The Association Between Community-Level Factors and Police Decisions to Found Sexual Assault Cases

Erin Elizabeth Hoffman
DePaul University, ehoffm20@depaul.edu

Follow this and additional works at: https://via.library.depaul.edu/csh_etd

Part of the Psychology Commons

Recommended Citation

This Thesis is brought to you for free and open access by the College of Science and Health at Via Sapientiae. It has been accepted for inclusion in College of Science and Health Theses and Dissertations by an authorized administrator of Via Sapientiae. For more information, please contact digitalservices@depaul.edu.
The Association Between Community-Level Factors and Police Decisions to Found Sexual Assault Cases

A Master’s Thesis

Presented in

Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

By

Erin E. Hoffman

November 12, 2020

Department of Psychology

College of Science and Health

DePaul University

Chicago, Illinois
Thesis Committee

Megan R. Greeson, Ph.D., Chairperson

Molly Brown, Ph.D.
Acknowledgements

I would like to thank my thesis committee, Dr. Megan Greeson and Dr. Molly Brown, for their support and encouragement. I would especially like to acknowledge Dr. Megan Greeson whose knowledge in the area of sexual assault was extremely helpful in this project. I would also like to thank the city’s police department for providing the data necessary to complete this project.
Biography

The author was born in Middletown, Connecticut on April 14, 1992. She graduated from East Hampton High School in 2010. She received her Bachelor of Arts degree in Psychology from the Honors College at Southern Connecticut State University in 2014.
# Table of Contents

Thesis Committee ........................................................................................................... ii

Acknowledgements ........................................................................................................ iii

Biography ....................................................................................................................... iv

List of Tables ................................................................................................................... vii

Abstract .......................................................................................................................... 1

Introduction .................................................................................................................... 2

Police Decision-Making in Sexual Assault Cases ......................................................... 2

Individual-Level Factors ............................................................................................... 4

Case-Level Factors ......................................................................................................... 5

Theoretical Considerations and Community-Level Factors in Police Decision-Making .... 7

Summary of Factors Predicting Police Decision-Making ................................................ 9

Rationale ........................................................................................................................ 10

Research Questions and Hypotheses ............................................................................. 12

Methods ......................................................................................................................... 13

Data Sources .................................................................................................................. 13

Dataset Construction and Variables ............................................................................ 14

Case Selection ............................................................................................................... 14

Unit of Analysis .............................................................................................................. 14

Dependent Variable ...................................................................................................... 14

Independent Variables ................................................................................................. 14

Data Analytic Plan ......................................................................................................... 15

Results ............................................................................................................................ 16
List of Tables

Table 1 Bivariate Correlations Between Independent Variables and Dependent Variable .......... 16
Table 2 Multiple Linear Regression Results Predicting Founding Rate........................................ 17
Abstract
Attrition rates in sexual assault cases remain high despite reforms over the past 30 years (Smith et al., 2018). Evidence suggests the locus of case attrition lies with police decision-making (Spohn & Tellis, 2019). Community-level factors may improve or bias police decisions in sexual assault cases; however, this has yet to be examined. Thus, the purpose of this study was to understand community-level factors that predict police decisions to found a sexual assault case. Founding is the first decision officers make and determines whether a case will be investigated. This study used official available records of sexual assaults reported to a large midwestern police department from 2013 to 2017. These records show whether cases were founded and provide information about the geographic location of the assault. OLS regression was used to examine the relationship between four community-level factors and founding rates in the city’s 77 community areas: 1) presence of a rape crisis center in the community; 2) proportion of Black residents; 3) proportion of Hispanic/Latinx residents; and 4) median household income. Results reveal that police are significantly more likely to found cases in communities with a greater proportion of Black residents, communities with a greater proportion of Hispanic/Latinx residents, and communities with higher incomes. These findings are examined in relation to literature on sexual assault case attrition and racialized policing practices. Overall, this study suggests the need for further multilevel research to untangle how individual-, case-, and community-level factors influence each step of the criminal justice system in sexual assault cases.
Introduction

Sexual assault is a serious and pervasive public health problem. An estimated 1 in 5 women have been sexually assaulted in their lifetime, but only a fraction of offenders will be arrested and even fewer will be prosecuted and convicted (Smith et al., 2018). Among sexual assault reports made to the police, an estimated 3-26% will result in a conviction (Lonsway & Archambault, 2012). High attrition rates in sexual assault cases are not new. Legal reforms to sexual assault statutes in the 1980s and more recently a 2010 U.S. Senate hearing took place to address systematic problems in police investigation of sexual assault cases (Caringella-Macdonald, 1988; Caringella, 2008; Spohn et al., 2014; Spohn & Horney, 1996). Police decision-making in sexual assault cases vary by individual- (victim) and case-level factors. For example, police may be more likely to make an arrest when the victim is White (Stacey et al., 2017) and when a weapon is used (Spohn & Tellis, 2019). However, there is little research on community-level factors that influence police decision-making with regard to sexual assault. This is surprising given the shift away from the individual and toward the community in the 1990s in response to gender-based violence (Allen, 2005). Given the importance of communities in response to sexual assault and the dearth of community-level literature, the purpose of this study is to examine a sample of sexual assault cases from a large midwestern city to better understand community-level factors that predict police decision-making in sexual assault cases.

