Neighborhoods and Crime: Collective Efficacy and Social Cohesion in Miami-Dade County

Executive Summary

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Executive Summary

Introduction

This is a study of collective efficacy in Miami-Dade County, Florida. Collective efficacy is a neighborhood-level concept where community members create a sense of agency (see Sampson, Raudenbush, & Earls, 1997) and assume ownership for the state of their local community. It is one of several forms of formal and informal social control that predicts the overall functioning of a community (Warner, 2007).

The concept of collective efficacy emerged out of the social disorganization literature and represents the capacity of residents, organizations, and other groups to exert social control and thereby reduce crime and violence. Sampson (2012) argues that collective efficacy includes working trust among residents and the willingness to intervene to achieve social control. Although a neighborhood-level process, collective efficacy creates a conceptual linkage between shared social expectations, trust, and the aggregate physical and social characteristics of neighborhoods. Neighborhoods represent significant spatial locations where culture is shared, social interaction occurs, governmental resources are allocated, and a sense of community is oftentimes seeded. Neighborhoods and the social structures contained therein can have some capacity to regulate human behavior through shared expectations that not only set boundaries of acceptable behavior, but also create cultural norms about what actions should be taken when standards are violated (Bursik & Grasmik, 1993).

The social interactions between neighborhood residents, influenced in part by length of residence and similar cultural and/or ethnicity, holds the potential to create a strong sense of social cohesion and common interest (Sampson & Raudenbush, 1999; Warner, 2007). Social

cohesion and trust, when high, help structure collective productive *action*, which ultimately functions as the cornerstone of collective efficacy.

While substantial research on collective efficacy and the role it plays in protecting vulnerable communities against crime continues to accumulate (see Pratt & Cullen, 2005), there remain several important gaps in research in this area. For example, this research found a clear distinction between collective efficacy and social cohesion. The size of the group domain for social cohesion suggested that this dimension is substantively different from collective efficacy and is important in understanding neighborhood social functioning. This finding directed us to look at collective efficacy *and* social cohesion in more detail.

From our perspective, within a neighborhood, the way in which people interact, share common goals and values and trust one another are associated with levels of crime. Throughout this report, we focus on two major aspects of social functioning: collective efficacy and social cohesion. *We define collective efficacy as the collective ability of residents to produce social action to meet common goals and preserve shared values. We define social cohesion as an emotional and social investment in a neighborhood and sense of shared destiny among residents.* When residents meet with each other and interact, they form social ties or acquaintanceships. In well-functioning neighborhoods, there will be a large number of social ties between residents; while in poorly functioning neighborhoods there will be a lot fewer of them. Obviously, some of these social ties will be more intense, leading to friendships. Kinship is another form of social ties between residents; grandparents, cousins, uncles and aunts, and other relatives often live in the same neighborhood. Ultimately, these social ties are the glue that helps bind neighborhood residents together.

These social ties represent a resource for the residents living in a neighborhood. Residents living in neighborhoods with close social ties tend to watch out for each other and their property. For example, they will make sure their kids are not getting into trouble, assist in shoveling snow off of sidewalks, monitor people hanging out in the neighborhood, and generally provide a sense of safety within the neighborhood. Collective efficacy therefore refers to the degree to which neighbors provide this sense of safety, and to intervene if something problematic happens. Intervening can include things like calling the police, asking questions of strangers, notifying parents if their children are misbehaving, forming community groups to address problems, or at a higher level, attending city council meetings to request assistance from government.

Social cohesion, on the other hand, refers to the emotional and social connection that comes with close social ties – it is the "sense of community" shared by residents of a neighborhood. In neighborhoods with high social cohesion, residents trust each other and experience a sense of belonging in the neighborhood. This sense of belonging comes from an increased emotional, social, and economic investment into the neighborhood – areas where people own homes, send their kids to local schools, and "put down roots" tend to have higher social cohesion.

Research Questions

In this study, we address some of the remaining gaps in our understanding about collective efficacy. Our main research questions are:

> 1. What are the psychometric properties of the most popular measure of perceptions of collective efficacy (the Sampson, Raudenbush, and Earls (1997) scale)? Is this measure appropriate and well constructed and is it being modeled correctly in extant research on collective efficacy?

2. At the level of individual perceptions, what are the important relationships between perceptions of collective efficacy and related constructs and other important perceptual outcomes, such as perceptions of incivilities, satisfaction with the police, and fear of crime?

3. Do the relationships between perceptions of collective efficacy and related constructs and other key variables vary between neighborhoods? In other words, is there heterogeneity in the impact of perceptions of collective efficacy in different social contexts? If so, how does the impact of perceptions of collective efficacy vary and what are potential explanations for this heterogeneity?

4. What variables predict perceptions of collective efficacy and related constructs? Do a person's activities within the neighborhood influence the degree to which they perceive it to function properly?

5. Is there local variability in collective efficacy and other related constructs within neighborhoods? What strategies are available for modeling this variability?

