



School disorder, victimization, and general v. place-specific student avoidance

Ryan Randa ^{a,*}, Pamela Wilcox ^{b,1}

^a University of Northern Colorado, United States

^b University of Cincinnati, United States

A B S T R A C T

This study utilizes a national sample of 3, 776 high-school students to test two theoretical models of school avoidance behavior. More specifically, this study examines the relationships between student avoidance and both school disorder (or, incivilities) and previous victimization experiences. Further, the study also examines whether the presumed effects of incivilities and victimization on avoidance operate indirectly, through student fear. Negative Binomial regression analyses showed that perceived disorder in the form of presence of gangs and previous bullying victimization are key sources of student fear. In turn, student fear is positively correlated with two distinct types of avoidance behavior. Interestingly, controlling for student fear does not dissolve the significant, positive effects of perceived gang presence and bullying victimization.

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Introduction

With implications ranging from psychological well-being to academic success, fear of school crime and fear-related school avoidance behaviors are indeed concerns among school personnel, parents, and students themselves. Despite their importance, school-based fear and avoidance behavior did not receive much scholarly attention until after the highly-publicized school shootings in the 1990s. Today, our understanding of the nature and sources of these “reactions to crime” is still rather limited, with most of the work on the topic focusing on student weapon carrying. In particular, though previous research reveals the prevalence of different types of student avoidance of school, we have limited theoretical understanding of such behavior (e.g., Dinkes, Kemp, & Baum, 2009).

The present study attempts to address this gap in the literature by exploring the extent to which the disorder thesis and/or the fear-and-victimization thesis can help explain different types of student avoidance, including “general” avoidance of school activities as well as avoidance of specific places within schools. More specifically, we present and test theoretical models whereby various measures of school disorder as well as previous victimization experiences influence student avoidance indirectly, through fear of school crime. Additionally, this study examined whether, regardless of personal experiences with victimization at school, disorder in the school environment generates fear and avoidance behaviors. We test these theoretical

models in estimating two distinct forms of student avoidance using data subsamples of 3,526 and 3,077 high-school students.

Theoretical framework

Etiological study of student avoidance behavior is limited, but the general fear of crime literature (usually applied to adults within neighborhood contexts) provides several major theoretical perspectives on the relationship between fear of crime and adaptive or responsive behavior. Drawing mainly from two sources, perceptions of disorder in the social environment and person victimization experience this study addresses the contributions of the fear and victimization hypothesis and the disorder thesis.

First, the fear and victimization hypothesis expresses the idea that those persons who experience victimization become more fearful of future victimization and restructure their behavior in order to mitigate that fear (see May, 2001b). Individuals will address their concerns and fears out of fear of future victimization by voiding places where victimizations have been known to occur, perhaps even arming themselves. Conceptually, this thesis is rooted in the idea that individuals respond rationally to victimization by taking precautions, thereby lowering the likelihood of future victimization (Cook, 1986).

Secondly, the disorder perspective suggests that neighborhood social and physical disorders generate fear among residents which prompt them to withdraw into their homes. The disorder thesis serves as an example of how environmental conditions impact resident behavior. The theory has been conceptualized at multiple levels of analysis, but the main thrust of the argument at the community level is that persistent physical or social incivilities lead to higher neighborhood crime rates through a specific process (Greenberg, Rohe & Williams, 1982; Skogan, 1990; Wilson & Kelling, 1982). Incivilities (both social and physical) cause or accentuate fear. This

* Corresponding author. School of Sociology and Criminal Justice, University of Northern Colorado, CB 147, Greeley CO. 80639, United States. Tel.: +1 970 351 2749; fax: +1 970 351 1527.

E-mail address: Ryan.Randa@unco.edu (R. Randa).

