School climate and neighborhood problems, perceived risk of victimization and fear of crime: Understanding the interplay between problem of school and neighborhood incivilities in the etiology of youth fear of crime

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Abstract

Unlike adults, youth spend considerable time in their neighborhood and school settings. Previous research has shed light on the neighborhood context and youth fear of crime relationships. Although efforts of policymakers, school administrators, and parents are aimed at creating school as a safe space, less is known about how youth views of school climate and the interaction between youth views of school and neighborhood problems impact their perceived risk and fear of crime victimization in school settings. This study used Ferraro's risk assessment framework to understand these relationships better using 3 strategies. First, it examined the association between perceptions of school climate, perceptions of neighborhood problems with fear of crime victimization. It then analyzed the mediating role of perceived risk of victimization on the relationship between perceptions of school climate and youth fear of crime victimization. Finally, it analyzed whether perceptions of neighborhood problems moderated the relationships between perceptions of school climate, perceived risk of victimization and youth fear of crime victimization (N=1224). Results from correlation analysis indicate that perceptions of school climate and perceptions of neighborhood problems are positively correlated with fear of crime victimization. Mediation results suggest that perceived risk of victimization explained the relationship between perceptions of school climate and youth fear of crime victimization. Moderation analysis results suggested that perceptions of neighborhood problems weakened the association between perceptions of school climate and youth perceived risk of victimization. However, perceptions of neighborhood problems did not buffer the relationship between perceptions of school climate and fear of crime victimization.

Keywords: School climate, neighborhood problems, perceived risk of victimization, fear of crime victimization, Ferraro's framework

Youth spend most of their time at school. A safe school environment may enhance positive emotions among the youth as it can impact their mental well-being, academic success, career growth, and lifestyle. In contrast, an unsafe school environment may develop negative emotions among the youth such as fear of crime.

It has been observed that creating safe school environments is perceived as an essential objective for policymakers, school administration, parents, and the youth. According to Schreck and Miller (2003) and Akiba (2008) many practices of school districts and federal laws passed since 1990 aimed to achieve school safety. Therefore, understanding the factors that contribute to youth fear of crime victimization at school is of most importance.

Fear of crime is understood as negative emotional response caused by crime or signs related to crime (Ferraro, 1995). Ferraro (1995) states that a direct relationship exists between perceived risk and fear of crime and victimization. In Ferraro's terms, perceived risk is a cognitive factor that affects one's views of potential victimization, whereas fear of crime is an emotional response to this cognitive aspect of potential victimization and is displayed externally. So, Ferraro (1995) argues that a successful measure of fear requires an assessment of perceived risk judgements.

Previous youth studies that used Ferraro's risk assessment framework employed perceived risk and fear of crime measures as a combination of both school and neighborhood-related questions (Bolli, 2023; Melde, 2007). Previous empirical studies rarely employed context-specific measures for perceived risk of victimization and fear of crime victimization. This research proposes that it is essential to consider context-specific measures in evaluating risk and fear. That is, one's judgment regarding one's perceived risk and fear of crime for a specific context or environment can be appropriately captured if questions about that specific context are asked. Using general measures of perceived risk and fear of crime may overlap emotions, thus decreasing the accuracy of one's judgment for a given specific context. Hence, studying one's fear in the context of school climate and measuring one's perceived risk and fear.

This study is important for three reasons. Firstly, only few studies explored youth fear of crime using Ferraro's framework. Second, less empirical evidence prevails on how one's perceptions of school climate influence school-specific risk perceptions and fear of crime. Finally, it is also less known how one's perceptions of neighborhood problems moderate these relationships since youth could relate their neighborhood experiences with school and vice versa. At the same time, numerous pieces of evidence have been found to correlate neighborhood and school climate directly with fear of crime (Alvarez & Bachman, 1997; May & Dunaway, 2000; Schreck & Miller, 2003; Welsh, 2001).

