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Examining risky firearm behaviors among high-risk gun carriers in New York City

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ABSTRACT

Precarious firearm conduct among inexperienced gun possessors has the potential to intensify firearm-related fatalities and injuries. The current study involves face-to-face interviews with 51 high-risk (and prohibited) residents of Brooklyn and the Bronx, NY, each of whom have either been shot or shot at. We analyze study participants' lived experiences regarding urban gun violence (including as victims and perpetrators), firearm handling, sharing, and improper storage. Despite claiming to be knowledgeable about firearm fundamentals, the vast majority of respondents acknowledged never having received professional instruction, but rather "figured it out" by "playing around" with available guns. These informal methods were shaped by respondents' desire to arm themselves despite inadequate access to firearm training. Study participants also described routinely stashing firearms in unsecure, easily accessible locations. Our study findings have important implications for informing community-based harm reduction and safety strategies among persons within high-risk networks.

1. Introduction

1.1. Background

Despite historic reductions in violent crime since the 1990s, both criminologists and public health researchers recognize that the use and misuse of firearms remains a pervasive community safety concern. Each year, thousands of American lives are lost due to homicide, assault, self-inflicted and unintentional firearm injuries (Fowler et al., 2015). Fatal gun shootings are among the leading causes of death among youth (age 16–24), males, and racial-ethnic minoritized groups, illuminating tremendous health and socioeconomic consequences for families and communities (Buka et al., 2001; Sharkey, 2018; Zinzow et al., 2009). Black males ages 15 to 34 disproportionately suffer the brunt of this public health crisis, as they experience gun homicide deaths at rates exceeding 10 times that of white males (Centers for Disease Control and Prevention National Center for Injury Prevention and Control, 2022). Black males who survive a gunshot wound face a heightened risk for reinjury, criminal justice involvement, and poorer psychological well-being (Rich and Grey, 2005; Lee, 2012, 2013; O'Neill et al., 2021). Assaultive gun violence is said to reduce the life expectancy of Black Americans by more than three years (Kalesan et al., 2018).

These disparities are tied to complex social determinants of health, including concentrated disadvantage and structural inequities that increase the availability of and access to illegal guns (Semenza et al., 2021). In New York City, rising fatal and nonfatal shootings are disproportionately concentrated among high-risk, disaffected young men in distressed neighborhoods located in the Bronx and Brooklyn (Braga et al., 2021; Brunson and Wade, 2019; Swaner et al., 2021). Stringent statewide gun laws have not decreased the flow of illegal guns into these neighborhoods, and recovered guns often originate in states with weaker gun controls (Braga et al., 2021; Webster and Wintemute, 2015). These circumvention methods increase the likelihood that guns are acquired and misused by high-risk individuals, including convicted felons, juveniles, and other prohibited persons (Ciomek et al., 2020).

Although we have increasing knowledge about the workings of underground gun markets (Cook et al., 2007; Hureau and Braga, 2018; Crifasi et al., 2020), and why some urban youth choose to carry guns (Oliphant et al., 2019; Barragan et al., 2016), we know less about how this context shapes how high-risk individuals learn to use guns and make decisions about where and how to store them in urban neighborhoods. This knowledge gap is significant, particularly given the lethality of guns in comparison to other weapons and potential victimization risks among intended and unintended victims. Thus, managing unsafe gun handling

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practices could conceivably reduce the number of people injured or killed by guns in urban neighborhoods (Crifasi et al., 2020; Cook and Pollack, 2017).

We conducted in-depth, face-to-face interviews with high-risk (and prohibited) Black male residents of Brooklyn and the Bronx ($n = 51$). These men were victims of gun violence and had at least one other shooting victim in their peer or familial networks. We examine how distressed neighborhood conditions shape norms around illegal gun carrying, and how individuals' behaviors and attitudes toward guns influence their handling and storage practices. Insight into their decision-making processes has important implications for harm reduction and safety strategies among persons within high-risk networks.

1.2. Previous research

1.2.1. Firearm risk convergence among illegal gun carriers

Although a sizeable body of literature has focused on motivations for legal gun ownership (Hamilton et al., 2018; Hemenway, 2011), less emphasis has been placed on understanding the motivations for illegal gun ownership among high-risk and prohibited persons in marginalized neighborhoods (Sierra-Ar evalo, 2016; Sokol et al., 2021; Sheley and Wright, 1993). Approximately a third of all United States households have guns, and Americans generally acquire guns for similar reasons: protection, self-defense, and safety (Cook and Goss, 2020; Azrael et al., 2018). Studies consistently find a significant relationship between gun ownership and safety-related factors—including fear of crime, perceived victimization risk, and community crime rates (Kleck et al., 2011; Hauser and Kleck, 2013). The aforementioned data, however, can obfuscate how the need for protection is heightened among residents of economically disadvantaged, urban neighborhoods, where the likelihood of violent victimization is higher (Rowan et al., 2019; Carter et al., 2013; Quimby et al., 2018; Spano et al., 2012; Dong et al., 2020). Individuals who are most vulnerable to violence are often prohibited by federal law from owning a firearm, particularly convicted felons and those with certain criminal histories (Cook et al., 2007). Felony status does not lessen the need for protection, but it does shift gun acquisition into underground markets that then supply gang and drug networks in U.S. cities (Cook et al., 2015; Hureau and Braga, 2018). Illegal gun ownership increases the likelihood that individuals will engage in risky firearm behaviors, such as criminal activity, carriage in risky situations (e.g., while under the influence of drugs or alcohol), reckless discharge (e.g., while in public areas), and firearm aggression (e.g., waving weapons; Carter et al., 2015; Carter et al., 2020; Vacha and McLaughlin, 2004; Ruddell and Mays, 2004).

Gun carrying and victimization co-exist in a “synergistic association” where those who carry guns for self-protection in violent community contexts are also inadvertently increasing their own risk for serious or fatal injury (Sokol et al., 2022; Branas et al., 2009; Carter et al., 2020; Oliphant et al., 2019; Loughran et al., 2016; Watts, 2019). Hureau and Wilson (2021) found direct and vicarious gun victimization to be highest among adjudicated youth, regardless of future or past gun-carrying behavior. Gunshot victimization is highly spatially concentrated and typically occurs among small and identifiable co-offending networks (Papachristos and Wildeman, 2014; Papachristos et al., 2013). Survivors of gun violence are twenty times more likely to experience a subsequent injury and three times more likely to be arrested on a violence or weapons-related charge (O'Neill et al., 2021; Richardson et al., 2020). Thus, while gun carrying may lower an individual's perception of victimization risk, carrying actually increases risk of victimization and justice system contact (Rowhani-Rahbar et al., 2015; Loughran et al., 2016; Spano and Bolland, 2013).

Distressed and violent milieus also decrease the likelihood that high-risk individuals will view police as invested in crime control and public safety efforts (Brunson, 2007; Kirk and Papachristos, 2011; Barragan et al., 2016). Over- and under-policing critically reduces officers' legitimacy in the eyes of those embedded in high-risk networks (Brunson and

Wade, 2019; Payne et al., 2017). Negative perceptions of the law and lower levels of police legitimacy also influence gun offending (Papachristos et al., 2012). Sokol et al. (2022) found that the positive association between community violence and firearm carriage increased along with citizens' negative perceptions of police bias. High-risk individuals who feel unsafe in their communities and distrust police often seek to mitigate this insecurity through extralegal, self-help behaviors such as firearm carriage and retaliatory violence (Gau and Brunson, 2015; Crifasi et al., 2020).

1.2.2. Firearm safety and storage practices

How individuals store their firearms matters for reducing risk of injury (Carter et al., 2022; Miller et al., 2005), particularly among families with adolescents (Johnson et al., 2006; Monuteaux et al., 2019; Azrael et al., 2018). Safe gun storage refers to practices that limit accessibility to guns by unauthorized users and have the potential to serve as a meaningful intervention to reduce gun-related injury (Crifasi et al., 2018). The American Academy of Pediatrics and the American Medical Association recommend storing firearms unloaded and secured to minimize the chance of injury (American Academy of Pediatrics, 2000). The four dominant household firearm storage practices include *locking guns* (i.e., keeping guns locked in a gun safe or cabinet, or using safety devices such as trigger or cable locks); *locking ammunition* (i.e., storing ammunition in a secure location); *keeping guns unloaded*; and *keeping both guns and ammunition in a separate location* (Grossman et al., 2005). Studies among children and adults have consistently shown a lower risk of self-inflicted and unintentional firearm injuries and deaths in households that practice safe storage compared to those in which guns are stored un-locked and/or loaded (Rowhani-Rahbar et al., 2016).