Methods

To answer these research questions, we collected data from eight neighborhoods across Miami-Dade County: Brownsville, Bunche Park, East Little Havana, Seminole Wayside Park, Ives Dairy Estates, Kendall Hammocks Park, Auberdale, and Coral Reef Park. These neighborhoods were purposively selected to represent a diverse cross-section of neighborhoods from across Miami-Dade County and vary in terms of demographic characteristics, socioeconomic status, geographic location in the county, and previous patterns of crime. Neighborhood boundaries for these areas were created in consultation with officially designated boundaries, similarities in demographic and socioeconomic characteristics reflected in Census data, common land use (such as schools and parks) that serve as central focal points for the surrounding neighborhood, distinct "breaks" in land use (e.g., moving from predominately residential to commercial property, change in residential housing stock or quality), and transportation/hydrology boundaries. The map below illustrates the locations of the selected neighborhoods.

Residents within these eight neighborhoods were randomly selected for inclusion into the study using a list of all mailable residences within each neighborhood. Trained survey administrators then conducted face-to-face surveys with 1,227 residents across the eight neighborhoods. To reduce survey costs, Justice & Security Strategies, Inc. (JSS) adopted an "entrepreneurial" strategy and paid interviewers according to the number of surveys completed. For quality assurance, the field supervisor conducted telephone validations for approximately 10 to 15 percent of the surveys. The overall response rate of the surveys approached 80 percent.

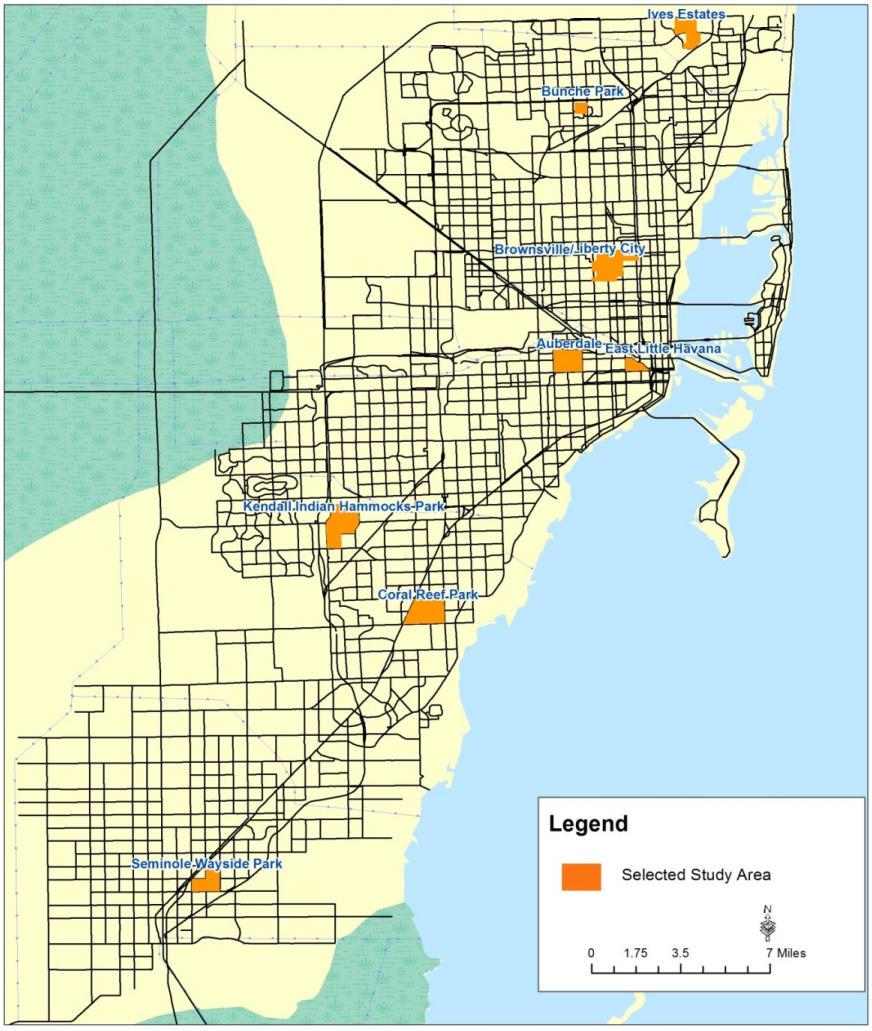


Figure 1. Map of Sampled Neighborhoods in Miami-Dade County, FL

Table 1. Matrix of Targeted Neighborhoods

Neighborhood	Race/Ethnicity Composition	Socio-Economic Status	Crime Level
Brownsville	African American	Low	High
Bunche Park	African American	Low/Middle	High
East Little Havana	Hispanic	Low	High
Seminole Wayside Park	Mixed/White/African American/Other	Low	Moderate
Kendall Hammocks Park	Mix/Hispanic/White	Middle	Low/Moderate
Ives Dairy Estates	Mix/White/African American/ Hispanic	Middle	Low
Auberdale	White Hispanic	Middle/Low	Low
Coral Reef Park	White	Upper Middle	Low

Findings

Research Question 1. What are the psychometric properties of the most popular measure of perceptions of collective efficacy (the Sampson, Raudenbush, and Earls, 1997)? Is this measure appropriate and well constructed and is it being modeled correctly in extant research on collective efficacy?