Police Decision-Making in Sexual Assault Cases

Police decision-making in sexual assault cases begins with the process of “founding.” After a survivor makes a report to the police, officers conduct a preliminary investigation to determine whether a crime took place (Alderden & Ullman, 2012b; Spohn & Tellis, 2012b, 2019). If police believe the victim and determine there is enough evidence to meet the definition
of a sexual assault as defined by the state statute, the case will be deemed as *founded* and police will continue with the investigation. Cases in which the police do not believe the victim or conclude that crime did not occur are deemed *unfounded*, and investigation of the case stops. As noted by Kerstetter (1990), this “gatekeeping” decision determines the fate of the case; if the case is not founded, it cannot proceed through the criminal justice system.

Once a case is founded, officers continue investigating until there is enough probable cause to arrest a suspect. In some cases, arrests do not occur because victims decide not to pursue criminal charges or because the suspect cannot be located (Alderden & Ullman, 2012a). Following arrest, police decide whether there is sufficient evidence to refer the case to prosecution, and prosecutors ultimately decide the severity of charges brought against the suspect. Prosecutors may decide to approve a felony (most severe) or misdemeanor (less severe) sexual assault charge, or, in some cases, may decide to drop the charge and release the suspect from custody (Alderden & Ullman, 2012a). Of cases reported to the police, an estimated 7-27% are prosecuted; of those 3-26% result in a conviction, and 1-15% yield a felony conviction (Lonsway & Archambault, 2012).

Prior research on police decision-making has examined a number of outcomes: founding, arrest, and referral to prosecution. Across studies researchers have identified legal and extralegal factors that predict police decision-making in sexual assault cases (Alderden & Ullman, 2012a, 2012b; O’Neal & Spohn, 2017; Spohn & Tellis, 2012b). Legal factors are aspects of cases that are legally relevant and are expected to influence police decision-making when determining whether a suspect committed a crime. These might include seriousness of the crime and presence of DNA evidence (Dichter et al., 2011). Extralegal factors are legally irrelevant characteristics that should not influence police decision-making, such as victim-offender relationship and victim
and offender race (Alderden & Ullman, 2012a). The following three sections review both the legal and extralegal factors associated with police decision-making in sexual assault in the context of the individual, case, and community.

**Individual-Level Factors**

Individual-level factors include victim and offender demographic characteristics, such as age and race, as well as police perceptions of victim credibility. These are extralegal factors that should not influence police decisions. The literature regarding impacts of individual-level demographic factors and case outcomes is mixed. Some research has indicated victim age is unrelated to arrests (Spohn & Tellis, 2019) and referral to prosecution (Kelley & Campbell, 2013), while other research suggests cases involving young adults are less likely to be referred to prosecution due to police suspicion that incidents were fabricated to hide consensual sex (Beichner & Spohn, 2005). Similarly, Campbell and colleagues (2012) and Spohn and Tellis (2019) found higher prosecution rates among younger survivors when compared to older survivors who were perceived as more responsible for the sexual assault.

Research on police decision-making and victim race is also mixed. With regard to founding, Bryden and Lengnick (1997) reported police were more like to found a sexual assault case when the victim was White. Conversely, in a review paper, Shaw and Lee (2019) found that cases in which the victim and offender were White were less likely to be founded than cases where the victim was Hispanic/Latinx and the offender was White. Other research indicates race is unrelated to case outcomes including arrest (Ylang & Holtfreter, 2019) and referral to prosecution (Kelley & Campbell, 2013). However, Stacey and colleagues (2017) found arrests were more likely when the victim was White and the offender was Black. Similarly, Shaw and Lee (2019) reported arrests were more likely in cases in which a White person is involved
(victim or offender). Shaw and Lee (2019) also found that non-White and Black survivors were more likely to have their sexual assault forensic kits\footnote{Also referred to as “rape test kits” or “sexual assault kits”. Kits are often performed in the Emergency Department of a hospital. Samples are collected from multiple parts of the victim’s body—including the vagina, mouth, and any other area suspected to have come in contact with the offender (Campbell et al., 2016). Following kit completion, law enforcement are responsible for submitting the kit to a forensic laboratory to test for DNA evidence such as semen, blood, or saliva (Campbell et al., 2016).} submitted and a suspect identified than White survivors, but were subsequently deemed uncooperative during the investigation, halting the case.

Police perception of victim credibility is also a factor in police decision-making. Research indicates police may be less likely to found a case (Kerstetter, 1990) and make an arrest (Lally & DeMaris, 2012; Ylang & Holtfreter, 2019) when survivors report using alcohol or substances during or prior to the incident. Additionally, cases in which law enforcement and/or prosecution determine the victim had motivation to lie or had a questionable character may also be less likely to proceed through the criminal justice system (Spohn & Tellis, 2019; Tasca et al., 2013; Ylang & Holtfreter, 2019), although some research indicates perceived victim credibility is unrelated to founding decisions (Alderden & Ullman, 2012a) and that less credibility is associated with an increased likelihood of suspect arrest (Alderden & Ullman, 2012b).

