(International Print/Online Journal)

SJIF IMPACT FACTOR: 6.829
PUBMED-National Library of Medicine ID-101739732

ISSN (Print): 2209-2870
ISSN (Online): 2209-2862

International Journal of Medical Science and Current Research (IJMSCR)
Available online at: www.ijmscr.com
Volume 9, Issue 3, Page No: 250-259
May-June 2026

IJMSCR

Family Dynamics And Parental Behaviors As Correlates Of Stress Among School-Going Adolescents: Evidence From A Cross-Sectional Study

Seema Choudhary [1*], Keshav Solanki[2], Neelu Saluja[3], Princy Ghosh[4]
[1]Professor & Head, [2]Senior Resident, [3]Professor,[4]Medical Student,
[1,2,3]Department of Community Medicine,
[2]Pandit Neki Ram Sharma Government Medical College, Bhiwani Haryana- 127021
[1,3]Maharaja Agrasen Medical College, Agroha (Hisar), Haryana- 125047
[4]Jagadguru Sri Shivarathreeshwara Medical College, Mysore, Karnataka-570 015

***Corresponding Author:**
Dr. Seema Choudhary
Professor & Head, Department of Community Medicine,
Maharaja Agrasen Medical College, Agroha (Hisar), Haryana, India

Type of Publication: Original Research Paper
Conflicts of Interest: Nil

Abstract

Introduction: Family dynamics and parental behaviors play a crucial role in shaping psychological well-being among adolescents.

Objectives: 1. To estimate the stress levels among school-going adolescents in Agroha Block of Haryana 2. To determine the association of family dynamics and parental behaviors with stress levels among school-going adolescents.

Materials and Methods: A cross-sectional study was carried out among 300 school-going adolescents from classes 8 to 12, selected from ten government senior secondary schools in Block Agroha. Data collection was carried out using a predesigned and pretested interview schedule, and perceived stress levels were measured using the Perceived Stress Scale (PSS-10). Statistical analysis included chi-square tests and logistic regression to determine associations.

Results: Logistic regression analysis revealed that being beaten (AOR = 3.18; 95% CI: 1.74–5.81; $p < 0.001$), being scolded (AOR = 2.79; 95% CI: 1.56–4.99; $p < 0.001$), and smoking-related household conflicts (AOR = 3.92; 95% CI: 1.02–15.10; $p = 0.046$) were significant predictors of moderate to high levels of stress. Other factors, including parental alcohol consumption and family structure, were not significantly associated.

Conclusions: Family-related behavioral factors, particularly disciplinary practices and household conflicts, are strong predictors of stress among school-going adolescents, highlighting the importance of positive parenting practices and a supportive home environment in reducing psychological stress.

Keywords: Adolescents, Disciplinary practices, Family dynamics, Parental behavior, Stress levels

Introduction

Stress has emerged as a major public health concern among adolescents due to its significant effects on mental well-being and future health outcomes. A large proportion of mental health problems begin during adolescence, making early identification and intervention essential. According to the World Health Organization, mental health conditions, including stress-related disorders, contribute substantially to the global burden of disease, with a considerable proportion beginning during adolescence.[1] Early exposure to stress has been associated with impaired cognitive development, emotional instability, and increased risk of mental health disorders later in life.[2]

Family environment plays a crucial role in shaping emotional development, coping abilities, and behavioral responses. Supportive family settings can promote resilience, whereas adverse conditions may increase vulnerability to psychological stress. The UNICEF emphasizes that supportive and nurturing family environments are critical for promoting mental well-being, whereas adverse family conditions can significantly increase vulnerability to stress and related disorders.[3] Factors such as parenting style, communication patterns, and household stability are particularly important in this context.