¹ University of Cincinnati, School of Criminal Justice, Box 210389 Cincinnati OH 45221-0389.

fear, in turn, causes residents to withdraw. Such withdrawal weakens informal controls, and in their place appear more minor offenders. The presence of more offenders then sparks a further withdrawal of residents. In short, this cascading effect of increased incivilities and fear, and the corresponding withdrawal, fosters a growing criminal community and increasing crime rates. As the broken windows thesis outlined with regard to the neighborhood dynamic "...disorderly behavior unregulated and unchecked signals to citizens that the area is unsafe. Responding prudently, and fearful, citizens will stay off the streets, avoid certain areas, and curtail their normal activities and associations" (pg. 20, Kelling & Coles, 1996). Though commonly articulated as a community-level theory, similar theoretical ideas have been used to understand the relationships among individual-level perceptions of disorder, fear, and withdrawal from social life (i.e. see Taylor, 2001 for review).

Empirical evidence

Within the general fear-of-crime literature, the link between fear and avoidance is fairly well-established (e.g., Ferraro, 1995; Liska, Sanchirico, & Reed, 1988; Rader, 2004; Rader, May & Goodrum, 2007; Wilcox, Jordan & Prichard, 2007). This linkage has also been addressed in studies of high-school student fear. Such research indicates that students who express being fearful or having a heightened perception of risk associated with school are more likely to avoid attending school (Astor et al., 2002; Bastian & Taylor, 1991; Lawrence, 1998; Martin et al., 1996; Pearson & Toby, 1991).

There is quite a bit of ambiguity, however, regarding whether the fear that seems to increase student avoidance is generated by previous school victimization and/or disorder in the environment. In short, we are aware of no previous study that has examined both the fear and victimization hypothesis and the disorder thesis in an attempt to understand student avoidance. Still, there are a number of studies that speak to some of the "paths" or relationships suggested by these two perspectives.

On the one hand, a number of studies of both adults and adolescents (including students) have found victimization to be an important correlate of fear (Alvarez & Bachman, 1997; Dull & Wint 1997; Ferraro 1995; Forde, 1993; Keane, 1998; LaGrange et al., 1992; Liska et al., 1988; Mesch, 2000; Miethe, 1995; Ortega & Myles, 1987; Parker et al., 1993; Skogan 1987; Smith & Hill, 1991; Stanko, 1995; Warr 1987; Wilcox, May, & Roberts, 2006; Wilcox Rountree, 1998; Wilcox Rountree & Land, 1996). Other studies have presented contrary findings showing a non-significant relationship between victimization and fear (e.g., Baumer, 1985; May, 2001a, 2001b; McGarrell, Giacomazzi, & Thurman, 1997). A handful of studies suggest that type of victimization and type of fear considered (e.g., personal vs. property crime) make a difference in the strength of the correlation (Denkers & Winkel, 1998; Dull & Wint, 1997; Smith & Hill, 1991).

On the other hand, a number of studies show that neighborhood disorder can, impact adult fear of crime (e.g., Bursik & Grasmick, 1993; Covington & Taylor, 1991; Taylor & Covington, 1993; Will & McGrath, 1995)¹. Similarly, students who attend schools which have a violent subculture (strong gun and/or gang presence), and those who attend schools where the presence of drugs and alcohol are readily available have been shown to experience more fear of crime (Alvarez & Bachman, 1997). Multinational studies, examining both U.S and Israeli schools, also conclude that school conditions affect student fear and risk/safety perceptions (Astor, Benbenishty, Zeira, & Vinokur, 2002). Finally, May and Dunaway (2000) found in terms of disorder, youths who perceived their neighborhood to exhibit signs of incivilities were more likely to be fearful of victimization at school.

Taken collectively, previous research suggests that 1) previous victimization and a disorderly context can influence fear in both adults and students, and 2) fear is positively correlated with

avoidance in both adults and students at school. Existing literature lacks explicit examination of whether school disorder and previous victimization, net of one another, influence student avoidance through fear of school crime. As such, we make an effort to address this gap in the literature by estimating two distinct types of avoidance behavior. This conceptual distinction, along with our theoretical tests, may facilitate better understanding of the adaptive process of high school students. Knowing how individuals cope with disorder and victimization could inform future crime-, fear-, and avoidance-reduction strategies among school personnel.