Case-Level Factors

Case-level factors include strength of evidence, seriousness of crime, victim-offender relationship, and victim cooperation with police. Evidence is an important legal factor in police decision-making in sexual assault cases. Research indicates arrests may be more likely when physical evidence is present, particularly physical evidence from the scene of the crime (Spohn & Tellis, 2012b, 2019) and DNA evidence collected through a sexual assault forensic kit (Alderden & Ullman, 2012b; Kelley & Campbell, 2013; O’Neal & Spohn, 2017; Spohn & Tellis,
Another form of evidence is witness corroboration. Witness statements are often perceived as a measure of victim credibility and can help to corroborate survivors’ reports (Alderden & Ullman, 2012b). Research indicates cases with witnesses are more likely to be founded (Kerstetter, 1990), and arrests more likely when witnesses are present (Alderden & Ullman, 2012b; Spohn & Tellis, 2019). Similarly, seriousness of crime, another legal factor measured by offender use of weapon and/or presence of physical injuries on the victim, has been positively associated with founding (Kerstetter, 1990) and arrests (O’Neal & Spohn, 2017; Spohn & Tellis, 2019; Stacey et al., 2017; Tasca et al., 2013; Ylang & Holtfreter, 2019).

Although some literature indicates seriousness of injury and use of weapon are unrelated to police decisions to found (Tellis & Spohn, 2008).

Previous research on victim-offender relationship, an extralegal factor, and police decision-making has been mixed. With regard to founding, several studies indicate police are less likely to found a case when the victim and offender know each other (Bryden & Lengnick, 1997; Tellis & Spohn, 2008) or when the victim and offender are intimate partners (Tellis & Spohn, 2008). However, results from Kerstetter (1990) indicate cases with strangers are more likely to be founded. Similarly, with regard to arrests, Tasca and colleagues (2013) found arrests were more likely when the offender was a stranger; however, more recent literature reports the opposite (Campbell, Greeson, et al., 2012; Ylang & Holtfreter, 2019) positing it is more difficult for the police to find suspects that are not known to the victim. Victim cooperation with law enforcement is also an important extralegal predictor of police decision-making. Research indicates police are less likely to found a case when victims are perceived as uncooperative (Gross, 2009; Kerstetter, 1990; Lafree, 1981), and are more likely to arrest (O’Neal & Spohn, 2017; Spohn & Tellis, 2012b, 2019) and refer to prosecution (Alderden & Ullman, 2012a) when
victims are perceived as cooperative. Finally, length of time between the assault and reporting to police has been associated with cases outcomes, indicating cases reported sooner are more likely to result in arrest (O’Neal & Spohn, 2017).

**Theoretical Considerations and Community-Level Factors in Police Decision-Making**

Kloos and colleagues’ ecological theory (Kloos et al., 2012), revised from Bronfenbrenner’s ecological theory of human development (1979), provides a framework for understanding police decision-making in the context of the community. It posits that individual behavior is influenced by the interaction of systems at multiple levels of analysis. These systems begin with the individual and expand to the microsystem, organization, locality, and, finally, the macrosystem. At the individual level, police behavior is influenced by individual attitudes, beliefs, values, and knowledge. For example, officers with training in sexual assault may respond to victims more effectively than officers without training. In addition, the individual level may include factors related to the specific case and victim the officer is working with, such as victim age or presence of DNA evidence. Microsystems are informal environments where officers repeatedly engage in interpersonal relationships with others. At this level, officers may be influenced by their interactions and relationships with co-workers. The organization level (or agency level) refers to formal settings, such as places of work (e.g., a police department). Agency characteristics, such as resources devoted to sexual assault cases or workplace culture towards sexual assault, may influence officer response to cases. Localities represent physical spaces such as towns, cities, or communities. Officers may be influenced by community characteristics such as presence of community supports for victims of sexual assault (e.g., rape crisis centers2). Finally, macrosystems include aspects of an individual’s environment, such as

---

2 Rape crisis centers are specialized community centers that provide various supports to sexual assault survivors including crisis intervention, medical and legal advocacy, and counseling (Campbell, 2006).
levels of government and laws. Laws related to sexual assault (e.g., what constitutes a misdemeanor versus felony) will impact how officers respond to cases. According to the ecological theory, the individual contributions of these factors and the interaction between these factors will shape the decisions law enforcement make in sexual assault cases.

Very little is known about the influence of community-level factors on police decision-making in sexual assault cases. Indeed, scholars studying police decisions have suggested the importance of attending to community-level factors (Varano et al., 2009). While no prior studies have examined the effects of community-level factors on police decision-making with regard to sexual assault, adjacent literature can provide insight into variables that are likely to be important. Related literature has examined how community-level factors (e.g., community-level demographics) are associated with other related community-level outcomes. For example, law enforcement are known to police poorer communities differently than wealthier communities (Kane, 2002; Terrill & Reisig, 2003) and communities of color differently than White communities (Brunson & Weitzer, 2009). In one study by Varano and colleagues (2009), a series of individual-level variables were aggregated at the community level and used to predict police responses to 911 calls for sexual assault in neighborhoods in San Antonio, TX. Police were more likely to respond to sexual assault calls in predominately Black communities than in Hispanic/Latinx communities and in communities with higher poverty rates (Varano et al., 2009). Similarly, in a study on intimate partner violence, Dichter et al. (2011) found that arrests were less likely in communities of color and in communities with higher poverty rates. Taken together, these findings suggest community-level racial and ethnic composition and socioeconomic indicators may be related to police decisions in sexual assault cases.
Relatedly, research suggests community-level partnerships that specialize in response to sexual assault can be helpful to police and may impact case outcomes at the community level. For example, such partnerships (e.g., Sexual Assault Response Teams [SARTs] and Sexual Assault Nurse Examiners [SANEs])\(^3\) have been shown to positively impact referral rates to prosecutors (Campbell, Bybee, et al., 2012). As previously noted, rape crisis centers are a type of community partner that may influence police decisions and whose presence in a specific community might matter. Research on the impact of rape crisis centers and legal outcomes is limited, however, one study found that police were significantly more likely to take reports from survivors who worked with advocates than from survivors who did not (Campbell, 2006). Additionally, rape crisis centers often train police to work with sexually traumatized victims (U.S. Department of Justice, 2008). In turn, the presence of a rape crisis center within a community may result in new community-level norms for how sexual assault cases are handled.