Among family dynamics, parental disciplinary practices have been widely studied for their impact on mental health. Harsh disciplinary approaches, including physical punishment and frequent verbal criticism, have been linked to negative emotional outcomes such as anxiety, stress, and reduced self-esteem among adolescents. Corporal punishment is linked to increased aggression, anxiety, and stress among children and adolescents.[4] Similarly, negative parent–child interactions, such as persistent scolding or criticism, can contribute to chronic stress responses and reduced self-esteem.[5]

In addition to disciplinary practices, parental behaviors such as alcohol consumption and smoking may influence the family environment and, consequently, stress levels. However, emerging evidence suggests that it is not merely the presence of such behaviors, but their impact on family dynamics, including conflict and financial strain, that plays a more significant role in determining psychological outcomes. Research suggests that environments marked by conflict, instability, and poor communication are more likely to disrupt emotional regulation and increase stress, highlighting the importance of overall family dynamics rather than isolated parental behaviors.[6]

While several studies have explored the relationship between family environment and stress, there remains a need to better understand the relative contribution of different factors, particularly in the context of developing countries where family structures and cultural norms may differ. Furthermore, limited research has examined the combined effects of disciplinary practices, parental habits, and household conflicts on stress levels within a single analytical framework.

By identifying key determinants of stress within the family context, this study seeks to provide evidence to inform interventions aimed at promoting healthier family environments and improving mental well-being.

Objectives

1. To estimate the stress levels among school-going adolescents in Agroha Block of Haryana.

2. To determine the association of family dynamics and parental behaviors with stress levels among school-going adolescents.

Materials And Methods

The Study Design and Setting:

The present cross-sectional study was conducted across all 10-government senior secondary schools located in Agroha Block of Hisar, Haryana. Agroha Block, one of the district's ten community development (C.D.) blocks, was selected for operational feasibility, as Maharaja Agrasen Medical College is situated there.

Inclusion Criteria:

School going adolescents studying in classes VIII to XII who were willing to participate and had obtained consent from their parents or guardians were included in the study.

Exclusion Criteria:

Adolescents who refused to participate, did not have parental or guardian consent, or had physical disabilities or major illnesses were excluded from the study.

Sample Size Estimation:

The sample size was estimated using a 25% prevalence of high stress [7], a 95% confidence level, and a 5% absolute error, resulting in a required sample of 288 participants. To account for potential non-response and to ensure adequate representation, the final sample size was increased to 300 adolescents.

Sampling Technique:

To achieve a total sample of 300, thirty students were selected from each school, including six students from each class (VIII–XII). Students were assigned consecutive numbers according to their roll numbers from the class lists, and three boys and three girls from

Volume 9, Issue 3; May-June 2026; Page No 250-259

each class were chosen using simple random sampling.

Study Tools and Data Collection:

The primary tool used in this cross-sectional study was a predesigned and pretested semi-structured interview schedule for collecting relevant information regarding family dynamics, parental behaviors, and stress levels among adolescents. Stress levels were assessed using the Perceived Stress Scale (PSS-10).[8] The PSS-10 consists of 10 items measured on a 5-point Likert scale ranging from 0 (never) to 4 (very often). Four positively framed items (items 4, 5, 7, and 8) were reverse scored. Participants indicated how frequently they experienced stress over the past month. The total score, ranging from 0 to 40, was obtained by summing all items, with higher scores reflecting greater perceived stress. Scores were categorized as low (0–13), moderate (14–26), and high (27–40).

Prior approval was obtained from the District Education Officer (DEO), Hisar. Written informed consent was taken from parents or guardians before initiating data collection. The investigator administered the study tools in a designated room within the school and explained the proforma in the local language. Anonymity and confidentiality of the participants were ensured throughout the study.

Data Analysis:

Data were recorded in Microsoft Excel and subsequently analyzed using SPSS version 24.0. Both bivariate and multivariate logistic analyses were applied. Bivariate logistic analysis identified factors associated with stress, and multivariate logistic regression was subsequently applied to identify independent predictors after controlling for potential confounders.

Results

Fig. 1 shows a total of 300 participants were included in the analysis. Of these, 166 (55.3%) reported low stress, while 134 (44.7%) experienced moderate to high stress.

Table 1 illustrates association of family dynamics and interpersonal relationships with stress levels among adolescents. The majority of participants lived with family members, with 263 (87.7%) sharing living space with parents, siblings, or others. Most participants reported harmonious family relationships (96.0%) and harmonious neighborhood relationships (89.7%). Additionally, 98.0% of participants reported a stable home environment. A significantly ($p < 0.0001$) higher prevalence of moderate to high stress levels was observed among adolescents who experienced physical punishment (66.3%) or were scolded (57.0%) by family members. In terms of magnitude, bivariate analysis showed that participants who were beaten had nearly four times higher odds of experiencing moderate-to-high stress (OR = 3.99; 95% CI: 2.33–6.83), while those who were scolded had about 3.7 times higher odds (OR = 3.66; 95% CI: 2.18–6.15). In contrast, factors such as sharing a living room, relationships within the family and with neighbors, and a perceived lack of safety at home were not found to be significantly associated with stress levels among school-going adolescents.

