Broken Windows and Collective Efficacy: Do They Affect Fear of Crime?

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Abstract
The broken windows thesis posits that signs of disorder increase crime and fear, both directly and indirectly. Although considerable theoretical evidence exists to support the idea that disorder is positively related to fear of crime, the empirical literature on examining the indirect effect of the individual’s perception of incivilities on fear of crime is limited, especially in developing countries. This research was conducted to assess the indirect relationship between perceived disorder and fear of crime through collective efficacy. A total of 235 households from Penang, Malaysia, participated in this study. Results reveal that high perception of disorder is negatively associated with collective efficacy. High collective efficacy is associated with low fear of crime. Moreover, a significant and indirect effect of disorder on fear of crime exists through collective efficacy. The results provide empirical support for the broken windows theory in the Malaysian context and suggest that both environmental conditions and interactions of residents play a role in the perceived fear of crime.

Keywords
disorder, collective efficacy, fear of crime, mediation, neighborhood

Introduction
The influence of neighborhoods on crime and fear has gained increasing interest. Neighborhoods play a significant role in the lives of those who live and socialize within their boundaries. Certain characteristics of the neighborhood can affect neighborhood problems. Both the social and physical conditions of the neighborhood may affect the perception of the residents on the surrounding environment. The physical environment of the neighborhood has long been considered to directly influence the perception of an individual through psychological consequences (Abdullah, Hedayati Marzbali, & Maghsoodi Tilaki, 2013).

Fear of crime is more prevalent than actual victimization. It is a significant urban stressor that has harmful psychological effects on people. It is an important issue not only for individuals but also for neighborhoods and wider societies because it affects community health. Skogan and Maxfield (1981) argued that criminal events capture the attention of the people in a way that few other events can. McCrea, Shyy, Western, and Stimson (2005) posited that fear of crime restricts personal activities in the neighborhood, increases dissatisfaction with the neighborhood, and reduces the overall quality of life.

Even within similar social environments, why might residents from one neighborhood have a greater fear of crime than those in other neighborhoods? Wilson and Kelling (1982) pointed out the possibility of a specific neighborhood having more unpleasant appearances created by signs of incivilities compared with other neighborhoods. However, one can argue that it might also be because of the low sense of informal control and cohesiveness. These claims constitute two popular theories related to the causes of neighborhood crime: the broken windows thesis and collective efficacy. However, despite the recent interest, limited empirical investigations have been made relating the broken windows thesis and collective efficacy to crime and fear in neighborhoods (Jean, 2007).

According to the National Research Council report, limited empirical knowledge exists on the effectiveness of the broken windows strategy in reducing crime or fear of crime (Skogan & Frydl, 2004). Moreover, the relationship among disorder, cohesion, and fear is inconsistent from one study to the next. Some recent studies challenged the broken windows thesis as they did not find support for the relationship between neighborhood disorderliness and crime (Eck & Maguire, 2000; Harcourt & Ludwig, 2006). However, others argued that such studies ignore the important components of

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neighborhood cohesiveness and informal control (Hinkle, 2013).

Broken windows theory suggests that disorder is important in the cycle of community decline and consequently contributes to a high crime rate in a neighborhood (Hinkle, 2013). Minor physical incivilities signal a lack of social control in a community, which in turn increases fear and withdrawal from the community (Skogan, 1990). This study examines the role of neighborhood conditions in shaping collective efficacy and fear. Our primary interest in this study is to examine the influence of neighborhood conditions on collective efficacy and fear of crime in an urban neighborhood and in a non-Western context.