This study while examining how youth's perceptions of school climate impact their school-specific perceived risk and fear of crime victimization, also examines the moderating effect of youth's perceptions of neighborhood problems between these relationships. Thus, this study aims to uncover the relationship between youth's perceptions of school climate, school-specific perceived risk, and fear of crime with and without the moderation of youth perceptions of neighborhood problems.

Incivilities as a causal factor for fear of crime victimization

Negative emotional responses like fear may be due to incivilities (Philips & Smith, 2004). According to the Incivility Hypotheses, physical and social incivilities (Hunter, 1978; Lewis & Maxfield, 1980) encourage crime and fear. Physical incivilities refer to the deterioration of surroundings, and social incivilities refer to disorderly behavior. According to Ferraro (1994) individuals with higher incivility perceptions are more likely to report perceived risk of victimization and fear of crime. Such a phenomenon is possible because incivility could generate cues of problem, danger, and vulnerability among individuals, thus leading to risk and fear outcomes. For example, homelessness or panhandling are viewed as problem of incivility and found to fuel fear of crime among residents (Lopez, 2016), similarly, abandoned buildings also found to shape resident's perceptions of crime (Ellin, 2001).

Previous studies suggested that school climate measures offer a better understanding of youth fear of crime (Ladd, 2003; Mayer, 2001; Skiba et al., 2004), and empirical evidence has been found to support the relationship between school climate, perceived risk of victimization, and fear of crime (Lopez, 2016). However, many of the studies have focused on school climate and fear relationships have relied on urban adult samples in the context of the urban neighborhoods (Brunton-Smith & Sturgis, 2011; Greene & Taylor, 1988; LaGrange & colleagues, 1992; Skogan, 1990), while fewer studies have used an adolescent sample in the context of school climate to examine their fear perceptions.

School and fear of crime victimization

Youth fear of crime at school has decreased since 1995 (Zhang et al., 2016). Despite the decrease in fear, some middle and high school students still have fear of crime at school, and the research has not adequately uncovered the factors that contribute to this (Bachman et al., 2011). Previous research pointed out specific school climate predictors of fear of crime. Factors such as student violent behavior in classroom settings (Akiba, 2008), school disorder (such as vandalism, increased truancy rates, and cheating) (Akiba, 2008; Gottfredson & Gottfredson, 1985), location (Olweus, 1996), school type (public and private) (Alvarez & Bachman, 1997), poverty (Ma, 2001), fear spots (such as hallways, locker rooms, and playgrounds) (Astor et al., 2001; Astor et al., 1999), school-related victimization (Hepburn & Monti, 1979; Mayer & Leone, 1999), peer hostility (Kieff, 2003), bullying victimization (Barrett et al., 2012; Randa & Wilcox, 2012), and community and school incivility (Schreck & Miller, 2003) found to contribute to fear.

In terms of safe school environment, studies have found that perceptions of unsafety schools (Hilarski, 2004) and mass shooting, increase the student's fear and safety perceptions (Elsass et al., 2021; Kieff, 2003). It has been found that, when schools have adopted safety measures, the strategies did not significantly decrease students' fear of crime. For example, Tillyer et al. (2011) examined the relationship between various school-centered prevention strategies, risk perceptions, and fear of crime. The study results indicated that only using metal detectors in schools reduced fear, while other school-centered prevention strategies such as increased monitoring, metal detectors, locker checks, and strict policies on backpacks were non-significant in their impact.

It has been found that target hardening measures related to visible and physical security measures have unintended consequences. For example, control on restroom usage, locked doors, drug education, and hall supervision have been found to increase risk perceptions and fear of crime among students (Schreck & Miller, 2003). Therefore, the previous research has hinted at the importance of understanding the student's perceptions of school impact on their perceptions of risk and fear of crime victimization.