Still, most Americans engage in some form of unsafe firearm storage practices or risky firearm behaviors, regardless of legal or illegal gun ownership status (Azrael et al., 2018; Miller et al., 2005). Previous research suggests that more than half of households store guns unlocked, loaded, or both (Prickett et al., 2019; Crifasi et al., 2018), oftentimes irrespective of whether youth are present in the home (Monuteaux et al., 2019; King et al., 2020; Aitken et al., 2020). Gun owners who believe that guns make them safer are more likely to store firearms loaded and unlocked (Mauri et al., 2019). Unsafely stored firearms increase the risk of unintentional firearm deaths, which are most common in Black communities. Black males (ages 20 to 34) and Black females (ages 0 to 19) are at the highest risk of dying from an unintentional shooting relative to other groups (CDC WONDER Database, 2019). Data indicate that across all ages, almost half of unintentional gun deaths occur as a result of someone playing with a gun (28.3%) or believing that a gun was unloaded (17.2%) (Solnick and Hemenway, 2019).

Less is known about whether increased preventive efforts in firearm training and recreational gun use can reduce risky firearm behaviors, particularly in marginalized neighborhoods or among high-risk populations. Part of this knowledge gap is due to the racialization of gun culture, where gun use is perceived differently based on the race of its possessor (Carlson, 2020). The face of recreational gun culture is often socially privileged (i.e., white, heterosexual, and middle class) male gun owners, particularly at gun shows, sporting events, and shooting ranges (Yamane, 2017). White youth are often socialized into gun culture by attending and working in these spaces (Lanterman and Blithe, 2018; Shapira and Simon, 2018). There is also a resurgent movement toward gun rights advocacy in urban Black communities (e.g., the National African American Gun Association and Black Guns Matter), and these organizations aim to provide education on Second Amendment rights, safe and legal firearms knowledge, and conflict resolution (Blocher and Siegel, 2022). While these organizations seek to provide training to reduce risky firearm behavior, Black men, even when lawfully armed, are still often presumed dangerous and risk criminalization (Carlson, 2018).

Firearm training is not associated with safe storage practices in the general public (Crifasi et al., 2018), and gun safety programs typically

do not improve unsupervised firearm handling among children (Holly et al., 2019). Some studies with smaller samples find that firearm safety counseling and gun lock distribution programs can potentially improve firearm storage practices among families (Rowhani-Rahbar et al., 2016; Coyne-Beasley et al., 2001). Healthcare providers can also potentially influence safer firearm behaviors and substantially lower the risk of firearm-related injury, though results are mixed (Haser et al., 2020). For example, Barkin et al. (2008) found that for every five gun-owning parents whose child's pediatrician gave them lethal means safety counseling and free cable locks, two parents reported using the devices six months later. The purpose of this study was to examine 51 high-risk, Black male residents of Brooklyn and the Bronx unsafe gun handling and storage practices. We offer policy prescriptions for harm reduction and safety strategies.

2. Methods

2.1. Study setting

Despite New York City's acclaimed reduction in firearm violence from its peak in the early 1990s and status as one of the safest big cities in America, gun violence remains a persistent public health concern within the city's most disadvantaged neighborhoods (Kim, 2022). As Table 1 shows, our study participants resided in areas characterized by intense racial segregation, high unemployment, disproportionate poverty rates, female-headed households, and elevated levels of violent crime.¹ Scholars have consistently associated these ecological contexts with fatal and non-fatal firearm violence (Braga and Brunson, 2015; Friedson and Sharkey, 2015).

2.2. Study design

Data for this study are derived from a broader project examining 108 high-risk individuals' perceptions of and experiences with underground gun markets in Brooklyn and the Bronx.² Herein, however, we limit our analysis to 51 Black men between 18 and 34 years old (with a mean age of 23.1). Our sampling strategy was purposive and informed by prior research revealing that Black male residents of disadvantaged urban neighborhoods between 18 and 34 years old are at greatest risk of firearm-related injuries in the United States (Boeck et al., 2020; Resnick et al., 2017; Richardson et al., 2020; Riddell et al., 2018). Furthermore, firearm-related injury risk among this population is concentrated within high-risk social networks (Papachristos et al., 2012; Sierra-Arévalo and Papachristos, 2017; Tracy et al., 2016) and individuals with repeat exposure to gun violence (i.e., recurrent trauma) (Rich, 2009; Rich and Grey, 2005; Richardson et al., 2016). As such, only individuals who reported having been victims of gun violence (i.e., shot or shot at) and knew at least one other shooting victim were included in the analysis.³ Our study design and analytical approach broadens gun violence research by including the voices of individuals who are likely under-represented among hospital and law enforcement data. Understanding this high-risk population's perceptions of and experiences with firearm

¹ New York Police Department precincts encapsulate several neighborhoods and demographic data at the precinct level is not publicly available. The provided neighborhood descriptive statistics are based on the American Community Survey 5-year estimates (2015–2019) and were retrieved from the New York City Population FactFinder.

² Due to ongoing NYPD enforcement activities in other high gun violence precincts, study participant recruitment was restricted to neighborhoods in the 42nd precinct in the Bronx (Morrisiana), and the 67th (East Flatbush), 77th (Crown Heights), and 79th (Bedford-Stuyvesant) precincts in Brooklyn.

³ Our selection criteria might have resulted in the exclusion of individuals who because of their lifestyles, were at considerable risk for later becoming victims of gun violence.

safety practices is vital to informing scholarship on preventing firearm-related injuries, especially in disadvantaged urban communities.

2.3. Participant recruitment & sample characteristics

From May to December 2017, we recruited study participants for face-to-face interviews in the hope of centering their lived experiences regarding illicit firearm markets and gun violence. Our research team was assisted by the New York City Mayor's Office of Criminal Justice (MOCJ) and four Cure Violence sites operating across study areas.⁴ Given the sensitive nature of our research focus and the inherent difficulties accessing the appropriate study population (Sandberg and Copes, 2013), for about a year prior to data collection, we went to great lengths to establish a presence in the study neighborhoods (often participating in a wide range of local events, including anti-violence rallies) in the hope of building trust with key gatekeepers (e.g., Cure Violence staff, clergy, liaisons from grassroots organizations) and potential study participants.⁵ We operated under the belief that if we were able to enhance gatekeepers' trust of research team members, that trust might also extend to recruited respondents, resulting in more candor during interviews.⁶ Ultimately, we obtained a sample of hard-to-reach individuals eliciting rich qualitative data detailing their risky firearm behaviors. Participation in the study was voluntary, and interviews were conducted in donated meeting rooms that afforded privacy. Twenty-seven respondents were drawn from Brooklyn and twenty-four from the Bronx. Respondents were promised confidentiality and compensated \$50 (in the form of a retail gift card).

As Table 2 indicates, all respondents were victims of gun violence. Specifically, 23.5% ($N = 12$) of respondents reported being shot and wounded, while 76.5% ($N = 39$) reported being shot at but did not suffer a gunshot injury. In addition to their direct experiences with gun violence, all respondents reported having at least one friend or family member who had been a victim of gun violence, with an average of 13.5 known victims. Nearly 80% of our sample ($n = 41$) disclosed possessing at least one firearm within the past five years, with an average of 2.4 firearms. About 75% ($N = 38$) of respondents reported publicly carrying a firearm. Moreover, nearly all respondents ($N = 49/96.1\%$) said that they had never received formal firearm safety training.

2.4. Data collection

The interview team consisted of one male and two female Ph.D. students. The male was raised in and lived in one of the study

⁴ Cure Violence offices are primarily staffed by ex-gang members and formerly incarcerated persons, who provide social services to individuals at elevated risk of becoming shooting victims and/or perpetrators. We were also assisted by several grassroots organizations and community liaisons—including clergy affiliated with nearby faith-based institutions.

⁵ There are well-documented challenges associated with recruiting study participants from difficult-to-access populations (e.g., see Abrams, 2010; Jacques and Wright, 2008; Sandberg and Copes, 2013; Shaghghi et al., 2011). One crucial means of overcoming these difficulties is relying on recruitment partners capable of identifying and recruiting potential respondents (Jacques and Wright, 2008; Sandberg and Copes, 2013). Furthermore, some qualitative scholars have asserted that successfully recruiting participants from difficult-to-access populations involves regularly engaging in social interactions between researchers, recruiters, and potential interviewees (Jacques and Wright, 2008; Sandberg and Copes, 2013).

⁶ Rapport building activities included canvassing study neighborhoods alongside outreach workers and violence interrupters, organizing writing and career development workshops for high-risk youth and adults, and attending local anti-violence rallies following fatal and nonfatal shootings. Interviewers also attended health and wellness expos, neighborhood block parties, field trips for youth enrolled in a summer employment program, and food drives for nearby shelters.

Table 1
Select study settings characteristics.