Table 2 shows association of parental habits and related factors with stress levels among school-going adolescents. Overall, 25.3% of fathers consumed alcohol, and 47.3% reported smoking. However, only a small proportion of participants reported alcohol-related (4.3%) or smoking-related (3.7%) household conflicts or financial difficulties. Adolescents from families experiencing conflict or financial difficulties due to the father's smoking showed a significantly ($p = 0.041$) higher prevalence of moderate to high stress (81.8%). Bivariate analysis further indicated that these adolescents had nearly six times higher odds of experiencing moderate-to-high stress compared to their counterparts (OR = 5.84; 95% CI: 1.23–27.7). Conversely, no significant association was found between adolescents' stress levels and the father's alcohol consumption (including its frequency), smoking habits (including frequency), or family conflict or financial difficulties arising from the father's alcohol use.

Fig. 2 shows being beaten or scolded by family members was clearly associated with significantly higher stress levels among adolescents, as indicated by confidence intervals entirely above 1. Problems related to the father's smoking, such as family conflict or financial strain, showed the strongest effect, although the wide confidence interval suggests some variability despite remaining statistically significant. In contrast, other factors were not significantly associated with stress, as their confidence intervals crossed 1.

Volume 9, Issue 3; May-June 2026; Page No 250-259

Table 3 represents Multivariate logistic regression analysis of independent predictors of stress among adolescents. The multivariate logistic regression analysis revealed that being beaten (AOR = 3.18; 95% CI: 1.74–5.81; p < 0.001) and scolded by family members (AOR = 2.79; 95% CI: 1.56–4.99; p < 0.001) were significant independent predictors of stress. Additionally, smoking-related household conflicts were significantly associated with higher stress (AOR = 3.92; 95% CI: 1.02–15.1; p = 0.046).

Discussion

In the present study, the PSS-10 scale was used to assess perceived stress levels among school-going adolescents in classes 8th to 12th, with appropriate scoring and categorization into low and moderate-to-high stress groups. In this study, nearly half of the adolescents experienced moderate to high stress, indicating a considerable burden within the study population and reinforcing the need for targeted mental health interventions. These results align with earlier research findings by Vaidya R et al. (42%).[9] However, some studies have reported lower prevalence. A study conducted by Prakash GH et al. reported a stress prevalence of around 16.6% in rural adolescents.[10] Studies by Singh MM et al.[11] and Kaur S et al.[12] reported that only 22.2% and 25.39% of adolescents, respectively, had stress. Similarly, post-COVID research among Indian adolescents found that nearly one-third experienced stress.[13]

In contrast, certain studies have documented higher levels. A study by Bansal CP et al. revealed that up to 61.5% of adolescents experience stress.[14] Another study by Pienyu K et al. observed that a majority of adolescents (86%) experienced high academic stress, particularly related to competitive examinations and parental pressure.[15] Similarly, research from Manipal also found that around 55% of adolescents experienced stress.[16] These differences likely arise from variations in tools, settings (urban vs rural), and contextual factors such as academic pressure and socioeconomic conditions. Overall, the findings of the present study fall within the mid-to-high range of recent Indian evidence, emphasizing that adolescent stress remains a significant and persistent public health concern requiring school-based interventions and improved mental health support, particularly in rural areas.

This study explored the association between family dynamics, parental behaviors, and stress levels among participants. The findings indicate that behavioral and conflict-related family factors, particularly being beaten, being scolded, and smoking-related household conflicts, were significant predictors of stress, whereas structural and lifestyle variables showed no independent association.