Purpose of the current study

Using the incivility hypotheses as theoretical framework, incivilities lead to fear of crime victimization. Therefore, the purpose is to examine youth's fear of crime in the school context, this study employed school-specific perceived risk of victimization variables and fear of crime measures along with perceptions of school climate variables. This study sought to test the mediating role of the perceived risk of victimization between perceptions of school climate, perceived risk of victimization and fear of crime. Later the moderating role of perceptions of neighborhood problems between perceptions of school climate, perceived risk of victimization and fear of crime is tested. Doing so not only tests the effect of perceptions of school climate on the perceived risk of victimization and fear of crime but also identifies if one's neighborhood-related incivility views influence the relationship between youth perceptions of school climate, perceived risk of victimization.

A three-pronged strategy will be used to accomplish this purpose. First, this study will explain if perceptions of school climate and perceptions of neighborhood problems are related to youth fear of crime victimization, as suggested by incivility hypothesis. Second, a mediation analysis will be conducted to examine if the perceived risk of victimization at school mediated the link between perceptions of school climate and fear of crime at school. Finally, it examined the variable perceptions of neighborhood problems for its moderating role between perceptions of school climate and fear of crime at school.

One hypothesis and three research questions were used to understand the relationships between the variables. It was predicted that perceptions of school climate and perceptions of neighborhood problems would positively relate to fear of crime victimization (H₁). Does the perceived risk of victimization at school explain the relationship between perceptions of school climate and fear of crime victimization? (RQ1). Do perceptions of neighborhood problems moderate the relationship between perceptions of school climate and school-specific perceived risk of victimization? (RQ2). The final research question is, do perceptions of neighborhood problems moderate the relationship between perceptions of school climate and school-specific fear of crime victimization? (RQ3).

Method

Sample

This research used data from the National Evaluation of the Teens, Crime, and Community and the Community Works (TCC/CW) program, 2004 - 2005 (Esbensen, 2005). This self-report study collected three waves of data to examine the effect of the (TCC/CW) program on middle school adolescents. Pre-test data was collected during the Fall of 2004, and post-test data was collected during the Spring and Fall of 2005. Fifteen schools (from five states: Arizona, South Carolina, New Mexico, and Massachusetts) are selected using a purposive sampling technique, and ninety-eight classrooms are selected using a quasi-experimental design. This current research used the first wave, which has N= 1,224 adolescents (575 males and 649 females) with an average age of 12.26 years (SD = 0.93), 38.6% are White, 12.8% are Black, and 48.6% are Hispanic (Table 1).

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Demographic Variable	Frequency	Percent	
Gender			
Male	575	47.0%	
Female	649	47.0% 53.0% 38.6% 12.8% 48.6%	
Race/Ethnicity			
White	472	38.6%	
Black	157	12.8%	
Hispanic	595	48.6%	
	Range	Mean (SD)	
Age	10-16	12.26 (.93)	
N = 1224			

Table 1Descriptive Statistics for Demographic Variable

Data collection

Parents of all students were informed about the study. Teachers were recruited with an incentive of two dollars to collect the consent forms and students were given incentive when they returned the forms. Students were involved in the study only after obtaining the parent's consent, and students whose parents did not agree or did not consent were excluded from the study. For the students involved, a self-report survey was conducted using a group-administered classroom session strategy, which took 40-45 minutes.

Measures

Perceptions of school climate

Students' perceptions of school climate were measured using 6 items such as the occurrence of bullying or teasing, beating or threatening, presence of fear spots in school, racial or cultural conflict among students, things stolen, and students bringing guns to school. These items are measured on a three-point Likert scale ranging from 1 to 3, such as not a problem, somewhat problem, and a big problem. The average of 6 items together is used to create one item (α =.80).

Students' perceptions of neighborhood problems are measured using 9 items, which are about youth's views about neighborhood problems such as rundown buildings, broken windows, groups hanging out, graffiti, street begging, legitimate recreational sources, gunshots, lack of street lights, and fast cars. These items are measured on a three-point Likert scale ranging from 1 to 3, such as not a problem, somewhat problem, and big problem. The average of 6 items together is used to create one item (α =.86).

