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From Screens to Smoke: The Hidden Link Between Social Media, Peer Influence, And Tobacco Use

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Abstract
This study explores the relative impact of anti-social media exposure and peer pressure on tobacco use severity among tobacco-using adolescents in Andhra Pradesh, India. A sample of 760 adolescents aged 16–19 years (561 males, 199 females) was assessed using validated self-report measures, including the Tobacco Use Severity Scale (TUSS), Peer Pressure Scale (PPS), and the Content-Based Media Exposure Scale (C-ME2). Data analysis using chi-square tests, t-tests, Pearson correlation, and hierarchical multiple regression revealed that while gender and education level had initial effects on tobacco use severity, these were diminished when media exposure was accounted for. Anti-social content exposure emerged as the strongest predictor of tobacco use severity ($\beta = .407$, $p < .001$), followed by peer pressure ($\beta = .281$, $p < .001$), explaining 48.4% of the variance. Males and undergraduate students reported significantly higher tobacco use severity and media exposure. The findings highlight the escalating role of unregulated digital content and peer dynamics in shaping adolescent tobacco use. The study emphasizes the need for targeted digital literacy interventions and policy regulations to address the growing influence of media on adolescent risk behaviors.

Keywords: *adolescent tobacco use, peer pressure, anti-social media exposure, smoking severity, gender differences, digital behavior, India*

INTRODUCTION

Adolescence: A Vital Developmental Stage

Adolescence is a crucial period of development marked by profound physical, psychological, and social changes. The World Health Organization (WHO) defines adolescents as individuals between 10 and 19 years of age (WHO, 2022). The American Academy of Pediatrics (AAP, n.d.) broadens this range, categorizing adolescence from 11 to 21 years and further dividing it into early (11–14 years), middle (15–17 years), and late (18–21 years) stages.

Adolescents represent a substantial demographic in India. As reported by UNICEF (2021), the country has nearly 253 million individuals in this age group, accounting for about 21% of its overall population. Adolescents play a vital role in a nation's progress, as they form the future workforce, innovators, and leaders. Investing in their health, education, and skill development is essential for achieving sustainable development goals. Empowering adolescents fosters economic growth and social transformation, ensuring a more productive and progressive society (WHO, 2022).

Tobacco use/smoking in India

The Global Youth Tobacco Survey (GYTS-4) conducted in 2019 offers valuable insights into adolescent tobacco use in India. A study focusing on students aged 13 to 15 reported an overall tobacco use prevalence of 8.5%, with boys (9.6%) showing a higher rate than girls (7.4%) (MoHFW, 2019). While adolescent tobacco use has declined by 42% over the past decade, secondhand smoke exposure remains a challenge, with 29.5% of students reporting exposure in public places (MoHFW, 2019). To combat this issue, the Ministry of Health and Family Welfare (MoHFW) has implemented the National Tobacco Control Programme (NTCP), focusing on awareness campaigns, tobacco regulation enforcement, and cessation support (MoHFW, 2021).

The World Health Organization South-East Asia Regional Office (WHO-SEARO) stresses the importance of youth-centered tobacco control efforts, including school-based initiatives, public awareness drives, and strict enforcement of tobacco-related laws to curb adolescent tobacco use (WHO, 2021). The GYTS findings are instrumental in shaping both national and regional policies (WHO, 2021). Studies conducted in northeastern India indicate alarmingly high rates of both smoking and smokeless tobacco use among adolescents, highlighting the necessity for targeted prevention strategies (Sinha et al., 2003).

In Andhra Pradesh, tobacco use among students aged 13 to 15 is relatively low, with a prevalence rate of 2.6%, ranking the state 33rd among 37 states and Union Territories in adolescent tobacco consumption (GYTS, 2019). While certain states report significantly higher tobacco use, traditional practices such as "chhutta"—a rough tobacco roll smoked with the burning end inside the mouth—continue to be common in coastal Andhra Pradesh, reflecting the role of cultural influences in shaping regional tobacco use behaviors (Chadda & Sengupta, 2002). These findings emphasize the need for localized interventions that address both cultural norms and broader public health concerns.