Data and methods

The data used in this study were originally a part of the National Crime and Victimization Survey School Crime Supplement (2003). The School Crime Supplement (SCS) was designed to collect data on crime victimization in schools, filling an important void in our means of empirically addressing school crime issues. The SCS data were collected over a 6 month period between January and June of 2003. Survey data were collected by way of paper and pencil interview as well as computer assisted telephone interview. Respondents were selected through a stratified multi-stage cluster sample of households with children between the ages of 12-18. To be considered eligible for inclusion, respondents must have attended school at any time during the six months prior to the month of the interview. The overall response rate for the 12,176 NCVS respondents who were eligible for the SCS was 69.6 percent. The remaining 30.4 percent were non-interviews. For this work *only* high school students are examined, which reduced the number of total respondents to 3,776. The majority of survey items had less than five percent missing data. Where appropriate missing data was handled through expectation-maximization procedures (see Schafer, 1999).

Dependent variables

Based on the language of the SCS items, two distinct avoidance behavior themes immediately appear. Several items directly address the avoidance of individual locations while others are more thematic in nature. Examination of the individual items (Table 1) that form each of the two factors should support any a priori decision to create separate constructs of avoidance. Yet, in order to assess the empirical potential of these two items we conduct an exploratory factor analysis. This was accomplished through principal components analysis initially using a promax rotation to account for the possibility

Table 1

Rotated component matrix (principal components analysis; varimax rotation)

	Component	
	1	2
Entrances Into the School	0.175	0.628
Any Hallways or Stairs in School	0.126	0.695
Parts of the School Cafeteria	0.099	0.703
Any School Restrooms	0.090	0.722
Other places within the school building	0.218	0.725
School Parking Lot	0.101	0.695
Other places on School Grounds	0.169	0.687
Avoid Extra-Curricular activities because someone might attack/harm you	0.577	0.184
Avoid Classes, thought someone might attack/ harm you	0.851	0.123
Stay Home, thought someone might attack/harm at school/going to school	0.822	0.118
Eigen Values	3.914	1.407
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.851	
Bartlett's Test of Sphericity Sig.	0.000	

victimization, and a score of zero would represent no bullying victimizations in the last six months.

Disorder

Perceived disorder items were developed through several survey items in which respondents address the presence of gangs, guns, hard drugs, and softer/recreational drugs within the school environment. Principal components analysis (not shown here) of the measures used to assess presence of these four types of disorder in school revealed four distinct factors. Factors associated with presence of hard drugs and presence of recreational drugs were highly correlated (.7) and were thus combined for multivariate analysis purposes. Hence, we utilized three different factors, representing different dimensions of perceived school disorder: 1) presence of gangs, 2) presence of guns, and 3) presence of drugs.

For measurement of *Gang Presence*, we utilized three different questions from the SCS with regard to respondent perceptions of gang activities within the school. The first question asked the respondent to identify simply whether there were gangs in their school. Respondents who responded “yes” to this first filter question were then asked how often gang violence occurred at their school, with “gang violence” defined as gang involvement in fights, attacks or other generic violence. Responses to this inquiry ranged from 1 = “once or twice in the last six months” to 5 = “almost every day.” The final SCS item regarding gangs asks the respondent to identify whether or not gangs had been involved in the sale of drugs at their school within the survey period. These items were summed to create an index score referred to as *Gangs*.

For measurement of *Gun Presence*, two SCS items assessing the nature of gun carrying at school. Both of the items focus on guns being carried by other students. The first item asks the respondent “Do you know any (other) students who have brought a gun to your school in the last six months?” A second item asks, “Have you actually seen another student with a gun at your school in the last six months?” These two items loaded highly on the aforementioned principal components analysis. They were combined by averaging the score across the items to create one composite item.