The results indicate that harsh disciplinary methods are closely linked to elevated stress levels, suggesting that both physical punishment and frequent scolding contribute significantly to psychological distress. Adolescents exposed to physical punishment showed markedly higher odds of experiencing stress, which is consistent with previous research demonstrating that harsh disciplinary practices are linked to adverse psychological outcomes, including anxiety, depression, and emotional dysregulation.[4] Global evidence from the World Health Organization and UNICEF highlights that exposure to violence within the home is a major determinant of poor mental health among adolescents.[1,3] Such experiences may activate prolonged stress responses, leading to long-term psychological consequences. In addition to physical punishment, verbal discipline such as scolding was also found to be a significant predictor of stress. This finding aligns with existing literature suggesting that persistent negative verbal interactions can contribute to emotional distress and reduced self-esteem.[5] Chronic exposure to criticism and hostile communication within the family may lead to heightened psychological vulnerability and impaired coping mechanisms.

Significantly, higher stress levels were observed in households where smoking led to conflict rather than the habit itself, underscoring the role of family tension in shaping mental health outcomes. While smoking itself was not independently associated with stress, the presence of conflict or financial strain related to smoking significantly increased the likelihood of stress. This observation reinforces the concept that conflict-driven family environments have a stronger impact on mental health than isolated parental habits.[5,6] Thus, it is the consequences of parental behavior, rather than the behavior itself, that appear to play a critical role in shaping stress outcomes. Findings show a strong association between disciplinary practices and stress levels, consistent with previous studies.[5]

Volume 9, Issue 3; May-June 2026; Page No 250-259

Parental lifestyle factors such as alcohol use or smoking alone were not independently linked to stress, indicating that their impact becomes relevant primarily when they disrupt family functioning. Similar findings have been reported in previous studies, where the psychosocial environment and quality of family interactions were stronger predictors of mental health than parental lifestyle behaviors alone.[2]

The study also found no significant association between living arrangements or neighborhood relationships and stress levels. These findings highlight that day-to-day family interactions play a more decisive role in adolescent stress than broader social or environmental conditions. This observation is consistent with ecological and family stress models, which highlight the dominant role of immediate interpersonal relationships in influencing psychological well-being.[5]

Despite the high prevalence of reported harmonious family relationships and stable home environments, a considerable proportion of participants experienced stress. This may be explained by the presence of subtle or normalized forms of disciplinary practices and conflicts, which may not be perceived as disrupting family harmony but still contribute to psychological stress. This underscores the importance of examining not only overt family dysfunction but also everyday interaction patterns within households.

Overall, the findings of this study emphasize the need for interventions that focus on reducing harsh disciplinary practices and minimizing family conflicts. Promoting positive parenting strategies, improving communication within families, and addressing sources of household conflict may play a crucial role in reducing stress and improving mental well-being.

Conclusion And Recommendations

The study demonstrates that adolescents' stress is primarily shaped by family interactions, particularly disciplinary approaches and household conflict, rather than parental lifestyle factors alone. Strengthening positive parenting, fostering effective communication, reducing conflict, and integrating school-based mental health initiatives are essential steps to improve adolescent well-being.

Limitations

The study is limited by its cross-sectional design, which cannot establish causality, reliance on self-reported data that may introduce bias, and a small sample size in some categories.

Acknowledgment

The authors thank the school principals for their support and permission, and express sincere gratitude to the participants and their parents for their cooperation.

Ethical Statement

Ethical approval for the study was obtained from the Institutional Ethics Committee of Maharaja Agrasen Medical College, Agroha (Hisar), Haryana.