Social media exposure

Adolescents today have extensive access to social media through smartphones and digital devices, often with minimal parental oversight. Platforms like Instagram, TikTok, and Snapchat showcase idealized lifestyles, fostering social comparison, self-doubt, and exposure to potentially harmful content. Unregulated digital access can contribute to behaviors such as cyberbullying, social isolation, and the adoption of unhealthy habits. Without proper guidance, adolescents may struggle to engage with social media responsibly, affecting their emotional and social well-being. Research highlights the importance of moderation, digital literacy, and privacy regulations to mitigate risks like social media addiction, particularly in academic environments (Dar & Nagarath, 2023).

Excessive smartphone usage, especially among late adolescents and undergraduates, has been linked to a heightened risk of addiction, including Internet Gaming Disorder (IGD) (Singampalli, 2024). Additionally, social media engagement is a known factor in adolescent tobacco use. Passive exposure increases the likelihood of initiation, while active participation—such as sharing tobacco-related content—encourages continued use. Notably, forwarding tobacco-related content to others is strongly associated with increased tobacco consumption, emphasizing the need for stricter digital content regulations and awareness initiatives (Cavazos-Rehg et al., 2021).

Peer Pressure

Peer pressure plays a significant role in adolescence as young individuals seek approval and a sense of belonging within their social circles. It can arise from friendships, school settings, and social media, often compelling adolescents to conform to group expectations or engage in risky behaviors such as substance use. The need for social validation makes them highly susceptible to peer influence, which is further reinforced by social media's portrayal of idealized lifestyles. Platforms like Instagram and TikTok encourage social comparison, increasing the pressure to meet unrealistic societal standards.

Peer pressure and social influence have a profound impact on adolescent behavior, affecting academic performance, social relationships, and participation in both constructive and harmful activities. Singh and Chandel (2022) highlight the importance of understanding these influences to develop effective intervention strategies. Additionally, Kumar et al. (2021) found that peer pressure was a major factor in substance use among school-going adolescents in Southern India, although strong parental support helped mitigate its negative effects.

The Need for the Study

Adolescent tobacco use remains a significant public health concern, with social influences playing a crucial role in smoking initiation and severity. Among these influences, social media exposure and peer pressure have emerged as key predictors of tobacco use. Social media platforms frequently depict substance use as glamorous, rebellious, or socially acceptable, shaping adolescents' perceptions and increasing their likelihood of experimentation. Exposure to pro-tobacco content, including influencer endorsements and user-generated posts, normalizes smoking behaviors, making it more appealing to impressionable youth. Simultaneously, peer pressure reinforces these behaviors by encouraging conformity to group norms, particularly in social settings where tobacco use is perceived as a means of social bonding. The combined effect of these factors can escalate smoking

severity, leading to habitual use and long-term dependency. Despite growing concerns, limited research has explored the relative impact of social media exposure and peer pressure on adolescent tobacco use severity. Understanding these influences is essential for developing targeted interventions, shaping public health policies, and implementing digital content regulations to curb adolescent smoking rates effectively.

Objectives

1. To examine the association between gender and education level with peer pressure and social media influence.
2. To compare differences in tobacco use severity, peer pressure, and anti-social content exposure across gender and education levels.
3. To analyze the relationships between peer pressure, anti-social content exposure, and tobacco use severity.
4. To determine the predictive strength of peer pressure and anti-social content exposure on tobacco use severity.

Hypotheses

- H1: There is a significant association between gender and education level with peer pressure and social media influence.
- H2: Males will report significantly higher tobacco use severity, peer pressure, and anti-social content exposure compared to females.
- H3: Undergraduate students will report significantly higher tobacco use severity, peer pressure, and anti-social content exposure compared to intermediate students.
- H4: Peer pressure and anti-social content exposure will show a significant positive correlation with tobacco use severity.
- H5: Anti-social content exposure will be the strongest predictor of tobacco use severity, even after controlling for demographic variables.