Perceived risk of victimization at school

The Perceived risk of victimization at school is assessed using three items. These three items aim to determine the likelihood of students being attacked or threatened at school, on their way to or from school, and if their things are stolen at school. These items are measured on a 5-point scale varying from 1 (Not at all likely) to 5 (Very likely). The average of the three items is used to create one item (α =.81).

Fear of crime at school

The measure of fear of crime at school is assessed using three items. These three items aim to determine how afraid students are of being attacked or threatened at school, on their way to or from school, or if their things are stolen at school. These items are measured on a 5-point scale varying from 1 (Not at all afraid) to 5 (Very afraid). The average of the three items is used to create one item (α =.79).

Data cleaning and Statistical analyses

Data is subjected for problematic outliers, skewness, and collinearity. After conducting the univariate and multivariate analysis, no problematic outliers are observed in the data. Skewness values for the variables (Perceptions of school climate is .439, Perceptions of neighborhood problems is .306, Perceived risk of victimization at school is .792, and fear of crime at school is .099) range between -1 and +1. Therefore, no transformations are applied to the variables. After conducting the bivariate correlation and collinearity analysis, it was found that the data was not highly correlated.

Results

Results from the correlation analysis indicate perceptions of school climate (r= .40, p< .01), perceptions of neighborhood problems (r= .37, p< .01), and perceived risk of victimization (r= .30, p< .01) were positively correlated with youth fear of crime (Table 2). Mediation analysis is conducted to examine the indirect effect of the perceived risk of victimization between the variable's perceptions of school climate and fear of crime.

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Table 2 Correlations, mean	standard deviat	ion and skew statis	stics	
Variable	1	2	3	4
1.Perceptions of school problem	-			
2.Perceptions of neighborhood problem	.70**	-		
3. Perceived risk of victimization	.30**	.30**	-	
4. Fear of Crime	.40**	.37**	.30**	-
М	1.84	1.80	2.21	2.66
SD	.50	.52	1.03	1.13
Skew	.43	.30	.79	.09

**p<.01

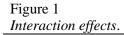
The mediation analysis results suggested that the perceived risk of victimization mediated the relationship between the perception of school climate and fear of crime, IE _{coefficient} =.14, SE _{boot} = .02, 95% CI _{boot} = [.09, .19] (Table 3, Figure 2). The moderated mediation analysis is conducted with the variable's perception of school climate, perceptions of neighborhood problems, perceived risk of victimization, and fear of crime. The perceived risk of victimization being an outcome variable, the overall model was significant, R2 =.11, p< .001. Perceptions of school climate (β =.44, p< .001) and perceptions of neighborhood problems (β =.33, p< .001) were positively associated with the perceived risk of victimization (Table 3).

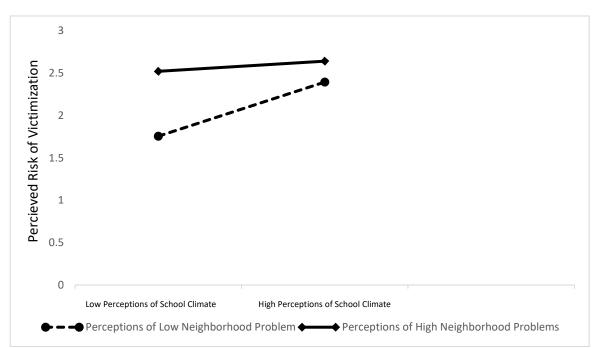
Table 3

Regression coefficients and standard errors for each step in the moderation mediation analysis

Variables	Perceived risk of victimization		Fear of Crime	Fear of Crime	
Variables	b(SE)	95% CI	b(SE)	95% CI	
Perceptions of school problem	.62(.05) ***	[.51, .73]	.75(.11) ***	[.54, .99]	
Perceptions of neighborhood problem	.33(.07) ***	[.18, .48]	.33(.07) ***	[.17, .48]	
Perceived risk of victimization	-	-	.22(.02) ***	[.16, .28]	
School * Neighborhood problem (N = 1,224) *p<.05, **p<.01, ***p<.001	36(.11) ***	[58,14]	.08(.11)	[14, .31]	

