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Two sides of the same neighborhood? Multilevel analysis of residents' and child welfare workers' perspectives on neighborhood social disorder and collective efficacy

Daphna Gross-Manos[a], **Bridget M. Haas**[b], **Francisca Richter**[c], **David Crampton**[c], **Jill E. Korbin**[d], **Claudia J. Coulton**[c], **James C. Spilsbury**[e]

[a]Department of Social Work, Tel-Hai College, Upper Galilee, 1220800 Israel

[b]Center for Child Health and Policy, Case Western Reserve University School of Medicine, 11100 Euclid Avenue MS 6036, Cleveland, OH 44016

[c]Center on Urban Poverty and Community Development, Jack, Joseph and Morton Mandel School of Applied Social Sciences Room 212, Case Western Reserve University, 11402 Bellflower Court, Cleveland, Ohio 44106

[d]College of Arts and Sciences, Schubert Center for Child Studies, Case Western Reserve University, Cleveland, OH 44106

[e]Department of Population and Quantitative Health Sciences, Case Western Reserve University School of Medicine, Cleveland, OH 44106

Abstract

Neighborhood processes have been shown to influence child maltreatment rates, and accordingly neighborhood-based strategies have been suggested as helpful in intervening in and preventing child maltreatment. While child welfare workers are at the forefront of child maltreatment work, little is known about the extent to which their perspectives on neighborhood processes related to child maltreatment align with those of neighborhood residents. The current study examined the views of neighborhood residents (n=400) and neighborhood-based child welfare workers (n=260) on two neighborhood process measures, social disorder and collective efficacy. As social disorder is viewed as a risk factor for child maltreatment and collective efficacy is viewed as a protective factor, child welfare workers and residents of neighborhoods need to reach a common understanding of these factors in order to reach agreement on the safety of children in these neighborhoods. The samples of neighborhood residents and child welfare workers were nested within 20 neighborhoods in Cleveland, OH. Multi-level modeling taking into account individual and neighborhood characteristics, indicated that child welfare workers consistently tended to perceive higher social disorder and lower collective efficacy compared to residents. Neighborhood characteristics were associated with residents' and child welfare workers' perspectives on social disorder in different ways. Differences in perceptions of neighborhood processes between

Corresponding Author: Daphna Gross-Manos, Department of Social Work, Tel-Hai College, Upper Galilee, 1220800 Israel, grossdaphna@gmail.com, Phone: 972-54-3060993.

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residents and child welfare workers have implications for better understanding the context and improving the effectiveness of neighborhood-based interventions to prevent child maltreatment.

Keywords

Child welfare workers; child maltreatment; neighborhood-based interventions; social disorder; collective efficacy

Introduction

The importance of neighborhood context for the population's health and well-being has been increasingly recognized (Sampson, Morenoff, & Gannon-Rowley, 2002), and neighborhood-based interventions have been implemented to address a variety of health and social issues (Corsaro & McGarrell, 2010; Lu, Moritz, Lorenzetti, Sykes, Straus, & Quan, 2012; Sampson, 2003), including intervention in and prevention of child maltreatment (Daro & Dosge, 2009; McCroskey, Pecora, Franke, Christie, & Lorthridge, 2012; McDonell, Ben-Arieh, & Melton, 2015; McLeigh, McDonell, & Melton, 2015; Melton, 2005; National Research Council, 1993). While child welfare workers are at the forefront of child maltreatment work, little is known about the extent to which their perspectives on neighborhood processes related to child maltreatment align with those of neighborhood residents. The current study examined the views of neighborhood residents (n=400) and neighborhood-based child welfare workers (n=260) on two neighborhood process measures: social disorder and collective efficacy. As social disorder is viewed as a risk factor for child maltreatment and collective efficacy is viewed as a protective factor, child welfare workers and residents of neighborhoods need to reach a common understanding of these factors in order to reach agreement on the safety of children in these neighborhoods.

Information elicited from neighborhood surveys has proven valuable in informing neighborhood-based interventions (Auspos, 2012). Auspos points out that surveys identifying neighborhood typologies based on conditions such as engagement patterns and social capital suggest that programmatic interventions need to be tailored to different types of neighborhoods. For example, a preliminary survey conducted before adaptation of the Strong Communities neighborhood initiative in Israel identified the need to include elderly residents in intervention activities because of the important role extended family members played in child-rearing activities in the neighborhoods selected for intervention (McLeigh, Katz, Davidson-Arand, & Ben-Arieh, 2015).

Numerous measures tracking ecological assessments of social environments have been developed in the last three decades (Raudenbush & Sampson, 1999; Sampson, 2003). Many of these measures are based on residents' perspectives of their neighborhoods. Often, residents are considered a homogenous group, and their scale scores are aggregated to obtain a measure for their neighborhood. However, residents' perspectives may be influenced by multiple factors (Chaskin, 1997). Residents' perceptions of their neighborhoods may be influenced, at the individual level, by race (Elo et al., 2009; Franzini et al., 2008; Geis & Ross, 1998; Sampson & Raudenbush, 2004); education and socioeconomic status (Elo et al., 2009; Geis & Ross 1998; Franzini et al., 2008; Robinson & Wilkinson 1995; Sampson &

Raudenbush, 2004); age (Duncan et al., 2003; Elo et al., 2009; Geis & Ross, 1998; Sampson & Raudenbush, 2004); and home ownership (Robinson & Wilkinson, 1995). At the neighborhood level, studies have shown poverty and a higher concentration of minority groups (Elo et al., 2009; Sampson & Raudenbush, 2004; Sampson et al., 1997) as well as violent crime (Duncan et al., 2003) to be factors shaping residents' perceptions of their neighborhoods.