**Literature Review**

**Broken Windows Thesis and Collective Efficacy**

A long tradition exists in the criminological research on the visual conditions of neighborhoods and the relationship between these visual cues and deviance. Through the decades, variations in crime rates across neighborhoods have resulted in the growing research on the neighborhood effects; that is, the arrangement of physical space and the interactions among neighbors affect crime and fear of crime. A long history of research has established reasonably consistent findings on disorder, crime, and fear. As suggested by Sampson (2004), these findings can be classified into five general terms: (a) considerable social inequality existing within neighborhoods; (b) a number of social issues grouped together at the neighborhood level; (c) concentration of poverty, racial composition, single-parent families, and rates of home ownership; (d) ecological differentiation by factors such as social class; and (e) ecological concentration of poverty (Petesch, 2013).

Shaw and McKay (1942) were the first to point out the deleterious effects caused by signs of disorder to communities. Several studies have found that incivility indicators have a direct and positive relationship with crime and fear (Cohen et al., 2000; Perkins, Wandersman, Rich, & Taylor, 1993; Raudenbush & Sampson, 1999; Robinson, Lawton, Taylor, & Perkins, 2003; Taylor & Hale, 1986). Criminological research on community crime rates also reflects the influential theory of broken windows by Wilson and Kelling (1982). In their classic work, they posited that physical and social incivilities are positively correlated with and contribute to the increase in crime and fear. Residents living in deprived areas may perceive their immediate surroundings in negative terms, causing a worsening cycle of fear and withdrawal from the community (Skogan, 1990).

The literature on incivilities continues to expand (Abdullah, Hedayati Marzbali, & Maghsoodi Tilaki, 2013; Cohen et al., 2000; Hedayati Marzbali, Abdullah, Razak, & Maghsoodi Tilaki, 2012; LaGrange, Ferraro, & Supancic, 1992; Raudenbush & Sampson, 1999; Swatt, Varano, Uchida, & Solomon, 2013; Wallace, 2012; Wyant, 2008). Ranasinghe (2012) explored the importance of disorder in relation to broken windows theory. Nearly all studies found a positive and significant relationship between incivility and fear of crime. These approaches may not always be appropriate in explaining crime and fear. For example, the results of a study in the U.K. context contradict the broken windows thesis, in which no significant association exists between social cohesion and the poor quality of the physical environment (Stafford, Cummins, Macintyre, Ellaway, & Marmot, 2005). Stafford and colleagues (2005) concluded that the theory of Wilson and Kelling does not apply in the U.K. context because the items reflect an institutional rather than an informal lack of care over the physical environment. Harcourt and Ludwig (2006) found no support for a simple first-order disorder-crime relationship as hypothesized by Wilson and Kelling. However, they argued that other factors could play a significant role in this relationship.

**Collective Efficacy and Fear of Crime**

Research on the relationship between incivilities and fear suggests two persistent problems. The first problem refers to unobservable individual characteristics of the residents in a neighborhood (Harcourt & Ludwig, 2006). This problem may include social cohesion and informal social control among residents, specifically the notion of collective efficacy as suggested by Sampson, Raudenbush, and Earls (1997). They defined collective efficacy as “the linkage of cohesion and mutual trust with shared expectations for intervening in support of neighbourhood social control” (p. 919). Collective efficacy is defined as a combination of social cohesion and shared informal social control within the neighborhood environment. Pioneered by Shaw and McKay (1942), social disorganization theory, which focuses on neighborhood structure and social cohesion, seeks to understand the relationship between neighborhood structure and crime through a mediation of social processes.

The second problem focuses on the visual characteristic of the neighborhoods and its consequences (Skogan, 1990). On one hand, a sign of incivility, such as a broken window, signals unreported or uncontrolled deviant behaviors to potential offenders. On the other hand, a sign of incivility also signals the need to avoid the streets and to withdraw from the community (Harcourt & Ludwig, 2006). In the U.S. context, aspects of broken windows theory, collective efficacy, and territoriality affect the worries of residents about the neighborhood (Pitner, Yu, & Brown, 2012). In their seminal work, Skogan and Maxfield (1981) tested a model in which social integration, community disorder, and community-level crime may affect fear. They found a significant and negative effect of cohesion on fear, whereas crime and disorder have a significant and positive effect on fear. These results supported earlier findings in which high crime rates and incivilities result in a heightened fear of crime.
Figure 1. The conceptual pathway between the study variables.