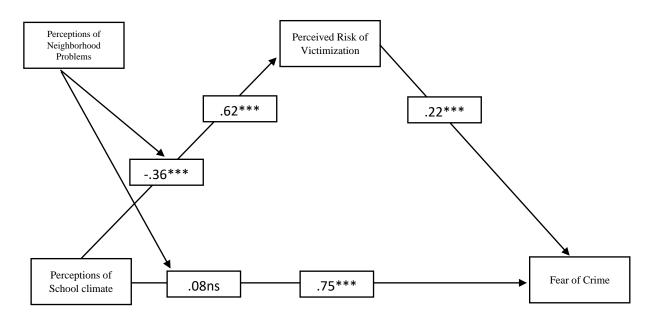
The moderation analysis/interaction between perceptions of school climate and perceptions of neighborhood problems (β = -.36, p=.001) was significant and negatively associated with the perceived risk of victimization (Table 3, Figure 1 & 2). In the final analysis (moderated mediation), the fear of crime was the outcome variable, and the model was statistically significant, R2 = .20, p< .001. Perceptions of school climate (β = .49, p< .001), perceptions of neighborhood problems (β = .33, p< .001) and perceived risk of victimization (β =.21, p< .001) were positively related to fear of crime. However, the interaction between perceptions of school climate and perceptions of neighborhood problems (β = .08, p= 48) was not significant and positively related to fear of crime (Table 3, Figure 2).





Note. Interaction for perceptions of school climate and neighborhood problems associating with perceived risk of victimization

Figure 2 Moderation-Mediation Analysis



Note. This figure shows the mediating effect of perceived risk of victimization on the relationship between perceptions of school climate and fear of crime. Then, perceptions of school climate \times perceptions of neighborhood problems with perceived risk of victimization. Finally, perceptions of school climate \times perceptions of neighborhood problems predicting fear of crime. *p < .05, **p < .01, ***p < .001

Discussion

This study aimed to understand the relationships between perceptions of school climate, perceptions of neighborhood problems, perceived risk of victimization and youth fear of crime victimization at school. In doing so, this study primarily hypothesized a positive association of perceptions of school climate and perceptions of neighborhood problems with youth fear of crime victimization. The second aim of the study was to understand the mediating role of the perceived risk of victimization between the perceptions of school climate and youth fear of crime victimization. The third goal was to examine if perceptions of neighborhood problems moderated the association between perceptions of school climate and perceived risk of victimization. The final objective of this study was to test if perceptions of neighborhood problems moderate the relationship between perceptions of neighborhood problems and youth fear of crime victimization.

Results from the Pearson correlation found that perceptions of school climate and perceptions of neighborhood problems have a positive relationship with youth fear of crime victimization. This finding is consistent with the incivility hypothesis, and previous studies similarly suggested a positive relationship between school climate and neighborhood incivilities with fear of crime (Schreck & Miller, 2003). Concerning the perceived risk of victimization, the correlation results found that the perceived risk of victimization is positively associated with fear of crime victimization, which is consistent with Ferraro's risk assessment framework (Bolli, 2023; Ferraro, 1995; Melde, 2007).

The perceived risk of victimization was found to mediate the relationship between perceptions of school climate and youth fear of crime victimization. As per the mediation analysis results from Figure 2, youths have perceptions of school climate, increases their probability of risk of victimization perceptions and fear of crime victimization. This indirect effect of the perceived risk of victimization between perceptions of school climate and youth fear of crime victimization is consistent with the incivility hypothesis and Ferraro framework (Ferraro, 1995). The direct effect of perceptions of school climate on youth fear of crime victimization is also found to be significant.

The first moderation results from Figure 2, indicate that perceptions of neighborhood problems moderated the relationship between perceptions of school climate and the perceived risk of victimization. This result suggest that perceptions of neighborhood problems weakened the association between perceptions of school climate and the perceived risk of victimization, implying that despite one's perceptions of school climate when youth have perceptions of neighborhood problems, they are less likely to have the perceived risk of victimization (see Figure 1), which in the end, results in less fear of crime victimization.