However, less understood is how residents' perceptions of their neighborhoods compare to the perceptions of professionals familiar with and working within the very boundaries of those neighborhoods. In the particular context of child welfare, research comparing the neighborhood perceptions of residents and child-welfare workers, a major professional group dealing with child abuse and neglect, has been very limited. While most of their work usually focuses on investigation and the sequelae of maltreatment on the individual or family level, it could also include prevention or intervention efforts on a neighborhood level. An understanding of professional groups' views of neighborhoods is important because practitioners' conceptualizations of the neighborhood may influence the services they provide. For example, the literature on individual therapy has repeatedly suggested that a shared perspective of the problem at hand is important for the treatment to be successful (Altman, 2008; Russell & White, 2001): i.e., there is a need for social workers to have a multifaceted sense of themselves and clients in order to find common ground and proactive practice that will allow the client to engage. Likewise, it may be the case that a shared understanding of the neighborhood context between community residents and professionals working in those communities, such as child welfare workers, may improve the way an intervention is tailored to a particular neighborhood's needs and help design more successful neighborhood interventions. Professional affiliation might have an impact on neighborhood perceptions. For example, workers in a grassroots or local organization situated in the neighborhood might be more familiar with the neighborhood's needs and strengths and, therefore, perceive the neighborhood in ways more similar to residents, as compared to workers of a county-level organization situated outside of the neighborhood.

This study begins to address this gap in the literature by comparing the perspectives of residents and child welfare professionals on two key neighborhood social processes: social disorder and collective efficacy. Perceived neighborhood social disorder refers to visible cues of conditions and activities (both minor and major, non-criminal and criminal) that indicate lack of order and social control in a community (Ross & Mirowsky, 1999). Neighborhood social disorder scales have been widely used and are suggested to be a reliable and consistent measure with high neighborhood-level reliabilities (Elo et al., 2009). Studies have suggested that social disorder on a neighborhood level might trigger institutional disinvestment, out-migration, and a general malaise among residents (Morenoff et al., 2001; Raudenbush & Sampson, 1999; Ross & Jang, 2000; Perkins & Taylor, 1996), including higher mistrust (Ross, Mirowski, & Pribesh, 2001; Ross & Jang, 2000), lower informal integration between neighbors (Ross & Jang, 2000), powerlessness (Geis & Ross, 1998), and depression (Latkin & Curry, 2003).

The second key process, collective efficacy, refers to the "capacity of residents to achieve social control over the environment and to engage in collective action for the common good"

(Sampson, 2003, p. S58). Collective efficacy has been found to be associated with neighborhood crime and violence (Sampson, Raudenbush & Earls, 1997; Sampson et al., 2002), Collective efficacy has also been found to be a possible moderator of the effect of maltreatment (Yonas et al., 2010), and has important implications for child well-being and general safety (Sampson et al., 2002).

Scarce empirical data exist regarding the perspective of social disorder and collective efficacy by groups other than residents, leading to divergent views about how closely professional perspectives would relate to those of residents. Ross & Mirowsky (1999) have theorized that the judgments of social disorder by any two individuals should be positively correlated, as both are describing an objective place. In contrast, Nicotera (2007; p. 27) developed a theoretical conceptualization of how different perspectives on neighborhoods might be formed by neighborhood residents and human services professionals, suggesting the "environment–place duality" framework, using concepts proposed by Kemp (2001). According to this framework, the social construction of neighborhood as an "environment" differs from the one referred to as "place" and depends on an individual's relationship to a neighborhood. "Environment" refers to a static perspective based on generic data, while "place" is the perspective when the environment becomes a personal point of reference. Thus, according to this framework, "environment" is the view often held by a "human services professional who does not reside in a neighborhood he or she serves [and] is an "outsider," and subject to making assessments solely on generic data such that the assessments lack the substance one can gain when the perspectives of those who reside within the neighborhood are taken into account." (pp 27–28). In contrast, "place" is considered to be the view of the "insider," socially constructed by the lived experience, which can be both positive and negative. According to Nicotera, this individual relationship to a neighborhood that makes it a "place" may become linked to a resident's self-definition, while for the "outsider," the neighborhood as an "environment" will be a general list of characteristics. To a large extent, Nicotera's framework assumes an inherent distance between the views of residents and human services professionals.

To the best of our knowledge, in the only study that compared social disorder perspectives of residents and non-residents, the non-residents were groups of community leaders (Sampson & Raudenbush, 2004). The authors found that similar individual factors affected both resident and community leader groups, including being younger and identifying as African American. Sampson and Raudenbush concluded that at the neighborhood level, social disorder perceptions are shaped by community racial composition because both residents and leaders were considerably affected by the proportion of African Americans in the neighborhoods. However, the degree and type of interaction community leaders have with neighborhoods might differ substantially from the interactions human service professionals (specifically child welfare workers in the current study) have with neighborhoods, rendering the relevance of the Sampson and Raudenbush findings to human service professionals difficult to assess.

When it comes to child protection services, a substantial body of research has investigated how child protection workers reach their decisions (e.g. Graham, Dettlaff, Baumann, & Fluke, 2015; Benbenishty et al., 2015; Davidson-Arad & Benbenishty, 2010). While some

studies have suggested a connection between neighborhood characteristics and maltreatment report rates (Molnar et al., 2003; Coulton, Korbin, & Su, 1999), the direct effect neighborhoods might have on child protection workers' decisions has received very limited attention. In one such study of decision-making differences, county level characteristics did not have an effect on child protection workers' decisions to investigate or substantiate maltreatment (Font & Maguire-Jack, 2013; Maguire-Jack, 2014); child protection workers' decisions were actually found to be more affected by agency characteristics, an issue which we will also addressed in this analysis by controlling for workers' agency affiliation.