Research Hypotheses

Although the significant role of disorder in increasing fear of crime is widely acknowledged, the role of social cohesion has only been recently reconsidered by scholars. One might expect that neighborhood conditions would have greater effects in shaping social control and mitigating fear of crime than general social ties. However, this proposition has yet to be tested empirically. Therefore, drawing on the broken windows thesis, we believe that perceived incivilities and collective efficacy may reflect wider patterns of residents’ fear of crime. This study then seeks to empirically examine the broken windows strategy in an urban area. This article addresses this shortcoming in the literature by testing the relationship among the key variables in the broken windows thesis using data collected in a residential neighborhood in Malaysia.

However, despite the continued academic interest in the broken windows thesis developed by Wilson and Kelling (1982), it has received relatively limited empirical research. Although a number of studies connect the concept of disorder to crime and fear (e.g., Hinkle, 2013; Pitzer et al., 2012), surprisingly, limited research has been conducted on our theoretical framing of perceived disorder on fear of crime through collective efficacy. Using survey data, Gibson, Zhao, Lovrich, and Gaffney (2002) reported that residents with stronger collective efficacy demonstrate less fear. Although Gibson et al. (2002) also found a slight indirect effect of disorder on fear through collective efficacy, Taylor (2002) questioned the discriminant validity of the indicators of social integration and collective efficacy in Gibson’s study. Using survey data collected from racially and ethnically diverse neighborhoods in Malaysia, this study contributes to the current body of literature that explores the relationships among individual perceptions of disorder, collective efficacy, and fear of crime. These discussions lead to the following research hypotheses, as shown in Figure 1.

Hypothesis 1 (H1): A negative relationship exists between perceived disorder and collective efficacy.

Hypothesis 2 (H2): A negative relationship exists between collective efficacy and fear of crime.

Hypothesis 3 (H3): Collective efficacy mediates the relationship between perceived disorder and fear of crime.

Method

Study Context

This article constitutes a portion of a larger study that examined the physical characteristics of neighborhoods and the well-being of residents. To select samples from the population, the current work utilizes a systematic sampling with random start method at intervals of every fourth unit. The survey was conducted between June 2013 and September 2013 with a response rate of 57%. The survey covered a sample of 235 residents in a residential neighborhood. This study was conducted in Penang, Malaysia, specifically in the southern region of Penang known as Bayan Lepas, which has the highest number of residential burglaries compared with other areas in the island (Hedayati Marzbali, Abdullah, Razak, & Maghsoodi, 2011). Penang is now the second largest city in the country and has the second highest density of inhabitants per square kilometer. In the study area, the street network adequately varies in nature, and the movement pattern is dominated by private motor vehicles instead of public transportation or pedestrians. According to the offense data maintained by the Royal Malaysia Police, the crime rate in the study area is 4 cases for every 100 households, whereas the crime rate in Penang is 0.5 cases for every 100 households, suggesting that the study area has a relatively higher crime rate than the average neighborhood. Moreover, according to the victimization survey, the study area has a burglary rate of 22 cases for every 100 households.

Table 1 shows the demographic characteristics of the respondents. Among the respondents, 53% were female and 47% were male. The Penang Statistics (2011) reported that 51% of the population of Penang were female and 49% were male. The current survey reveals that the proportion of females was slightly higher than the average figure in Penang. This difference could refer to a high percentage of the respondents who were housewives, and it indicates that they were available at the time of the survey. Among the respondents, 46% were Malay, 44% were Chinese, and 10% were Indian. The Penang Statistics (2011) reported that the majority of the population of Penang are Chinese (41.5%), followed by Malay (40%) and Indian (10%). The proportion of Indians is highly comparable with the population of Penang. The reason for the higher proportion of Malay respondents compared with Chinese respondents can be traced back to the fact that, out of the non-response figure, a sizable number of Chinese residents refused to take part in the survey.
Measures