Characteristic	Brooklyn Respondents' Neighborhoods	Brooklyn	Bronx Respondents' Neighborhood	Bronx	Citywide
% African American	61.4	30.3	38.2	29.3	21.9
% Poverty	24.8	21.1	33.9	29.1	18.9
% Unemployment	7.7	7.0	11.0	10.5	6.9
% Female headed Household	25.1	18.2	33.4	29.9	17.6
Crime rates per 100,000 residents					
Murder	8.3	4.2	10.0	4.9	3.4
Rape	27.0	17.4	38.8	22.5	16.9
Robbery	243.9	169.5	305.9	241.3	163.5
Felony assault	365.4	229.9	547.9	373.0	234.9
Population	336,619	2,649,000	79,762	1,471,000	8,538,000

Table 2
Select sample characteristics.

Characteristic	Brooklyn N = 27 (%)	Bronx N = 24 (%)	Total N = 51 (%)
Race/ethnicity			
Black	27 (100)	24 (100)	51 (100)
Gender			
Male	27 (100)	24 (100)	51 (100)
Age			
Mean	23.0	23.2	23.1
Minimum	18	18	18
Maximum	34	34	34
Subject ever shot or shot at			
Shot	6 (22.2)	6 (25.0)	12 (23.5)
Shot At	21 (77.8)	18 (75.0)	39 (76.5)
Ever had a friend or family member shot or shot at			
Mean	9.1	14.8	13.5
Minimum	1	1	1
Maximum	20+	20+	20+
Gang membership			
Yes	19 (70.4)	11 (45.8)	30 (58.8)
No	8 (29.6)	13 (54.2)	21 (41.2)
Gun possession in the last 5 years?			
Yes	22 (81.5)	19 (79.2)	41 (80.4)
Declined to answer	5 (18.5)	5 (20.8)	10 (19.6)
Mean	2.2	2.6	2.4
Minimum	1	1	1
Maximum	10+	10+	10+
Ever carried a firearm in public			
Yes	20 (74.1)	18 (75.0)	38 (74.5)
No	7 (25.9)	6 (25.0)	13 (25.5)
Received formal firearm training?			
Yes	1 (3.7)	1 (4.2)	2 (3.9)
No	26 (96.3)	23 (95.8)	49 (96.1)

neighborhoods at the time of data collection. Interviewers were in their late twenties or early thirties. Two were Black and the remaining interviewer was of Indian descent. Consistent with Rutgers University Institutional Review Board (IRB) requirements, all interviewers successfully completed the Collaborative Institutional Training Initiative (CITI) program for research with human subjects. Before attempting to recruit study participants, the research team shared drafts of the interview guide with MOCJ and Cure Violence staff to obtain feedback.⁷ The research team conducted pilot interviews with Cure Violence workers who agreed to pre-screen questions and provide feedback regarding how specific questions might resonate with their clients / mentees. Furthermore, pre-testing helped us estimate the amount of time required to complete the interview and identify confusing questions as well as those

⁷ The interview guide was modified from Cook et al.'s (2005, 2007) instrument used to examine underground gun markets in Chicago.

that participants may have considered insensitive, offensive, or overly intrusive.⁸

2.5. Data analysis

We analyzed the data using Saldaña's (2015) two-cycle coding process. Specifically, each researcher read interview transcripts in their entirety before coding and analyzing the data by hand (extensively recording notes in the margins) to identify common themes (i.e., open coding). Researchers met regularly throughout this phase of the coding process to compare codes and reach agreement on the initial subthemes. In a few instances, however, tiebreakers were used to resolve initial disagreements regarding non-substantive coding issues such as the meanings of local colloquialisms. Lastly, once the team agreed on the most salient themes, we reexamined the interview transcripts to confirm their appropriateness.

Consistent with grounded theory (Glaser and Strauss, 1967; Saldaña, 2015), our analytic method allowed major themes and subthemes to emerge from the data.⁹ For example, the "informal firearm training methods" theme arose from consistent patterned responses to the following interview questions:

Do you have any experience with firearms?
Any training or practice operating guns?
How did you learn how to handle a firearm?
Who, if anyone, taught you how to handle a firearm?

Respondents were classified as having engaged in informal firearm training methods if they reported learning how to use a firearm through (a) consuming firearm-related visual media, (b) engaging in hands-on training with friends and family members, or (c) teaching themselves how to use a firearm. Finally, we took great care to ensure that quoted material typified the most common themes and subthemes in respondents' accounts. Given their overrepresentation in firearm-related injuries in the United States, our analysis of high-risk Black men who have experienced gun violence is crucial for informing efforts to prevent

⁸ As a condition of obtaining informed consent, we assured potential study participants that if they agreed to an interview, they could later refuse to answer any questions without explanation. This is important given that we understood the likelihood that our sample might include individuals prohibited from possessing firearms. We wanted to prevent respondents from unwittingly placing themselves in legal jeopardy. Therefore, we did not press study participants who decided against answering certain questions and instead, interviewers moved on to the next question. The Rutgers University Institutional Review Board (IRB) approved this study.

⁹ In-depth conversations between researchers and interviewers unfolded based on how individual study participants answered previous questions (and interviewer's clarifying probes). Therefore, the exact guide cannot be presented in a standardized form. The questions, however, primarily focused on respondents' direct and indirect experiences handling and storing firearms.

firearm-related injuries and deaths, especially in disadvantaged, urban settings.

3. Results

Four recurring and often overlapping themes emerged from our analysis: (1) pervasive risk of gun violence, (2) informal firearm training methods, (3) unsafe firearm storage practices, and (4) firearm sharing behaviors. Our parent themes represent respondents' most common statements. For instance, an overwhelming majority of study participants shared that the prevalence of shootings in public spaces and among bystanders elevated their perception of victimization risk. Moreover, many study participants reported learning to use guns through informal training methods with peers and family. Respondents' detailed accounts regarding how they stored and hid guns involved methods that most public health professionals would deem unsafe given the potential risk of discovery or accidental discharge. We highlight the aforementioned themes below and in Tables 3 through 6.

3.1. Bullets have no names: pervasive risk of gun violence

Nearly all respondents (N = 45/88%) asserted that gun violence was

Table 3
Pervasive risk of gun violence.

Parent theme (%)	Subtheme (N/%)	Exemplary quotes
Pervasive risk of gun violence (N = 45/88.2%)	Shooting of innocent bystanders (11/21.6%)	The day before yesterday...two ladies were shot on [Etzel] in their back yard....It's just scary, you could be in ya backyard, or a project complex or whatever, and shots go off and innocent people get killed. It's crazy, these were [innocent women], shot in the face and the head, that's crazy. (Nick)
	Shootings at public events (21/41.2%)	It's just a risk every time you step out your door 'cause you never know what this person and that person have and these brothers is not really trained to be bustin' (shooting) no guns, they reckless. So when they shooting, half of them [are] hitting innocent bystanders, as you hear it on the news and so forth. So yea, it's very fearful. You fear for your life... (Tommy)
	Changing violence norms (13/25.5%)	I was with my mom's [in the Peabodys] ...everybody was outside. So, we in the big park, everybody on the basketball court playing basketball so I look and I see a black dealer rental [car] driving past the park, and they just started [shooting]. I started running, and my mom was screaming "get down, watch the bullets, get down, don't run!" they just kept shooting, and I felt [a bullet] fly right past my face. So I got low, then I saw that they drove past the park, stopped, and start [shooting] again. And then they left. (Paul)
		I would say the gun violence has gotten worse... 'Cause back then like... my older brother's generation kept the beef [between] them. Now you got these little [kids] they'll run up and air a crowd out and don't give a fuck if they hit the person they looking for. So, in my eye that's worse than what it was before. (Keith)

Table 4
Informal firearm training methods.

Parent theme (%)	Subtheme (N/%)	Exemplary quotes
Informal firearm training methods (N = 49/96.1%)	Consuming firearm-related visual media (12/23.5%)	Just [watching] movies will teach you how to use guns. Nobody really taught me. (Justin)
	Informal hands-on training with friends and family members (41/77.3%)	Nobody had to tell me, I just like picked it up from movies... (Jerome) Like I ain't gonna lie when we was young...we used to come outside with them shits (guns) [and] try to shoot at bottles, even shoot at birds sometimes. I ain't gonna lie. (Mike)
	Self-taught (N = 8/15.7%)	Basically...me and my friends used to go on the top of his building and like put bottles up, and we would all shoot at the bottles...we would have this wager where whoever breaks they bottle first...everybody would have to give that person \$5. (Huey) I [have] basic training... just shooting in the air... just to the feel...how it pushes your arm back and things like that 'cause [there's] really no [other way to learn] ...when you come from the streets, the only training is the training you do when you out there, when you in the field, so that's the only training you get. (Julian) I just be playing [with my gun] sometimes...just for the fun of it... [I] go to the roof and play around with my joint (gun) for a little while, that's [my training]. (Abdul)

a persistent concern in their neighborhoods, describing the phenomenon as pervasive, spontaneous, or "random" (see Table 3). Although respondents were embedded in high-risk networks, they argued that the reach of gun victimization extended beyond those directly involved in crime. Several study participants described the frequency by which innocent bystanders, often women and adolescents, were unintentionally struck by stray bullets during shootings in public spaces (see Table 3). For example, Keegan recounted how his mother fell victim to a stray bullet while watching Sunday night football at home with family members:

...it was a stray bullet, the dude came out the building, just shooting... shooting, shooting, shooting. Mind you, my mom's is on the first floor, it went through the window and hit her in her head. In front of my uncle and his [infant] daughter.