To address the first research question, we examined the psychometric properties of the expanded perceptions of collective efficacy scale. We identified three main item domains from the original Sampson et al. (1997) scale: willingness to intervene, social cohesion, and capacity for social control. Nineteen additional items from these domains were then added to the original items. We used a bifactor Item Response Theory (IRT) model to examine the dimensionality of the expanded scale. Then we considered item properties such as Differential Item Functioning

(DIF) and local item dependence to reduce the number of scale items to 20. We then examined the test information curve for the dimensions in the bifactor model. Finally, we used a Multiple Indicators, Multiple Causes (MIMIC) model to conduct a bifactor DIF analysis. We found several important results from these analyses:

- The bifactor IRT model fit the data better than the unidimensional or multidimensional IRT models;
- Items from the willingness to intervene and capacity for social control dimensions loaded very strongly on the general dimension for collective efficacy;
- Social cohesion items loaded on the collective efficacy dimension, but a substantial group factor for social cohesion remained in the scale;
- Despite the reduction in the number of items, issues with item fit and local item dependence remain;
- The test information dropped substantially for values greater than 0.75 and less than -1.5 standard deviations from the mean of collective efficacy;
- The test information for social cohesion was low between -0.5 and 1.0 standard deviations from the mean; and
- Differential item functioning effects for race/ethnicity still remained for the social cohesion dimension even after reducing the number of items in the scale.

These results suggest that while the expanded collective efficacy scale represents an improvement over the original 10-item scale used by Sampson et al (1997), considerable work remains to be done. Further attempts at identifying additional items would be helpful in addressing concerns regarding the precision of the scale. The size of the group domain for social cohesion suggested that this dimension is substantively different from collective efficacy and may also be important in understanding neighborhood social functioning. As a result of this finding, subsequent research questions were adjusted to ensure that both collective efficacy and social cohesion were examined closely and as separate domains.

Research Question 2. At the level of individual perceptions, what are the important relationships between perceptions of collective efficacy and related constructs and other important perceptual outcomes, such as perceptions of incivilities, satisfaction with the police, and fear of crime?

Within this question we considered whether collective efficacy and social cohesion had distinct effects with a number of outcome variables. Specifically, we examined the relationships between collective efficacy and perceptions of social cohesion with three outcome variables: perceptions of incivilities, satisfaction with police, and fear of crime. We formulated a structural equation model that assesses the impact of perceptions of collective efficacy and social cohesion on the three outcome variables. In order to control for unexplained correlations between perceptions of incivilities, satisfaction with police, and fear of crime this model allowed for correlations between the error terms for these outcomes and incorporated instrumental variables for the estimation of these models. Additional control variables were also included in the model, such as demographic characteristics and housing tenure.

The results of this model revealed a number of important findings. Generally, in the eight Miami-Dade County neighborhoods we found that the relationships between perceptions of collective efficacy, perceptions of social cohesion, and control variables showed considerable differences, which suggests that these are distinct processes of neighborhood social functioning. That is,

- Older residents perceived more collective efficacy and social cohesion than younger residents;
- Residents who used income assistance perceived lower levels of collective efficacy;
- Women perceived lower levels of social cohesion;
- Residents who owned homes had higher perceptions of social cohesion than those who were renters; and

- Residents who used neighborhood resources had higher perceptions of social cohesion.

More specifically, we found that across the eight Miami-Dade County neighborhoods:

- Perceptions of collective efficacy and perceptions of social cohesion had significant effects on incivilities. Those who had higher perceptions of collective efficacy and social cohesion had lower perceptions of incivilities, though the relationship between perceptions of social cohesion and incivilities was two times larger than those who had high perceptions of collective efficacy and low perceptions of incivilities.

- Perceptions of collective efficacy and perceptions of social cohesion had significant and nearly equivalent effects on satisfaction with police. Those who had higher perceptions of collective efficacy and higher perceptions of social cohesion had higher perceptions of satisfaction with police.

- Finally, perceptions of social cohesion had a statistically significant effect on fear of crime, while perceptions of collective efficacy did not. Those who had higher perceptions of social cohesion had lower perceptions of fear of crime.

Research Question 3. Do the relationships between perceptions of collective efficacy and related constructs and other key variables vary between neighborhoods? In other words, is there heterogeneity in the impact of perceptions of collective efficacy in different social contexts? If so, how does the impact of perceptions of collective efficacy vary and what are potential explanations for this heterogeneity?

In a subsample of four of the neighborhoods examined in this report, Swatt, Varano, Uchida, and Solomon (2013) found that the relationship between perceptions of collective efficacy and perceptions of incivilities and fear of crime varied across neighborhoods. To replicate and extend these results, we considered whether the observed relationships identified by the structural equation model used previously differ (in magnitude or significance) between neighborhoods. We assessed the heterogeneity in these relationships using the structural equation model identified in the previous section and obtained separate models for each neighborhood. We identified the substantive relationships that show differences between neighborhoods.

The results indicated that a number of important relationships showed heterogeneity across the eight neighborhoods in our sample (Table 2 provides an overview of the findings as they pertain to each neighborhood).