Perception of disorder. The disorder variable in this study is perceptual, relying on the individual’s perception of disorder and incivilities in his or her neighborhood. This variable is operationalized similar to its uses elsewhere, and it consists of physical and social disorder (Gibson et al., 2002; LaGrange et al., 1992). The study used factor analysis to collapse the items into themes (Foster, Giles-Corti, & Knuiman, 2010) because of concerns about the discriminant validity of the perception of the disorder items (Armstrong & Katz, 2010; Gau & Pratt, 2008). Table 2 shows that this measure was constructed with a series of 13 items that ask respondents to rate neighborhood problems on a scale ranging from 1, “no problem,” to 7, a “big problem.” Factor analysis of these 13 items extracted a two-factor analysis solution and categorized them into social disorder and physical disorder. Physical disorder refers to the deterioration of the built environment (e.g., seeing litter and trash). Social disorder refers to the breakdown of social control (e.g., selling drugs on the street).

In this study, perceived disorder is conceptualized as a second-order construct extracted from the exploratory factor analysis. It is reflected by two first-order constructs, namely, physical and social disorder measures. To develop the measurement model, the study uses a comprehensive disorder scale based on the neighborhood disorder scale of Ross and Jang (2000) and Foster et al. (2010). The results of the analysis demonstrated the positive correlation between these two first-order constructs.

Fear of crime. Fear of crime is the central concept in examining neighborhood dynamics (Swatt et al., 2013). Its construct and measurement have both been subject to debate (McCrea et al., 2005). This debate has led to different perspectives about the best ways of measuring fear of crime and thus to different interpretations of research findings (Abdullah, Hedayati Marzbali, Ramayah, Bahauddin, & Maghsoodi Tilaki, 2013). Rountree and Land (1996) noted two measures of fear of crime: affective (fear of crime) and cognitive (perceived risk) dimensions. In this study, we measured the affective dimension of fear of crime, which refers to the emotional responses to fear of being a victim of specific crime types (Rountree & Land, 1996). As shown in Table 2, fear of crime items are also similar to those used elsewhere (Ferraro, 1995; Foster et al., 2010; Swatt et al., 2013). This variable was measured using six items that ask respondents how much they worry about being the victim of a burglary or assault, family members having their vehicles stolen, being the victim of a robbery or attack, or having their property damaged by vandals. The response categories ranged from 1, “extremely not worried,” to 7, “extremely worried.”

Collective efficacy. Sampson et al. (1997) conceptualized a collective efficacy scale comprising two dimensions: social cohesion and informal control. In the current study, the focus is on both scales to measure the collective efficacy dimension suggested by Sampson et al. (1997). Social cohesion is defined as a concept that represents the residents’ willingness to help other neighbors, perceptions of trust, and shared values in the

Table 1. Demographic Characteristics of Respondents (n = 235).

| Characteristic          | Description | %    | Census information | %     |
|------------------------|-------------|------|--------------------|-------|
| Gender                 | Male        | 47   | 49                 |
|                        | Female      | 53   | 51                 |
| Race                   | Malay       | 46   | 40                 |
|                        | Chinese     | 44   | 41.5               |
|                        | Indian      | 10   | 10                 |
| Age                    | 19-29 years | 17   | 19                 |
|                        | 30-39 years | 17   | 13                 |
|                        | 40-49 years | 16   | 14                 |
|                        | 50-59 years | 24   | 10                 |
|                        | 60 and above| 26   | 11                 |
| Religion               | Muslim      | 47   | 51                 |
|                        | Buddhist    | 38   | 39                 |
|                        | Hindu       | 8    | 7                  |
|                        | Christian   | 7    | 3                  |
| Marital status         | Single, widowed, or separated | 26   | 41<sup>a</sup> |
|                        | Married or living as married | 74   | 59<sup>a</sup> |
| Ownership              | Owner       | 79   | 63<sup>b</sup> |
|                        | Tenant      | 10   | 42<sup>b</sup> |
|                        | Others      | 11   | 14<sup>b</sup> |