Main Hypothesis and Study Aims

Following Nicotera (2007), our main hypothesis was that residents and child welfare workers will differ in their rating of social disorder and collective efficacy, even after adjusting for individual and neighborhood characteristics. The direction for this difference cannot be suggested according to the current literature. We further aimed to examine if individual and neighborhood characteristics that the literature identified as affecting the perspectives of social disorder and collective efficacy (e.g., racial identity and proportion of African Americans in the neighborhood) similarly influenced residents and child welfare workers. Finally, acknowledging that child welfare workers are not a monolithic group, the study examined the possible role of organizational affiliation in shaping child welfare workers' perspectives by comparing the neighborhood perceptions of child welfare workers of a public agency versus those from the more grassroots neighborhood centers. Because the latter are grassroots organizations and therefore assumed to have closer proximity to and greater familiarity with our sample neighborhoods, we hypothesized that those workers' perceptions would more closely resemble those of residents than those of the public agency child-welfare workers.

Method

Data and Sample

The study was conducted during 2014–2015 in Cleveland, OH (Neighborhood Factors and Child Maltreatment: A Mixed-Methods Study, NIH grant R01HD077002) and included a sample of 400 adult residents from 20 census tracts, and a sample of 260 child welfare workers who identified themselves as familiar with one of these 20 census tracts. The study was approved by Case Western Reserve University's Institutional Review Board.

Resident Sample—The process for sampling residents involved a 2-stage strategy: neighborhoods were selected initially, followed by residents within each neighborhood. The neighborhoods that were selected were the same neighborhoods used in an earlier study and their selection has been described previously (Coulton et al., 1999). Briefly, using a stratification and randomization process, 20 neighborhoods were originally selected to represent different levels of structural characteristics previously linked to child maltreatment rates: impoverishment, child care burden (ratio of children to adults), and predominant race (Coulton, Korbin, Su, & Chow, 1995). A U.S. census-defined block group was then randomly selected within each tract to serve as the neighborhood unit, and based on a

predetermined randomized order of streets and addresses, a total of 20 households were recruited for study (Coulton et al., 1999).

For this study, interviewers returned to the same domiciles that had participated in the 1995 study to determine if there were an eligible adult: 18 years of age or older; the parent or guardian of at least one child 17 years of age or younger living in the home; and the ability to understand English. Interviewers were graduate students in anthropology, social work, and medicine, and were matched with the predominant ethnicity of the neighborhood. Using this location as a starting point, interviewers initially contacted every third household in a predetermined, randomized order. However, because numerous housing units were either vacant or without children, streets within each block group were randomly ordered, an address randomly chosen on each street as a starting point, and then all households on that street were visited. Households were excluded from the study only after interviewers made three additional visits at different times of day and different days of the week without speaking to a resident.

A total of 6,295 occupied housing units were approached, and interviewers spoke with an adult in 5,008 of the units (79.6%). Of the contacted homes, 4,064 (81.2%) reported no children in the household, 482 (9.6%) refused to participate, and 42 (0.8%) did not speak English. A total of 420 initially agreed to participate in the study. However, 17 dropped out before completing study procedures, and three individuals were removed from the study sample (two because of an unusually large amount of missing data, and one because of interviewer safety concerns in the household), leaving a sample of 400 individuals (20 per study neighborhood) who met inclusion criteria and who completed all study procedures. Participants provided written informed consent before participating in the interviews and were compensated for their time. One adult per household participated.

Child welfare worker sample—A total of *2*90 child welfare workers working in at least one of the 20 residential study neighborhoods were recruited to complete the survey during regularly-scheduled staff meetings at the Department of Children and Family Services (DCFS), Cuyahoga County's public child welfare agency, and at neighborhood centers. Neighborhood centers include neighborhood-based grassroots and/or faith-based organizations, service providers, local public school educators, medical providers, and community organizers. The DCFS has contracted with neighborhood centers to provide child-centered, community-based services to support the well-being of local families under the belief that local neighborhood-center workers are more familiar with the strengths and assets of the neighborhood than are the public agency child welfare workers.

To conduct the survey, social-service supervisors were contacted via email or phone, and asked to allow research team members to administer the survey during staff meetings. Because the survey was conducted during a regularly scheduled meeting (with a sizeable standing agenda), the questionnaire was designed to be completed in 15 minutes or less. Maps of the study neighborhoods were distributed to the workers, who were instructed to review the maps, select a specific neighborhood about which they felt most knowledgeable, and complete the survey for that neighborhood. Questionnaires from thirty workers were removed from the sample because the workers did not answer the survey questions

specifically in relation to one of the 20 study neighborhoods, resulting in an analytical sample of 260 workers. Of these 260 workers, 164 identified themselves as public agency workers, 90 as neighborhood center workers, and 6 did not specify an affiliation.

Measures

Social disorder was measured using the 14-item instrument developed by Coulton and colleagues (1999), which taps perspectives on a neighborhood's deleterious conditions, such as litter, loitering and social disorderly behavior, covering both physical and social disorder (Ross & Mirowsky, 1999). The measure referred to the frequency with which such conditions and behaviors were perceived as occurring, ranging from 1 (rarely) to 10 (frequently). The total score was calculated as the average of the 14 items. The scale has demonstrated high internal consistency and aggregate reliability in samples of Cleveland residents (Coulton et al., 1999). Here, Cronbach alphas indicated high internal consistency: 0.95 for the total sample, 0.93 for the residents, and 0.96 for the child welfare workers.

Collective efficacy was assessed by the 10-item measure developed by Sampson and colleagues (1997), which consists of two dimensions: social control and social cohesion. The social control dimension includes five items evaluating the likelihood (on a 5-point scale, ranging from 'very likely' to 'unlikely') of neighbors taking action in different situations (e.g., "if a fight broke out in front of your house," "if children were showing disrespect to an adult"). The social cohesion dimension was measured by five items that capture local trust, willingness to help neighbors, and shared values in the neighborhood (e.g., "this is a close-knit neighborhood," "people in this neighborhood can be trusted") on a 5-point agreement scale, ranging from 'strongly agree' to 'strongly disagree'). The measure of collective efficacy was found to have high between-neighborhood reliability tested in residents (Sampson et al, 1997). Following the methodology of Sampson and colleagues, the two dimensions were combined into a single scale measuring overall collective efficacy. The total average score was adapted to a 1–10 scale to be more easily comparable to the social disorder scale (1 representing low collective efficacy and 10 high collective efficacy). In our study, Cronbach's alpha for the overall sample was found to be 0.77. However, it was higher for the child welfare workers (0.83) than for the residents (0.69).