To measure *Drug Presence* in schools, as a third dimension of school disorder, we combined the measures of prevalence and availability for each drug. The questions “Is it possible to get _____ at your school?” and “How easy is it to get _____ at your school?” formed the basis of our score for each type of drug. Summing these two items created a single item which ranges from zero to four where a score of zero corresponds with “no availability” and a score of four corresponds with “available and easy to access.” As mentioned above, though availability of drugs initially sorted into “hard drug” and “soft drug” categories, scales created using those distinct factors were highly correlated. Ultimately, therefore, we created the “drug presence” variable as the mean of access/availability scores across all drugs. These combined items displayed strong internal consistency ($\alpha = .91$).

Control variables

In addition to variables required to address the underlying theoretical framework of this study, several control variables have also been included. Among these are measures of respondents’ fear and victimization outside of school, socio-demographic characteristics of respondents, and several characteristics of the school building, including school safety measures employed, school type, and school location.

Non-School Fear and *Route Fear*, unlike school fear, functions as an exogenous control variable, addressing fears that the respondent may be experiencing in their life away from school. The SCS questions addressing non-school related fear are “Beside the time at school, how often are you afraid that someone will attack or harm you?” and, “How often are you afraid that someone will attack or harm you on the

way to and from school?” Respondents are limited to four response categories including “never,” “almost never,” “sometimes,” and “most of the time.” These responses are coded from 1 to 4 so that more frequent fears are associated with higher scores. We also measured *Non-School Victimization*. This dichotomous variable assessed whether or not a student had reported a victimization in the past six months that did not occur at school (1 = yes, 0 = no).

Additional statistical controls include socio-demographic characteristics. The age variable here is recorded in years where ages of respondents included in the study range from 12 years to 18 years, with 99.4 percent of the sample falling between ages 14 and 18. Additionally, sex is included as a dummy variable (1 = male). To control for race, we include two dichotomous variables, the first of which is “non-White” (1 = non-White). In the sample 77.9 (n = 2,988) of respondents characterize themselves as “White only”, 15 percent (n = 576) as “Black only” and 4.4 percent (n = 167) as “Asian only” with the remaining 106 respondents falling into other categories. The second dichotomous control addresses Hispanic ethnicity, addressing whether or not a respondent characterized themselves as being of Hispanic origin (n = 719).

We also controlled for characteristics of the respondents’ schools that might be related to avoidance such as safety measures and guardianship practices at school. Nine survey items loaded onto two separate factors in a principal components analysis. First, there are a set of five items representing *School Rules* (Astor et al., 2002). This measure included student responses to the following items: “everyone knows what the rules are,” “the school rules are fair,” “the punishment for breaking the rules is the same,” “school rules are strictly enforced,” and “if a school rule is broken students know punishment will follow.” All items referring to the rules were posed in likert style response categories ranging from 1 to 4. Subsequently, a composite measure of *School Rules* was constructed by averaging scores for those five variables ($\alpha = .73$). The four remaining items addressed presence (yes/no) of formal measures of social control within the respondent’s school, along the lines of physical security. These items (*Security Guards, Metal Detectors and requiring Picture ID, and Security Cameras*) were analyzed individually as they did not form a satisfactory composite item ($\alpha = .40$). Thus, these four items remained in the analysis as separate dichotomous variables (1 = yes; 0 = no).

Finally, three two control variables were included that assessed whether or not (1 = yes; 0 = no) the school was public or in an urban location. Conceptually, public and urban schools may have more disorder and crime (e.g. Astor et al., 1999; Roncek & Lobosco, 1983). Ultimately, these variables are included to create a more theoretically rigorous model given the available data. Again, Table 2 presents the descriptive statistics for all variables used in this study.

Results

Each of the multivariate results tables presented below (Tables 3 and 4) display two models. The first model in each of these tables presents all theoretical and control variables, with the exception of *School Fear*. The second model in the table adds the *School Fear* variable two facilitate the examination of not only the impact of fear, but the possible indirect-effects of disorder and/or victimization on avoidance. For all models tests of the dispersion parameter were significant indicating the appropriateness of the negative binomial form.

Results of the multivariate examination of *General Avoidance* (Model 1 of Table 3) suggest that with regard to the fear and victimization hypothesis, school bullying victimization is the most impactful variable. Bullying victimization was positively correlated with *General Avoidance*, suggesting that students reporting bullying also report higher levels of *General Avoidance*. Criminal victimizations at school, on the other hand seemed to have little impact.