Keith recalled a mass shooting, striking four people, at a local basketball tournament that he organized:

I threw a tournament in the park on [Boston] Ave...the tournament was going great...[then] it got shot up. A little teenage boy [fired the shots] ... around halftime, I remember it like it was now ...One dude got killed, a [corrections officer] got shot in her belly button...like four people got shot.

Recall, while 23.5% (N = 12) of our sample reported having been previously shot, several insisted being injured while "minding their own business." For instance, Torrey lamented that "innocent people [get] shot," and described how he "caught" a bullet while attending a

Table 5
Unsafe firearm storage practices.

Parent theme (%)	Subtheme (N/%)	Exemplary quotes
Unsafe firearm storage practices (35/68.7%)	Home storage (17/33.3%)	At my house. Usually inside my drawer. Or in my closet. (Tyrell)
	Public storage (11/21.6%)	I kept it in the closet in a black garbage bag. (Keegan) I couldn't keep it in my house... so I kept it in... a little cubby, that nobody could really see... [underneath] the steps to go down to [my building's] basement... (Huey)
	Peer storage (7/13.7%)	I ain't never want [my gun] in my house... I got two nephews in the house... [they're] little kids, [there are] children in my house. (Peter) My parents were strict so we definitely couldn't keep [guns] in my house, but like every parent isn't strict and every parent doesn't know what is going on in their household. So, we would put them in one person's house and when we needed it, we would go and get it. (Chris)
		I was always scared [of keeping the gun at my house] 'cause at the time I was livin' with my sister, so I wasn't tryin' to [have her] find it and tell me to get the hell outta her house 'cause I gotta little nephew. So it's like I was not puttin' [the gun] there. But I had a [building superintendent] that I was cool with [because] I used to help him out [with building maintenance]. So he used to let me put it in his building that he was cleaning up... (Andre)

Table 6
Firearm sharing behaviors.

Parent theme (%)	Subtheme (N/%)	Exemplary quotes
Firearm sharing behaviors (20/39.2%)	Communal gun ownership (8/15.7%)	We all chipped in for guns. We just needed somethin' to protect us you know. (David)
		I can't tell you where we got it from but I know niggas chipped in and bought it you feel me. (Bryce)
	Lending and borrowing guns (12/23.5%)	I pitched in for it. So my friend knew somebody and I got it like that. (Julian) We borrowed it from a guy in the neighborhood that knew us. (Torrey) I borrowed guns from... whoever I knew and I was cool with and I trusted. So like friends, OGs. Like even people that just don't want to see me dead... (Andre)

neighborhood barbecue stemming from a conflict that “had nothing to do with him:”

[A couple of guys] was arguing at a party and I saw... two [of them] leave, but you could tell they wasn't going far. And I still stayed and watched these other four dudes fight. And then when I looked, I saw the two [that previously left] and... [they] just started shooting. And when I ran, I got shot... That shit ain't have nothing to do with me. Nothing to do with me.

Our respondents attributed sporadic neighborhood gun violence to

generational changes in street norms (see Table 3). For instance, Paul asserted that the “streets is cold now.” He explained:

you see how the streets is now. Like, the streets is cold now... [People] dying left and right, [dudes] just don't care no more, [they] don't care about us... [Nowadays] anybody could die. [They'll] kill a female, a little kid, they'll kill anybody, so it's like we have to [carry guns] ...we have no choice, it's like for your own protection. Like you go out somewhere, you go to a party, like you gotta have [a gun] on you, because you don't know who's gonna be there... Anybody could shoot at us.

Although interpersonal gun violence in New York City is relatively “rare,” it remains intensely concentrated among a fraction of individuals embedded in high-risk networks. Consistent with extant literature on urban gun carrying, respondents used their perception of unrestrained shootings to justify arming themselves (Fagan and Wilkinson, 1998; Hureau and Braga, 2018). Specifically, while study participants expressed concern about widespread violence, they reported carrying to mitigate their own victimization risk, thereby increasing feelings of protection within violent milieus. Still, acquiring and carrying guns exposed respondents, neighbors, friends, and family members to substantial injury. Next, we investigate respondents' accounts regarding how they learned to use guns.

3.2. It don't take a rocket scientist

Despite claiming varying experience with handling firearms, most respondents (N = 49/96.1%) acknowledged never receiving professional or formal firearm safety and handling instruction (see Table 4). Most (N = 49/96.1%) indicated they “figured out” how to handle firearms through sporadically engaging in informal, hands-on training—either on their own (N = 8/15.7%) or with friends and family members (N = 41/80.4%). In addition, nearly a quarter of participants (N = 12/23.5%) asserted that consuming firearm-related visual media (i.e., television, films, video games, and online videos) was sufficient for “learning” how to handle and use guns.

Informal, hands-on training typically involved shooting at improvised targets (e.g., bottles, cans, or bean bags), discharging guns into the air while in semi-secluded spaces (e.g., rooftops, parks, backyards, or stairwells), and even “playing with” guns by cocking and dismantling them. When asked how he first learned to handle guns, Jordan responded:

It don't take a rocket scientist... I figured it out on my own... Nobody physically taught me.

Peter echoed this sentiment, explaining:

I learned it on my own... playing with regular toy guns... as a young kid, I took them apart... and tried to put [them] back together, and from there... I just caught on, that's when I started to learn.

And Nate said that he first began “playing with guns” after finding an unsafely stored firearm:

We started playing with guns young... my first gun [I played with] was my friend's father's gun, we would just play with his guns... take them apart, put them together, cock them, you know, in the house, that's what we would do... [Sometimes] we would get some kids [to] sneak them into the school, just to have in their backpack.

Part of respondents' self-education involved watching firearm-related visual media, which they considered learning tools. This media included violent content depicted in video games (e.g., First Person Shooters or Grand Theft Auto), films / television programming, and YouTube videos. When asked how he learned to handle a firearm, Jason replied:

Well to be honest with you, just from watching certain movies as a kid. And then the worst thing that could ever happen was for Grand Theft Auto

to come out...that's when my infatuation with guns really started. I liked the sound it made and when [the animated player] was shooting... I don't wanna sound crazy, but that shit just looked cool as fuck. Mind you, like I said I used to see that shit in movies before the video games, but the games really made you feel like you were the one doing it, you know what I'm saying?

Likewise, according to Ian, YouTube videos were his main source of firearm training, along with actually firing his own weapon. He commented:

I practice [and] I watch a lot of YouTube videos. How to blow [someone's] face off... [how to] hold it, what to do with the gun while you're shooting it with your friends. [I learned] from that...that's your practice right there.

Study participants ($N = 49/96.1\%$) also reported engaging in informal hands-on training with friends, family members, and in some cases, fellow gang members. For example, Tommy recalled being taught how to shoot by older gang members during meetings in “vacant areas” around Brooklyn. He noted:

My homies showed me how to bust (shoot) a gun, that's really all the training I ever had or needed...It was fun because we used to do it in like vacant areas...like down at [the] Pier... when we had our gang meetings... they'd do like some cowboy shit. [Shooting at] bottles, cans, whatever we was drinking, [if] you hit [a target] they might give you \$50.

Gabriel, a teenage gang member, reported learning how to shoot “in the backyard” assisted by two relatives who were New York City Department of Corrections officers. He elaborated:

I know how to hold guns...I've shot a gun before...stuff like that. My uncle [...] him and his wife, they both are corrections officers, so, they got guns already...So one time at like 3 in the morning, he had some type of Glock, and he was like 'yo, hold this,' and when we got in the backyard, he was just like, 'shoot'...

Jay also learned how to handle and clean guns from a relative:

My brother used to hold down (store) one of his friend's guns, so it was like that's when I first learned how to clean it...[things]like, make sure you wear gloves, [use] alcohol...never do nothing with your own hands, always use gloves...I learned that.