**Summary of Factors Predicting Police Decision-Making**

The studies identified in the existing literature provide an indication of the types of factors that may influence police decisions in sexual assault cases. Individual-level factors include victim age (Beichner & Spohn, 2005; Campbell, Greeson, et al., 2012; Kelley & Campbell, 2013; Spohn & Tellis, 2019), victim and offender race (Bryden & Lengnick, 1997; Kelley & Campbell, 2013; Shaw & Lee, 2019; Stacey et al., 2017; Ylang & Holtfreter, 2019), and perceived victim credibility (Alderden & Ullman, 2012b, 2012a; Kerstetter, 1990; Lally & DeMaris, 2012; Spohn & Tellis, 2019; Tasca et al., 2013; Ylang & Holtfreter, 2019). Case-level factors include prior relationships between victim and offenders (Bryden & Lengnick, 1997;  

---

\(^3\) SARTs are multidisciplinary teams that include police officers, detectives, prosecutors, medical personnel (often SANEs), and rape victim advocates (Greeson & Campbell, 2015). SANEs are nurses specifically trained to conduct sexual assault forensic examination kits (Campbell, Bybee, et al., 2012). SARTs and SANEs work together to improve community response to survivors of sexual violence (Greeson & Campbell, 2015).
Many studies have explored predictors of police decision-making in sexual assault cases at the individual (Beichner & Spohn, 2005; Campbell, Greeson, et al., 2012; Dichter et al., 2011; Kelley & Campbell, 2013; Shaw & Lee, 2019; Spohn & Tellis, 2019; Stacey et al., 2017; Tasca et al., 2013), community-level factors related to police decision-making in sexual assault cases, such as community-level race and income (Kane, 2002; Terrill & Reisig, 2003), and reports made shortly after the incident (O’Neal & Spohn, 2017) are also related to police decisions. Additionally, while there have been no studies of community-level factors related to police decision-making in sexual assault cases, related literature has found that law enforcement police racial and ethnic community areas differently than White neighborhoods (Kane, 2002; Terrill & Reisig, 2003), and poorer communities differently than wealthier communities (Dichter et al., 2011; Varano et al., 2009). Furthermore, community-level race and income have been associated with police response to 911 calls for sexual assault (Varano et al., 2009) and arrests for intimate partner violence (Dichter et al., 2011). Finally, because of the collaborative nature between rape crisis centers and local law enforcement, the presence of such centers may also be associated with police decision-making in sexual assault cases (Campbell, 2006).

Rationale

Many studies have explored predictors of police decision-making in sexual assault cases at the individual (Beichner & Spohn, 2005; Campbell, Greeson, et al., 2012; Dichter et al., 2011; Kelley & Campbell, 2013; Shaw & Lee, 2019; Spohn & Tellis, 2019; Stacey et al., 2017; Tasca et al., 2013), community-level factors related to police decision-making in sexual assault cases, such as community-level race and income (Kane, 2002; Terrill & Reisig, 2003), and reports made shortly after the incident (O’Neal & Spohn, 2017) are also related to police decisions. Additionally, while there have been no studies of community-level factors related to police decision-making in sexual assault cases, related literature has found that law enforcement police racial and ethnic community areas differently than White neighborhoods (Kane, 2002; Terrill & Reisig, 2003), and poorer communities differently than wealthier communities (Dichter et al., 2011; Varano et al., 2009). Furthermore, community-level race and income have been associated with police response to 911 calls for sexual assault (Varano et al., 2009) and arrests for intimate partner violence (Dichter et al., 2011). Finally, because of the collaborative nature between rape crisis centers and local law enforcement, the presence of such centers may also be associated with police decision-making in sexual assault cases (Campbell, 2006).

Rationale

Many studies have explored predictors of police decision-making in sexual assault cases at the individual (Beichner & Spohn, 2005; Campbell, Greeson, et al., 2012; Dichter et al., 2011; Kelley & Campbell, 2013; Shaw & Lee, 2019; Spohn & Tellis, 2019; Stacey et al., 2017; Tasca et al., 2013), community-level factors related to police decision-making in sexual assault cases, such as community-level race and income (Kane, 2002; Terrill & Reisig, 2003), and reports made shortly after the incident (O’Neal & Spohn, 2017) are also related to police decisions. Additionally, while there have been no studies of community-level factors related to police decision-making in sexual assault cases, related literature has found that law enforcement police racial and ethnic community areas differently than White neighborhoods (Kane, 2002; Terrill & Reisig, 2003), and poorer communities differently than wealthier communities (Dichter et al., 2011; Varano et al., 2009). Furthermore, community-level race and income have been associated with police response to 911 calls for sexual assault (Varano et al., 2009) and arrests for intimate partner violence (Dichter et al., 2011). Finally, because of the collaborative nature between rape crisis centers and local law enforcement, the presence of such centers may also be associated with police decision-making in sexual assault cases (Campbell, 2006).

