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Locale-wise impact of students' stress and peer victimization on proneness to delinquency

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Abstract

The present study examines the impact of students' stress and peer victimization on proneness to delinquency with a specific focus on locale. The sample size consisted of 600 students, with an equal distribution of participants based on locale (urban and rural). The corresponding constructs were evaluated using standardized measures, such as the Students Stress Scale by Akhtar (2011) ^[2], the Peer Victimization Scale by Bist and Gera (2017) ^[3] and the Delinquency Proneness Scale by Chopra and Kaur (2012) ^[5]. The findings revealed that the majority of the students experienced a medium level of stress while most reported low levels of peer victimization and delinquency proneness. Locale-wise analysis indicated no significant differences between urban and rural students with respect to students' stress and peer victimization. However, urban students exhibited significantly higher delinquency proneness than rural students. Regression analysis revealed that students' stress significantly predicted delinquency proneness among urban students but not among rural students. Further, physical victimization and social manipulation significantly predicted delinquency proneness among urban students whereas none of the dimensions of peer victimization significantly influenced delinquency proneness among rural students. The study highlights the importance of strengthening stress management programmes, promoting positive peer relationships, and implementing effective anti-bullying interventions particularly in urban schools to reduce adolescents' proneness to delinquent behaviour.

Keywords: Students' stress, Peer victimization, Delinquency proneness, Urban students, Rural students

Introduction

Adolescence is a crucial developmental period characterized by rapid physical, cognitive, emotional and social changes. During this stage students experience increasing academic demands, changing interpersonal relationships and greater expectations from parents and teachers making them vulnerable to various psychosocial challenges. Among these students' stress and peer victimization have emerged as significant concerns that may adversely influence adolescents' behavioural and emotional adjustment (Compas *et al* 2001) ^[6]. Stress is a psychological and physiological response that occurs when individuals perceive that environmental demands exceed their coping resources (Lazarus & Folkman 1984) ^[11]. While moderate levels of stress may enhance motivation and performance, prolonged or excessive stress can negatively affect students' academic achievement, emotional well-being, and behavioural functioning (Akhtar 2011) ^[2]. Adolescents experiencing persistent stress often exhibit poor emotional regulation, reduced self-esteem and a greater tendency to engage in maladaptive behaviours, including delinquency (Agnew 1992) ^[1]. Peer relationships play a vital role in adolescents' social and emotional development. Positive peer interactions

foster cooperation, self-confidence and a sense of belonging whereas negative interactions such as peer victimization may seriously affect psychological well-being (Menesini & Salmivalli 2017) ^[12]. Peer victimization refers to repeated exposure to aggressive behaviours by peers and includes verbal victimization, physical victimization, social manipulation and attacks on personal property (Bist & Gera, 2017) ^[3]. Victimized adolescents are more likely to experience anxiety, depression, social withdrawal, low academic achievement, and behavioural problems (Hong & Espelage 2012) ^[10]. Delinquency proneness refers to an individual's tendency to engage in behaviours that violate social norms and legal expectations including aggression, truancy, theft, vandalism, substance use and other antisocial behaviours (Chopra & Kaur 2012) ^[5]. According to General Strain Theory, stressful life experiences and negative social interactions increase negative emotions which may subsequently lead adolescents to adopt delinquent behaviours as a coping mechanism (Agnew 1992) ^[1]. Similarly, the Social-Ecological Theory emphasizes that adolescents' behaviour is influenced by interactions among individual, family, peer, school and community factors (Bronfenbrenner 1979) ^[4].

Locale is another important factor that may shape adolescents' developmental experiences. Urban and rural students differ in terms of educational facilities, family environments, social interactions and exposure to environmental stressors. Bronfenbrenner (1979) ^[4] emphasized through the Ecological Systems Theory that children's behaviour and development are shaped by the interaction between individual characteristics and their surrounding environments, including family, school, and community contexts. These differences may influence students' experiences of stress, peer victimization and delinquency proneness. However, limited empirical evidence is available regarding the locale-wise relationship among these variables, particularly among adolescents in Punjab.