Participants

The study comprised a total sample of 760 late adolescents (aged 16-19 years) who reported smoking or using tobacco products. Among them, 561 were males and 199 were females. In terms of educational background, 277 participants were intermediate students, while 483 were undergraduate students. The participants were recruited from various schools and colleges across Andhra Pradesh, ensuring a diverse representation of adolescents from different academic institutions. The sample selection focused exclusively on tobacco-using adolescents to examine the influence of peer pressure and social media exposure on smoking severity.

Measures

- ***Demographic Information Sheet***

Age, Gender, Social Media Influence, Peer Influence.

- ***Tobacco Use Severity Scale (TUSS)***

A self-developed scale was used to assess tobacco use severity based on three key behavioral indicators: (1) frequency of tobacco use (2) quantity consumed per day, and (3) No. of times in a day. Each item was rated on a four-point scale (1-4), and the total severity score ranged from 3 to 12, with higher scores indicating greater tobacco use severity. The measure was adapted from prior research on substance use assessments and follows frameworks used in the Global Youth Tobacco Survey (GYTS, WHO, 2019). Face and content validity were ensured through expert review and alignment with existing literature on adolescent tobacco use.

- ***Content-Based Media Exposure Scale (C-ME2)***

Developed by Den Hamer, Konijn, and Bushman (2017), the C-ME2 assesses exposure to antisocial and prosocial media content. It consists of 22 items rated on a 5-point Likert scale (Never (1) to Very Often (5)). The two subscales—Antisocial Media Exposure (α = 0.89) and Prosocial Media Exposure (α = 0.88)—demonstrate high reliability. Confirmatory Factor Analysis (CFA) supports its two-factor structure, validating its use with adolescents and young adults.

- ***Peer Pressure Scale (PPS)***

Developed by Saini and Singh (2016), the PPS measures peer pressure in adolescents (16–19 years) using 25 items on a 5-point Likert scale (Strongly Disagree (5) to Strongly Agree (1)). Higher scores indicate greater peer pressure. The scale has strong reliability ($\alpha = 0.79$) and test-retest stability ($r = 0.33$, $p < .01$). It has been linked to risky behaviors, including smoking, drinking, and gambling, making it a relevant tool for assessing adolescent peer influence.

Data analysis

Used IBM SPSS 27. Chi-square tests examined associations between categorical variables, while t-tests and ANOVA assessed group differences in tobacco use severity, peer pressure, and media exposure. Pearson correlation analyzed relationships between key variables, and hierarchical multiple regression identified predictors of tobacco use severity.

Procedure

This cross-sectional study utilized an offline pen-and-paper survey for data collection. A screening question was used to confirm tobacco use, allowing only adolescents who reported smoking or using tobacco products to participate, aligning with purposive sampling. Necessary approvals were secured from relevant authorities, and ethical guidelines were strictly followed. Informed consent was obtained from all participants, ensuring voluntary participation and confidentiality.

RESULTS AND DISCUSSION

Table 1: Chi-Square Analysis of Gender and Education with Peer and Social Media Influence

VARIABLE	CATEGORY	PEER INFLUENCE		SOCIAL MEDIA INFLUENCE	
		NO	YES	NO	YES
Gender	Male (N = 561)	62 (68.9%)	499 (74.5%)	82 (68.3%)	479 (74.8%)
	Female (N = 199)	28 (31.1%)	171 (25.5%)	38 (31.7%)	161 (25.2%)
	Total	90 (100.0%)	670 (100.0%)	120 (100.0%)	640 (100.0%)
	Chi-Square (χ^2)	1.282		2.216	
	p-value	.257		.137	
	Cramér's V	—		—	
Education	Inter (11th/12th) (N = 277)	48 (53.3%)	229 (34.2%)	76 (63.3%)	201 (31.4%)
	UG (N = 483)	42 (46.7%)	441 (65.8%)	44 (36.7%)	439 (68.6%)
	Total	90 (100.0%)	670 (100.0%)	120 (100.0%)	640 (100.0%)
	Chi-Square (χ^2)	**12.567*** **		**44.470*** **	
	p-value	< .001		< .001	
	Cramér's V	.129		.242	