- Overall, the relationship between perceptions of collective efficacy and perceptions of incivilities *did not differ* between neighborhoods. However, the relationship between perceptions of social cohesion and perceptions of incivilities appeared to *differ* between neighborhoods.
    - In Seminole Wayside Park, East Little Havana, Auberdale, and Ives Dairy Estates, residents with high perceptions of social cohesion had low perceptions of incivilities.
- There did not appear to be any heterogeneity in the relationships between perceptions of collective efficacy and social cohesion and satisfaction with police.
- The relationships between perceptions of collective efficacy and social cohesion with fear of crime both demonstrate considerable differences across neighborhoods. The patterns of observed differences provide clues for possible moderating variables at the neighborhood level.
    - In Coral Reef Park, Ives Dairy Estates, and Kendall Hammocks Park residents had high collective efficacy and low fear of crime. In the predominantly African American neighborhoods of Brownsville and Bunche Park and the predominantly Hispanic neighborhoods of East Little Havana, and Auberdale, however, collective efficacy has no influence on fear of crime. In Seminole Wayside Park, residents had high collective efficacy and unpredictably, had high fear of crime.
    - In Brownsville, Seminole Wayside Park, and East Little Havana, residents with high perceptions of social cohesion had low perceptions of incivilities.

Table 2. Matrix of Targeted Neighborhoods and Findings

Neighborhood	Collective Efficacy & Incivilities	Collective Efficacy & Satisfaction w/police	Collective Efficacy & Fear of Crime	Social Cohesion & Incivilities	Social Cohesion & Satisfaction w/police	Social Cohesion & Fear of Crime
Full Sample	Statistically Significant	Statistically Significant		Statistically Significant	Statistically Significant	Statistically Significant
Brownsville	Statistically Significant					Statistically Significant
Bunche Park						
East Little Havana				Statistically Significant	Statistically Significant	Statistically Significant
Seminole Wayside Park			Statistically Significant (positive)	Statistically Significant		Statistically Significant
Kendall Hammocks Park			Statistically Significant (negative)			
Ives Dairy Estates	Statistically Significant	Statistically Significant	Statistically Significant (negative)	Statistically Significant	Statistically Significant	
Auberdale				Statistically Significant	Statistically Significant	
Coral Reef Park		Statistically Significant	Statistically Significant (negative)		Statistically Significant	
Invariance Test			Statistically Significant	Statistically Significant		Statistically Significant

Research Question 4. What variables predict perceptions of collective efficacy and related constructs? Do a person's activities within the neighborhood influence the degree to which they perceive it to function properly?

To further understand the differences between perceptions of collective efficacy and social cohesion, we decomposed the use of neighborhood resources variables into the individual indicators and consider whether levels of usage of particular resources (such as libraries, churches, community centers, grocery stores, etc.) are associated with perceptions of collective efficacy and social cohesion. Further, we also included variables to measure knowledge of community meetings and social activities and participation in volunteer activities within the community. We used bootstrapped OLS regression to estimate the models and correct for the clustering of residents within neighborhoods.

The results of these models indicated that there were important differences in the predictors of perceptions of collective efficacy and social cohesion. Specifically,

- Home ownership was associated with higher perceptions of social cohesion, but not collective efficacy;
- Greater use of neighborhood parks was associated with higher perceptions of collective efficacy and social cohesion;
- Greater use of neighborhood grocery stores was associated with higher perceptions of collective efficacy;
- Greater use of neighborhood medical facilities was associated with higher perceptions of social cohesion;
- Knowledge of community meetings was associated with higher perceptions of collective efficacy;
- Participation in volunteer activities was associated with higher perceptions of social cohesion.

While these analyses should be considered exploratory, the results are informative for hypothesizing about the differences between collective efficacy and social cohesion. We

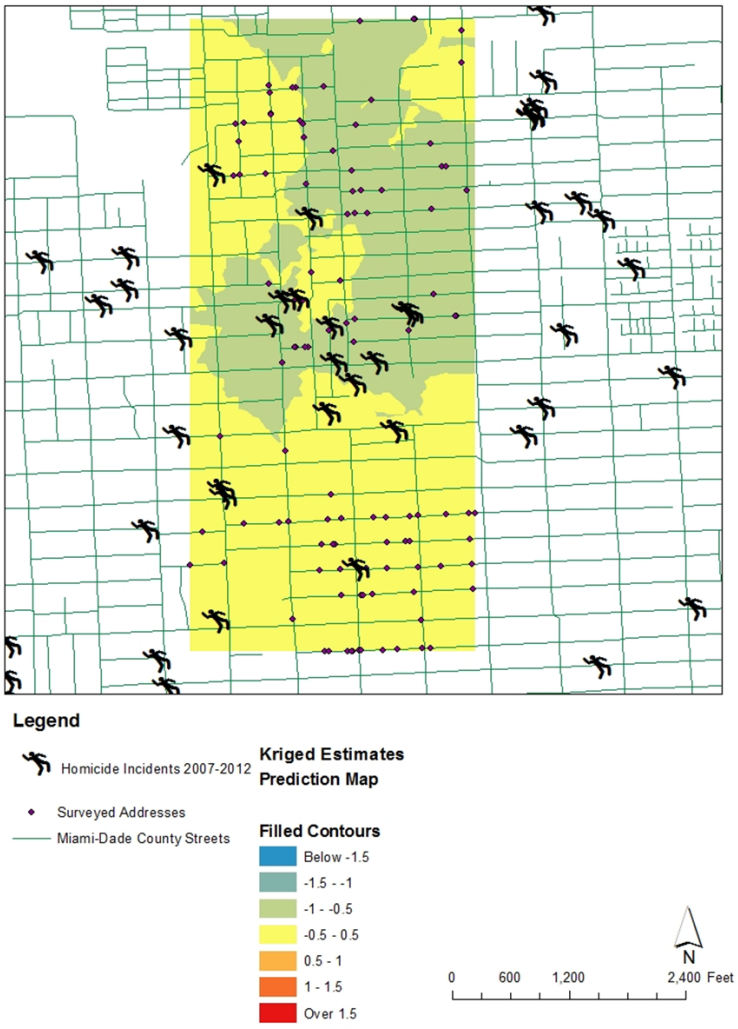
conjecture that the dimension of social cohesion that remains after adjusting for its contribution to collective efficacy represents a resident's emotional investment in the community. Specifically, it can be considered a resident's investment in the community and a sense of belonging and shared destiny with other residents. Based on current and previous results, this appears to be distinct from the working trust needed to mobilize a community to exercise social control.