Keeping in view these considerations, the present study was undertaken to examine the impact of students' stress and peer victimization on proneness to delinquency with special reference to locale among school-going adolescents.

Objectives of the study

1. To assess the status of students' stress, peer victimization and delinquency proneness.
2. To assess the locale differences in students' stress, peer victimization and delinquency proneness.
3. To investigate the impact of students' stress and peer victimization on proneness to delinquency across locales.

Method

Participants

A sample of 600 respondents (13 to 15 years) who were enrolled in the 7th, 8th and 9th grades at schools in the chosen districts of Punjab's Malwa region viz. Ludhiana, Moga and Fatehgarh Sahib were used for the study. There was an equal distribution of respondents by locale. The District Education Officers' official websites in Ludhiana (<https://ludhiana.nic.in>), Moga (<https://moga.nic.in>) and Fatehgarh Sahib (<https://fatehgarhsahib.nic.in>) provided a complete list of government schools. Using a random selection process, eight government senior secondary schools were chosen and a sample of 600 students, evenly split between the locales.

Measures

Students' stress scale: The Students Stress Scale by Akhtar (2011) ^[2] was used to measure the stress levels of the

students. On a five-point Likert scale, there are 51 items to rate. Ten negative and forty-one positive items were present. The sum of the scores, which were calculated by adding the item ratings, indicated the overall stress level of the students. Three stress levels, i.e., low, medium and high were assigned to the scores.

Peer victimization scale: The Peer Victimization Scale by Bist and Gera (2017) ^[3] was used to assess the peer victimization among students. The scale consisted of four dimensions namely Verbal Victimization, Physical Victimization, Social Manipulation and Attack on Property. It consisted of 44 items to be rated on a three-point Likert scale. Scores of the four dimensions were evaluated by adding the rating of the related items and the sum of these scores represented the level of total peer victimization among students. Scores were divided into three categories i.e., low, medium and high.

Delinquency proneness scale: Students' propensity for delinquency was assessed using Chopra and Kaur's (2012) ^[5] Delinquency Proneness Scale. This scale has 60 items, of which 54 are from the delinquency proneness scale and 6 are from the lie scale. Both items were scored on a two-point Likert scale and were taken from the Eysenck Personality Questionnaire-R (Eysenck 1975) ^[8]. This scale included both positive and negative items. The rating of the items was added to the scores and the total score indicated the degree of overall delinquency proneness. The scores were separated into three groups: low, medium and high.

Data collection

After obtaining permission from the concerned school principals, the class in charge of the 7th, 8th and 9th classes of selected schools was approached to select the students using a simple random procedure. The selected students were approached in their respective classrooms to assess the students' stress, peer victimization, and delinquency proneness. The data was collected by distributing the questionnaires to the selected students.

Statistical analysis

The statistical analysis was done using SPSS version 29. The data were analyzed using the statistical tools namely Frequency and Percentage, Arithmetic mean, Standard deviation, t-test, and Multiple Linear Regression.

Results and discussion

Table 1: Percent distribution of students across different levels of students' stress, peer victimization and delinquency proneness n=600

Variable	Level	F	%
Students' stress	Low	112	18.67
	Medium	390	65.00
	High	98	16.33
Peer victimization	Low	411	68.50
	Medium	162	27.00
	High	27	4.50
Delinquency Proneness	Low	284	47.33
	Medium	250	41.67
	High	66	11.00

