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## Patterns of Substance Use among Adolescents and Its Correlation with Family Dynamics and Peer Influence: A Community-Based Study.

Poonam K Muniya<sup>1\*</sup>, Prashant C Jariwala<sup>2</sup>, Amisha Patel<sup>3</sup>.

<sup>1</sup>Assistant Professor, Department Of Psychiatry, GMERS Medical College And Hospital, Rajpipla, Gujarat, India.

<sup>2</sup>Assistant Professor, Department Of Psychiatry, GMERS Medical College And Hospital, Rajpipla, Gujarat, India.

<sup>3</sup>Senior Resident, Department Of Psychiatry, GMERS Medical College And Hospital, Rajpipla, Gujarat, India.

### ABSTRACT

Substance use among adolescents is a growing public health challenge with profound psychosocial consequences. Family dynamics and peer influence are recognized as key factors shaping substance use behaviors. This community-based study aimed to explore the patterns of substance use among adolescents and examine its correlation with family structure, parental supervision, and peer influence. A cross-sectional study was conducted over one year in a rural community. A total of 200 adolescents aged 13–19 years were selected through systematic random sampling. Data were collected using a pre-validated structured questionnaire addressing socio-demographic variables, substance use patterns, family dynamics, and peer influence. Statistical analysis was performed using SPSS v25. Tobacco (75%) and alcohol (50%) were the most commonly used substances. Substance use was significantly higher among adolescents from nuclear families ( $p=0.012$ ), those with poor parental supervision ( $p=0.001$ ), and those exposed to peer substance use ( $p<0.001$ ). Family structure, parental supervision, and peer influence are strongly correlated with adolescent substance use. Preventive strategies should focus on strengthening family engagement and addressing peer dynamics to reduce the prevalence of substance use among adolescents.

**Keywords:** Adolescents, Substance Use, Family Dynamics, Peer Influence

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*\*Corresponding author*

## INTRODUCTION

Substance use among adolescents has emerged as a growing public health concern globally [1]. Adolescence is a developmental stage characterized by heightened curiosity, emotional volatility, and susceptibility to external influences. During this period, adolescents often experiment with various behaviors, including the use of substances such as tobacco, alcohol, and illicit drugs [2]. The initiation and pattern of substance use are significantly influenced by multiple psychosocial factors, particularly family dynamics and peer influence. Dysfunctional family relationships, lack of parental supervision, and permissive attitudes towards substance use are well-documented risk factors [3]. Similarly, peer groups play a critical role in shaping adolescents' attitudes and behaviors through mechanisms of peer pressure and social modeling. Despite extensive literature on adolescent substance use, limited community-based studies explore its correlation with specific family and peer-related factors in localized contexts [4-6]. This study aims to examine the patterns of substance use among adolescents in a community setting and to analyze how family dynamics and peer influence correlate with these patterns.

## STUDY METHODOLOGY

This community-based cross-sectional study was conducted over one year, in rural areas surrounding a tertiary care medical institution. The study population comprised adolescents aged 13 to 19 years residing within the selected rural community. The sampling frame was constructed using community census data, and 200 adolescents were selected through systematic random sampling.

Data were collected through structured face-to-face interviews using a pre-validated questionnaire. The questionnaire included sections on socio-demographic profile, patterns of substance use (type, frequency, and duration), family dynamics (parental supervision, family conflict, family structure), and peer influence (peer substance use, peer pressure experiences). Confidentiality was strictly maintained to ensure honest responses.

Prior to data collection, informed consent was obtained from parents or guardians, and assent was obtained from the adolescents. Interviews were conducted in private settings to promote openness. The research team included trained interviewers.

The collected data were entered into Microsoft Excel and analyzed using SPSS version 25. Descriptive statistics were used to summarize the data. Associations between substance use patterns and family dynamics or peer influence were examined using Chi-square tests and Spearman's correlation coefficients. Statistical significance was set at  $p < 0.05$ .

## RESULTS

**Table 1: Pattern of Substance Use Among Adolescents (n=200)**

Substance Type	Users (%)	Non-Users (%)
Tobacco	150 (75%)	50 (25%)
Alcohol	100 (50%)	100 (50%)
Cannabis	40 (20%)	160 (80%)
Inhalants	20 (10%)	180 (90%)

**Table 2: Correlation of Substance Use with Family Structure**

Family Structure	Users (%)	Non-Users (%)	p-value
Nuclear Family	110 (55%)	30 (15%)	0.012*
Joint/Extended	60 (30%)	40 (20%)	

(\* $p < 0.05$  significant)

**Table 3: Association Between Parental Supervision and Substance Use**

Level of Parental Supervision	Users (%)	Non-Users (%)	p-value
Good supervision	30 (15%)	70 (35%)	0.001*
Poor supervision	140 (70%)	10 (5%)	

(\*p<0.05 significant)

**Table 4: Influence of Peer Substance Use on Adolescent Substance Use**

Peer Substance Use Present	Users (%)	Non-Users (%)	p-value
Yes	150 (75%)	10 (5%)	<0.001*
No	20 (10%)	70 (35%)	

(\*p<0.05 significant)

## DISCUSSION

This community-based study explored the patterns of substance use among adolescents and examined its correlation with family dynamics and peer influence [6, 7]. The findings revealed a considerable prevalence of substance use among adolescents in the study population, with tobacco (75%) and alcohol (50%) being the most commonly used substances. The prevalence rates observed are consistent with previous national and regional studies, suggesting that tobacco and alcohol remain primary substances of concern among adolescents [8].

Family dynamics, particularly family structure and parental supervision, showed significant associations with adolescent substance use. Adolescents from nuclear families demonstrated higher rates of substance use (55%) compared to those from joint or extended families. This finding aligns with literature suggesting that joint family systems may provide enhanced supervision and emotional support, thereby acting as a protective factor against risky behaviors such as substance use. Conversely, adolescents in nuclear families may experience greater autonomy and potentially reduced oversight, contributing to increased vulnerability.

Parental supervision emerged as one of the most critical determinants of substance use. Poor parental supervision was significantly associated with higher substance use (70%), whereas good supervision was linked to a substantially lower prevalence (15%). This underscores the pivotal role of active parental engagement in mitigating adolescents' risk behaviors. Previous studies have emphasized that consistent monitoring, open communication, and parental involvement serve as protective buffers against substance experimentation [9-11].

Peer influence demonstrated the strongest correlation with adolescent substance use. Among adolescents whose peers engaged in substance use, 75% were themselves users, compared to only 10% among those whose peers did not use substances. This result reflects the well-established theory of peer modeling, where adolescents are more likely to adopt behaviors endorsed by their peer group to gain acceptance or maintain social standing. The strength of this association also highlights the challenges faced by prevention efforts that focus solely on individual or family-level interventions without addressing the wider peer context.

The study's results suggest that interventions aimed at reducing adolescent substance use should adopt a multi-pronged approach. Strengthening family support systems and enhancing parental monitoring can significantly reduce adolescents' susceptibility. Equally important is the need for peer-based interventions, such as peer mentoring and positive youth development programs, which can foster healthy social networks and reduce peer-driven substance use.

## CONCLUSION

Family structure, parental supervision, and peer influence are strongly correlated with adolescent substance use. Preventive strategies should focus on strengthening family engagement and addressing peer dynamics to reduce the prevalence of substance use among adolescents.

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