*Significant value: ***p<0.001, **p<0.01, *p<0.05*

Table 1, chi-square test of independence revealed no significant association between gender and peer influence, $\chi^2(1, N = 760) = 1.282$, $p = .257$, or gender and social media influence, $\chi^2(1, N = 760) = 2.216$, $p = .137$, suggesting that male and female adolescents are equally likely to be influenced by peers or social media to use tobacco products. In contrast, education level was significantly associated with both peer influence, $\chi^2(1, N = 760) = 12.567$, $p < .001$, $V = .129$ (small effect), and social media influence, $\chi^2(1, N = 760) = 44.470$, $p < .001$, $V = .242$ (moderate effect). undergraduate students were more likely than intermediate students to report peer and social media influence, the effect size for peer influence was small, while the effect size for social media influence was moderate.

Table 2: Independent Samples t-Test Comparing Gender and Education Levels on Tobacco Use Severity, Peer Pressure, and Anti-Social Content Exposure

DV	Group	N	M	SD	t	df	p	MD	95% CI	d
TUS	Male	561	**6.86**	1.85	3.69	286.51	**< .001***	0.69	[0.32, 1.05]	0.34
	Female	199	6.18	2.39						
PP	Male	561	103.12	18.71	1.43	302.15	.155	2.52	[-0.96, 6.01]	-
	Female	199	100.60	22.34						
ASCE	Male	561	51.75	11.12	1.17	296.29	.244	1.26	[-0.86, 3.38]	-
	Female	199	50.49	13.66						
TUS	Inter (11^{th}/12^{th})	277	6.44	1.92	-2.55	758	**.011***	-0.39	[-0.69, 0.09]	-0.19
	UG	483	**6.82**	2.07						
PP	Inter (11^{th}/12^{th})	277	99.20	18.06	-3.47	758	**.001****	-5.13	[-8.03, 2.23]	-0.26
	UG	483	**104.33**	20.42						
ASCE	Inter (11^{th}/12^{th})	277	49.08	11.22	-4.17	758	**< .001*****	-3.68	[-5.42, 1.95]	-0.31
	UG	483	**52.76**	11.99						

*Significant value: ***p<0.001, **p<0.01, *p<0.05*

Note. DV = Dependent Variable, TUS = Tobacco Use Severity, PP = Peer Pressure, ASCE = Anti-Social Content Exposure, M = Mean, *SD* = Standard Deviation, *MD* = Mean Difference, *CI* = Confidence Interval d = Cohen's d. Welch's t-test was used for gender comparisons due to unequal variances. Cohen's *d* is reported only for significant results

Table 2, Independent samples t-tests were conducted to examine differences in tobacco use severity, peer pressure, and anti-social content exposure across gender and education levels.

For gender differences, males (M = 6.86, SD = 1.85) reported significantly higher tobacco use severity than females (M = 6.18, SD = 2.39), t(286.51) = 3.69, p < .001, d = 0.34. However, no significant differences were found in peer pressure, t(302.15) = 1.43, p = .155, or anti-social content exposure, t(296.29) = 1.17, p = .244, between males and females.

For education level differences, undergraduate students (M = 6.82, SD = 2.07) had significantly higher tobacco use severity than intermediate-level students (M = 6.44, SD = 1.92), t(758) = -2.55, p = .011, d = -0.19. Undergraduate students also scored significantly higher on peer pressure (M = 104.33, SD = 20.42) compared to intermediate students (M = 99.20, SD = 18.06), t(758) = -3.47, p = .001, d = -0.26, and anti-social content exposure (M = 52.76, SD = 11.99) than intermediate students (M = 49.08, SD = 11.22), t(758) = -4.17, p < .001, d = -0.31.