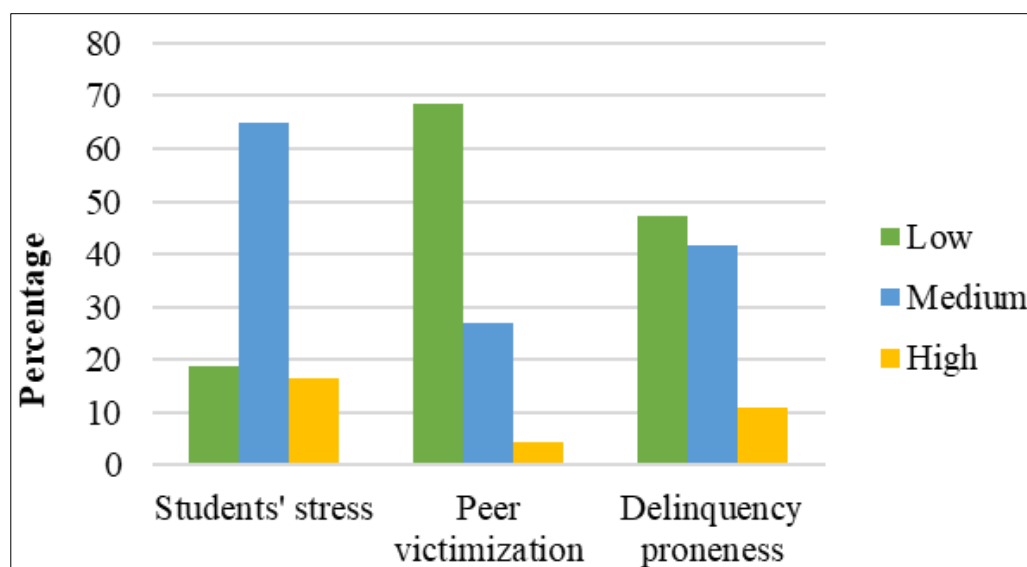


Fig. 1: Percent distribution of students across different levels of students' stress, peer victimization and delinquency proneness

Table 1 shows the frequency and percentage distribution of students across different levels of students' stress, peer victimization and delinquency proneness. The variables are presented under the following sub-headings:

Students' stress

Among 600 respondents, most of them fell into the medium category, comprising 65 percent of the total students, suggesting a significant proportion of students reporting moderate levels of students' stress. In contrast, 18.67 per cent of students fell into the low category, indicating a lower level of reported students' stress, while 16.33 percent were in the high category, indicating a higher level of students' stress. These findings suggested that although most adolescents are able to cope with everyday academic and social demands, a considerable proportion continues to experience elevated stress levels that may adversely affect their emotional well-being and academic performance. Moderate stress may be associated with routine academic responsibilities, examinations, parental expectations, and peer interactions, whereas students in the high-stress category may require timely psychological support and effective coping interventions.

Peer victimization

In peer victimization, 68.5 percent of students were categorized as having low peer victimization, 27 percent as medium, and 4.5 percent as high. These findings indicated that the majority of students experienced relatively low levels

of victimization by their peers. Nevertheless, more than one-fourth of the respondents reported moderate levels of peer victimization, suggesting that bullying and negative peer interactions remain prevalent in school settings. Even occasional experiences of verbal abuse, physical aggression, social manipulation, or attacks on personal belongings may have adverse consequences for adolescents' psychological adjustment, self-esteem, and school engagement. Therefore, schools should continue to strengthen anti-bullying initiatives, promote positive peer relationships, and encourage students to report incidents of victimization without fear.

Delinquency proneness

The data showed that 47.33 percent were in the low category, followed by 41.67 percent in medium category and 11 percent in high category. This indicated that the majority of adolescents exhibited low to moderate tendencies towards delinquent behaviour. However, the presence of students in the high category highlights the need for early identification and preventive interventions to address behavioural problems before they develop into more serious forms of delinquency. Delinquent tendencies during adolescence may be influenced by multiple psychosocial factors, including stress, peer relationships, family environment, and school climate. Strengthening emotional resilience, providing counselling services, and fostering supportive family and school environments may help reduce adolescents' susceptibility to delinquent behaviour.

Table 2: Locale-wise differences in mean scores ($\pm$ SD) of the students regarding students' stress n=600

Variable	Urban (n ₁ =300)	Rural (n ₂ =300)	T-value
	Mean $\pm$ SD	Mean $\pm$ SD	
Students' stress	159.4 $\pm$ 22.0	156.7 $\pm$ 21.6	1.5

Table 2 shows the locale-wise differences in mean scores ($\pm$ SD) of the students regarding stress. Urban students overall exhibited a mean stress score of 159.4 $\pm$ 22.0, compared to 156.7 $\pm$ 21.6 among rural students. The findings revealed no significant difference in students' stress between urban and rural respondents. Although slight variations in the mean

scores were observed, the obtained *t*-value indicated that locale did not significantly influence the stress experienced by students. This suggests that academic demands, social expectations and developmental challenges contribute similarly to stress among adolescents irrespective of their place of residence. The findings are in agreement with Deb *et*

al 2015^[7], who reported that academic pressure, parental expectations, and concerns about future career prospects are common sources of stress among adolescents regardless of their residential background. The similarity in stress levels

among urban and rural students may be attributed to comparable educational expectations, examination pressure, and developmental challenges experienced by adolescents across both settings.