<sup>a</sup>Total population aged 15 years and above by marital status.
<sup>b</sup>Including all types of house.
neighborhood. In this study, this measure examines the perceptions of individuals to account for the differences in how residents may experience their neighborhood and whether signs of neighborhood disorder influence individual ratings of social cohesion. The scale measures the perception of residents on the actual behavior of other neighbors, such as “people in my neighborhood talk together.” The scale of social cohesion for the present study was adopted from the work of Sampson et al. (1997), which was later replicated in multiple studies (e.g., Baum, Zierscha, Zhang, & Osborne, 2009; Brown, Perkins, & Brown, 2003; Carpiano & Hystad, 2011; Cohen, Inagami, & Finch, 2008; Swatt et al., 2013; Table 2). The responses were measured on a 7-point scale with 1 representing “strongly agree,” 7 representing “strongly disagree,” and 4 representing “neutral.”

Informal control refers to the casual but vigilant observation of residents on street activities to prevent crime and disorderly conduct through direct intervention. Four items refer to the informal control dimension (adopted from Bellair & Browning, 2010; Sampson et al., 1997; and Greenberg, Rohe, & Williams, 1982). Respondents were asked to respond about the likelihood that their neighbors could be counted on to intervene in various ways using a 7-point Likert-type scale (1 = very unlikely, 7 = very likely).

### Results and Findings

This study used the partial least squares (PLS) analysis technique using Smart PLS M2 Version 2.0 (Ringle, Wende, & Will, 2005). Non-parametric bootstrapping (Efron & Tibshirani, 1993; Wetzels, Odekerken-Schroder, & Van Oppen, 2009) with 500 replications was applied to test the significance of path coefficients between latent variables and between the latent variables and respective manifest variables. PLS is an appropriate method to avert the limitations of covariance-based structural equation modeling (SEM) with reference to sample size, measurement model, and model complexity because it does not have any restriction on model complexity (Wetzels et al., 2009). In estimating the second-order disorder and collective efficacy constructs, the repeated indicators approach was notably used, in which the second-order construct was directly measured by indicators.

| Table 2. The List of Constructs and Corresponding Items. |
|----------------------------------------------------------|
| Construct        | Item label | Item statement                  |
| Fear of crime    |            | How worried are you of:         |
| Fear 1           |            | Someone breaking into your house |
| Fear 2           |            | Yourself or someone in your family being assaulted |
| Fear 3           |            | Having your car stolen          |
| Fear 4           |            | Being robbed or mugged on the street |
| Fear 5           |            | Being attacked                  |
| Fear 6           |            | Having your property damaged by vandals |
| Perceived disorder |            | How much of a problem is/are: |
| Physical disorder |            |                                   |
| PhyDis 1         |            | Unkempt lawns and gardens        |
| PhyDis 2         |            | Houses and fences not looked after (vacant houses) |
| PhyDis 3         |            | Upkeep of children’s playgrounds  |
| PhyDis 4         |            | Littering and dumping of rubbish in public areas |
| PhyDis 5         |            | Poor street lighting             |
| PhyDis 6         |            | Vandalism or graffiti on public properties |
| PhyDis 7         |            | The condition of streets, sidewalks, or road signs |
| Social disorder  |            |                                   |
| SocDis 1         |            | Inconsiderate or disruptive neighbors  |
| SocDis 2         |            | Noisy neighbors and loud parties  |
| SocDis 3         |            | Problems regarding selling and dealing of drugs |
| SocDis 4         |            | Uncontrolled pets                |
| SocDis 5         |            | Teenagers hanging around the street |
| SocDis 6         |            | Motorbike racing is high in this street |
| Collective efficacy |            |                                   |
| Social cohesion  |            | People in this neighborhood are willing to help their neighbors. |
| Cohesion 1       |            | This is a close-knit neighborhood. |
| Cohesion 2       |            | Many people in this neighborhood can be trusted. |
| Cohesion 3       |            | People in my neighborhood talk together. |
| Cohesion 4       |            | People in my neighborhood get along with one another. |
| Informal control |            |                                   |
| Control 1        |            | Children were skipping school and hanging out on a street corner. |
| Control 2        |            | Children were spray-painting graffiti on a local building. |
| Control 3        |            | Children were showing disrespect to an adult. |
| Control 4        |            | A fight broke out in front of their house. |
of all first-order factors (Chin, Marcolin, & Newsted, 2003; Wetzels et al., 2009).