Research Question 5. Is there local variability in collective efficacy and other related constructs within neighborhoods? What strategies are available for modeling this variability?

We also considered whether collective efficacy and social cohesion demonstrate variability within neighborhoods. Unfortunately, very few studies have examined social functioning with units of analysis smaller than the neighborhood. This is surprising as research demonstrates that "hot spots" of crime often occur in smaller areas within neighborhoods. One reason for this is the lack of a methodological strategy designed to assess local variations in social functioning. Drawing from the concept of "awareness space" we link the reliability of resident reports of social functioning to the awareness space approximated by a small area near the location of their residence. The spatial surface that reflects these awareness spaces can be estimated using kriging – a method that interpolates a smooth surface based on the observed values at spatial points and the distance and autocorrelation between them.

Using the Bayes expected *a posteriori* (EAP) scores for the perceptions of collective efficacy and perceptions of social cohesion dimensions, we created spatial surfaces for collective efficacy and social cohesion for each of the eight neighborhoods. Specifically, we attempted to determine whether there were rises (areas with higher levels) or sinks (areas with lower levels) in collective efficacy and social cohesion. We contextualized these maps by discussing the features

of space that may help explain the observed patterns. An example of the kriged collective efficacy scores for Brownsville is presented here. It is worth noting the apparent sink for collective efficacy that corresponds to an area of Section 8 housing that lies within the neighborhood.



In sum, these analyses showed:

- There is considerable local variation in collective efficacy and social cohesion within neighborhoods;
- Rises and sinks in collective efficacy and social cohesion do not necessarily coincide, seemingly indicating that two distinct social processes are at work;
- The locations of rises and sinks appear to follow patterns of land use (e.g., housing quality, features of space, residential tenure);
- Homicides seem to occur in or near sinks in collective efficacy or social cohesion, but the pattern is sparse given the rarity of the events, including other crime patterns may be more revealing.

Figure 2. Kriged Estimates for Collective Efficacy in Brownsville

The observed variation in collective efficacy and social cohesion suggests that policy makers, with proper input from research, could more appropriately target and address intra-neighborhood issues and also could design and implement unique solutions within these targeted areas.

Recommendations for Future Research

We offer a number of specific directions for future research on collective efficacy, social cohesion, and neighborhood functioning.

1. Improve and develop the expanded measure of collective efficacy.

The expanded measure of collective efficacy represents an improvement over the original set of items used by Sampson et al. (1997). Based on the current research, much more is known about the dimensionality, precision, and existence of differential item functioning of this expanded scale. However, based on the current results, there would be considerable benefit in further development of this measure. We recommend adding more items to the scale and further testing of these new items.

It also remains to be seen what the consequences of these findings hold for other studies of collective efficacy. First, it is unknown whether a similar multidimensional solution exists for the original measure in the Program on Human Development in Chicago Neighborhoods (PHDCN). It is quite possible that the multidimensionality observed in these data is a result of using the extended scale rather than the original scale. It is also quite possible that the multidimensional nature of this measure is a consequence of the unique nature of the sample at hand. Miami-Dade County, Florida has a much higher concentration of Hispanic/Latino residents compared to Chicago, Illinois and language and cultural differences between these two areas may account for the observed multidimensionality in the scale.

2. Distinguish between collective efficacy and social cohesion in terms of their respective causes and consequences.

One of the key findings from this report is the existence of a previously unexplored latent factor in the perceptions of collective efficacy scale -- *perceptions of social cohesion*. The manner in which this variable is constructed entails that it represents the part of the items from the social cohesion domain that are not part of perceptions of collective efficacy. Further analyses reveal that this group factor is distinct from perceptions of collective efficacy in terms of its relationships with key outcomes and predictors. This variable appears to exert consistently significant effects across outcomes, suggesting that it represents an important construct.

From our results, the perceptions of collective efficacy dimension reflects a single latent variable constituted from all three subscales: perceptions of willingness to intervene, social cohesion, and the capacity of social control. Following prior research on collective efficacy, this dimension can be understood as the ability of a community to marshal social control to intervene on behalf of the common good. Perceptions of collective efficacy merely represent an individual's assessment of the capacity of a community to address shared problems and concerns. Given that the perceptions of willingness to intervene and capacity for social control dimensions loaded very strongly on this single factor, yet comprise a diverse set of indicators, collective efficacy should be seen as a *general* capacity - not specifically geared towards crime control issues. Further supporting this argument is the breadth of correlations of collective efficacy with other neighborhood outcomes (see Sampson, 2012).