Table 3: Locale-wise differences in mean scores ($\pm$ SD) of the students across different dimensions of peer victimization n=600

Dimensions of peer victimization	Urban (n ₁ =300)	Rural (n ₂ =300)	T-value
	Mean $\pm$ SD	Mean $\pm$ SD	
Verbal victimization	5.98 $\pm$ 5.42	6.10 $\pm$ 4.35	0.299
Physical victimization	2.25 $\pm$ 2.45	2.25 $\pm$ 2.28	0.017
Social manipulation	5.54 $\pm$ 4.55	5.00 $\pm$ 3.06	1.687
Attack on property	4.02 $\pm$ 3.23	4.18 $\pm$ 3.07	0.621
Overall peer victimization	17.79 $\pm$ 13.03	17.55 $\pm$ 9.63	0.257

Table 3 presents the locale-wise differences in mean scores ($\pm$ SD) of the students across different dimensions of peer victimization. The findings revealed no significant differences between urban and rural students in any dimension of peer victimization. The *t*-values for verbal victimization (*t*=0.299), physical victimization (*t*=0.017), social manipulation (*t*=1.687), attack on property (*t*=0.621), and overall peer victimization (*t*=0.257) were statistically

non-significant. These findings indicate that urban and rural students experienced comparable levels of peer victimization across all dimensions. This is consistent with the findings of Menesini and Salmivalli (2017)^[12], who reported that peer victimization is a widespread phenomenon among school-going children irrespective of contextual settings, suggesting that experiences of victimization are not substantially influenced by students' locale.

Table 4: Locale-wise differences in mean scores ($\pm$ SD) of the students regarding delinquency proneness n=600

Variable	Urban (n ₁ =300)	Rural (n ₂ =300)	T-value
	Mean $\pm$ SD	Mean $\pm$ SD	
Delinquency proneness	76.79 $\pm$ 9.38	74.93 $\pm$ 7.47	2.68**

**Significant at 1% level

Table 4 shows the locale-wise differences in mean scores ($\pm$ SD) of the students regarding delinquency proneness. Urban students reported significantly higher delinquency proneness (Mean $\pm$ SD = 76.79 $\pm$ 9.38) than rural students (Mean $\pm$ SD = 74.93 $\pm$ 7.47). The obtained *t*-value (2.68, *p* $\leq$ 0.01) indicates that the difference was statistically significant at the 1 per cent level. These findings demonstrate that urban

students exhibited a greater tendency towards delinquency proneness than their rural counterparts. This finding is consistent with the study of Farrington (2005)^[9], who reported that adolescents residing in urban environments are more likely to display delinquent tendencies due to greater exposure to environmental stressors, peer influences, and opportunities for antisocial behaviour.

Table 5: Locale-wise impact of Students' stress on delinquency proneness n=600

Students' stress (Independent variable)	Urban (n ₁ =300)			Rural (n ₂ =300)		
	β	S.E.	T value	β	S.E.	T value
Constant	60.416	3.845	15.715**	72.860	3.164	23.024**
Students' stress	0.103	0.024	4.299**	0.013	0.020	0.659
R ²	0.58			0.001		
F ratio	18.479**			0.434		