Table 3: Correlations Between Peer Pressure, Anti-Social Content Exposure, and Tobacco Use Severity

	Peer Pressure	Anti-Social Content Exposure	Tobacco Use Severity
Peer Pressure	-		
Anti-Social Content Exposure	**.907****	-	
Tobacco Use Severity	**.663****	**.674****	-

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3, Pearson correlation analysis was conducted to examine the relationships between peer pressure (PP), anti-social content exposure (C-ME2), and tobacco use severity (TUS) among adolescents. The results indicated a strong positive correlation between peer pressure and anti-social content exposure, r= .907, p < .001. Similarly,

tobacco use severity was significantly and positively correlated with both peer pressure, r= .663, p < .001, and anti-social content exposure, r= .674, p < .001, indicating that higher levels of peer pressure and exposure to anti-social media content are associated with greater tobacco use severity.

Table 4: Hierarchical Multiple Regression Predicting Tobacco Use Severity

Model	Predictor	B	SE B	β	t	p	R^2	ΔR^2	F Change
1	Constant	6.762	0.287	–	23.560	<.001	.045	–	17.790***
	Gender	-0.931	0.173	-0.202	-5.372	<.001			
	Education	0.670	0.158	0.159	4.233	<.001			
2	Constant	1.368	0.306	–	4.463	<.001	.470	**.425**	605.116***
	Gender	-0.600	0.130	-0.130	-4.617	<.001			
	Education	0.153	0.120	0.036	1.273	.203			
	Anti-Social Content Exposure (SME)	0.113	0.005	0.663	24.599	<.001			
3	Constant	0.622	0.344	–	1.806	.071	.484	.014	20.560***
	Gender	-0.585	0.128	-0.127	-4.558	<.001			
	Education	0.161	0.118	0.038	1.358	.175			
	Anti-Social Content Exposure (SME)	0.070	0.011	0.407	6.548	<.001			
	Peer Pressure (PP)	0.029	0.006	0.281	4.534	<.001			

*Significant value: ***p<0.001, **p<0.01, *p<0.05*

Note. Dependent variable = Tobacco Use Severity. R^2 = variance explained; ΔR^2 = change in variance explained. A hierarchical multiple regression analysis was conducted to examine the influence of anti-social content exposure (SME) and peer pressure (PP) on tobacco use severity (TUS), while controlling for gender and education. In Model 1, gender and education were entered as confounders and accounted for 4.5% of the variance in TUS (R^2 = .045, p < .001). Gender was a significant predictor (β = -0.202, p < .001), indicating that males reported higher tobacco use severity than females, while education also had a significant but weaker effect (β = 0.159, p < .001), with UG students scoring higher than Inter students.

In Model 2, SME was added and significantly improved the model fit, explaining an additional 42.5% variance in TUS (ΔR^2 = .425, p < .001). SME emerged as the strongest predictor (β = 0.663, p < .001), suggesting that adolescents exposed to higher levels of anti-social content reported significantly greater tobacco use severity. Notably, the effect of education became non-significant (p = .203), indicating that SME accounted for its previous influence.

In Model 3, PP was included and explained an additional 1.4% variance in TUS (ΔR^2 = .014, p < .001). While PP was a significant predictor (β = 0.281, p < .001), its effect was substantially weaker than SME (β = 0.407, p < .001). Gender remained significant (β = -0.127, p < .001), while education remained non-significant (p = .175).