Rationale

Many studies have explored predictors of police decision-making in sexual assault cases at the individual (Beichner & Spohn, 2005; Campbell, Greeson, et al., 2012; Dichter et al., 2011; Kelley & Campbell, 2013; Shaw & Lee, 2019; Spohn & Tellis, 2019; Stacey et al., 2017; Tasca et al., 2013), community-level factors related to police decision-making in sexual assault cases, such as community-level race and income (Kane, 2002; Terrill & Reisig, 2003), and reports made shortly after the incident (O’Neal & Spohn, 2017) are also related to police decisions. Additionally, while there have been no studies of community-level factors related to police decision-making in sexual assault cases, related literature has found that law enforcement police racial and ethnic community areas differently than White neighborhoods (Kane, 2002; Terrill & Reisig, 2003), and poorer communities differently than wealthier communities (Dichter et al., 2011; Varano et al., 2009). Furthermore, community-level race and income have been associated with police response to 911 calls for sexual assault (Varano et al., 2009) and arrests for intimate partner violence (Dichter et al., 2011). Finally, because of the collaborative nature between rape crisis centers and local law enforcement, the presence of such centers may also be associated with police decision-making in sexual assault cases (Campbell, 2006).
et al., 2013; Ylang & Holtfreter, 2019) and case level (Alderden & Ullman, 2012a, 2012b; Kelley & Campbell, 2013; O’Neal & Spohn, 2017; Spohn & Tellis, 2012b, 2019; Tasca et al., 2013). At the community level, studies have explored demographic and financial factors related to police response to 911 calls for sexual assault (Varano et al., 2009), factors related to arrests for intimate partner violence (Dichter et al., 2011), and the influence of rape crisis centers on police reporting behaviors (Campbell, 2006). However, researchers have yet to examine factors that predict police decision-making for sexual assault at the community level.

There is variability in which police decisions researchers choose to examine—founding, arrest, and referral to prosecution. As previously described, founding represents the first decision police officers must make with regard to sexual assault cases. Without the decision to found, a sexual assault case cannot proceed through the criminal justice system. Thus, the present study sought to examine factors related to police decisions to found sexual assault cases. Specifically, this study examined founding decisions for sexual assault cases reported to a large midwestern police department from January 2013 to December 2017 among victims aged 18 and older. This study addresses an important gap in the literature by identifying community-level factors that influence founding rates in sexual assault cases. Thus, the unit of analysis for this study is the community, not the individual or the case.

Understanding how police decisions in sexual assault cases is influenced by community factors has important policy and practice considerations. To improve attrition in sexual assault cases, factors that help or hinder cases in moving forward must be identified. This requires a multi-level approach. Research has already demonstrated that extralegal individual-level characteristics (e.g., victim and offender race, socioeconomic status) are associated with police decision-making. However, it is possible that police bias is not due to demographics of the
individual case, but rather due to biases about the community as a whole. Indeed, research has found that community-level demographics are related to police discretionary behaviors in non-sexual crime (Dichter et al., 2011; Kane, 2002; Terrill & Reisig, 2003; Varano et al., 2009). If this study were to find similar patterns with sexual assault cases, this would suggest police may judge the credibility of a case based on broad, extralegal factors (e.g., community race or socioeconomic status) that should not influence law enforcement’s response to crime. Such findings would also suggest that police resources are not mobilized uniformly across the city but vary based on the type of community where the crime occurred. Findings such as these would have important implications for police policy, procedure, and practice. Furthermore, it is also important to understand whether community-level partnerships, such as rape crisis centers, have an influence on police decisions. Rape crisis centers often work closely with law enforcement agencies to train officers on how to engage with sexually traumatized victims (U.S. Department of Justice, 2008). If this study were to demonstrate that the presence of rape crisis centers in community areas has a positive effect on police decision-making, this would support the continued relationship between rape crisis centers and the city to develop new norms for how sexual assault cases are handled.

**Research Questions and Hypotheses**

This study will examine the relationship between community-level factors and rates of founding in the city’s 77 community areas. Based on the previous literature, the following research questions and hypotheses are presented:

1. Does presence of a rape crisis center predict rates of founding at the community level?
   a. Hypothesis I. Community areas with a rape crisis center will have higher founding rates.
2. Does proportion of Black residents predict founding rates?
   a. Hypothesis II. Community areas with a greater proportion of Black residents will have lower founding rates.

3. Does proportion of Hispanic/Latinx residents predict founding rates?
   a. Hypothesis III. Community areas with a greater proportion of Hispanic/Latinx residents will have lower founding rates.

4. Does community socioeconomic status predict founding rates?
   a. Hypothesis IV. Community areas with a lower median household income will have lower founding rates.

Methods

Data Sources

Archival data were obtained from two sources. The city’s data portal provided crime data, and the city’s metropolitan agency for planning provided data on community characteristics. The data portal provides incident-level variables (e.g., type of crime) on all crimes reported to the police department from 2001 to present, minus the past seven days. Police reports logged in the department’s reporting system are automatically uploaded into the portal and reflect only cases that have been founded by the police. Unfounded cases were requested and obtained from the police department. Data from the metropolitan agency for planning summarize a variety of factors on the city’s 77 community areas including racial and ethnic demographics and measures of socioeconomic status. These data were primarily calculated from the 2013-2017 American Community Survey 5-Year Estimates and the U.S. Census Bureau. Values for the 77 community areas were estimated by aggregating the 2013-2017 American Community Survey census tract and block group data.
Dataset Construction and Variables

Case Selection

Only incidents of criminal sexual assault, defined by the Federal Bureau of Investigation as “any sexual act directed against another person, forcibly and/or against that person’s will or not forcibly or against that person’s will in instances where the victim is incapable of giving consent” (2014), were included for analysis in this study. These cases include non-aggravated, attempted aggravated, and aggravated sexual assault\(^4\) from 2013 to 2017 among adult victims aged 18 and older. The five-year widow from 2013 to 2017 was selected because it matches the time period the metropolitan agency for planning used to generate demographic information for each of the 77 community areas. A total of 8,015 cases met these criteria.