**Significant at 1% level

Table 5 presents the impact of students' stress on delinquency proneness among urban and rural students. The results indicate that students' stress significantly predicted delinquency proneness among urban students (β = 0.103, *t* = 4.299**, *p* $\leq$ 0.01), whereas no significant impact was observed among rural students (β = 0.013, *t* = 0.659). The regression model explained 5.8 per cent of the variance in delinquency proneness among urban students (*R*² = 0.058), with a significant F-ratio (*F* = 18.479, *p* $\leq$ 0.01). In contrast, the model accounted for only 0.1 per cent of the variance among rural students (*R*² = 0.001), and the F-ratio (*F* = 0.434) was statistically non-significant. These findings demonstrate that students' stress is a significant predictor of delinquency proneness among urban students but not among rural students. This finding is in accordance with Agnew's General

Strain Theory (1992)^[11], which suggests that exposure to stress and strain increases the likelihood of delinquent behaviour, particularly when individuals lack adequate coping resources. The significant relationship among urban students may be attributed to greater academic competition, parental expectations, and environmental stressors that increase adolescents' vulnerability to maladaptive behaviours. In contrast, stronger family support and community cohesion in rural settings may help buffer the adverse effects of stress, thereby reducing its influence on delinquency proneness. These findings highlight the need for stress management and counselling interventions, particularly in urban schools, to reduce the risk of delinquent behaviour among adolescents.

Table 6: Dimension-wise impact of peer victimization on delinquency proneness among urban and rural students n=600

Peer victimization (Independent variable)	Urban (n ₁ =300)			Rural (n ₂ =300)		
	β	S.E.	t value	β	S.E.	t value
Constant	72.550	0.875	82.932**	75.271	0.935	80.534**
Verbal victimization	0.149	0.134	1.105	-0.095	0.128	0.746
Physical victimization	0.674	0.253	2.670**	0.150	0.215	0.696
Social manipulation	0.349	0.169	2.065*	0.117	0.167	0.700
Attack on property	-0.025	0.218	0.116	-0.164	0.162	1.013
R ²	0.126			0.008		
F ratio	10.597**			0.577		

**Significant at 1% level *Significant at 5% level

Table 6 presents the dimension-wise impact of peer victimization on delinquency proneness among urban and rural students. Among urban students, physical victimization ($\beta = 0.674$, $t = 2.670^{**}$, $p \leq 0.01$) and social manipulation ($\beta = 0.349$, $t = 2.065^{*}$, $p \leq 0.05$) emerged as significant predictors of delinquency proneness, whereas verbal victimization ($\beta = 0.149$, $t = 1.105$) and attack on property ($\beta = -0.025$, $t = 0.116$) did not significantly predict delinquency proneness. The regression model explained 12.6 per cent of the variance in delinquency proneness among urban students ($R^2 = 0.126$), with a significant F-ratio ($F = 10.597$, $p \leq 0.01$). In contrast, none of the dimensions of peer victimization significantly predicted delinquency proneness among rural students. The regression model explained only 0.8 per cent of the variance in delinquency proneness ($R^2 = 0.008$), and the F-ratio ($F = 0.577$) was statistically non-significant. These findings indicate that physical victimization and social manipulation significantly contribute to delinquency proneness among urban students, whereas peer victimization does not significantly influence delinquency proneness among rural students. These findings are consistent with the study of Hong and Espelage (2012) ^[10], who reported that experiences of physical aggression and relational victimization are associated with increased externalizing and delinquent behaviours among adolescents, particularly in environments where exposure to peer aggression is more frequent.

Conclusion

The present study investigated the impact of students' stress and peer victimization on proneness to delinquency among urban and rural adolescents studying in government schools of Punjab. The findings revealed that the majority of the respondents experienced a moderate level of students' stress, while most reported low levels of peer victimization and delinquency proneness. Locale-wise analysis indicated no significant differences in students' stress or peer victimization between urban and rural students. However, urban students exhibited significantly higher delinquency proneness than rural students. Regression analysis further revealed that students' stress significantly predicted delinquency proneness among urban students but not among rural students. Moreover, physical victimization and social manipulation emerged as significant predictors of delinquency proneness among urban students, whereas none of the dimensions of peer victimization significantly influenced delinquency proneness among rural students. These findings underscore the importance of addressing psychosocial stressors and peer victimization, particularly in urban school settings, through preventive interventions, counselling services, and school-

based programmes aimed at promoting positive peer relationships and healthy behavioural development among adolescents.

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