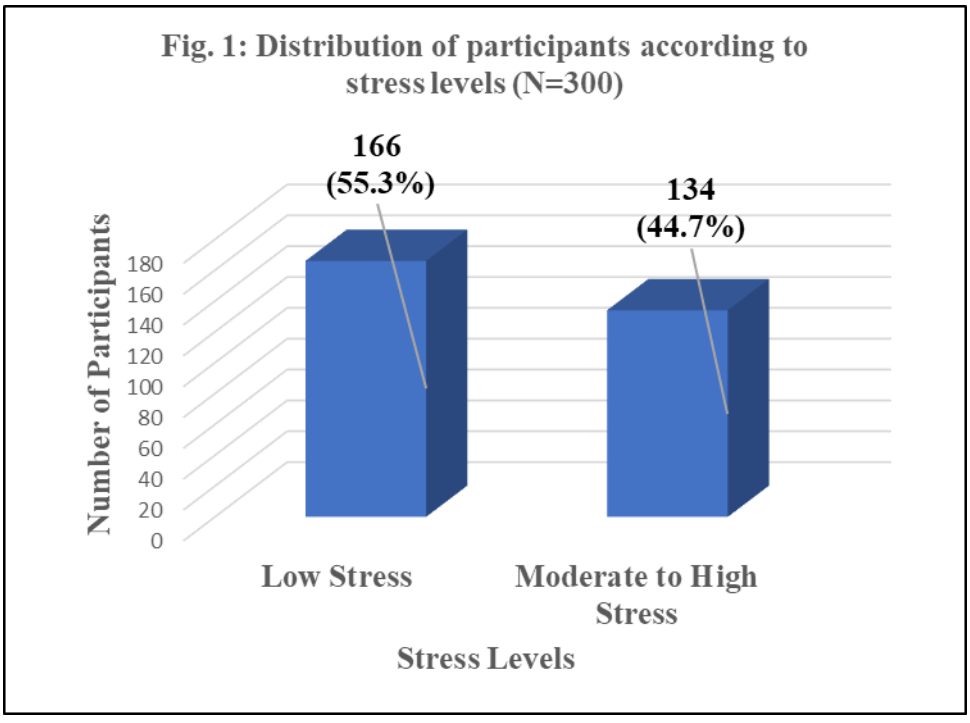
References

1. World Health Organization. Mental health of adolescents [Internet]. Geneva: WHO; 2021 [cited 2026 Feb 10]. Available from: https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health
2. Evans GW, Kim P. Childhood poverty and health: cumulative risk exposure and stress dysregulation. Psychol Sci. 2007;18(11):953–7.
3. UNICEF. The state of the world's children 2021: On my mind [Internet]. New York: UNICEF; 2021 [cited 2026 Feb 10]. Available from: https://www.unicef.org/media/114636/file/SOWC-2021-full-report-English.pdf
4. Gershoff ET. Corporal punishment by parents and associated child behaviors and experiences. Psychol Bull. 2002;128(4):539–79.
5. Repetti RL, Taylor SE, Seeman TE. Risky families: Family social environments and mental health. Psychol Bull. 2002;128(2):330–66.
6. Repetti RL. Effects of family stress on mental health. Curr Dir Psychol Sci. 2002;11(2):55-9.
7. Jayanthi P, Thirunavukarasu M. Prevalence of depression among school going adolescents in South India. International Journal of Pharmaceutical and Clinical Research. 2015 Jan;7(1):61:3.
8. Cohen S, Williamson G. Perceived stress in a probability sample of United States.

Volume 9, Issue 3; May-June 2026; Page No 250-259

Spacapan, S. and Oskamp, S. (Eds.). The Social Psychology of Health. Newbury Park, CA: Sage,1988. [cited 2020 Sep 19]. Available from: https://ogg.osu.edu/media/documents/MB%20Stream/Perceived%20Stress%20Scale.pdf

9. Vaidya R, Kumar KS, Gupta P, Stevan WM, Chandrashekar NS, Chaudhury N. Depression, anxiety and stress among Indian youth during COVID-19 lockdown. Mens Health Hum Behav. 2021 Jul-Dec;26(2):153-60.
10. Prakash GH, Kumar DS, Arun V, Hegde S, Yadav D, Gopi A. Prevalence and correlates of depression, anxiety and stress among adolescents in urban and rural Mysuru. J Family Med Prim Care. 2024 Jul 26;13(8):2979–85.
11. Singh MM, Gupta M, Grover S. Prevalence & factors associated with stress among school-going adolescents. Int J Community Med Public Health. 2017;4(1):82–6.
12. Kaur S, Kapil U, Singh P. Pattern of stress among school students in urban Delhi. Indian J Pediatr. 2018;85(3):204–8.
13. Nandhini N, Aswini RV, Sridevi AN. Prevalence of stress, anxiety and depression among school-going adolescents in post-COVID era. Indian J Psychol Med. 2023;19(4):355–60.
14. Bansal CP, Bhave SY. Stress in adolescents and its management. Indian J Pediatr. 2006;73(6):491–6.
15. Pienyu K, Margaret B, D'Souza A. Academic stress, parental pressure and anxiety among adolescents. J Educ Health Promot. 2024 Dec;13(1):474.
16. Kumar S, Akoijam BS. Depression, anxiety and stress among higher secondary school students of Imphal, Manipur. Indian J Community Med. 2017;42(2):94–6.