DISCUSSION

Table 1, In India, undergraduate students are late adolescents and experience greater peer and social media influence due to increased digital exposure, autonomy, and socialization pressures. College environments, global media influence, and identity exploration make them more susceptible to substance-related content, unlike intermediate students who remain under stricter parental supervision. According to Sharma et al., (2017) Peer pressure was the most commonly reported factor in initiating tobacco use among adolescents. A study by Adu et al., (2022) found that social media normalization reinforced impulsive smoking behaviors among Nigerian youth, increasing their likelihood of waterpipe tobacco use.

Table 2, Males reported significantly higher tobacco use severity than females, while no gender differences were observed in peer pressure or anti-social content exposure. In India, societal norms often make tobacco use more acceptable for males, exposing them to greater peer influence and risk-taking behaviors. Cultural restrictions on female substance use may contribute to lower reported tobacco use among females. Singh and Ladusingh (2014) found that tobacco use was higher among males, with prevalence increasing with age.

Undergraduate students exhibited higher tobacco use severity, peer pressure, and anti-social content exposure compared to intermediate-level students. Greater autonomy, increased social exposure, and academic stress in college settings may contribute to higher tobacco use. The diverse social environment fosters susceptibility to peer influence, while greater access to digital media normalizes tobacco use. Ukwayi et al. (2024) reported that peer pressure significantly contributes to tobacco use among undergraduates. Hebert et al. (2017) and Cavazos-Regh et al. (2021) further highlight the role of social media exposure in influencing adolescent tobacco use behaviors, particularly through engagement with pro-tobacco content and electronic nicotine delivery systems (ENDS).

Table 3, Results revealed a strong positive correlation between peer pressure and anti-social content exposure, with tobacco use severity also significantly linked to both factors. In India, social media often portrays risky behaviors, including substance use, as trendy or rebellious, shaping adolescents' social norms. Participation in online groups that share anti-social content further reinforces peer dynamics, making adolescents more susceptible to peer pressure and increasing the likelihood of tobacco use.

A strong positive correlation exists between peer pressure and anti-social content exposure, as adolescents' susceptibility to peer influence significantly shapes their engagement with various forms of content (Slater & Henry, 2013). Leshargie et al. (2019) suggest that university students are more likely to engage in smoking, with peer pressure playing a critical role. Additionally, tobacco use severity showed significant positive correlations with anti-social content exposure, aligning with findings that exposure to tobacco-related content on social media significantly increases the likelihood of tobacco use (Donaldson et al., 2022).

Table 4, hierarchical multiple regression analysis demonstrated that gender and education initially had a small but significant influence on tobacco use severity, with males and undergraduate students reporting higher levels. However, when anti-social content exposure was added, it became the strongest predictor, substantially increasing the explained variance and rendering the effect of education non-significant. This suggests that exposure to anti-social content plays a critical role in tobacco use severity, overshadowing the influence of educational level. Engaging actively with tobacco-related content on social media was linked to a greater risk of starting and continuing tobacco use. Specifically, sharing such content with others was associated with an increased likelihood of escalating tobacco consumption (Patricia Cavazos-Rehg et al., 2021). When peer pressure was included, it also contributed significantly but had a weaker effect compared to anti-social content exposure. Gender remained a significant factor, while education continued to show no significant impact.

CONCLUSION

The findings highlight the significant role of anti-social media exposure and peer pressure in influencing tobacco use severity among adolescents. Anti-social media exposure emerged as the most influential predictor, outweighing the effect of educational background, while peer pressure also played a role, though its impact was comparatively smaller. Gender differences were evident, with males reporting higher tobacco use severity, whereas education lost its significance when media exposure was considered. The results emphasize the need for targeted interventions addressing digital media influence and peer dynamics to mitigate adolescent tobacco use.

Limitations and Directions for Future Research

This study offers valuable insights into the impact of peer pressure and social media exposure on adolescent tobacco use but has limitations. The cross-sectional design limits causal interpretations, emphasizing the need for longitudinal research. Self-reported data may be affected by social desirability bias, potentially compromising response accuracy. Moreover, the study did not account for other relevant sociocultural and psychological factors like mental health and school environment. Future studies should explore these factors, adopt longitudinal or experimental designs, and examine interventions to mitigate social media's influence on peer dynamics and tobacco use.