Table 3
Multivariate results for general avoidance

General Avoidance	Model 1				Model 2					
	Coef.		Std. E	z	P>z	Coef.		Std. E	z	P>z
School Crime Victim	-0.668		0.753	-0.890	0.375	-0.731		0.680	-1.080	0.282
School Bullying Victim	0.798	*	0.126	6.340	0.000	0.534	*	0.122	4.380	0.000
School Fear						1.123	*	0.218	5.150	0.000
Gangs	0.919	*	0.235	3.910	0.000	0.772	*	0.231	3.340	0.001
Guns	0.224		0.683	0.330	0.743	0.125		0.675	0.190	0.853
Drugs	-0.020		0.020	-1.020	0.305	-0.021		0.019	-1.100	0.270
Age	-0.233		0.129	-1.810	0.070	-0.148		0.127	-1.160	0.244
Male	-0.100		0.306	-0.330	0.744	-0.193		0.292	-0.660	0.509
Hispanic	0.558		0.381	1.460	0.143	0.330		0.363	0.910	0.363
Non-White	-0.671		0.435	-1.540	0.123	-1.034	*	0.441	-2.340	0.019
Household Income	0.137	*	0.064	2.130	0.033	0.119	*	0.058	2.060	0.040
Public School	-0.970		0.681	-1.420	0.154	-0.929		0.661	-1.410	0.160
Urban	-0.682		0.382	-1.790	0.074	-0.511		0.369	-1.390	0.165
School Rules	0.334		0.345	0.970	0.332	0.187		0.319	0.580	0.559
Security Guards	1.997	*	0.851	2.350	0.019	2.053	*	0.819	2.510	0.012
Metal Detectors	0.017		0.423	0.040	0.968	-0.088		0.405	-0.220	0.828
Picture ID	0.440		0.321	1.370	0.170	0.406		0.304	1.340	0.181
Non-School Fear	-0.034		0.221	-0.150	0.879	-0.319		0.211	-1.510	0.131
Route Fear	0.997	*	0.220	4.540	0.000	0.462	*	0.221	2.090	0.036
Non-School Crime Victim	1.362	*	0.439	3.110	0.002	1.233	*	0.421	2.930	0.003
Constant	-5.589		2.503	-2.230	0.026	-6.831		2.447	-2.790	0.005
N = 3,526		Pseudo R ² = .232				Pseudo R ² = .269				
* = P>.01		Coef.	S.E.			Coef.	S.E.			
Alpha	2.638	1.195			1.113	0.779				
Test of alpha = 0:	15.02	Pr>= chibar2 = 0.000		4.18	P>= chibar2 = 0.000					
Log likelihood =	-238.5			-227.1						