This variation between perceptions of school climate on perceived risk of victimization and interaction between perceptions of neighborhood problems and perceptions of school climate' effect on perceived risk of victimization could be attributed to social integration. It is suggested that increased exposure to incivilities may normalize one's view towards the incivilities, leading to social integration towards the environment and thereby not affecting their concerns for risk and personal safety (Covington & Taylor, 1991; Taylor, 1996).

In the second moderation analysis from Figure 2, the perceptions of neighborhood problems did not moderate the relationship between perceptions of school climate and youth fear of crime victimization. When not moderated, perceptions of school climate significantly increased school-related youth fear of crime victimization. However, when moderated, the interaction between perceptions of school climate and perceptions of neighborhood problems, the moderation did not significantly impact youth school-specific fear of crime victimization. This result suggests that the relationship between perceptions of school climate and fear of crime victimization did not strengthen or weaken by the youth's perceptions of neighborhood problems.

This moderation result could be due to two reasons. Firstly, youth concerns about their neighborhood problems are not as significant as perceptions of school climate regarding their assessment of school-specific fear of crime. According to Skogan (1990) multiple incivilities cause more fear, while this study implies that examining fear of crime using multiple incivilities should consider specific context-related multiple incivilities and fear of crime, for a better understanding of the relationships.

Another explanation for this phenomenon suggests the vitality of considering risk assessment in understanding a clear picture of one's fear. As Ferraro's risk assessment framework suggests, analyzing the cognitive aspect of one's potential victimization (referred to as the perceived risk of victimization) is essential before analyzing an emotion like fear. It allows one to capture the fear of crime victimization appropriately. From the moderation analyses one and two from Figure 2, it is evident that the impact of the interaction between youth perceptions of neighborhood problems and perceptions of school climate varied on fear of crime with and without the presence of youth perceived risk of victimization. The literature supports this finding. For example, LaGrange et al. (1992) argue that incivilities develop fear only when they elevate risk perceptions.

Limitations and Conclusion

This research, while contributing to the existing fear of crime literature, possesses several limitations. Firstly, this study utilized cross-sectional data, which may not provide an understanding of long-term phenomenon. Future studies considering long-term data with appropriate context-specific measures would reliably explain the causal relationship between the variables. Another limitation is that this study may not decisively explain the current situation. Therefore, these results should be carefully interpreted. Upcoming studies replicating this study model using the current sample would be beneficial in designing policies to reduce youth fear.

Third, this study did not focus on race/ethnicity and gender differences in youth incivilities and fear of crime relationships. Since race/ethnicity and gender differences could exist in terms of perceived incivilities and fear of crime victimization, studies examining the relationships between various gender and racial and ethnic groups will advance the youth fear literature.

Irrespective of these limitations, this research explored the nature of the association between school and neighborhood incivilities, school-related perceived risk of victimization and youth fear of crime victimization at school. Future studies understanding the relationship between neighborhood and school incivilities impact on neighborhood-related perceived risk of victimization and youth fear of crime victimization in neighborhood settings may uncover complicated associations between these variables.

While several school policies or programs are being implemented to promote school safety, this study raises the question of whether these policies actually focus on students' neighborhood environment. Therefore, programs that involve schools, parents, and community members could be beneficial (Benbenishty et al., 2008) in appropriately reducing youth fear of crime victimization. This study advocates for policies that enable interconnectedness and interdependency between school and neighborhood to reduce fear of crime perceptions. These research findings indicate the importance of enhancing positive school and neighborhood perception among youth. Since differences could possibly exist between the school climates, it is recommended that schools assess the factors that contribute to students' perceived risk of victimization. Based on the identified factors, schools creating policies addressing the school climate with community cooperation might be beneficial. Such measures might be successful in reducing the youth fear of crime victimization.

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