REFERENCES

1. UNICEF. (2021). Adolescent development and participation in India. UNICEF. https://www.unicef.org/india/what-we-do/adolescent-development-participation

2. World Health Organization (WHO). (2022). Adolescent health and development in India. WHO. https://www.who.int/india/health-topics/adolescent-health-and-development
3. American Academy of Pediatrics. (n.d.). Stages of adolescence. HealthyChildren.org. Retrieved February 4, 2025, from https://www.healthychildren.org/English/ages-stages/teen/Pages/Stages-of-Adolescence.aspx
4. Ministry of Health and Family Welfare (MoHFW). (2019). Global Youth Tobacco Survey (GYTS-4), India, 2019: National Fact Sheet. National Tobacco Control Programme. Retrieved from https://ntcp.mohfw.gov.in/assets/document/National_Fact_Sheet_of_fourth_round_of_Global_Youth_Tobacco_Survey_GYTS-4.pdf
5. Ministry of Health and Family Welfare (MoHFW). (2021). National Tobacco Control Programme (NTCP) – Overview and Initiatives. Press Information Bureau, Government of India. Retrieved from https://pib.gov.in/PressReleasePage.aspx?PRID=1744555
6. World Health Organization (WHO). (2021). Global Youth Tobacco Survey (GYTS) – WHO South-East Asia Regional Office (SEARO). Retrieved from https://www.who.int/teams/noncommunicable-diseases/surveillance/systems-tools/global-youth-tobacco-survey
7. Global Youth Tobacco Survey. (2019). Global Youth Tobacco Survey (GYTS) India Report 2019. Ministry of Health and Family Welfare, Government of India. Retrieved from https://timesofindia.indiatimes.com/city/visakhapatnam/andhra-pradesh-in-bottom-5-on-list-of-tobacco-use-in-students-aged-13-15/articleshow/87173775.cms
8. Sinha DN, Gupta PC, Pednekar MS. Tobacco use among students in the eight North-eastern states of India. Indian J Cancer. 2003 Apr-Jun;40(2):43-59. PMID: 14716119.
9. Chadda, R. K., & Sengupta, S. N. (2002). Tobacco use by Indian adolescents. Tobacco Induced Diseases, 1(1), 8. https://doi.org/10.1186/1617-9625-1-8
10. Dar, Showkat & NAGRATH, DOLLY. (2023). THE IMPACT THAT SOCIAL MEDIA HAS HAD ON TODAY'S GENERATION OF INDIAN YOUTH: AN ANALYTICAL STUDY. MORFAI JOURNAL. 3. 166-176. 10.54443/morfai.v3i2.309.
11. Singampalli, H. S. (2024). Assessing the Impact of Smartphone Addiction on Internet Gaming Disorder in Adolescents. International Journal of Indian Psychology, 12(3), 1473-1482. DIP:18.01.144.20241203, DOI:10.25215/1203.144
12. Cavazos-Rehg, P., Li, X., Kasson, E., Kaiser, N., Borodovsky, J. T., Grucza, R., Chen, L. S., & Bierut, L. J. (2021). Exploring How Social Media Exposure and Interactions Are Associated With ENDS and Tobacco Use in Adolescents From the PATH Study. Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco, 23(3), 487–494. https://doi.org/10.1093/ntr/ntaa113
13. Singh, T.K. & Chandel, P. K. (2022). Peer Pressure and Peer Influence in Children and Adolescence. International Journal of Indian Psychology, 10(3),1791-1801. DIP:18.01.186.20221003, DOI:10.25215/1003.186
14. Kumar, S. R. P., Chaudhary, D. G., Udayakumar, S., Sujatha, B., Sengodan, R., & Kumar, S. (2021). A Cross-Sectional Study on Peer Pressure on Adolescents of School Going Age in Southern India. Journal of Pharmaceutical Research International, 33(56A), 259–265. https://doi.org/10.9734/jpri/2021/v33i56A33909
15. Den Hamer, A. H., Konijn, E. A., & Bushman, B. J. (2017). Measuring Exposure to Media with Antisocial and Prosocial Content: An Extended Version of the Content-based Media Exposure Scale (C-ME2). Communication Methods and Measures, 11(4), 289–299. https://doi.org/10.1080/19312458.2017.1375089
16. Saini, S. and Singh, S. Peer Pressure Questionnaire-Revised. Educational Research, 2016. https://doi.org/10.13140/RG.2.2.10861.79842.
17. Sharma, Preeti; Wadhwan, Vijay; Aggarwal, Pooja; Sharma, Neeraj. Adolescent Tobacco Menace: Attitudes, Norms, and Parental Influence. Indian Journal of Dental Research 28(4):p 465-469, Jul–Aug 2017. | DOI: 10.4103/ijdr.IJDR_31_16
18. Adu, A.O., Ismail, N. & Noor, S.M. Motivators of impulsivity to smoke waterpipe tobacco among Nigerian youth who smoke waterpipe tobacco: the moderating role of social media normalisation of waterpipe tobacco. BMC Public Health 22, 1057 (2022). https://doi.org/10.1186/s12889-022-13386-4