Table 4
Multivariate results for place avoidance

Place Avoidance	Model 1				Model 2					
	Coef.		S. E.	z	P>z	Coef.		S. E.	z	P>z
School Crime Victim	0.001		0.479	0.000	0.999	0.156		0.453	0.340	0.730
School Bullying Victim	0.809	*	0.177	4.570	0.000	0.502	*	0.172	2.920	0.003
School Fear						0.892	*	0.175	5.090	0.000
Gangs	0.814	*	0.168	4.850	0.000	0.764	*	0.163	4.690	0.000
Guns	0.850		0.527	1.610	0.107	0.712		0.510	1.390	0.163
Drugs	-0.014		0.016	-0.860	0.389	-0.021		0.016	-1.330	0.185
Age	-0.312	*	0.086	-3.610	0.000	-0.250	*	0.086	-2.910	0.004
Male	0.022		0.207	0.110	0.916	-0.023		0.207	-0.110	0.912
Hispanic	0.138		0.288	0.480	0.632	0.171		0.282	0.610	0.545
Non-White	-0.127		0.264	-0.480	0.630	-0.170		0.266	-0.640	0.522
Household Income	0.020		0.037	0.530	0.599	0.031		0.038	0.820	0.411
Public School	1.725	*	0.824	2.090	0.036	1.603		0.826	1.940	0.052
Urban	-0.284		0.257	-1.100	0.270	-0.195		0.254	-0.770	0.443
School Rules	-0.044		0.247	-0.180	0.859	0.076		0.244	0.310	0.756
Security Guards	0.009		0.311	0.030	0.977	0.031		0.304	0.100	0.919
Metal Detectors	0.176		0.303	0.580	0.562	0.183		0.300	0.610	0.543
Picture ID	0.381		0.228	1.670	0.095	0.397		0.225	1.760	0.078
Security Cameras	-0.577	*	0.210	-2.740	0.006	-0.553	*	0.209	-2.640	0.008
Non-School Fear	0.775	*	0.164	4.720	0.000	0.521	*	0.170	3.060	0.002
Route Fear	0.386		0.215	1.800	0.072	0.134		0.216	0.620	0.534
Non-School Crime Victim	-0.730		0.479	-1.520	0.128	-0.837		0.480	-1.740	0.081
Constant	-1.507		1.742	-0.870	0.387	-3.263		1.756	-1.860	0.063
N = 3,077		Pseudo R ² = .115				Pseudo R ² = .133				
* = P>.01		Coef.	S.E.			Coef.	S.E.			
Alpha	9.492	1.538			8.019	1.348				
Test of alpha = 0:	333.0	P>= chibar2 = 0.000		285.3	P>= chibar2 = 0.000					
Log likelihood =	-666.2			-652.8						

Regarding the disorder thesis, only presence of gangs is significantly related to the general avoidance outcome. This positive, significant relationship indicates that increases in disorder correspond with increases in avoidance. The other two measures of disorder – guns and drugs – were not significantly related to *General Avoidance*. Among control variables, non-school victimization and fear on route to school were both positively and significantly related to general school avoidance. Additionally, security guards and household income measures were significantly related to the reporting of *General Avoidance*. Note that the presence of security cameras was not included in the general avoidance models, during initial modeling the variable had no significant impact and thus was removed to increase the list-wise N, ultimately resulting in differing sample sizes for general and place avoidance.

Model 2 in Table 3 incorporates school fear which is statistically significant and positive. Interestingly, it does not appear to mediate the effects of either bullying victimization or gang presence on general avoidance; those effects remain virtually unchanged after including school fear. In fact many of the relationships presented in Model 2 are similar to those shown in Model 1. One exception to that pattern is that of the previously non-significant demographic control variable, non-White. Upon including school fear, non-White becomes significant and negatively related to general avoidance. Additionally, non-school victimization and route fear maintained a significant relationship with *General Avoidance* net of school fear. Results presented in Table 3 suggest criminal victimization and fear that occur outside of school are as important as bullying victimization and the presence of gangs in understanding general avoidance.

Table 4 displays results for a similar analysis of *Place Avoidance*. In support of the idea that previous victimization experiences drive student avoidance, Model 1 of Table 4 shows that bullying victimization was significantly related to *Place Avoidance*. Students who reported greater bullying victimization also reported greater levels of *Place Avoidance*. In terms of the disorder thesis, and similar to the *General Avoidance* models, the *Gangs* variable is positively and significantly related to *Place Avoidance*. Additionally, as was true for general avoidance, criminal victimization at school as well as the disorder measures, drugs and guns, was unrelated to avoidance of specific places.

Several control variables achieved statistical significance in the estimation of *Place Avoidance*. Non-school victimization and non-school fear are positively related to *Place Avoidance* in Model 1 of Table 4. Also, the variables addressing age and is significant and negatively correlated with avoidance in that older students report less *Place Avoidance* even when controlling for other factors. The public school variable is significant and positive suggesting more specific avoidance occurs at public schools. Of the physical security measures, only the presence of security cameras is significantly related to *Place Avoidance*. This relationship is negative suggesting that students who reported security cameras in their school were less likely to avoid specific places.

