The influence of neighborhood characteristics on police officers' encounters with persons suspected to have a serious mental illness

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ABSTRACT

Objective: Police officers' decisions and behaviors are impacted by the neighborhood context in which police encounters occur. For example, officers may use greater force and be more likely to make arrests in disadvantaged neighborhoods. We examined whether neighborhood characteristics influence police encounters with individuals suspected to have a serious mental illness, addictive disorder, or developmental disability.
Method: We obtained data on 916 encounters from 166 officers in six jurisdictions in Georgia, USA and abstracted geographical data pertaining to the location of these encounters from United States Decennial Census data. Encounters were nested within 163 census tracts. Officer-reported data covered general encounter characteristics, the officer's perception of the subject's condition, subject demographics, use of force, and disposition of the encounter (e.g., arrest v. referral or transport to treatment services). Geographical data included 17 variables representing population and housing characteristics of the census tracts, from which three indices pertaining to neighborhood income, stability, and immigration status were derived using factor-analytic techniques. We then examined associations of these indices with various encounter-related variables using multi-level analysis.
Results: Encounters taking place in higher-income and higher-stability census tracts were more likely to be dispatch-initiated and take place in a private home compared to those in lower-income and lower-stability neighborhoods. In higher-income neighborhoods, encounters were more likely to involve a subject suspected to have a mental illness (as opposed to an addictive disorder or developmental disability) and less likely to involve a subject suspected to have alcohol problems. The officer's level of force used was not associated with neighborhood factors. Regarding disposition, although the likelihood of arrest was unrelated to neighborhood characteristics, encounters taking place in higher-immigrant neighborhoods were more likely to result in referral or transport to services than those in lower-immigrant neighborhoods.
Conclusion: Neighborhood characteristics are important to consider in research on police interactions with individuals with serious mental illnesses, addictive disorders, or developmental disabilities. Such research could inform departmental training policies and procedures based on the needs of the jurisdictions served.

1. Introduction

The over-representation of persons with serious mental illnesses in the criminal justice system in recent decades is a prominent concern in mental health, advocacy, and criminal justice communities. Incarceration of persons with mental illnesses complicates their long-term psychosocial functioning and contributes to overcrowding and resource burdens in detention settings. Overall, serious mental illnesses affect about 5% of the United States (US) adult population (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, 2008), whereas roughly 16% of inmates in US federal and state prisons, and city and county jails, are thought to be struggling with a serious mental illness (U.S. Department of Justice, Bureau of Justice Statistics, 1999). A majority of these inmates are charged with misdemeanors or minor felonies, sometimes due to police officers' or others' misunderstanding of symptomatic behaviors linked to untreated psychotic, mood, or substance use disorders (Lamb, Weinberger, & DeCuir, 2002).

This overrepresentation of persons with mental illnesses has been termed the "criminalization" of mental illnesses. It is thought to partly

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result from deinstitutionalization, more rigid criteria for civil commitment, stricter drug and zero-tolerance nuisance enforcement, lack of adequate community support for persons with mental illnesses, and offenders with mental illnesses having difficulty gaining access to community treatment, in addition to the attitudes of police officers and society (Lamb et al., 2002). Because police officers are most often the first responders to crises or incidents involving individuals with serious mental illnesses, they have been labeled as "gatekeepers" to the mental health system and even "street-corner psychiatrists" (Borum, 1998; Teplin & Pruett, 1992). Responding to situations involving someone with a serious mental illness necessitates a great deal of discretionary decision-making, leaving officers to make choices about whether one will enter the mental health or criminal justice system. Yet, police are often unequipped, lacking the knowledge and specialized skills required to effectively manage a situation with a person suspected of having a serious mental illness. These realizations have triggered an initiative to implement jail diversion programs in various layers of the criminal justice system nationwide (Dupont & Cochran, 2000).

One of the most frequently used pre-booking jail diversion models (facilitating entry into mental health services in lieu of arrest and incarceration when appropriate) is the Crisis Intervention Team (CIT) program, based on the original Memphis model (Dupont & Cochran, 2000). The CIT model is a widely implemented, nationally recognized pre-booking jail diversion program formed through collaboration between the law enforcement, mental health, and advocacy communities. The goals of CIT are to increase knowledge about mental illnesses, reduce stigma, improve safety of both officers and the individuals with whom they interact, and ultimately effect pre-booking jail diversion while facilitating access to mental health services (Dupont & Cochran, 2000; Oliva, Haynes, Covington, Lushbaugh, & Compton, 2006). One facet of CIT is a week-long training program for self-selected patrol officers. Like the CIT curriculum in other cities, counties, and states, Georgia's 40-hour curriculum consists of didactic lectures presented by mental health professionals, site visits to area psychiatric facilities, and de-escalation role-playing (Oliva & Compton, 2008). Research on CIT has shown the model's effectiveness for increasing trained officers' knowledge and confidence in responding to individuals with mental illnesses, reducing stigma, and positively altering preferred use of force (Compton, Broussard, Munetz, Oliva, & Watson, 2011).