More difficult to conceptualize is the perceptions of social cohesion dimension. The analyses demonstrated that the social cohesion items contribute to the construct of collective efficacy; however, these items had much smaller loading than the willingness to intervene or capacity for social control items. The remaining variation common only among items in this

domain constitute a separate dimension in the collective efficacy scale. The issue, then, is how to interpret the remaining commonalities among the items in social cohesion after its contribution to collective efficacy is removed.

Our research should be viewed as a preliminary attempt at distinguishing between collective efficacy and social cohesion, and do not necessarily reflect a final attempt at refining these concepts. There is much that remains unclear about the differences between these two constructs. For example, increased frequency of use of neighborhood grocery stores is associated with higher perceptions of collective efficacy, but not higher perceptions of social cohesion. Increased frequency of use of medical facilities within a neighborhood is associated with higher perceptions of social cohesion, but not higher perceptions of collective efficacy. Increased frequency of use of neighborhood parks is associated with both higher perceptions of collective efficacy and higher perceptions of social cohesion. While the differences between these effects are likely a result of the nature of the activities at these types of locations, it is still unclear why this pattern exists. Further theoretical and empirical examination of these constructs is needed.

3. Examine the role of neighborhood context as a moderator of the relationship between perceptions of collective efficacy, social control, and key outcomes.

The results presented here demonstrate that the relationship between perceptions of collective efficacy, perceptions of social cohesion, and other individual-level outcomes shows considerable variability across neighborhoods. To a large extent, the current research design prohibits anything beyond an exploratory investigation for the reason for such variability. There are, however, some tantalizing clues for why such variation was seen.

The results of the invariance test suggest that there is statistically significant heterogeneity in the coefficients for perceptions of social cohesion on perceptions of incivilities between neighborhoods (Table 2 above).

While these patterns are certainly intriguing, the limitations of the research design prohibits a formal examination for potential moderating influences of neighborhood social context on the relationships between perceptions of collective efficacy and social cohesion with other perceptual outcomes. Additional research with a larger cross-section of neighborhoods is necessary to investigate the potential of cross-level interactions between neighborhood-level influences on the relationships between individual perceptions of neighborhood functioning and other important level-1 outcomes.

4. Investigate the role of predictor variables, especially patterns of activity and use of neighborhood resources, in fostering higher perceptions of collective efficacy and social cohesion.

The analyses examining the potential sources of perceptions of collective efficacy and social cohesion hold particular promise for policy relevant discussion and the development of interventions designed to improve neighborhood social functioning. The findings from this investigation suggest that collective efficacy and social cohesion remain important and separate dimensions of neighborhood functioning. Perceptions of collective efficacy and social cohesion show differential relationships with important individual-level outcomes and individual-level predictors. The kriged maps demonstrate that while collective efficacy and social cohesion are linked, it remains possible that sections of neighborhoods are bereft of either collective efficacy or social cohesion, but not both. The consequences of these findings suggest that it remains possible that interventions designed to improve neighborhood functioning may differentially impact these dimensions of social functioning. As a worst-case scenario, it may be the case that a

neighborhood (or section of a neighborhood) lacks social cohesion but the intervention selected only increases collective efficacy. In order to avoid such situations, it is important to better understand the sources of collective efficacy and social cohesion.

We argued that certain types of activities or the use of particular neighborhood resources differentially impact perceptions of collective efficacy and social cohesion. The results appear to support this hypothesis, as the coefficients for particular variables differed between models for perceptions of collective efficacy and social cohesion. Unfortunately, the explanatory power of both models was very low, likely owing to the limited number of available variables. Future research should consider a greater number of potential activities. Regardless, the current investigation represents an important first step at articulating the different sources of perceptions of collective efficacy and social cohesion. It further remains to be seen whether these findings "scale up" to the aggregate-level as well. Specifically, whether the extent to which residents within the neighborhood engage in these activities or use neighborhood resources translates into differential levels of collective efficacy or social cohesion. Extending this research will be critical for understanding the differences between collective efficacy and social cohesion and designing policy strategies to support the development and improvement of neighborhood social functioning.

5. Refine the methods used to explore the local density of collective efficacy and social cohesion.

One of the critical advances in the current research is the use of kriging to estimate the local density in collective efficacy and social cohesion. The theoretical idea behind the use of kriging is that while individual respondents within a neighborhood comprise individual "raters" of the social functioning of the neighborhood, the reliability of these ratings diminishes as

function of the distance away from the awareness space of the individual raters. As such, each individual rater contributes not only an assessment of neighborhood functioning, but a spatial reference for the locus of the accuracy of this rating, which is approximated here as the spatial location of their residence. Using tools common in geostatistics, the ratings, locations, and patterns of similarity within these ratings can be used to estimate the semivariogram; which in turn, is used to interpolate estimates of the local density of neighborhood functioning. Combining IRT estimates of the latent variables for perceptions of collective efficacy and social cohesion and incorporating these estimates into a method for interpolating the local density of neighborhood functioning provides considerable opportunities for future research to investigate within-neighborhood social functioning.

At the same time, however, we recommend that important refinements occur with the methods discussed in this report. For example, a different sampling strategy should be considered, for it is likely that random sampling may not be the most efficient for estimating the local density of social functioning within a neighborhood. Second, other approaches should be considered for estimating the spatial surface. An extension of the method would be to explicitly incorporate the measurement model directly into the method for interpolating the spatial surface. Finally, it may be useful to consider changes in the estimated spatial surfaces over time. Ultimately, when discussing concepts like collective efficacy and social cohesion there is a specific emphasis on social *process*. Unfortunately as Sampson (2012) notes, despite the emphasis on process, very rarely have ecological studies of crime incorporated assessments of the community at more than one time period.