The second model presented in Table 4 represents the examination of the possible mediating effects of school fear, intervening between victimization/disorder and *Place Avoidance*. First, note that the addition of school fear to the model is positive and significant. The bullying victimization and gang-disorder variables – significant in Model 1 – were only partially impacted by the inclusion of school fear. This may suggest that some, of these effects are mediated by school fear. On the other hand the significant relationship between the public school variable and place avoidance is no longer significant after controlling for the impact of school fear. This would suggest that after accounting for ones level of fear of being attacked or harmed at school, it no longer matters if that school is public. Finally, the security cameras and non-school fear variables remain significant after the inclusion of school fear. Model 2 of Table 4 indicates that a perceived presence of drugs was actually negatively related to place-specific

avoidance, net of school fear. Like in the model without school fear, past bullying victimization remains significant.

Many of the control variables, with the exception of age, remain unaffected by the introduction of school fear into the estimation of *Place Avoidance*. As expected, the addition of school fear reduces the relative strength of non-school fear in the model but does not nullify its effect altogether. Undoubtedly, there is some shared variance between these two fears, but school fear seems, once again, theoretically important above and beyond “general fear” in understanding school *Place Avoidance*.

Conclusions and discussion

Theory dictates that fear prompts individuals to change their behavior. Theory also suggests that the fear that prompts such behavioral changes stems from previous victimization experiences and environmental cues about the likelihood of experiencing victimization (i.e. disorder). Despite this theory, little empirical evidence exists regarding the extent to which behavioral change among high-school students in the form of school avoidance specifically is correlated with previous school victimization and school disorder, through school fear. The present study tested such theoretical mechanisms in relation to two distinct forms of student avoidance – “general school avoidance” and “place-specific avoidance” – thus addressing the concept of avoidance in a potentially new and interesting way and allowing for an assessment of the generalizability of correlates across multiple student reactions.

Regarding the theoretical propositions offered by the “fear and victimization hypothesis” and “disorder hypothesis” we found, first, that fear was positively related to both types of avoidance behaviors. Secondly, a measure of school bullying victimization and a measure of school disorder in the form of “presence of gangs” were consistently positively related to avoidance – including both general avoidance and place-specific avoidance. Other types of school victimization (i.e. criminal victimization) and other types of disorder (i.e. presence of guns and drugs) showed minimal impact. Interestingly, bullying victimization and perceived presence of gangs remained significant in both avoidance models, even after controlling for the effects of fear. From the disorder perspective, the presence of gangs within the school positively correlates with avoidance, presumably due to heightened fear. Similarly, from the fear and victimization stance, bullying victimization should affect avoidance because it elevates fear levels. As bullying victimization and perceptions of gangs remained significant predictors of avoidance, net of school fear, our findings challenge to a certain extent these theoretical frameworks. What mechanisms link bullying victimization and perceived disorder to school avoidance if not fear? While our study cannot answer the question with certainty, one possibility is the concept of “perceived risk” – a cognitive assessment shown to be distinct conceptually and empirically from “fear” (e.g., Ferraro, 1995). Some researchers suggest that the relationship between incivilities and fear is really operating through an increased perception of risk (e.g. Ferraro, 1995; LaGrange et al., 1992; Wilcox Rountree & Land, 1996).

Also challenging, to a certain extent, the disorder thesis and the fear and victimization thesis are the null effects of several of the measures of previous victimization and disorder. Our findings suggest that *certain* signs of disorder and *certain* types of victimization are key, whereas others are not. Presence of gangs was particularly linked to student avoidance behavior, whereas presences of guns and drugs did not enhance avoidance. Bullying victimization and *out-of-school* fear were positively correlated with avoidance, but, in-school criminal victimization was not. Further refinement of theory surrounding the effects of “disorder” and “fear and victimization” is clearly necessary in order to better understand such nuanced effects.