19. Singh A, Ladusingh L (2014) Prevalence and Determinants of Tobacco Use in India: Evidence from Recent Global Adult Tobacco Survey Data. PLOS ONE 9(12): e114073. https://doi.org/10.1371/journal.pone.0114073
20. Ukwayi, Joseph & Ojong, Felix & Unwanede, Chibuzo. (2024). Peer Pressure and Tobacco Smoking among Undergraduate Students of the University of Calabar, Cross River State. Higher Education Studies. 2. 92-92. 10.5539/hes.v2n3p92.
21. Hébert, E. T., Case, K. R., Kelder, S. H., Delk, J., Perry, C. L., & Harrell, M. B. (2017). Exposure and Engagement With Tobacco- and E-Cigarette-Related Social Media. The Journal of adolescent health : official publication of the Society for Adolescent Medicine, 61(3), 371–377. https://doi.org/10.1016/j.jadohealth.2017.04.003
22. Patricia Cavazos-Rehg, Xiao Li, Erin Kasson, Nina Kaiser, Jacob T Borodovsky, Richard Grucza, Li-Shiun Chen, Laura J Bierut, Exploring How Social Media Exposure and Interactions Are Associated With ENDS and Tobacco Use in Adolescents From the PATH Study, Nicotine & Tobacco Research, Volume 23, Issue 3, March 2021, Pages 487–494, https://doi.org/10.1093/ntr/ntaa113
23. Slater, M. D., & Henry, K. L. (2013). Prospective Influence of Music-Related Media Exposure on Adolescent Substance-Use Initiation: A Peer Group Mediation Model. Journal of Health Communication, 18(3), 291–305. https://doi.org/10.1080/10810730.2012.727959
24. Leshargie, C. T., Alebel, A., Kibret, G. D., Birhanu, M. Y., Mulugeta, H., Malloy, P., Wagnew, F., Ewunetie, A. A., Ketema, D. B., Aderaw, A., Assemie, M. A., Kassa, G. M., Petrucka, P., & Arora, A. (2019). The impact of peer pressure on cigarette smoking among high school and university students in Ethiopia: A systemic review and meta-analysis. PloS one, 14(10), e0222572. https://doi.org/10.1371/journal.pone.0222572
25. Donaldson, S. I., Dormanesh, A., Perez, C., Majmundar, A., & Allem, J. P. (2022). Association Between Exposure to Tobacco Content on Social Media and Tobacco Use: A Systematic Review and Meta-analysis. JAMA pediatrics, 176(9), 878–885. https://doi.org/10.1001/jamapediatrics.2022.2223