Unit of Analysis

The city’s 77 community areas were used as the unit of analysis in this study. Information at this level can be aggregated over time because the boundaries of the community areas do not change.

Dependent Variable

The dependent variable, founding rate, was created by dividing the number of founded sexual assault cases by the total number of cases reported for each community area. Data for this variable was collected from the data portal.

Independent Variables

Four independent variables were included in this study. Each is described below.

Presence of a Rape Crisis Center. The state’s coalition against sexual assault provides a list of all rape crisis center locations within the state, including the focal city. Presence of a rape

\(^4\) Types of aggravated and attempted aggravated sexual assault include handgun, other firearm, knife other or cutting instrument, other dangerous weapon, and other.
crisis center was determined with a dichotomous variable identifying whether there was a rape
crisis center office located in the community area or not.

**Race and Ethnicity.** Previous literature has found that police respond differentially to
Black communities and Hispanic/Latinx communities with regard to sexual assault (Varano et
al., 2009). As a result, race and ethnicity, was examined as: proportion of Black community
residence and proportion of Hispanic community residents. These variables were collected from
the metropolitan agency for planning.

**Median Household Income.** Median household income for each community area was
collected from the metropolitan agency for planning.

**Data Analytic Plan**

A post-hoc power analysis was conducted using G*Power (Faul et al., 2007) and is
presented in the results section. SPSS version 26.0 (IBM Corp., 2019) was used to conduct the
remaining analyses. Prior to hypothesis testing, regression diagnostics were conducted to
confirm assumptions—consistent with recommendations by Cohen and colleagues (Cohen et al.,
2003). Normality of residuals were assessed with a histogram and Q-Q plot. Homoscedasticity
was assessed by plotting residuals as a function of predicted values and observing for equal
distribution of points. Scatterplots were conducted to determine the linearity between the
continuous independent variables and dependent variable. The presence of multicollinearity was
assessed by calculating VIF values, and the presence of outliers and influential data points were
assessed by examining standardized residual values, leverage values, and Cook’s Distance
values. Following diagnostics, bivariate correlations were conducted to analyze the association
between each independent variable and founding rate. Finally, multiple standard linear
regression was used to examine the effect of presence of a rape crisis center, race, ethnicity, and median household income on founding rate.

**Results**

Overall, a total of 8,015 sexual assaults were reported to the city’s police department between January 1, 2013 and December 31, 2017. Of these cases, \( n = 7310 \) (91%) were founded. Across the 77 community areas, there was an average of 104.09 cases reported (\( SD = 92.66 \)) during this time period. The mean community area founding rate was 0.91 (\( SD = 0.05 \), Min = 0.78, Max = 1.00). Across the community areas, the mean proportion of Black residents was 0.38 (\( SD = 0.40 \)) and the mean proportion of Hispanic residents was 0.26 (\( SD = 0.28 \)). Rape crisis centers were present in 13% of the community areas (\( n = 10 \)), and the average median household income was $51,038.80 (\( SD = 23754.34 \)).

**Correlation & Regression Results**

An OLS regression was conducted. Assumptions of regression were examined and were determined to be acceptable. Table 1 presents the bivariate correlations between the four independent variables and the dependent variable. Proportion Black was significantly and positively related to founding rate (\( r = 0.33, n = 77, p < .01 \)). Presence of a rape crisis center, proportion Hispanic/Latinx, and median household income were not related to founding rate.

**Table 1**

*Bivariate Correlations Between Independent Variables and Dependent Variable*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Founding Rate</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Presence of RCC</td>
<td>−0.09</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Proportion Black</td>
<td>0.33**</td>
<td>−0.03</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>4. Proportion Hispanic/Latinx</td>
<td>0.02</td>
<td>0.06</td>
<td>−0.59**</td>
<td>--</td>
</tr>
<tr>
<td>5. Median Household Income</td>
<td>−0.21</td>
<td>0.01</td>
<td>−0.62**</td>
<td>−0.03</td>
</tr>
</tbody>
</table>

*Note. RCC = rape crisis center. **p < .01.*
Standard multiple linear regression was used to examine the effect of presence of a rape crisis center, race, ethnicity, and median household income on founding rate for the 77 community areas. The results are presented in Table 2. The model explained a significant amount of variance in the dependent variable \( F(4, 72) = 5.34, p < .01, R^2 = 0.23 \). Results reveal that after controlling for the other variables in the model, proportion Black, proportion Hispanic/Latinx, and median household income were significantly associated with founding rate. For every one unit increase in proportion Black, there was a 0.10-point increase in founding rate, \( b = 0.10, SE = 0.02, t(77) = 4.06, p < .01, 95\% CI [0.05, 0.15] \). For every one unit increase in proportion Hispanic/Latinx, there was a 0.09-point increase in founding rate, \( b = 0.09, SE = 0.03, t(77) = 3.27, p < .01, 95\% CI [0.03, 0.14] \). And for every one unit increase in median household income, there was a 0.000001-point increase in founding rate, \( b = 0.000001, SE = 0.0000003, t(77) = 2.00, p < .05, 95\% CI [0.00000002, 0.000001] \). Presence of a rape crisis center did not significantly predict founding rate, \( b = -0.01, SE = 0.01, t(77) = -0.94, p = 0.35, 95\% CI [-0.04, 0.02] \).