Beyond theoretical implications, these results seem to have meaning for policy and practice, especially in the form of school

place management. Clearly, our findings suggest that addressing the problems of gangs in schools and bullying victimization seems crucial for decreasing student avoidance behavior. Considering the overall consistency of the bullying and gang variables impact on avoidance behavior, school administrators interested in student avoidance might consider the use of anti-bullying/anti-gang programs. Anti-bullying programs are meant to reduce bullying behavior in students, increase staff's ability to deal with bullying behavior, and increase student resistance to becoming a victim of bullying through redefining school norms and promoting awareness of school rules (Gottfredson, 1997). Anti-bullying programs have been credited to be among those programs which have evidence of success in preventing crime and associated problems (Sherman et al., 1997). Several programs of this type have been successful in other countries and could be adopted more fully here (e.g. Olweus, 1991). Additionally, some evidence suggest that specific anti-gang programs such as the Gang Resistance Education and Training otherwise known as GREAT can be successful in the right circumstances (Esbensen et al., 2001). Ultimately, reducing gang presence and bullying in schools is a worthy effort, not just in terms of potentially reducing student avoidance behaviors, but in improving overall student quality of life.

While anti-bullying and anti-gang programs are key policy implications of our findings, we also found support for more general school practices aimed at creating a positive school climate with stronger informal social control. Literature on communal schools has shown that schools with strong, supportive, collaborative relationships between students, teachers and administrators foster an environment in strong informal social control and low disorder (e.g., Payne, Gottfredson, & Gottfredson, 2003). Our findings also suggested that students in schools with stronger school rules (a measure akin to what others have referred to as “communal school organization”) were less likely to avoid specific places.

Finally, we must note that the development of the various aspects of avoidance has a connection to place and a place management. While a certain amount of consistency emerges between general and place specific outcomes, the degree to which different variables impact place avoidance versus general avoidance suggest a more in depth look at the nature of places within places. Consistent with some previous research, our study suggests that the “micro-locations” within a particular school environment should continue to be examined in such a way that we can better understand why specific locations within the school generate greater fear and avoidance (Astor et al., 1999).

Limitations and future directions

Future research on student fear and behavioral reaction should attempt to reconcile the limitations of this work in a number of strategic ways. First, future work should draw on longitudinal data where possible. The SCS data available here is cross sectional and thus prevents causal statements from being made. Both theoretical paradigms examined here imply a process that should occur over time. Given the available data we must assume the relationships between variables work in a particular direction.

Another issue limiting this research involved the measurement of individual fear of school crime. The theoretical and conceptual development of fear of crime has provided a foundation for constructing more valid measures. Fear-of-crime research has evolved over recent decades in such a way that scholars in the field understand the need to disentangle overlapping but distinct items (e.g., Ferraro, 1995; Ferraro & LaGrange, 1987). Primarily, this refinement in measurement has entailed distinguishing between and accounting for both fear of crime and perception of risk. As alluded to previously, the present study only measured fear of crime, leaving a potentially important piece of the puzzle in terms of

understanding student avoidance unmeasured. Hopefully future studies can fill that void.

Additionally, future research on student fear might specify crime types in an effort to further increase precision in the measurement of student fear. Current SCS measures, for example, ask respondents to address fear of being “attacked or harmed.” In this case, a variety of crimes (e.g. assault, rape, murder) could fall under “attacked or harmed” and thus fear of those more specific crimes are all included as one measure. Further, fear of property crimes and fear of bullying/ridicule are not addressed by the currently-used SCS measure of fear. Finally, the SCS attempts to address fear, rather than fear *and* risk perception. The failure to disaggregate these two constructs is one of the major limitations and criticisms of past work in the fear of crime literature. This particular limitation of the SCS prevents addressing more directly the relationships developed in Ferraro's (1995) work. Subsequently, the absence of risk perception from the models may help explain the persistent direct relationships between disorder and behavioral adaptations.

Despite its limitations, this study contributes to the existing knowledge on how disorder, previous victimization, fear, and adaptive behaviors are inter-related, specifically in the high-school context. The data presented here show that perceived disorder in the form of presence of gangs and previous bullying victimization are key sources of student fear. In turn, student fear is positively correlated with two distinct types of avoidance behavior.

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