In addition to the role of training in improving outcomes of police interactions with persons with mental illnesses, it is important to consider other situational and contextual variables that might influence officers' behaviors. Police officers' orientations towards subjects and their responses to crime and deviance may differ by the characteristics of the neighborhoods in which they work (Klinger, 1997; Smith, 1987). (Of note, for brevity and readability, and to be consistent with common policing terminology, we use the term "subject" to denote the individual with whom the officer interacts.) There is a sparse body of research showing that police officers' decisions and behaviors are impacted by individual characteristics, situational variables such as subjects' characteristics, the nature of the encounter, organizational variables like the police department's culture and characteristics, and community-level variables such as features of the neighborhood in which the encounter takes place (Riksheim, 1993).

Smith (1986) examined how coercion, arrest, or reporting of subjects, for example, is influenced by the neighborhood in which police–subject encounters occur. Results revealed that more assistance (operationalized as police-initiated contacts with persons in need of assistance, or about whom police may be concerned), is offered in racially heterogeneous neighborhoods, as well as those with more single-parent households (Smith, 1986). These findings, which highlight the importance of variables pertaining to neighborhood disadvantage, may be due to the fact that police officers initiate more contacts, and are generally more active in disadvantaged neighborhoods. Additionally, police officers are three times more likely to arrest subjects in lower-status neighborhoods as compared to higher-status neighborhoods (Smith,

1986). Police officers are also more likely to use increasing levels of force in high-crime and disadvantaged neighborhoods, where higher levels of police force are used in interactions with minority subjects because they are disproportionately encountered in these neighborhoods (Terrill & Reisig, 2003).

Some neighborhood-context studies include variables related to the mental state of subjects (Terrill & Reisig, 2003), and their influence on police encounters. In disorganized neighborhoods, residents tend to have fewer ties to formal and informal social networks (Bursik & Grasmick, 1993; Sampson & Groves, 1989) to facilitate early intervention for individuals exhibiting overt symptoms of mental illness. As a result of delayed intervention, situations involving these individuals may escalate to a crisis requiring police response. Thus, officers working in disorganized neighborhoods may have more contacts with persons experiencing a mental health-related crisis due to lack of earlier intervention and insufficient treatment services. Currently, there is an obvious lack of neighborhood-related research on police encounters specifically with persons with mental illnesses, addictive disorders, or developmental disabilities. Of concern are the effects that neighborhood characteristics might exert on such encounters and officers' decisions related to disposition in this marginalized population.

The neighborhood in which one resides is a commonly used indicator of socioeconomic status, and neighborhood characteristics have been widely studied by varied approaches and sources of data. In the US, the decennial census data is considered to be a valid representation of the population distribution and the related social, economic, and demographic makeup of predetermined geographical units within US states. The US Decennial Census datasets for the year 2000 present extensive data on numerous population and housing variables for 115.9 million housing units and 281.4 million people across the country (U.S. Census Bureau, 2000). Due to a lack of specific measures of neighborhood deprivation in the US, methods such as principal components analysis using socioeconomic variables of interest have been used to derive "indices of deprivation" for geographically defined areas such as census tracts (Eibner & Sturm, 2006; Singh, 2003). Census tracts are small statistical subdivisions of counties within a state, averaging about 4000 persons per tract. They generally have stable boundaries, and are considered to have relatively homogeneous demographic characteristics (U.S. Census Bureau, 2000). For example, the state of Georgia in the US (population of 9,815,210) has 159 counties. Fulton County (population of 949,599), an example of an urban county within the Atlanta metropolitan area, contains 247 census tracts within 526.64 mile^2. Appling County (population of 18,420) is an example of a rural county in southern Georgia that contains 5 census tracts within its 507.08 mile^2 (U.S. Census Bureau, 2000).

Census tract data have been used to derive a single composite census-based socioeconomic index or "areal index," to study mortality rate differentials based on area deprivation (Singh, 2003). Others measure deprivation using individual factor scores derived from census data, examining the relationship of each score with outcomes of interest (Eibner & Sturm, 2006). Using the factor score approach, Eibner and Sturm (2006) found that different components of deprivation have varying effects on physical and mental health outcomes. Some studies use standardized census variable data (z-scores) in factor analysis to derive linear indices of deprivation (McManus, Robert, Albanese, Sadek-Badawi, & Palta, 2011), whereas others create scales (e.g., the Psychosocial Hazard Scale) from census-derived data designed to assess social disorganization, physical disorder, poor public safety, and economic deprivation (Lee, Glass, James, Bandeen-Roche, & Schwartz, 2011).

In this study, we addressed the lack of research on neighborhood characteristics and police encounters with persons with mental illnesses, addictive disorders, or developmental disabilities. We replicated the aforementioned factor score analysis methods using data on geographical location of actual police encounters with individuals suspected by the officer to have one or more of these behavioral health disorders. The objective was to examine area-specific socioeconomic