Respondents underscored that living in high-crime neighborhoods necessitated possessing guns. Problematic and risky firearm behaviors, however, along with a lack of proper safety training potentially contributed to the pervasive violence respondents frequently described (Ngo et al., 2019). Because most study participants lacked access to quality firearm training, they improvised through informal methods, including discharging guns in public spaces. Unintentional shootings disproportionately occur when untrained individuals “play with” firearms, exacerbating gun violence in distressed communities. In the next subsection, we examine respondents' unsafe storage practices.

3.3. I keep mine in the closet

Study participants reported that when not carrying, they stored firearms in a variety of unsecure locations (see Table 5). Respondents' decisions regarding where to store firearms were dually motivated by the fear of someone finding it (e.g., police, parent, child, intimate partner, or sibling), and having weapons readily accessible for self-defense. Three categories emerged related to improper firearm storage practices: (a) home storage, (b) public storage, and (c) peer storage (see Table 5).

Unsafe home storage was the most common firearm storage practice among participants (17/33.3%), including keeping firearms in quasi-private spaces (e.g., closets, drawers, and under beds). When asked where he kept his gun when not carrying, Jonathan replied:

At home. Under the bed or in my closet.

Furthermore, respondents noted that their firearms were typically kept in improper containers within the home (e.g., shoeboxes, bags, laundry baskets, and coat pockets). Bryce described storing his gun in two precarious locations in his bedroom:

First, I had it in my closet. Then I moved it. I put it under my bed in a shoe box.

The storage of guns in these spaces was believed to afford study participants with a certain degree of privacy, particularly respondents living with parents, children, or siblings. Decisions on where to store guns were also motivated by a desire to hide gun possession from other residents—and to a lesser extent, the police. Jay explained:

[I keep mine] in the sock drawer...[but] it depends on if you got kids or anything, like my mom be looking through my room, so [sometimes] I put it under my pillow...or...in a shoe box somewhere in my room. Some people really gotta hide that shit because you might have a little one [child] running around the house and if [they] find that shit thinking that shit is a toy [something bad could happen].

As the quote above highlights, study participants acknowledged the potential dangers posed by precarious firearm storage to family members—especially adolescents.

Despite efforts to keep their guns hidden, some respondents recalled when others inadvertently found their hidden guns. The fear of future discoveries often motivated participants to relocate firearms outside of their homes.

Unsafe public storage was the second most common practice among participants (11/21.6%), including keeping guns in what interviewees referred to as “stash.” Respondents described stashes as containers within public spaces (e.g., garbage cans in a park, alleyways between buildings, or janitor's closets in apartment buildings) where guns could be easily hidden in plain sight. Gabriel shared that he kept his gun “in like a little cut...a little space I know nobody know about.” Similarly, Luke revealed that he kept his gun in “the park garbage or in the bushes.” The storage of firearms in public areas afforded study participants easy access if needed, while also allowing participants to elude police detection. Finally, Damon explained how he considers where and how to store firearms. He reported:

Aight say like if we all chillin' right here and we know like the detectives like to come and just hop out on us, I'm not gon' keep the gun [on me]. Imma put it in a trash can and imma put the trash can [far away from me]. So now if [the detectives] run up, [I can say] 'go ahead search us...' I'm not gon' have nothin,' but say if somebody we had beef with or somethin' run up, now we gon' run to the trash can 'cause that's where it's at. We put them anywhere where you can get it off you if cops run up spontaneously...

Study participants also sought to store guns in public spaces to minimize exposing unwitting family members (or roommates) to unwelcome criminal justice system contact (e.g., police raids and warrant searches). Julian explained:

If it's not on my person...then it's around my area...[but] it's not in my house, that would be dumb...some people leave it in their house... that's dumb to me... 'cause people's houses be getting raided.

Unsafe storage among peers was the third practice revealed in participants' (7/13.7%) narratives, including keeping firearms in friends' homes or businesses. Respondents often described this dynamic as asking someone to “hold” or “hold down” their weapons. Juan remarked:

I always let somebody else hold it. I don't like to leave [my gun] at my house because of past experiences [with the police].

Generally, respondents who tasked friends and family members with

“holding down their guns” did not always have direct knowledge regarding where firearms were actually kept. Study participants, however, were more likely to temporarily relinquish firearms to people who they fully trusted.¹⁰ Abdul noted:

I don't always keep it in my house, my mom told me to take that shit out outta here because of my little brother... so I be... switching it up, I take it back to my uncle's [house], he told me anytime I need it, just come here.

Similarly, study participants who “stashed” guns with others described their behavior as “holding down guns” or keeping a gun safe until its owner reclaimed it. Respondents who held guns for others typically did so for a short period of time (i.e., a few days to a few weeks), with the expectation that it would be promptly returned to the owner. This practice was typically reserved for close friends and family members, as respondents recognized the risk of illegal gun possession. Keegan described keeping guns for his closest friend. He elaborated:

My right-hand man, whatever he wanted me to do [I would do it]. If he asked me to hold a [gun] in my house, imma hold it in my house. It was one time he had a... baby 5th (0.25) and a deuce deuce (0.22) long. I was just holding them for him...I held them for him a good two, three weeks in my house... in the closet in a black garbage bag.

In the following subsection, we illustrate how respondents shared weapons.

3.4. Community guns

Sharing guns among peers was another risky behavior shaped by respondents' desire to have unfettered access to firearms (see Table 6). Respondents were acutely aware of the risks of gun victimization, as all were gun violence victims and knew at least one friend or family member who had been shot. Illegal gun ownership was considered a viable form of self-defense. Specifically, several study participants reported that “lacking” a firearm exposed members of their friendship and kinship networks to increased risk (Frey et al., 2020; Stuart, 2021).¹¹ The resounding need to not be “caught lacking,” also informed their decisions to share firearms, as failing to honor requests might be perceived as disloyalty. In our sample, firearm sharing behaviors emerged in two instances: (a) “Communal Gun Ownership,” and (b) “Lending and Borrowing Guns” (see Table 6)

Community guns are jointly purchased by groups with the intention of sharing weapons ($n = 8/15.7\%$). Current firearm control policy is predicated on inflating prices of illegal firearms, particularly for those

¹⁰ Like many other criminalized gun behaviors, the choice of whom to task with “holding” a gun was predicated on mutual trust and loyalty. Respondents were emphatic that they were very discerning about whom they surrendered their guns to, largely due to fears of being reported to the police. Typically, respondents only gave guns to close friends, family members, intimate partners, and in some cases, fellow gang members.

¹¹ In their analysis of Twitter data from gang-involved Chicago youth, Frey et al. (2020, p. 50) note that in urban parlance the term “lacking” “refers to being caught off-guard, unprepared, or unaware by opposing gang members.” The term can also be used to describe being caught unarmed. In his ethnography of gang-associated Black youth on Chicago's South Side, Stuart (2021) states that catching someone “lacking” means “to confront them in non-gang-related social contexts (e.g., at work, at school, running errands with family), or engaged in non-gang-related social roles and behaviors.” The youth interviewed for this study used the term extensively to describe being caught unarmed (i.e., they caught me lacking) or catching a rival unarmed (i.e., we caught him lacking).

who are prohibited from legal ownership (Cook et al., 2005; Cook et al., 2007).¹² Thus, shared gun ownership lowers the price of acquiring firearms through underground gun markets, distributing the costs across group members. As a result, individuals can effectively purchase otherwise expensive guns for a fraction of the price, with cost-savings contingent on group size. Chris explained how his friends pooled their money together:

[W]e would put our money together...everyone would put \$100 up then we would have a lot of money and then we would go to the person who is like connected, and you would get what you need.... there was no owner... it was just, these are ours like collectively. Like if you needed it, you could get it....

Some respondents who were members of larger street gangs (Bloods, Crips, etc.) reportedly had greater access to gun caches. Access to these guns, however, was reportedly regulated by gang leaders, and “membership dues” were used to cover the cost of acquiring guns. Tommy elaborated:

[Getting a gun] is different for gangs. 'Cause like...you would have [membership dues]...every week...Say I'm ya Big Homie, you gotta put up \$100 every week. [And] the set is like a hundred deep...maybe better, right? So picture it, a hundred hundreds, probably more, you got a whole lot of guns.

Many gang-involved respondents purposely avoided “gang guns” opting to purchase their own weapons. Gabriel commented:

[M]ost of the time, people got they own guns, you feel me? Basically, after they get [their money] or whatever they go buy they own guns? ...or...you go put up (pool money to share a gun), [the gun] would be there for when one of us wanna touch (use) it...

Respondents who reported affiliations with small street crews or cliques, asserted that their communal practices were different from those of gangs.¹³ Generally, members of small crews stated that their need for guns was not as intense as those of their gang counterparts. Members of crews stressed that they rarely “needed” their gun, and typically only carried it when they were navigating unsafe public spaces as a group (e.g., warring neighborhoods or inhospitable social settings). Javaune commented:

the funny part is that it's a whole group of us but we only got one gun. But like we don't be needing it like that, or if we do it'll be when we all together with the gun. Everybody knows where's it at if they need it though.

