	-3/39	-0/27	Incompatible problem-solving skills
Significant	-2/48	-0/19	Parenting styles

Table 1: Results of path analysis of the attitude model to drug use in the situation of standard coefficients. Result statistical t coefficient of the path dimensions.

Component priority in explaining the variable	Result	The coefficient of determination R^2	Standard Factor Load	Sub-component
Fifth	Significant	0/40	0/63	Attitude towards physiological effects
Fourth	Significant	0/50	0/71	Attitude towards psychological effects
First	Significant	0/90	0/95	Attitude towards social effects
Third	Significant	0/42	0/65	Attitude towards risks
Second	Significant	0/68	0/83	Attitude towards consumption

Table 2: Status of variables explaining attitudes toward consumption.

CONCLUSION

The prevalence of drug use poses a significant societal challenge globally, transcending national borders. Drug consumption rates are rising, particularly among teenagers and young adults. Over time, research has identified various factors, including individual, environmental, social, and familial, contributing to drug use tendencies. Attitudes toward drug use serve as critical indicators of risk and protective factors. Therefore, shifting attitudes from positive to negative and imparting problem-solving skills can mitigate drug addiction risks.

RECOMMENDATIONS AND LIMITATIONS

To address these challenges, it is advisable to design social problem-solving skills training models at both family and school levels. Equipping parents and adolescents with effective problem-solving skills can enhance their ability to navigate individual and social challenges. Educational institutions should

integrate prevention strategies tailored to family and social contexts, fostering awareness and effective responses to societal pressures. Given the influence of parenting styles on drug use attitudes, educational programs should focus on parenting style recognition and risk factor awareness. However, conducting research in social sciences and humanities entails numerous constraints, including social desirability biases in questionnaire responses. Furthermore, reliance on questionnaire-based assessments may limit the depth of understanding of individuals' attitudes and realities.

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