Individual Characteristics—*Race* was self-reported from a list of categories: African American, White/European American, American Indian, Asian, Native Hawaiian/Pacific Islander, Bi or Multi-racial. *Ethnicity* was identified as Hispanic or not Hispanic. *Gender* was identified as male or female. *Education* was assessed by asking residents for the last grade completed in school, which was then re-categorized to less than high school or high school and above (note that all child welfare worker are required to complete high school). *Reporter identity* was defined as being a resident in the neighborhood or being a child welfare worker. *Worker affiliation* was categorized as public agency or grassroots neighborhood center.

Neighborhood Structural Characteristics—We used seven neighborhood characteristics commonly used in the literature in the context of social disorder and collective efficacy (Sampson et al., 1997; Sampson & Raudenbush, 2004): Child

maltreatment investigation rate is the number of children investigated for maltreatment per 1000 population under 18 years of age; Supplemental Nutrition Assistance Program (SNAP) participation rate is the percentage of children whose families benefit from the program (as an indicator of poverty); Violent crime rate is the count of violent crimes (Uniform Crime Reports Part 1, see Uniform Crime Reporting Handbook, 2004) per 100,000 population; Illicit drug offense rate is the number of possession and trafficking arrests per 100,000 population. For child maltreatment and SNAP participation, 3 yearly rates (2013–2015) were averaged to reduce the effect of an unusual year. Two year averages (2013–2014) were used for the violent crime and drug offense rates because 2015 rates were unavailable. Three additional neighborhood measures were obtained from the 2010 census: Percent of the population classified as African American, the percent of housing units that were vacant, and the home ownership rate.

Data Analysis: Because participants were “nested” within 20 neighborhoods, a multilevel mixed effects analysis (De Leeuw & Meijer, 2008) was used (Maximum likelihood estimates, Gaussian distribution assumed). Twenty groups are considered adequate in order to conduct such analysis with sufficient power (Scherbaum & Ferreter, 2009). Two of the neighborhoods had a low number of child welfare workers (one or two); however, sensitivity analyses without those neighborhoods showed very similar results to the complete sample, which can be expected, as the type of analysis we used give weights according to groups size. Thus, results for all 20 neighborhoods are presented here.

Missing values were generally very low (less than 0.5% for residents and less than 1% for child welfare workers across the items), and thus did not require special attention. However, one exception was the variable gender for child welfare workers, which had high missing values due to an inadvertent omission in part of the questionnaire. Thus, unfortunately, we could not use gender as one of the demographic characteristics in the analyses involving the entire analytic sample. However, we performed further analyses on the subsample of participants for whom gender was known in order to explore its association with neighborhood social disorder and collective efficacy.

As the first part of the analysis, we used an identical series of models predicting both social disorder and collective efficacy in the total sample. These models allowed the evaluation of possible differences between residents’ and child welfare workers’ perspectives by entering reporter identity as a binary variable, adjusting for the effects of other characteristics. Per standard procedures for multilevel modeling, the initial model was a Null model, which contained only classification by neighborhood (no other predictors), and was used to assess the proportion of variation in outcomes (social disorder and collective efficacy), accounted for between-neighborhood variation versus within-neighborhood variation. In the second model, participant individual characteristics were added: race, education and reporter identity (i.e. being a resident or a child welfare worker). The third model allowed random slopes for reporter identity to assess if the effect of being a resident or a child welfare worker differed by neighborhood. Finally, the fourth model added neighborhood characteristics based on administrative data and also allowed random slopes for reporter identity. The equation for the final fourth model was:

$$Social\ Disorder_{ij} \backslash Collective\ Efficacy_{ij} = \beta_0 + \beta_1 African\ Amercian_{ij} + \beta_2 Otherrace_{ij} + \beta_3 Education_{ij} + \beta_4 Identity_{ij} + \beta_5 SNAP_j + \beta_6 Crime_j + \beta_7 Drugs_j + \beta_8 Vacant\ Houses_j + \beta_9 Home\ Ownership_j + \beta_{10} Maltreatment\ Investigations_j + \mu_{0j} + \mu_{1j} Identity_{ij} + \varepsilon_{ij}$$

.

In this equation, β_0 is the intercept or outcome overall mean for total sample; β_1 through β_{10} are slope coefficients; μ_{0j} is the neighborhood's random intercept; μ_1 is the_ random coefficient; ε is the residual or individual error term. Note that *i* refers to individual level and *j* refers to neighborhood level. The last three components of the equation represent the random effects in the model, while the rest are the fixed effects.

In the second part of the analysis, models were run separately for residents and child welfare workers in order to better understand which characteristics were associated with residents and which were associated with child welfare workers, especially as their numbers were not equal in the total sample. The separate models for child welfare workers also allowed us to test the effect of their organizational affiliation (public agency versus grassroots neighborhood center).

Results

Sample Characteristics

The resident sample, as shown in Table 1, had an average age of 37.6 years. Well over three-quarters of participants were females (82.4%) and most were African-American (60.4%), followed by White (23.8%). Less than 10% of participants (7.5%) identified themselves as Hispanic, an amount too small for ethnicity to be used in subsequent analyses. Nearly one-third (32.5%) of the residents grew up in their current residential neighborhood, and the average length of time residents lived in the neighborhood was 10.6 years. A majority of the sample (60.2%) lived below the poverty line. Finally, almost 80% of the resident sample completed high school.

Our collected demographic data on the child welfare workers were more limited. In this sample, 62.2% identified as African American and 31.5% identified as White, while only 4.5% identified as Hispanic. Given the education requirements for these professional positions, all the sample could be considered to have completed high school. Of the 119 workers for whom we have data on gender, 81% were female.