The result was presented in two steps: validating the measurement model and examining the structural model. The former involves the relationships between the indicators and their respective constructs, and the latter involves the relationships between the latent constructs. A measurement model was used to assess the internal consistency, reliability, and construct validity. Construct validity consists of convergent and discriminant validities. The structural model was assessed to test the hypotheses of this study by examining path coefficients (β) and their significance levels using PLS path modeling with the application of a non-parametric bootstrapping procedure (Chin, 1998; Henseler, Ringle, & Sinkovics, 2009).

**Measurement Model Results**

**Construct validity.** Construct validity is composed of two categories: convergent validity and discriminant validity (Hair, Black, Babin, Anderson, & Tatham, 2006). Table 3 shows that three methods were used to assess convergent validity: factor loading, composite reliability (CR), and average variance extracted (AVE). The most common method in examining discriminant validity is comparing the square root of the AVEs of each construct and the correlation estimate between constructs, in which the former must be greater than the latter (Fornell & Larcker, 1981).

**Convergent validity.** Table 3 presents the result of the measurement model. Convergent validity shows the extent to which several items that measure identical concepts are consistent. An acceptable cut-off value for loadings at 0.6, as suggested by Hair, Black, Babin, and Anderson (2010), was used to assess the loading of each item in reflecting the corresponding latent variable. Table 3 shows that the standardized loading estimates of all items were above the 0.6 cut-off value, as suggested by Hair et al. (2010).

The AVE is suggested to have a value of 0.5 and above, which indicates adequate convergence (Bagozzi & Yi, 1988). In this study, the AVE values ranged from 0.65 to 0.85, which were above the recommended value of 0.5. The CR estimates the degree to which the respective indicators are reflected by the latent construct. A value of 0.7 and above, which represents good reliability, is suggested for CR (Hair et al., 2010).
In the current study, the CR values ranged from 0.91 to 0.96, which were well above the cut-off value. Overall, the measurement model demonstrates adequate reliability and convergent validity, suggesting that all items were valid measures of their corresponding constructs based on parameter estimates and statistical significance.

Reliability analysis. The Cronbach’s alpha scores in each factor were close to the recommended cut-off value of .7 (Nunnally & Bernstein, 1994) and indicated good scale reliability. The alpha values ranged from .87 to .95. Therefore, the measurements were concluded to be reliable.

Discriminant validity. The discriminant validity was examined using the criterion suggested by Fornell and Larcker (1981). Table 4 shows that the square root of the AVE exceeded the inter-correlations of the constructs in the model. This result suggests that the measure had adequate discriminant validity (Chin, 2010).

Assessment of the Structural Model
The results of path analysis indicate that all paths are significant at $p < .01$. A negative and significant relationship exists between disorder and collective efficacy ($\beta = -0.361$, $p < .01$), as well as between collective efficacy and fear of crime ($\beta = -0.289$, $p < .1$), providing support for H1 and H2. Furthermore, this study estimates an indirect relationship, as shown in Figure 2. Baron and Kenny (1986) outlined three steps to evaluate the mediation effect. The first step is to determine a significant relationship between a predictor and a criterion. The second step involves determining the relationship between a predictor and a mediator. The third step determines the effect of a mediator on a criterion after controlling for the independent variable (Baron & Kenny, 1986). Although Baron and Kenny (1986) suggested the necessity of a significant direct effect of a predictor on a criterion for mediation to occur, some authors have argued that this effect is not necessary (MacKinnon, Krull, & Lockwood, 2000; Preacher & Hayes, 2008; Shrout & Bolger, 2002).