### Table 2

**Multiple Linear Regression Results Predicting Founding Rate**

<table>
<thead>
<tr>
<th>Variable</th>
<th>( B )</th>
<th>SE ( B )</th>
<th>( \beta )</th>
<th>( T )</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of RCC</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.10</td>
<td>-0.94</td>
<td>[-0.04, 0.02]</td>
</tr>
<tr>
<td>Proportion Black</td>
<td>0.10**</td>
<td>0.02</td>
<td>0.85</td>
<td>4.06</td>
<td>[0.05, 0.15]</td>
</tr>
<tr>
<td>Proportion Hispanic/Latinx</td>
<td>0.09**</td>
<td>0.03</td>
<td>0.54</td>
<td>3.27</td>
<td>[0.03, 0.14]</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>0.00*</td>
<td>0.00</td>
<td>0.34</td>
<td>2.00</td>
<td>[0.00, 0.00]</td>
</tr>
</tbody>
</table>

*Note*. RCC = rape crisis center. CI = confidence interval.

* \( p < .05 \). ** \( p < .01 \).

A post-hoc power analysis conducted via simulation revealed the sample size of 77 to have strong power to detect the effect of the independent variables on the dependent variable. Specifically, results revealed a squared multiple correlation of 0.23 with an effect size of 0.30.
resulting in a power of 0.98. The power to detect the effect of each independent variable on the dependent variable was 0.14 for presence of a rape crisis center; 0.97 for proportion Black; 0.94 for proportion Hispanic; and 0.45 for median household income.

**Discussion**

Police decision-making in sexual assault cases is influenced by factors at multiple levels of analysis, yet research has failed to examine the influence of community-level factors on police decisions to found sexual assault cases. The present study sought to fill this gap by examining the influence of four community-level factors on rates of founding in the city’s 77 community areas: 1) presence of a rape crisis center in the community; 2) proportion of Black residents; 3) proportion of Hispanic/Latinx residents; and 4) community median household income. Understanding how police decisions are influenced by community-level factors is a critical area of inquiry that can provide insight into police biases and the discretionary application of police resources in response to sexual crime.

This study found that approximately 91% of sexual assault cases between January 2013 and December 2017 were founded in the city, indicating there was either not enough evidence to meet the definition of sexual assault or police did not believe the victim in 9% of cases. This result was similar to studies from other major cities including Los Angeles, CA, which had a founding rate between 89% (Spohn & Tellis, 2012a) and 93% (Morabito et al., 2019) from 2005 to 2010. The city’s founding rate was slightly lower than that of Orlando, FL (94%) from 2004 to 2006 (Mustaine et al., 2013) and a national sample of sexual assault cases (94%) in 2008 (Lonsway, 2010).

Research has suggested rape crisis centers can be helpful to police and impact case outcomes (Campbell, 2006). Therefore, it was hypothesized that community areas with a rape
crisis center would have higher rates of founding, likely due to the collaborative relationship between rape victim advocates and law enforcement. However, this study found that presence of a rape crisis center in a community was not associated with community-level police decisions to found sexual assault cases. This finding may highlight a methodological limitation in that only 13% of the 77 community areas had a rape crisis center, suggesting there may be too little variance in the number of centers to detect a result. This finding might also suggest whether a community area has a rape crisis center is unrelated to police decisions in the city because the police still have access to several rape crisis centers within the city. Or it may be that the relationship between the police department and local rape crisis centers has not affected founding rates. One possibility to consider is that some law enforcement agencies work more closely with rape crisis centers than others (Greeson & Campbell, 2013; Martin, 2005), and in particular when they are both part of a SART. As previously noted, SARTs are formal multidisciplinary teams that often include police officers, detectives, prosecutors, rape crisis centers, and medical personnel (Greeson & Campbell, 2015). SARTs work together to coordinate community response to sexual assault (Greeson & Campbell, 2015). While the results from the present study do not provide insight into the relationship between the police department and local rape crisis centers, it is important to note that the city does not have a SART and may benefit from implementing one to strengthen multidisciplinary relationships in the city.

With regard to race and ethnicity, it was hypothesized that communities with a greater proportion of Black residents and communities with a greater proportion of Hispanic/Latinx residents would have lower founding rates. Previous research has found that police are less likely to arrest for intimate partner violence in communities of color when compared to predominantly White communities (Dichter et al., 2011). In the present study, proportion of Hispanic/Latinx
residents and proportion of Black residents were associated with an increase in founding rate, which was contrary to the original hypotheses. An interesting perspective to these findings is that increased founding rates might normally be viewed positively, as sexual assault is the least likely violent crime to be reported to police and cases are very unlikely to reach prosecution (Alderden & Ullman, 2012a; Langton et al., 2012; Lonsway & Archambault, 2012; Spohn & Tellis, 2019). However, given that Black and Hispanic/Latinx communities are often over policed (Brunson & Weitzer, 2009; Fryer, 2019; Goff & Kahn, 2012; Hyland et al., 2015), this finding may be more of a reflection of racialized policing practices in the city than increased police response to sexual assault.