As for the outcome variables, the mean social disorder score in the total sample was 5.61 (SD=2.36) and 6.11 (SD=1.70) for collective efficacy. In the resident group, the mean social disorder score was 5.04 (SD=2.34) and 6.67 (SD=1.71) for collective efficacy. In the child welfare workers group, the mean for social disorder was 6.50 (SD=2.12) and 5.27 (SD=1.29) for collective efficacy. The Pearson correlation between the average neighborhood rating by residents and by child welfare workers was .58 for social disorder and .35 for collective efficacy.

Multilevel analysis for social disorder and collective efficacy

Table 2 presents multilevel mixed models predicting social disorder and collective efficacy. These models allowed us to test our main hypothesis. First, the null model showed that generally much more of the variation in social disorder than in collective efficacy was explained (in a statistical sense) by differences between the neighborhoods: Interclass correlations (ICCs) of 19% and 9%, respectively. For both outcomes, however, more of the variation was between individuals than between the neighborhoods (higher level 1 variance compared to level 2 variance).

Adding Individual Characteristics—The addition of the individual characteristics to the model showed a significant association with reporter identity (Model 2): compared to residents, child welfare workers rated higher social disorder (b = 1.29, or slightly greater than 1 point on average on a 10-point scale) and lower collective efficacy (b = -1.29) across the neighborhoods after adjusting for the effects of race and education. Neither race nor education was significantly associated with social disorder or collective efficacy. Compared to Model 1, the ICC of Model 2 increased slightly for social disorder (from 19.3% to 20.3%) in Model 2, as the level 1 (within neighborhood) variance dropped and the level 2 variance (between neighborhoods) remained the same. The ICC for collective efficacy decreased from 9.0% to 5.8%, suggesting that after adjusting for the effect of reporter identity and the other individual characteristics, approximately 3% less variability in neighborhood collective efficacy was explained (in a statistical sense) by differences between the neighborhoods.

Adding Random Slopes—Model 3 introduced random slopes for the effect of reporter identity, which allowed for the effect of reporter identity on social disorder and collective efficacy to vary between neighborhoods. The decrease in the Akaike information criterion (AIC) and significant log likelihood (LL) test for Model 3 suggests the model fit was improved and that it better predicted both social disorder and collective efficacy. For both outcomes in this model, the ICC increased to 26.6% for social disorder and 11.8% for collective efficacy. In other words, once the effect of reporter identity on the outcomes was allowed to vary between neighborhoods, the variation explained by neighborhood increased. The difference in the ratings of the child welfare workers compared to residents remained significant and quite similar to that of Model 2. It should be noted a model that added random slopes for race in the residents' group was not found to have a significant contribution to the model (according to the LL test), suggesting this effect did not vary across the neighborhoods.

Adding Neighborhood Characteristics—Model 4 included neighborhood characteristics, and results confirmed our first hypothesis: after adjusting for the effects of individual and neighborhood characteristics, workers perceived the neighborhoods as having greater social disorder (b = 1.37, $p < .01$) and less collective efficacy (b = −1.32, $p < .01$) than did residents, while allowing for differential effects of reporter identity across the neighborhoods (i.e., random slopes for reporter identity allowed). Moreover, in this model, one individual characteristic – African American race – and two neighborhood characteristics – percent of residents who were African American and percent of vacant homes –were significantly associated with perceived social disorder: adjusting for effects of

all study variables, African American participants perceived less social disorder in the neighborhoods ($b = -0.45$, $p < .05$) compared to White participants; a greater percentage of African Americans in the study neighborhood was associated with increased perceived social disorder score ($b = 0.01$ ($p < .01$), and the percentage of vacant houses in the neighborhood was associated with increased perceived social disorder ($b = 0.06$, $p < .01$). The addition of the neighborhood characteristics variables in the model predicting social disorder reduced the ICC by about 16% and improved model fit.

In contrast, individual race and education but none of the neighborhood characteristics was associated with perceived collective efficacy. As this model did not predict significantly collective efficacy, we also see the addition of the neighborhood characteristics in Model 4 did not improve fit statistics and the ICC decreased only slightly. Further analyses assessing the inclusion of gender in the models found no independent effect of gender and did not change the effects of other variables in the models (not shown).

Associations of individual and neighborhood characteristics with child welfare workers' and residents' perspectives

Because the first part of our analysis showed significant differences between perspectives of child welfare workers and residents on social disorder and collective efficacy, we further tested the models separately for both groups in order to explore how the individual and neighborhood characteristics affected the two groups. Thus, we ran a similar model to the fourth model in each group with two small differences: (1) the residents' model included education while the workers' model did not (all workers completed high school); and (2) in the workers' model, we added the type of service agency with which the worker was affiliated, public agency or grassroots neighborhood center, thereby allowing us to examine if there were significant differences between those two sub-groups.

The separate analyses uncovered differences between the two groups in the Null model (not shown); while the ICC for residents was 23.2% for social disorder and 9.6% for collective efficacy, it was only 13% and 1.3% (respectively) in the child welfare workers group. In other words, substantially more of the variation in residents' perspectives was attributed to the neighborhoods compared to workers' perspectives.

Concerning individual characteristics, the full models adjusting for all neighborhood level characteristics (Table 3) showed one significant association among the residents: African Americans perceived significantly less social disorder compared to whites ($b = -.99$, $p < .01$). No individual characteristics of residents were significantly associated with perceived collective efficacy.

In the child welfare workers sample, this part of the regression allowed us to test for the effect of organizational affiliation, revealing no statistically significant difference between social disorder and collective efficacy ratings of public agency workers versus workers of grassroots neighborhood centers. No individual characteristic of child welfare workers predicted either social disorder or collective efficacy.