To estimate the significance of the indirect effect, many researchers used the Sobel test (Sobel, 1982). A limitation of the Sobel test is that it requires a normal sampling distribution of the indirect effect (Hayes, 2009), but the indirect effect of $(ab)$ sampling distribution tends to be asymmetric with non-zero values for skewness and kurtosis (Stone & Sobel, 1990). According to Hayes (2009), tests that assume normality of the sampling distribution should not be used to assess indirect effects. He suggests the use of a bootstrapping procedure as an appropriate approach to test the indirect effects. The $t$ values for both direct and indirect effects were computed through a bootstrapping procedure with 235 cases and 500 samples. Note that the $t$ value for indirect effect is obtained by dividing the $ab$ by the standard error (SE) of the indirect effect. The SE is the standard deviation of the repeated bootstrap estimates of the indirect effect. The result shows that the $t$ value of the indirect effect is 3.23, which is greater than 1.960 and significant at the 0.01 level. Therefore,
H3 is supported. Figure 2 reveals that approximately 13% of the variance in collective efficacy is explained by disorder, but disorder and collective efficacy explain only 8% of the variance on fear of crime.

Discussion

Despite the continued interest and the influence of broken windows theory on criminological literature, the indirect pathway between the disorder and fear through collective efficacy has arguably not received empirical support, and most existing studies have been criticized for their methodological shortcomings (see Harcourt, 2001). To fill this gap, the current study examined the mediation effect of collective efficacy on the relationship between the perception of incivilities and that of fear of crime. A field survey of a systematic random sample of Penang residents in a residential neighborhood was used to examine the indirect relationship between incivilities and fear of crime. SEM was used to analyze the data.

In accordance with the literature (Swatt et al., 2013; Wyant, 2008), the results suggest that the perception of incivilities is predictive of fear at the individual level. Although several studies have examined the indirect effect of disorder on fear of crime, limited empirical investigations have tested this indirect pathway through collective efficacy (see, for example, Gibson et al., 2002). In accordance with Gibson et al.’s (2002) study, the analysis indicates that collective efficacy mediates the relationship between the perception of incivilities and that of fear of crime. The findings further reveal that signs of incivilities break down social control and consequently increase fear of crime. However, collective efficacy is an important factor in mitigating fear and has significant implications on the informal management of the neighborhood by the residents.

Taken as a whole, signs of incivilities are related to collective efficacy and fear of crime. This observation is consistent with a previous research that found a lower fear of crime for individuals who perceive fewer incivilities and a higher sense of cohesion and control (Brown et al., 2003). This analysis provides empirical support for both the broken windows thesis and for the previous study results that were not idiosyncratic to the 1980s and the 1990s, as articulated by Wilson and Kelling (1982) and Sampson et al. (1997) among others. Analyses of similar models with similar measures yield results consistent with the broken windows thesis and collective efficacy. The findings of the current work are consistent with those of research on broken windows theory, collective efficacy, and perception of incivilities (Pitner et al., 2012) in that they show that the presence of incivility and the sense of cohesion can affect residents’ concerns about safety in the neighborhood. Therefore, our study suggests that the findings of the initial classic study were not artifactual but illuminated an underlying empirical pattern that has persisted over time (Gibson et al., 2002).