It was also hypothesized that median household income would be positively associated with founding rate. This hypothesis was supported by the regression results. Bivariate correlations initially revealed the opposite, such that officers were more likely to found cases in communities with a lower median household income. However, it appears this may be due to relationships between income, race, and ethnicity. Proportion Black and Hispanic/Latinx were positively associated with founding and negatively associated with median household income; the bivariate correlations showing a negative association between income and founding rate make sense given this context. However, after controlling for race and ethnicity in the model, the relationship between income and founding flipped such that communities with higher median household income were associated with an increase in founding rate. This result suggests that while poorer communities tend to have higher founding rates, after controlling for race and ethnicity, police are founding cases at higher rates in wealthier communities. This finding is more consistent with related literature on gender-based violence citing a positive association
between income and arrest for intimate partner violence (Dichter et al., 2011) and police response to 911 calls for sexual assault (Varano et al., 2009).

**Limitations & Future Directions**

The availability of large databases is advantageous for examining widespread effects of police decisions on sexual assault cases. However, this study was limited by the variables available from data portal and the metropolitan agency for planning. Ideally, individual- (e.g., victim race) and case-level (e.g., victim-offender relationship) data would have been collected to control for their influence and isolate the effect of true community-level factors on police decisions to found sexual assault cases. It is possible the community-level effects found in this study may not be true community-level effects, but a reflection of effects operating at the individual level. For example, it may be that individual-level victim and/or offender race is the true driving factor influencing police decisions rather than the observed community-level effects of race found in the present study. Future research should collect data at all three levels of analysis to identify how police decisions in sexual assault cases are influenced at each step of the criminal justice system.

Scholars are also encouraged to build on this work by collecting characteristics of officers including sex, race, ethnicity, age, years of service, racial attitudes, and attitudes towards sexual assault. Previous research has found these factors can influence law enforcement’s decisions in sexual assault cases (Alderden & Ullman, 2012b; Walfield, 2015) and implicit racial biases (Sadler et al., 2012). Similarly, organizational factors, including sexual assault-specific training and collaboration with rape crisis centers, may also be important data points to collect and in future research (Campbell, 2006; Campbell, Greeson, et al., 2012; Greeson et al., 2016).
Implications for Policy & Practice

The findings from this study help to advance knowledge regarding police decisions in sexual assault cases. As with other research, this study found that community-level demographics are related to police discretionary behaviors (Cureton, 2001; Dichter et al., 2011; Kane, 2002; Terrill & Reisig, 2003; Varano et al., 2009). Specifically, three extralegal factors were identified that influence police decisions to found sexual assault cases: proportion of Black residents living in a community, proportion of Hispanic/Latinx residents living in a community, and community median household income. First, this study seems to contribute to a growing body of literature demonstrating the need for systemic interventions to address problems with heightened police presence in predominately Black and Hispanic/Latinx communities. Second, this study highlights the interconnected issue of police response to gender-based violence and systemic racism. Specifically, police are founding sexual assault cases at higher rates in Black and Hispanic/Latinx communities in the city. The complexity of this finding is that higher founding rates in sexual assault cases are generally viewed as a positive step for improving how sexual assault is addressed, yet this finding suggests Black and Hispanic/Latinx communities may be unfairly targeted by police practices. The intricacy of these findings highlights the need for more complex interventions to address gender-based violence and systemic racism simultaneously such that efforts to increase police response to sexual assault are not inadvertently used punitively against Black and Hispanic/Latinx communities.

Law enforcement may also consider investigating how officers respond to sexual assault cases in those communities with the lowest and highest founding rates. For example, one community area had a founding rate of 0.78, which fell two standard deviations below the mean ($M = 0.91$, $SD = 0.05$), while another community area had a founding rate of 1.00, which fell two
standard deviations above the mean ($M = 0.91, SD = 0.05$). It is possible these differences are
due to random variation such that one community may have more or less cases that clearly fit the
definition of sexual assault as defined by the state statute. It is also possible the variation in how
officers respond to and interact with victims may lead to disparate founding rates across the city.
Comparing officer response to sexual assault between the two community areas may help to
inform implications for practice within the city.

**Conclusion**

High attrition rates in sexual assault cases continue to be a problem in the U.S. The present study sought to address this issue by investigating community-level factors that influence police decisions to found sexual assault cases. Results suggest law enforcement in this large midwestern city found sexual assault cases at higher rates in Black and Hispanic/Latinx communities and in communities with higher median household income. While higher founding rates should normally be viewed positively, these findings may be more of a reflection of increased police presence in Black and Hispanic/Latinx communities than increased response to sexual assault. More complex interventions that address gender-based violence and systemic racism simultaneously are needed. Future research should examine individual- (i.e., victim) and case-level factors in combination with community-level factors to identify how police decisions in sexual assault cases are influenced at each step of the criminal justice system.
References


Lonsway, K. A. (2010). Trying to move the elephant in the living room: Responding to the


Spohn, C., & Tellis, K. (2012a). *Policing and prosecuting sexual assault in Los Angeles City and County: A collaborative study in partnership with the Los Angeles Police Department, the Los Angeles County Sheriff’s Department, and the Los Angeles County District Attorney’s Office*. https://www.ncjrs.gov/pdffiles1/nij/grants/237582.pdf


https://doi.org/10.1177/0022427803253800


https://www.justice.gov/file/1121326/download


https://doi.org/10.1177/0886260515569062


https://doi.org/10.1177/1077801219862632