In terms of the neighborhood-level characteristics (Table 3), among residents, an increase in the proportion of African Americans residing in the neighborhood was associated with an increase in social disorder score ($b = .02$, $p < .01$). In contrast, among child welfare workers, an increase in the rate of vacant houses ($b = .08$, $p < .01$), but not the proportion of African Americans, was associated with an increase in social disorder scores. The model considerably decreased the ICC of both groups, which in these model stands around 7% for the residents and 0% for the child welfare workers.

Discussion

To the best of our knowledge, this is the first study to compare neighborhood residents' and child welfare workers' perceptions of neighborhood social disorder and collective efficacy for the same geographies. We preface the discussion by noting that our study found significant statistical associations; causality cannot be assumed. Moreover, effect sizes when detected were modest, suggesting that results should be interpreted cautiously. That noted, our findings suggested differences in residents' and child welfare workers' perspectives on neighborhood social disorder and collective efficacy, confirming our main hypothesis. In analyses that nested both groups within the relevant neighborhood and adjusted for individual and neighborhood characteristics, child welfare workers consistently perceived higher social disorder (an average of 1.4 points higher on a scale of 1–10) and lower collective efficacy (an average of 1.3 points lower on a scale of 1–10).

Comparing our results with other reports is difficult because there are not directly comparable studies in the literature. Our results differ from those of Sampson & Raudenbush (2004), who found that residents and non-resident community leaders rated neighborhood levels of social disorder similarly. However, the community leaders in the Sampson and Raudenbush study involved multiple professions who worked with residents in the context of community building, and may have thus seen their role as advocates working on behalf of residents. In contrast, our study's professionals were predominately trained social workers operating in the context of child maltreatment investigation and prevention. These different professional identities and contexts of neighborhood work might have influenced perceptions of social disorder, and rendered comparison of the two investigations' findings problematic. Of note, the presence of significant differences between the residents' and workers' perceptions supports Nicotera's (2007) theory predicting differences in neighborhood perspectives between human services professionals and residents, as opposed to other views that residents and independent observers should hold moderately to highly similar perceptions of social disorder (Ross & Mirowsky, 1999). According to Nicotera, differences should be expected between the perspectives of residents, for whom neighborhood is their "place," compared to "outsiders," for whom the neighborhood is an "environment." Unfortunately, we do not know whether the welfare workers of our study resided in the neighborhoods in which they worked, though it is fair to assume that most did not.

In a related vein, the consistent lower observed interclass correlations for the workers compared to residents indicated that neighborhoods accounted for less of the variance in child welfare workers' ratings of both neighborhood social disorder and collective efficacy.

In other words, child welfare workers may have viewed the neighborhoods in a more "similar" way (i.e., they are less sensitive to neighborhood differences), while residents exhibited greater sensitivity to each neighborhood's particular context, at least in regard to social disorder and collective efficacy. Viewing many of the neighborhoods in a similar way might again suggest the possible vantage point of the workers as "outsiders" (Nicotera's, 2007) looking at "those neighborhoods"; showing another angle of the possible perspectives' gap between worker and resident.

Nicotera's (2007) theory poses one possible explanation for the differences in residents' and workers' neighborhood perceptions, but other explanations are possible. There might be some aspect of the child welfare profession that influences workers' perceptions. Again, the literature is unfortunately scant in this area, but our results adhere somewhat to Strier's (2008) finding of discrepancies between clients' and social workers' interpretations of the causes of poverty: while the clients gave structural reasons for poverty, social workers had more cultural and individual explanations. These findings are also reflected in a somewhat larger body of literature that finds gaps in the views of met and unmet needs between clients and their primary mental health worker (Bédard, Gibbons, & Mack, 2005; Junghan, Leese, Priebe, & Slade, 2007; Henwood, Padgett, & Nguyen, 2011), including discrepancies between foster care workers and their clients regarding clients' met and un-met needs (Altman, 2008). This literature raises questions about the nature of the collaboration between the worker and the client (in our context the residents) when there is a gap in perspectives, which may simultaneously affect client engagement and the worker's ability to honor clients' preferences (Henwood et al., 2011).

Thus, perhaps our results might be expected: in their role as child maltreatment investigators, child welfare workers daily encounter a negative side of these neighborhoods, dealing with problems that might be invisible to residents. Such daily interactions as investigator might produce a more negative view of the neighborhood, though we found no association between neighborhood child maltreatment investigation rates and workers' perceptions of neighborhood social disorder or collective efficacy.

At the same time, as the workers might have a negative bias, residents may have a positive bias for several potential reasons. Perhaps the price of the dissonance for negatively rating one's residential neighborhood is much higher than for the child welfare workers. Perhaps our sample of residents was over-represented by residents who are more satisfied with their neighborhood (as dissatisfied residents move if they can), or perhaps residents resourcefully navigate and cope with negative neighborhood aspects in ways that are invisible or unknown to child welfare workers. Moreover, it is possible that some of the residents are not familiar with conditions of other neighborhoods (especially if they have only lived in one neighborhood); thus, their comparison is limited, and what they know in the neighborhood is considered the norm. Finally, one important difference between the residents and child welfare workers may have been education. Our analyses did adjust for the effect of education, but the limited information available about the child welfare workers' educational attainment precluded statistically adjusting for the effects of higher education.

Besides worker versus resident differences in the rating of social processes, analyses also revealed that individual characteristics were differentially associated with the perceptions of the two groups. Effects of all other variables held constant, African American residents perceived their neighborhoods to have lower social disorder compared to White residents, a finding congruent with other reports (Sampson & Raudenbush, 2004; Franzini et al., 2008). Although Sampson & Raudenbush (2004) also found African American community leaders perceived lower social disorder than White leaders, our study found no effect of racial identity among the child welfare workers (though, as mentioned, comparability to this study is limited).

Differences were also found in the neighborhood characteristics associated with each group's perception of social disorder. The child welfare workers perceived higher social disorder in neighborhoods with higher vacant house rates, while residents perceived higher social disorder in neighborhoods with higher percentages of African American residents. These group differences in neighborhood-level effects might explain why reporter identity had a different effect on the rating of social disorder across the neighborhoods: the association changed as neighborhoods varied in the combination of vacant house rate and percent of African American residents. For example, the social disorder rating of child welfare workers and residents might be more similar in neighborhoods with both high vacant houses rates (increases rating of workers) and high rates of African American (increases rating of residents).