Policy Recommendations

How does our research on collective efficacy, social cohesion, incivilities, satisfaction with police, and fear of crime in Miami-Dade County translate into specific and tangible recommendations for refining public policy strategies? In this section, we provide specific recommendations that have both national and local implications for policy makers, community organizations and organizers, law enforcement, and researchers.

Recommendations

1. Educate policymakers, community organizations and organizers, and law enforcement about collective efficacy and social cohesion and their links to incivilities, fear of crime, and satisfaction with police.

Collective efficacy and social cohesion are difficult concepts to grasp immediately. Because these terms and phrases are based on the language of academics they are cumbersome and do not translate to action readily. It behooves us to make these concepts understandable and useful. We will work with The Children's Trust of Miami-Dade County (The Trust), the National Institute of Justice (NIJ), and the Bureau of Justice Assistance (BJA) to make our findings more understandable for a larger audience.

At the same time, however, The Trust, NIJ, and BJA should recognize the importance of the concepts of collective efficacy and social cohesion and transmit the findings as broadly as possible to state, local, and Federal agencies.

1a. Continue to fund research on collective efficacy and social cohesion

The Children's Trust and NIJ should continue to invest in studies of this nature, particularly to replicate and enhance the findings. In the 1990s NIJ made a large investment in the Program on Human Development in Chicago Neighborhoods (PHDCN), yet this is the first study that has added questions and dimensions to the collective efficacy scale in a different

environment. The Children's Trust funded this project to learn more about the neighborhoods in Miami-Dade County, particularly as they relate to assisting children and families and violent crime. While researchers always indicate, "more research is needed," in this instance we believe that adding to the body of knowledge created here, and before us, is a worthwhile and cost effective endeavor for community-based organizations and those with a stake in public safety. If the concepts presented here can be better understood, efforts and investments can be more precisely targeted and tailored to achieve improved quality of life for residents.

2. Develop and Implement Collective Efficacy Strategies for Community-Based Efforts

Research on collective efficacy and the role it plays in protecting vulnerable communities against crime continues to accumulate and suggests that collective efficacy has stronger effects on crime than many traditional social structure variables (Sampson, 2012). Given the importance of the theory and its potential for preventing crime, we recommend that community-based organizations and their funders insert a Collect Efficacy Strategy into their plans for neighborhood improvements, revitalization, crime prevention programs, or other efforts that seek to improve the overall condition of a neighborhood.

Essential components of a Collective Efficacy Strategy include goals, objectives, measures, and a research partner to assist with data analysis and to conduct an evaluation.

Goals would include: 1) Increase the willingness of individuals within neighborhoods to do something about problems in their areas (collective efficacy); 2) Increase the sense of working trust in neighborhoods and communities (social cohesion); 3) Reduce incivilities (litter, noise, etc.) in specific neighborhoods; 4) Increase satisfaction with police services; and 5) Reduce fear of crime. For each goal, specific objectives and measures should be devised. For example, to increase collective efficacy and social cohesion communities could encourage

individuals or groups to use public parks, as we have found that doing so is associated with higher perceptions of both concepts. Another objective for increasing social cohesion is to encourage more volunteerism. This may mean calling for assistance in cleaning up a park or re-painting a community center on the weekend. Volunteerism should be directed and targeted to achieve the goals identified.

Measures for each goal and objective should be created, developed, and implemented. Measures would be based on questions in the survey instrument but should be broadened to include specific items that community organizers believe are relevant to their strategy.

The creation and implementation of these measures do a number of things. First, they broaden the understanding of collective efficacy to the community organizer and those who participate in the project. Second, they provide new and more relevant measures to the theory of collective efficacy. Third, they assist in learning about the overall success of the project, as the measures will be used in the evaluation.

The last component to the Collective Efficacy Strategy is the involvement of a research partner. Much like the programs run by the Bureau of Justice Assistance (e.g., BJA's Smart Policing, Smart Probation, Byrne Criminal Justice Innovative Program, and others), we recommend the inclusion of a researcher to evaluate the project and to assist in analyzing data pertinent to the community that is being served. In addition to the evaluation role, a research partner can provide critical baseline information to guide efforts followed by timely feedback.

3. Use Micro-Environments within Communities

Our finding that there is considerable heterogeneity in collective efficacy and social cohesion *within* neighborhoods is of importance because it suggests that interventions may not need to be directed at the neighborhood as-a-whole but rather focused to those areas within a

neighborhood where the exercise of collective efficacy and social cohesion have been diminished. The improvements that have been made in the scale for measuring collective efficacy and social cohesion coupled with the recommendation of kriging methods for assessing the local variability provide a strategy for assessing the degree of community functioning at smaller levels of analysis. This enables more targeted strategies for enhancing community functioning as well as a better method for incorporating problem-solving methods for identifying and addressing potential causes of the diminished capacity of residents to exercise social control.