Volume 9, Issue 3; May-June 2026; Page No 250-259

Table 1: Association of family dynamics and interpersonal relationships with stress levels among school-going adolescents (N=300)

Parameters	N	Stress Levels		$\chi 2$	p	Odds Ratio	95% Confidence Interval
		Low Stress N (%)	Moderate+ High Stress N (%)				
Living room shared with							
None	37	24 (64.9)	13 (35.1)	1.551 (df=1)	0.213	1.57	0.75 – 3.29
Parents + Siblings + others	263	142 (54.0)	121 (46.0)				
Beaten by family members							
Yes	104	35 (33.7)	69 (66.3)	30.271 (df=1)	**<0.0001**	**3.99**	**2.33 – 6.83**
No	196	131 (66.8)	65 (33.2)				
Scolded by family members							
Yes	179	77 (43.0)	102 (57.0)	27.239 (df=1)	**<0.0001**	**3.66**	**2.18 – 6.15**
No	121	89 (73.6)	32 (26.4)				
Relationship between family members							
Harmonious	288	161 (55.9)	127 (44.1)	0.945 (df=1)	0.331	1.77	0.53 – 5.80
Inharmonious	12	05 (41.7)	07 (58.3)				
Relationship with neighborhoods							
Harmonious	269	147 (54.6)	122 (45.4)	0.496 (df=1)	0.481	0.76	0.36 – 1.60
Inharmonious	31	19 (61.3)	12 (38.7)				
Had a stable life to feel safe at home*							
Yes	294	163 (55.4)	131 (44.6)	-	1.000	1.25	0.25 – 6.20

Volume 9, Issue 3; May-June 2026; Page No 250-259

No	06	03 (50.0)	03 (30.0)				
Total	**300**	**166**	**134**				

Note: * Fisher's exact test has been applied to calculate p value

Table 2: Association of parental habits and related factors with stress levels among school-going adolescents (N=300)

Parameters	**N**	**Stress Levels**		**χ2**	**p**	**Odds Ratio**	**95% Confidence Interval**
		Low Stress N (%)	**Moderate+ High Stress N (%)**				
Alcohol consumption by father							
Yes	76	37 (48.7)	39 (51.3)	1.821 (df=1)	0.177	1.43	0.85 – 2.40
No + Father not alive	224	129 (57.6)	95 (42.4)				
Frequency of alcohol consumption by father*							
Every day[a]	20	11 (55.0)	09 (45.0)	3.252 (df=2)	0.197	1.02	0.41 – 2.53
Occasionally+ Rare[b]	56	25 (44.6)	31 (55.4)				
Father did not consume alcohol + Father not alive[c]	224	130 (58.0)	94 (42.0)				
Altercations/financial constraints due to alcohol consumption by father*							
Yes[a]	13	04 (30.8)	09 (69.2)	4.361 (df=2)	0.113	2.916	0.88 – 9.69
No[b]	63	32 (50.8)	31 (49.2)				
Father did not consume alcohol + Father not alive[c]	224	130 (58.0)	94 (42.0)				

Volume 9, Issue 3; May-June 2026; Page No 250-259

Smoking by father							
Yes	142	76 (53.5)	66 (46.5)	0.358 (df=1)	0.550	1.16	0.73 – 1.84
No + Father not alive	158	90 (57.0)	68 (43.0)				
Frequency of smoking by father*							
Every day[a]	93	46 (49.5)	47 (50.5)	2.155 (df=2)	0.341	1.41	0.86 – 2.30
Occasionally+ Rare[b]	49	30 (61.2)	19 (38.8)				
Father did not smoke + Father not alive[c]	158	90 (57.0)	68 (43.0)				
Altercations/financial constraints due to smoking by father*							
Yes[a]	11	02 (18.2)	09 (81.8)	6.383 (df=2)	**0.041**	**5.84**	**1.23 – 27.7**
No[b]	131	74 (56.5)	57 (43.5)				
Father did not smoke + Father not alive[c]	158	90 (57.0)	68 (43.0)				
Total	**300**	**166**	**134**				