Sharing practices also involved lending and borrowing guns among peers, family members, and gang affiliates ($n = 12/23.5\%$). Similar to the norms around “holding guns,” this practice was also predicated on mutual trust and reserved for trusted allies. Lance said that he would regularly let his closest friends borrow his gun, with no preconditions or money exchanged: He observed:

I let my friends borrow it. I wouldn't be like 'Yo you got to rent it' or 'No I'm not lettin' you get it.' Like these my friends I grew up with my whole life.

¹² The federal Gun Control Act of 1968 prohibits firearm possession among a broad range of individuals, including convicted felons, undocumented immigrants, persons convicted of domestic violence, and more. Minors (i.e., individuals under 18) are also prohibited from possessing handguns unless under adult supervision.

¹³ Respondents in our sample drew a distinction between what they considered to be “real” gangs and crews or “teams.” According to our study participants, the label gang was most applicable to groups arranged around a clear hierarchical structure. Conversely, crews or “teams” were used to describe loosely structured groups of friends, family members, and neighbors who socialized in local hangouts.

Respondents also borrowed and exchanged guns to mitigate their own risk for victimization, along with those in their networks. Nick detailed how he sought to avoid feeling “naked” or unarmed. He stated:

I've only bought one gun in my lifetime. One ever in life. For the rest...I'd [ask my] homie (friend) 'Lemme hold that,' 'Yo lemme get that'...or they give them to me...The people letting me hold them...were my homies. [They] just wanna see me survive, you know what I mean...you don't want your boy out there naked (unarmed) when you know [there's a conflict with rivals], you gotta arm him too.

4. Conclusion

The goal of the current study was to examine the lived experiences of 51 urban Black males (between the ages of 18 and 34), who were victims of gun violence. We found that study participants' risky firearm handling, storage, and sharing practices not only threatened their own physical safety but also, that of family, friends, and fellow neighborhood residents. While our study design may limit generalizability, respondents' gritty accounts of recurrent, precarious firearm conduct (i.e., carelessly “playing around” with weapons) underscore the urgent need to deliver gun safety programming to high-risk (and prohibited) individuals in disadvantaged community settings. Specifically, in the hope of reducing local firearm-related fatalities and injuries, safety classes could be required as part of prosecutors' diversion programs aimed at first-time illegal gun possessors. Combatting normative views concerning unsafe firearm behaviors, especially among persons embedded within offending networks, should be prioritized by public health and criminal justice policymakers.

The vast majority of resources dedicated to addressing gun violence in disadvantaged urban settings are centered on abstinence and punishment, primarily administered through the criminal justice system. This frame is reflected in the messaging of high-profile evidence-based public health and public safety interventions such as focused deterrence and Cure Violence which implore high-risk individuals to “put down their guns” or face harsh criminal justice sanctions. Police officers working in high-gun violence settings across the U.S. are already intensely focused on “getting guns off the street,” resulting in the over-policing of disadvantaged, communities of color. The aggressive policing approach to gun violence has proven costly, harmful, and ineffective. Our findings point toward policy prescriptions that abandon abstinence and punishment mindsets in favor of preventive medicine strategies predicated on harm reduction. While we acknowledge that such a drastic policy shift might be challenging, it is not without precedent. In particular, after decades of tirelessly waging war on illicit drugs, several law enforcement agencies have recently embraced harm reduction strategies in the hope of combating another urgent, public health crisis—the opioid-related overdose epidemic.

Sources:

American Community Survey 5-year estimates (2015-2019) retrieved from New York City Population FactFinder: <https://popfactfinder.planning.nyc.gov> (accessed 4/08/22)

New York Police Department, 2017 <https://www1.nyc.gov/site/nypd/stats/crime-statistics/crime-statistics-landing.page> (accessed 04/08/22)

CRediT authorship contribution statement

Rod K. Brunson: Conceptualization, Funding acquisition, Methodology, Project administration, Supervision, Writing – original draft, Writing – review & editing. **Brian A. Wade:** Data curation, Investigation, Writing – original draft. **Brooklynn K. Hitchens:** Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

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References

- Abrams, L.S., 2010. Sampling ‘hard to reach’ populations in qualitative research: the case of incarcerated youth. *Qual. Soc. Work.* 9 (4), 536–550. <https://doi.org/10.1177/1473325010367821>.
- Aitken, M.E., Minster, S.D., Mullins, S.H., Hirsch, H.M., Unni, P., Monroe, K., Miller, B.K., 2020. Parents' perspectives on safe storage of firearms. *J. Community Health* 45 (3), 469–477. <https://doi.org/10.1007/s10900-019-00762-2>.
- Azrael, D., Cohen, J., Salhi, C., Miller, M., 2018. Firearm storage in gun-owning households with children: results of a 2015 national survey. *J. Urban Health* 95 (3), 295–304. <https://doi.org/10.1007/s11524-018-0261-7>.
- Barkin, S.L., Finch, S.A., Ip, E.H., Scheindlin, B., Craig, J.A., Steffes, J., Weiley, V., Slora, E., Altman, D., Wasserman, R.C., 2008. Is office-based counseling about media use, timeouts, and firearm storage effective? Results from a cluster-randomized, controlled trial. *Pediatrics* 122 (1), e15–e25. <https://doi.org/10.1542/peds.2007-2611>.
- Barragan, M., Sherman, N., Reiter, K., Tita, G.E., 2016. “Damned if You Do, Damned if You Don't” perceptions of guns, safety, and legitimacy among detained gun offenders. *Crim. Justice Behav.* 43 (1), 140–155. <https://doi.org/10.1177/0093854815611707>.
- Blocher, J., Siegel, R., 2022. Race and guns, courts and democracy. *Harv. Law Rev.* 135, 449.
- Boeck, M.A., Strong, B., Campbell, A., 2020. Disparities in firearm injury: consequences of structural violence. *Curr. Trauma Rep.* 6 (1), 10–22. <https://doi.org/10.1007/s40719-020-00188-5>.
- Braga, A.A., Brunson, R.K., 2015. *The Police and Public Discourse on “Black-on-Black” Violence. New Perspectives in Policing Bulletin.* U.S. Department of Justice, National Institute of Justice, Washington, D.C.
- Braga, A.A., Brunson, R.K., Cook, P.J., Turchan, B., Wade, B., 2021. Underground gun markets and the flow of illegal guns into the Bronx and Brooklyn: a mixed methods analysis. *J. Urban Health* 98 (5), 596–608. <https://doi.org/10.1007/s11524-020-00477-z>.
- Branas, C.C., Richmond, T.S., Culhane, D.P., Ten Have, T.R., Wiebe, D.J., 2009. Investigating the link between gun possession and gun assault. *Am. J. Public Health* 99 (11), 2034–2040. <https://doi.org/10.2105/AJPH.2008.143099>.
- Brunson, R.K., 2007. “Police don't like black people”: African-American young men's accumulated police experiences. *Criminol. Public Policy* 6 (1), 71–101. <https://doi.org/10.1111/j.1745-9133.2007.00423.x>.
- Brunson, R.K., Wade, B.A., 2019. “Oh hell no, we don't talk to police” insights on the lack of cooperation in police investigations of urban gun violence. *Criminol. Public Policy* 18 (3), 623–648. <https://doi.org/10.1111/1745-9133.12448>.
- Buka, S.L., Stichick, T.L., Birdthistle, I., Earls, F.J., 2001. Youth exposure to violence: prevalence, risks, and consequences. *Am. J. Orthop.* 71 (3), 298–310. <https://doi.org/10.1037/0002-9432.71.3.298>.
- Carlson, Jennifer, 2018. Legally armed but presumed dangerous: an intersectional analysis of gun carry licensing as a racial/gender degradation ceremony. *Gen. Soc.* 32 (2), 204–227. <https://doi.org/10.1177/0891243217745862>.
- Carter, P.M., Walton, M.A., Newton, M.F., Clery, M., Whiteside, L.K., Zimmerman, M.A., Cunningham, R.M., 2013. Firearm possession among adolescents presenting to an urban emergency department for assault. *Pediatrics* 132 (2), 213–221. <https://doi.org/10.1542/peds.2013-0163>.
- Carter, P.M., Walton, M.A., Roehler, D.R., Goldstick, J., Zimmerman, M.A., Blow, F.C., Cunningham, R.M., 2015. Firearm violence among high-risk emergency department youth after an assault injury. *Pediatrics* 135 (5), 805–815. <https://doi.org/10.1542/peds.2014-3572>.
- Carter, P.M., Mouch, C.A., Goldstick, J.E., Walton, M.A., Zimmerman, M.A., Resnicow, K., Cunningham, R.M., 2020. Rates and correlates of risky firearm behaviors among adolescents and young adults treated in an urban emergency department. *Prev. Med.* 130, 105891. <https://doi.org/10.1016/j.ypmed.2019.105891>.
- Carlson, J., 2020. Police warriors and police guardians: Race, masculinity, and the construction of gun violence. *Soc. Prob.* 67 (3), 399–417.
- Carter, P.M., Losman, E., Roche, J.S., Malani, P.N., Kullgren, J.T., Solway, E., Cunningham, R.M., 2022. Firearm ownership, attitudes, and safe storage practices among a nationally representative sample of older US adults age 50 to 80. *Prev. Med.* 106955. <https://doi.org/10.1016/j.ypmed.2022.106955>.
- CDC WONDER Database, 2019. Unintentional Shootings. Retrieved April 1, 2022, from <https://efsgv.org/learn/type-of-gun-violence/unintentional-shootings/>.