Two main strategies emerge from this enhanced ability to identify collective efficacy and social cohesion at lower levels: filling-in and building-up. *Filling-in* refers to the process of identifying areas with substantially lower levels of collective efficacy and social cohesion and focusing efforts on community building within those locations. The purpose is to identify potential "sinkholes" of collective efficacy and social cohesion and problem-solving the causes of such sinkholes. *Building-up* on the other hand involves identifying areas within a distressed community with high collective efficacy and/or social cohesion and finding ways to leverage these residents to foster better community functioning in nearby areas. Through a continual process of bringing in residents of nearby areas and building outwards, it is possible to eventually improve the functioning of the neighborhood as a whole.

Strategies targeted toward micro-environments allow for a better use of already limited resources. *Targeting micro-environments* provides a robust methodological framework for leveraging *dosage* of interventions that may be place-specific. That is, researchers can measure the appropriate levels of interventions needed to improve collective efficacy and social cohesion. A more comprehensive understanding of criminogenic correlates of disorder, and how they are co-allocated in micro-environments provide cues for intervention. These causes could be features

of space, such as mixed land use or particular “crime attractors” and “crime generators” that may lead to an inability of nearby residents to exercise informal social control, either by fostering a sense of isolation and detachment to the community or by producing a sense of hopelessness and an inability of social action by residents. These causes could also be a product of the nature of residential factors in the area, such as a high population turnover or systematic impoverishment.

These two processes should not be seen as mutually exclusive, but rather complimentary strategies for improving community functioning in problematic neighborhoods. The key development, however, is providing the capability of designing interventions based on the improvement in measurement and spatial precision offered by the methodological approaches adopted in the current research. Coupling this methodological advancement with highly targeted strategic interventions designed to improve community functioning may offer highly effective crime prevention strategies at lower cost.

4. Improve Law Enforcement's Understanding of Collective Efficacy

There is no doubt that police play an important role in keeping neighborhoods safe. In earlier studies we have found that police involvement has a direct impact on fear of crime, satisfaction with police services, and incivilities (Uchida & Forst, 1994).

Our findings in the current study show that the police are not the only factor that has an impact on incivilities, satisfaction with police services, and fear of crime. Indeed, we now know that collective efficacy and social cohesion have similar impacts on these outcome variables depending upon the neighborhood and micro-environments.

What does this mean for police? How do they play a role in the general scheme of collective efficacy?

For police, community engagement is one of three 'pillars' of community policing, the other two being problem-solving and organizational change. Community engagement has come to mean attending and participating in community meetings, working with community advisory boards to address broad issues, providing neighborhoods with on-line crime maps and data, and on occasion solving problems using Herman Goldstein's problem-oriented policing model (Goldstein, 1991). These methods are all well and good, but only touch the surface of what could be done to make communities safer over the long term.

Understanding collective efficacy and social cohesion would give more depth to the police role within the community. Police know that their presence and visibility have an impact on controlling behavior (formal social control). In their absence, however, people are often left to their own devices, and depending on their micro-environment, are willing to intervene or not when they are confronted with problems (informal social control). To make things easier for the individual the police should take cues from what contributes to higher perceptions of collective efficacy in certain places -- greater use of neighborhood parks, greater use of neighborhood grocery stores, and knowledge of community meetings. For example, police may see a park as a recreational location where kids come to play, where babysitters bring their babies in strollers for walks where drug traffickers deal dope, where gang members hang out, or where the homeless seek shelter. If, however, they see the park as a *place* where neighbors meet to network, form social bonds, and become invested in the neighborhood, then the purpose is different and perhaps police attitudes and strategies will change. Removing the drug traffickers, gang members and the homeless through sweeps and other enforcement activities have a higher purpose than simply moving nuisances. By understanding that the park is not just a grassy location but also a place

where friendships and bonds of trust are formed within a neighborhood, then perhaps the police will commit to longer term strategies to make that place safe and keep it safe.

Understanding these concepts and linkages between and among collective efficacy, social cohesion, incivilities, satisfaction with police, and fear of crime puts the police on a different plane -- it makes them realize the importance of the human element within neighborhoods and communities.

References

Bursik, R. J., and Grasmik, H. G. (1993). *Neighborhoods and Crime: The Dimensions of Effective Community Control*. Lanham, MD: Lexington Books.

Pratt, T. & Cullen, F. (2005). Assessing macro-level predictors and theories of crime: A meta-analysis. In Tonry, M. (Ed.). *Crime and Justice: A Review of Research*. Chicago: University of Chicago Press.

Sampson, R.J. (2012). *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago: University of Chicago Press.

Sampson, Robert J., & Stephen W. Raudenbush. (1999). Systematic Social Observation of Public Spaces: A New Look at Disorder in Urban Neighborhoods. *American Journal of Sociology, 105*, 603-651.

Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997, August 15). Neighborhoods and violent crime: a multilevel study of collective efficacy. *Science, 277,* 918-924.

Swatt, M. L., Varano, S. P., Uchida, C. D., & Solomon, S. E. (2013). Fear of crime, incivilities, and collective efficacy in four Miami neighborhoods. *Journal of Criminal Justice, 41*, 1-11.

Uchida, C.D. & Forst, B. (1994). Controlling street-level drug trafficking: Professional and community policing approaches. In McKenzie, D. and Uchida, C.D. (eds.) *Drugs and crime: Evaluating public policy initiatives*. Thousand Oaks, CA: Sage Publications.

Warner, B. D. (2007). Directly intervene or call the authorities? A study of forms of neighborhood social control within a social disorganization framework. *Criminology, 45*, 99-129.

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