Note: * For calculation of Odds ratio, b & c have been merged

Volume 9, Issue 3; May-June 2026; Page No 250-259

Fig. 2: Forest plot showing odds ratios and 95% confidence intervals for factors associated with stress

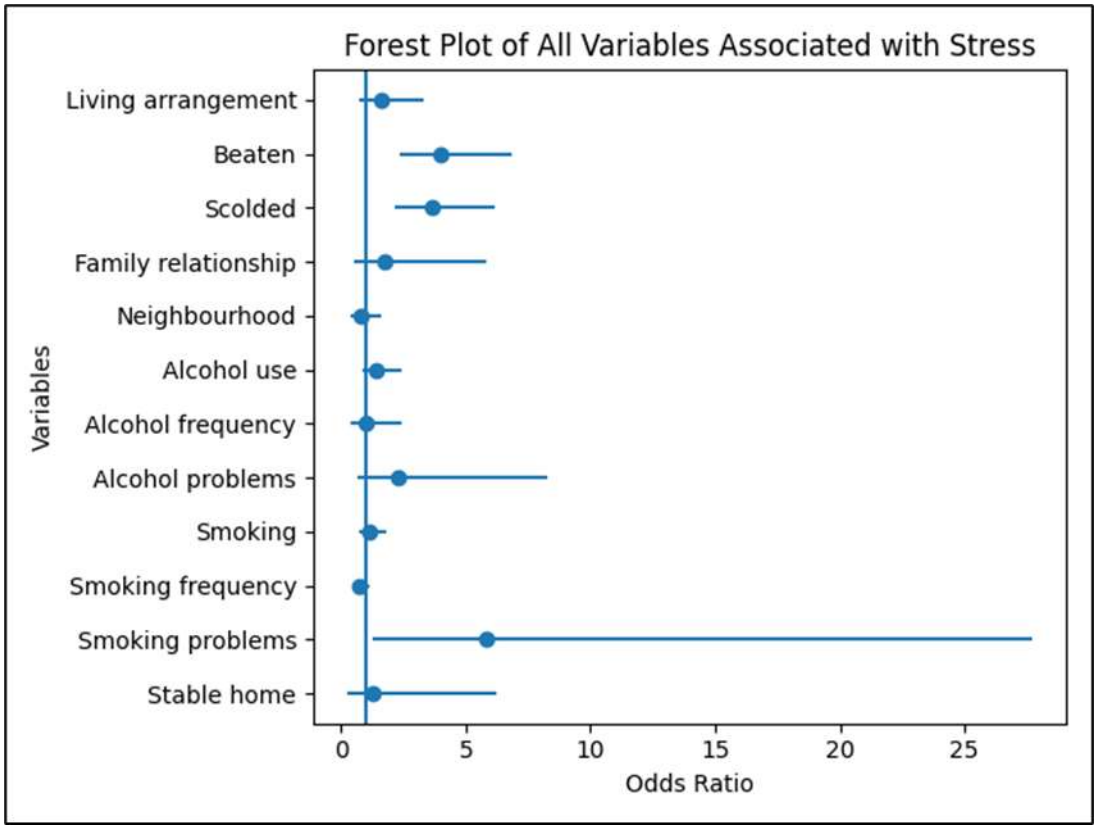


Table 3: Multivariate logistic regression analysis of independent predictors of stress among adolescents (N = 300)

Parameters	p	Adjusted Odds Ratio	95% Confidence Interval
1. Beaten by family members			
• Yes	**<0.0001***	**3.18**	**1.74 – 5.81**
• No (Ref.)		-	-
2. Scolded by family members			
• Yes	**<0.0001***	**2.79**	**1.56 – 4.99**
• No (Ref.)		-	-
3. Altercations/financial constraints due to smoking by father			
• Yes	**0.046***	**3.92**	**1.02 – 15.10**
• No + Father did not smoke + Father not alive (Ref.)		-	-

Note: * Indicates significant variable (p <0.05)

Volume 9, Issue 3; May-June 2026; Page No 250-259