Collective efficacy has been shown to have a significant relationship with the perception of disorder and that of fear at the individual level. It further mitigates the positive effect of perception of disorder on fear of crime. The study suggests that neighborhoods should apply at least some aspects of Wilson and Kelling’s theory to enhance social control and safety. The question arises as to how neighborhoods can enhance the perception of collective efficacy when limited evidence of such behavior exists among individuals. An increase in social interactions among neighbors leads to an increase in social ties and consequently informal control. This observation implies that neighborhoods with high cooperation and strong interpersonal networks may share mutual expectations of intervention in times of need. We argue that, in the absence of social ties, the informal control of an area would appear to be unlikely. In summary, researchers should incorporate indicators of the broken windows thesis and collective efficacy with their research design to enhance social control and dampen fear of crime.

The discovery of a strong social cohesion among residents in Malaysia provides an encouraging direction for future research (Hedayati Marzbali, Abdullah, Razak, & Maghsoodi Tilaki, 2014). Given that the present empirical confirmations of the model illustrate low levels of perceived fear of crime among those who perceive high social cohesion, those interested in the applied possibilities of social cohesion can be encouraged to test a new model for the patterns of social cohesion related to actual crime experiences in multicultural communities. Moreover, social cohesion and informal control may also be an alternative option for communities struggling with high physical and social incivilities. Evidence suggests that the residents prefer to see and be seen continuously only by their neighbors (Newman, 1972). Seeing and being seen by one’s neighbors create a form of social glue that enhances social interactions and in turn promotes informal social control. Similarly, if the neighborhoods include parks and grocery shops to draw residents to the public and semi-public realms, then neighborhood-like feelings would improve.

Limitations and Strengths

To our knowledge, this study is one of the first reports to examine the mediating role of the collective efficacy on the relationship between the perception of disorder and that of fear of crime in a non-Western nation. Although the present work extends prior incivilities research, some important limitations are worth noting. First, the study focuses on the relationship between disorder, collective efficacy, and fear of crime and does not address the effect of the perception of incivilities and collective efficacy on crime. Research shows that crime victims tend to be more fearful than non-victims (Mesko, Kovco-Vukadin, & Muratbegovic, 2008). The study would be useful for future work that includes testing the mediating role of collective efficacy on both crime and fear.
Many factors, such as physical and social vulnerabilities, notably influence the perceived fear of crime. Failure to control age and gender as physical vulnerabilities is the second limitation of this study. These factors are important because a previous study observed higher levels of perceived social cohesion among the elderly compared with the non-elderly (Abdullah, Hedayati Marzbali, & Maghsoodi Tilaki, 2013). On one hand, a stream of research focusing on fear of crime seeks to indicate that women and the elderly are more physically vulnerable and more likely to report higher levels of fear of crime than their counterparts (Franklin, Franklin, & Fearn, 2008). On the other hand, social vulnerabilities such as the poor, less-educated people, and ethnic minorities may perceive higher levels of fear than other counterparts (Taylor & Hale, 1986). Moreover, as shown in Figure 2, a significant amount of variance in fear of crime is left unexplained. Further research is necessary to validate the study findings by controlling both social and physical vulnerabilities. Another limitation of this study is the use of the indicators to measure the construct of fear of crime. Future research may benefit from the use of more objective measures for fear of crime, such as the perception of risk when walking alone in an area (street) during the daytime.

The empirical illustration of the present study of the use of PLS path modeling constitutes only a single study with limited generalizability. Causal interpretations cannot be confirmed because this study is cross-sectional in a specific context (a developing country). Moreover, we described the correlations between the variables rather than causations, so future studies should assess these associations longitudinally. The results of the study are only generalizable to high-crime contexts such as residents living in multiracial neighborhoods. Finally, the current study was conducted in a heterogeneous community, and future studies should focus on the collective efficacy strategies in reducing fear of crime in both homogeneous and heterogeneous communities. However, our larger point is that reducing disorder and increasing collective efficacy, as one urban policy of the day, could produce positive effects in communities.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) disclosed receipt of the following financial support for the research and/or authorship of this article: The authors would like to thank the Universiti Sains Malaysia for providing financial support for this study.

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