Finally, we also examined whether child welfare workers' agency affiliation had an effect on worker perspectives as there is evidence that affects workers' decision-making (Font & Maguire-Jack, 2013; Maguire-Jack, 2014). We expected workers who were affiliated with grassroots community organizations to have similar perspectives to those of the residents. Because these organizations typically have a "bottom-up" orientation, intending to organize and improve residents' participation (Panda, 2007), they are generally assumed to be more familiar with and connected to the neighborhood than county-wide, governmental agencies. However, no significant differences between the public agency workers and grassroots workers were observed, suggesting the professional context might be stronger than the orientation of the organization.

Our findings farther raise several issues. First, while individual and neighborhood characteristics were associated with perceived neighborhood social disorder, no such characteristics were significantly associated with perceived collective efficacy, a finding contrary to other reports (Duncan et al., 2003; Sampson et al., 1997). This calls for further research to better understand under what conditions neighborhood processes would be associated with individual and neighborhood characteristics. Second, in the resident sample, we found that African Americans perceived lower social disorder and that education was not associated with social disorder, findings which supports those of Sampson & Raudenbush (2004) in Chicago and Franzini et al. (2008) in Baltimore. Finely, the finding that within our resident group, increased percentage of African Americans in the neighborhood was associated with increased perception of social disorder (which should be considered carefully due to the relatively small sample) also adheres to the findings of Sampson & Raudenbush (2004) and Elo et al. (2009), and supports Franzini and colleagues' (2008)

claim that this effect might be common to the more segregated northern cities of the United States.

Study limitations should be acknowledged. First, the relatively small sample of 20 neighborhoods may not represent the diversity of Cleveland's neighborhoods. Also, the sample of child welfare workers was relatively small and might not generalize to all child welfare workers. Moreover, logistic considerations necessitated a short survey for the workers, which decreased the amount of demographic information collected, including whether the child welfare workers lived in the neighborhood for which they completed the survey. A final limitation was that despite our best efforts to have residents and workers to answer questions about the same geographic locale, we could not be sure that all participants did so. As part of the interview process, residents drew their neighborhood boundaries on a street map, and their drawn neighborhoods always included at least a portion of their census tract of residence (i.e. the study tract). To maximize the likelihood that workers were rating the same geographies as residents, workers were instructed to consider which of these study census tracts they were most familiar with, and then to complete the questionnaire for that specific tract. Workers who did not clearly follow these instructions (e.g., selected a tract no participant resided in, or answered for a larger geography, such as the city's "West Side") were omitted from analysis.

Conclusion and Practice Implications

Our study indicated that residents and child welfare workers may perceive neighborhoods in different ways, in this case in terms of both social disorder and collective efficacy. The important issue is not which perspective is more or less accurate. Rather, what is important is that differences in perceptions exist, and these differences may have practice implications. For example, as previously mentioned, at least in the context of individual therapy, similar views of a problem between practitioner and client enhance treatment outcomes (Altman, 2008; Russell & White, 2001). Differences between residents' and child welfare workers' perspectives might similarly impede or enhance an intervention's success. Residents might be less willing to be involved in an intervention to enhance collective efficacy if they perceive adequate levels of collective efficacy to already exist in their neighborhood. Child welfare workers who tended to view neighborhoods relatively more negatively than residents might be less inclined to work in some neighborhoods. Their more negative perspectives might influence their views of neighborhood's positive attributes, potentially contradicting a strengths-based approach that is one of the primarily modalities in social work education and practice (Saleebey, 1996, 2000).

The results of this study indicate the importance of child welfare professionals being aware of potential differences in perspectives about the neighborhoods in which they are working. Child welfare workers should not forget how crucial it is to understand one's own perspective in order to be able to honor alternative paradigms of clients (Borden, 1992; Hartman, 1994). The differences observed in our study also emphasize the importance of implementing participatory practice during an intervention, which underscores the need to keep the target population involved in defining problems and selecting appropriate interventions.

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Public Policy Relevance Statements

Little is known about the extent to which child-welfare workers' perspectives on neighborhood processes in the neighborhoods where they work align with those of the residents of these same neighborhoods. Our findings suggest child welfare workers consistently perceive higher social disorder and lower collective efficacy compared to residents. These gaps in perspectives have important implications for understanding how to improve the effectiveness of neighborhood-based interventions to prevent child maltreatment.

Table 1

Sample Characteristics

Survey data	Residents(n=400) Mean (SD) or %	Child Welfare Workers (n=260) Mean (SD) or %	Study Neighborhoods (n=20) Mean (SD) [a]
Age (yrs)	37.6 (11.4)	-----	37.6 (3.5)
Female Gender (%) (n=119 for workers)	82.4	80.7	82.5 (10.0)
Race (%)			
African American	61.4	60.0	60.5 (29.5)
White	24.8	30.3	23.7 (25.8)
Other[b]	8.3	9.6	8.3 (5.7)
Hispanic ethnicity (%)	7.5	4.5	7.5 (10.9)
Grew up in neighborhood (%)	32.5	-----	32.5 (16.5)
Tenure in neighborhood (yrs)	10.6 (11.8)	----	10.6 (4.0)
Income below poverty threshold (%)	60.2	----	60.2 (17.0)
Education high school or more (%)	79.7	100	79.7 (2.7)
Administrative Neighborhood Data			
Violent crime (rate 100 population)			1.9 (0.8)
Children receiving food stamps (rate per 100 population)			74.7 (19.7)
Children investigated for child maltreatment (rate per 1000 children)			118.3 (37.9)
Percent black (rate per 100 population)			53.8 (36.5)
Percent vacant houses (rate per 100 population)			26.0 (8.1)
Percent own their houses (rate per 100 population)			41.8 (15.8)

[a] Mean refers to the mean of the means (grand mean) for the 20 neighborhoods.