- Centers for Disease Control and Prevention National Center for Injury Prevention and Control, 2022. Web-based injury statistics query and reporting system, fatal injury data. <https://www.cdc.gov/injury/wisqars/fatal.html>.
- Ciomek, A.M., Braga, A.A., Papachristos, A.V., 2020. The influence of firearms trafficking on gunshot injuries in a co-offending network. *Soc. Sci. Med.* 259, 113114 <https://doi.org/10.1016/j.socscimed.2020.113114>.
- Cook, P.J., Goss, K.A., 2020. *The Gun Debate: What Everyone Needs to Know*. Oxford University Press.
- Cook, P., Ludwig, J., Venkatesh, S., Braga, A., 2005. Underground gun markets. *Nat. Bureau Econ. Res.* 11737.
- Cook, P.J., Ludwig, J., Venkatesh, S., Braga, A.A., 2007. Underground gun markets. *Econ. J.* 117 (524), F588–F618. <https://doi.org/10.1111/j.1468-0297.2007.02098.x>.
- Cook, P.J., Parker, S.T., Pollack, H.A., 2015. Sources of guns to dangerous people: what we learn by asking them. *Prev. Med.* 79, 28–36.
- Cook, P.J., Pollack, H.A., 2017. Reducing access to guns by violent offenders. *RSF J. Soc. Sci.* 3 (5), 2–36.
- Coyne-Beasley, T., Schoenbach, V.J., Johnson, R.M., 2001. Love our kids, lock your guns: a community-based firearm safety counseling and gun lock distribution program. *Arch. Pediatr. Adolesc. Med.* 155 (6), 659–664. <https://doi.org/10.1001/archpedi.155.6.659>.
- Crifasi, C.K., Doucette, M.L., McGinty, E.E., Webster, D.W., Barry, C.L., 2018. Storage practices of US gun owners in 2016. *Am. J. Public Health* 108 (4), 532–537. <https://doi.org/10.2105/AJPH.2017.304262>.
- Crifasi, C.K., Buggs, S.A., Booty, M.D., Webster, D.W., Sherman, S.G., 2020. Baltimore's underground gun market: availability of and access to guns. *Violence Gen.* 7 (2), 78–83. <https://doi.org/10.1089/vio.2019.0054>.
- Dong, B., Morrison, C.N., Branas, C.C., Richmond, T.S., Wiebe, D.J., 2020. As violence unfolds: a space-time study of situational triggers of violent victimization among urban youth. *J. Quant. Criminol.* 36 (1), 119–152. <https://doi.org/10.1007/s10940-019-09419-8>.
- Fagan, J., Wilkinson, D.L., 1998. Guns, youth violence, and social identity in inner cities. *Crime Justice* 24, 105–188. <https://doi.org/10.1086/449279>.
- Fowler, K.A., Dahlberg, L.L., Hailey, T., Annett, J.L., 2015. Firearm injuries in the United States. *Prev. Med.* 79, 5–14. <https://doi.org/10.1016/j.ypmed.2015.06.002>.
- Frey, W.R., Patton, D.U., Gaskill, M.B., McGregor, K.A., 2020. Artificial intelligence and inclusion: formerly gang-involved youth as domain experts for analyzing unstructured twitter data. *Soc. Sci. Comput. Rev.* 38 (1), 42–56. <https://doi.org/10.1177/0894439318788314>.
- Friedson, M., Sharkey, P., 2015. Violence and neighborhood disadvantage after the crime decline. *Ann. Am. Acad. Polit. Soc. Sci.* 660 (1), 341–358.
- Gau, J.M., Brunson, R.K., 2015. Procedural injustice, lost legitimacy, and self-help: young males' adaptations to perceived unfairness in urban policing tactics. *J. Contemp. Crim. Justice* 31 (2), 132–150.
- Glaser, B.G., Strauss, A.L., 1967. *Discovery of Grounded Theory: Strategies for Qualitative Research*. Routledge.
- Grossman, D.C., Mueller, B.A., Riedy, C., Dowd, M.D., Villaveces, A., Prodizinski, J., Nakagawara, J., Howard, J., Thiersch, N., Harruff, R., 2005. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *Jama* 293 (6), 707–714. <https://doi.org/10.1001/jama.293.6.707>.
- Hamilton, D., Lemeshow, S., Saleska, J.L., Brewer, B., Strobino, K., 2018. Who owns guns and how do they keep them? The influence of household characteristics on firearms ownership and storage practices in the United States. *Prev. Med.* 116, 134–142. <https://doi.org/10.1016/j.ypmed.2018.07.013>.
- Haser, G., Yousuf, S., Turnock, B., Sheehan, K., 2020. Promoting safe firearm storage in an urban neighborhood: the views of parents concerning the role of health care providers. *J. Community Health* 45 (2), 338–341. <https://doi.org/10.1007/s10900-019-00748-0>.
- Hauser, W., Kleck, G., 2013. Guns and fear: a one-way street? *Crime Delinq.* 59 (2), 271–291. <https://doi.org/10.1177/0011128712462307>.
- Hemenway, D., 2011. Risks and benefits of a gun in the home. *Am. J. Lifestyle Med.* 5 (6), 502–511. <https://doi.org/10.1177/1559827610396294>.
- Holly, C., Porter, S., Kamienski, M., Lim, A., 2019. School-based and community-based gun safety educational strategies for injury prevention. *Health Promot. Pract.* 20 (1), 38–47. <https://doi.org/10.1177/1524839918774571>.
- Hureau, D.M., Braga, A.A., 2018. The trade in tools: the market for illicit guns in high-risk networks. *Criminology* 56 (3), 510–545. <https://doi.org/10.1111/1745-9125.12187>.
- Hureau, D., Wilson, T., 2021. The co-occurrence of illegal gun carrying and gun violence exposure: evidence for practitioners from young people adjudicated for serious involvement in crime. *Am. J. Epidemiol.* 190 (12), 2544–2551. <https://doi.org/10.1093/aje/kwab188>.
- Jacques, S., Wright, R., 2008. Intimacy with outlaws: the role of relational distance in recruiting, paying, and interviewing underworld research participants. *J. Res. Crime Delinq.* 45 (1), 22–38. <https://doi.org/10.1177/0022427807309439>.
- Johnson, R.M., Miller, M., Vriniotis, M., Azrael, D., Hemenway, D., 2006. Are household firearms stored less safely in homes with adolescents? Analysis of a national random sample of parents. *Archives of pediatrics & adolescent medicine* 160 (8), 788–792. <https://doi.org/10.1001/archpedi.160.8.788>.
- Kalesan, B., Vyliparambil, M.A., Zuo, Y., Siracuse, J.J., Fagan, J.A., Branas, C.C., Galea, S., 2018. Cross-sectional study of loss of life expectancy at different ages related to firearm deaths among black and white Americans. *BMJ evidence-based Med.* 24, 55–58. <https://doi.org/10.1136/bmjebm-2018-111103>.
- Kim, D.Y., 2022. The Impact of COVID-19 on Gun Violence Across Census Tracts in NYC. *Homicide studies*. <https://doi.org/10.1177/10887679221077036>.
- King, A., Simonetti, J., Bennett, E., Simeona, C., Stanek, L., Roxby, A.C., Rowhani-Rahbar, A., 2020. Firearm storage practices in households with children: A survey of community-based firearm safety event participants. *Prev. Med.* 131, 105952 <https://doi.org/10.1016/j.ypmed.2019.105952>.
- Kirk, D.S., Papachristos, A.V., 2011. Cultural mechanisms and the persistence of neighborhood violence. *Am. J. Sociol.* 116 (4), 1190–1233. <https://doi.org/10.1086/655754>.
- Kleck, G., Kovandzic, T., Saber, M., Hauser, W., 2011. The effect of perceived risk and victimization on plans to purchase a gun for self-protection. *J. Crim. Just.* 39 (4), 312–319. <https://doi.org/10.1016/j.jcrimjus.2011.03.002>.
- Lanterman, J.L., Blithe, S.J., 2018. Culture, socialization, and firearms violence in the United States. *J. Qualit. Crimin. Justice Criminol.* 7 (1) <https://doi.org/10.21428/88de04a1.2d4d0a52>.
- Lee, J., 2012. Wounded: life after the shooting. *ANN. Am. Acad. Polit. Social Sci.* 642 (1), 244–257.
- Lee, J., 2013. The pill hustle: risky pain management for a gunshot victim. *Soc. Sci. Med.* 99, 162–168.
- Loughran, T.A., Reid, J.A., Collins, M.E., Mulvey, E.P., 2016. Effect of gun carrying on perceptions of risk among adolescent offenders. *Am. J. Public Health* 106 (2), 350–352. <https://doi.org/10.2105/AJPH.2015.302971>.
- Mauri, A.I., Wolfson, J.A., Azrael, D., Miller, M., 2019. Firearm storage practices and risk perceptions. *Am. J. Prev. Med.* 57 (6), 830–835. <https://doi.org/10.1016/j.amepre.2019.06.017>.
- Miller, M., Azrael, D., Hemenway, D., Vriniotis, M., 2005. Firearm storage practices and rates of unintentional firearm deaths in the United States. *Accid. Anal. Prev.* 37 (4), 661–667. <https://doi.org/10.1016/j.aap.2005.02.003>.
- Monuteaux, M.C., Azrael, D., Miller, M., 2019. Association of increased safe household firearm storage with firearm suicide and unintentional death among US youths. *JAMA Pediatr.* 173 (7), 657–662. <https://doi.org/10.1001/jamapediatrics.2019.1078>.
- Ngo, Q.M., Sigel, E., Moon, A., Stein, S.F., Massey, L.S., Rivara, F., King, C., Igen, M., Cunningham, R., Walton, M.A., & For the FACTS Consortium, 2019. State of the science: a scoping review of primary prevention of firearm injuries among children and adolescents. *J. Behav. Med.* 42 (4), 811–829.
- Oliphant, S.N., Mouch, C.A., Rowhani-Rahbar, A., Hargarten, S., Jay, J., Hemenway, D., Zimmerman, M., Carter, P.M., 2019. A scoping review of patterns, motives, and risk and protective factors for adolescent firearm carriage. *J. Behav. Med.* 42 (4), 763–810. <https://doi.org/10.1007/s10865-019-00048-x>.
- O'Neill, K.M., Salazar, M.C., Vega, C., Campbell, A., Anderson, E., Dodington, J., 2021. “The cops didn't make it any better”: perspectives on police and guns among survivors of gun violence. *Soc. Sci. Med.* 284, 114197 <https://doi.org/10.1016/j.socscimed.2021.114197>.
- Papachristos, A.V., Wildeman, C., 2014. Network exposure and homicide victimization in an African American community. *Am. J. Public Health* 104 (1), 143–150. <https://doi.org/10.2105/AJPH.2013.301441>.
- Papachristos, A.V., Braga, A.A., Hureau, D.M., 2012. Social networks and the risk of gunshot injury. *J. Urban Health* 89 (6), 992–1003. <https://doi.org/10.1007/s11524-012-9703-9>.
- Papachristos, A.V., Hureau, D.M., Braga, A.A., 2013. The corner and the crew: the influence of geography and social networks on gang violence. *Am. Sociol. Rev.* 78 (3), 417–447. <https://doi.org/10.1177/0003122413486800>.
- Payne, Y.A., Hitchens, B.K., Chambers, D.L., 2017. “Why I Can't Stand Out in Front of My House?": street-identified black youth and young adult's negative encounters with police. *Soc. Forum* 32 (4), 874–895. <https://doi.org/10.1111/sofcl.12380>.
- American Academy of Pediatrics. *Pediatrics* 105 (4), 2000, 888–895.
- Prickett, K.C., Gutierrez, C., Deb, S., 2019. Family firearm ownership and firearm-related mortality among young children: 1976–2016. *Pediatrics* 143 (2). <https://doi.org/10.1542/peds.2018-1171>.
- Quimby, D., Dusing, C.R., Deane, K., DiClemente, C.M., Morency, M.M., Miller, K.M., Miller, K.M., Richards, M., 2018. Gun exposure among black American youth residing in low-income urban environments. *J. Black Psychol.* 44 (4), 322–346. <https://doi.org/10.1177/0095798418773188>.
- Resnick, S., Smith, R.N., Beard, J.H., Holena, D., Reilly, P.M., Schwab, C.W., Seamon, M.J., 2017. Firearm deaths in America: can we learn from 462,000 lives lost? *Ann. Surg.* 266 (3), 432–440. <https://doi.org/10.1097/SLA.0000000000002376>.
- Rich, J.A., 2009. *Wrong Place, Wrong Time: Trauma and Violence in the Lives of Young Black Men*. Johns Hopkins University Press.
- Rich, J.A., Grey, C.M., 2005. Pathways to recurrent trauma among young black men: traumatic stress, substance use, and the “code of the street”. *Am. J. Public Health* 95 (5), 816–824. <https://doi.org/10.2105/AJPH.2004.044560>.
- Richardson, J.B., Vil, C.S., Sharpe, T., Wagner, M., Cooper, C., 2016. Risk factors for recurrent violent injury among black men. *J. Surg. Res.* 204 (1), 261–266. <https://doi.org/10.1016/j.jss.2016.04.027>.
- Richardson, J.B., Wical, W., Kottage, N., Bullock, C., 2020. Shook ones: understanding the intersection of nonfatal violent firearm injury, incarceration, and traumatic stress among young black men. *Am. J. Mens Health* 14 (6). <https://doi.org/10.1177/1557988320982181>.
- Riddell, C.A., Harper, S., Cerdá, M., Kaufman, J.S., 2018. Comparison of rates of firearm and nonfirearm homicide and suicide in black and white non-Hispanic men, by US state. *Ann. Intern. Med.* 168 (10), 712–720. <https://doi.org/10.7326/M17-2976>.
- Rowan, Z.R., Schubert, C.A., Loughran, T.A., Mulvey, E.P., Pardini, D.A., 2019. Proximal predictors of gun violence among adolescent males involved in crime. *Law Hum. Behav.* 43 (3), 250. <https://doi.org/10.1037/lhb0000327>.
- Rowhani-Rahbar, A., Zatzick, D., Wang, J., Mills, B.M., Simonetti, J.A., Fan, M.D., Rivara, F.P., 2015. Firearm-related hospitalization and risk for subsequent violent