[b] For residents, Other = 30 Bi- or multi-racial, 2 American Indian/Alaskan Native, 1 Asian; for workers, 13 Bi- or multi-racial, 2 American Indian/Alaskan Native, 1 Asian.

Table 2

Multilevel mixed regression models for Disorder (N=654) and collective efficacy (N=656), unstandardized coefficients

	Model 1 Null Model		Model 2 Adding individual characteristics		Model 3 Allowing random slopes for 'identity'		Model 4 Adding neighborhood characteristics	
	Social disorder Coef. (SE)	**Collective efficacy Coef. (SE)**	**Social disorder Coef. (SE)**	**Collective efficacy Coef. (SE)**	**Social disorder Coef. (SE)**	**Collective efficacy Coef. (SE)**	**Social disorder Coef. (SE)**	**Collective efficacy Coef. (SE)**
Intercept	5.51 ** (.25)	6.19 ** (.13)	5.18 ** (.36)	6.91 ** (.22)	5.19 ** (.39)	6.90 ** (.24)	2.64 ** (.58)	7.50 ** (.48)
Race (white as ref)								
African American			−.35 (.21)	−.14 (.15)	−.45 (.21)	−.10 (.15)	−.45 * (.21)	−.07 (.15)
Other			.04 (.29)	−.21(.21)	−.12 (.29)	−.16 (.21)	−.12 (.28)	−.14 (.21)
Education (less than HS as ref)								
High school and above			.09 (.36)	−.16 (.19)	.12 (.26)	−.18 (.19)	.11 (.28)	−.18 (19)
Reporter identity (residents as ref) Child welfare workers			1.29 ** (.18)	−1.29 ** (.13)	1.34 ** (.25)	−1.33 ** (.16)	1.37 ** (.24)	−1.32 ** (.16)
Percent receiving SNAP							−.01(.01)	.00 (.01)
Percent violent crime							.23 (.14)	−.06 (.12)
Percent African American							.01 ** (.00)	.00 (00)
Percent vacant houses							.06 ** (.01)	−.03 (.01)
Percent own their house							−.01 (.00)	−.00 (.01)
Maltreatment investigation rates							.01 (.00)	−.00 (.01)
Level 2 variance (SD)	1.04	.51	1.03	.398	1.21	.55	.66	.50
Level 1 variance (SD)	2.13	1.63	2.04	1.51				
SD for random slopes					.78	.42	.76	.42
ICC	19.27%	9.04%	20.3%	5.80%	26.63%	11.82%	9.9%	10.31%
Log likelihood^	−1445.60	−1263.79	−1415.05 **	−1211.89 **	−1410.39 **	−1207.33 **	−1391.79 **	−1204.43

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	Model 1 Null Model		Model 2 Adding individual characteristics		Model 3 Allowing random slopes for 'identity'		Model 4 Adding neighborhood characteristics	
	Social disorder Coef. (SE)	Collective efficacy Coef. (SE)	Social disorder Coef. (SE)	Collective efficacy Coef. (SE)	Social disorder Coef. (SE)	Collective efficacy Coef. (SE)	Social disorder Coef. (SE)	Collective efficacy Coef. (SE)
AIC	2897.19	2533.59	2844.10	2437.78	2838.79	2432.65	2813.58	2438.86

Notes: AIC=Akaike information Criterion, Coef = coefficient, HS = high school, ICC = interclass correlation coefficient, Ref = reference category, SD = standard deviation, SE = standard error, SNAP = Supplemental Nutrition Assistance Program

^ Likelihood ratio test significance is compared to the model before with the same outcome.

* p< .05,

** p < .01

Table 3

Multilevel mixed regression model for Disorder and collective efficacy by residents (N=399) and field workers (N=249), unstandardized coefficients

	Social Disorder		Collective Efficacy	
	Residents Coef. (SE)	**Child welfare workers Coef. (SE)**	**Residents Coef. (SE)**	**Child welfare workers Coef. (SE)**
Intercept	2.52 * (.88)	3.96 ** (.70)	7.99 * (.25)	5.54 ** (.46)
Race (white as ref)				
African American	−.99 ** (.31)	−0.04 (.28)	−.20 (.25)	−0.07 (.19)
Other	−.43 (.37)	0.13 (.48)	−.43 (.29)	0.21 (.31)
Education (less than HS as ref)				
High school and above	.09 (.26)	−	−.19 (.21)	−
Worker affiliation (NBH centers as ref)				
Public agency	−	.19 (.28)	−	−.15 (.18)
Percent receiving SNAP	.01 (.02)	−.03 (.02)	.01 (.01)	.00 (.01)
Percent violent crime	.17 (.24)	.34 (.19)	−.04 (.19)	−.03 (.12)
Percent African American	.02 ** (.01)	.01 (.01)	−.00 (.01)	.00 (.00)
Percent vacant houses	.04 (.03)	.08 ** (.02)	−.02 (.02)	−.03 (.01)
Percent own their houses	−.02 (.01)	.00 (.01)	−.01 (.01)	.00 (.01)
Maltreatment investigation rates	.00 (.00)	.01 (.01)	−.00 (.01)	−.00 (.00)
Level 2 variance (SD)	.57	.000	.45	.000
Level 1 variance (SD)	2.02	1.94	1.62	1.27
ICC	7.3%	0%	7.1%	0%
Log likelihood	−856.28 **	−518.66 **	−767.64 **	−417.01 **
AIC	1736.56	1061.32	1559.29	858.03

Notes. AIC=Akaike information Criterion, Coef = coefficient, HS = high school, ICC = interclass correlation coefficient, Ref = reference category, SD = standard deviation, SE = standard error, SNAP = Supplemental Nutrition Assistance Program

* p< .05,

** p < .01

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