- injury, death, or crime perpetration: a cohort study. *Ann. Intern. Med.* 162 (7), 492–500. <https://doi.org/10.7326/M14-2362>.
- Rowhani-Rahbar, A., Simonetti, J.A., Rivara, F.P., 2016. Effectiveness of interventions to promote safe firearm storage. *Epidemiol. Rev.* 38 (1), 111–124. <https://doi.org/10.1093/epirev/mxv006>.
- Ruddell, R., Mays, G.L., 2004. Risky behavior, juveniles, guns, and unintentional firearms fatalities. *Youth Violence Juvenile Justice* 2 (4), 342–358. [10.1177/2F1541204004267782](https://doi.org/10.1177/2F1541204004267782).
- Saldana, J., 2015. *The Coding Manual for Qualitative Researchers*. SAGE Publishing.
- Sandberg, S., Copes, H., 2013. Speaking with ethnographers: the challenges of researching drug dealers and offenders. *J. Drug Issues* 43 (2), 176–197. <https://doi.org/10.1177/0022042612465275>.
- Semenza, D.C., Stansfield, R., Steidley, T., Mancik, A.M., 2021. Firearm availability, homicide, and the context of structural disadvantage. *Homicide Stud.* 10.1177/2F10887679211043806.
- Shaghghi, A., Bhopal, R.S., Sheikh, A., 2011. Approaches to recruiting 'hard-to-reach' populations into research: a review of the literature. *Health Promot. Perspect.* 1 (2), 86–94. <https://doi.org/10.5681/hpp.2011.009>.
- Shapira, H., Simon, S.J., 2018. Learning to need a gun. *Qual. Sociol.* 41 (1), 1–20. <https://doi.org/10.1007/s11133-018-9374-2>.
- Sharkey, P., 2018. The long reach of violence: a broader perspective on data, theory, and evidence on the prevalence and consequences of exposure to violence. *Ann. Rev. Criminol.* 1, 85–102. <https://doi.org/10.1146/annurev-criminol-032317-092316>.
- Sheley, J.F., Wright, J.D., 1993. Motivations for gun possession and carrying among serious juvenile offenders. *Behav. Sci. Law* 11 (4), 375–388. <https://doi.org/10.1002/bsl.2370110405>.
- Sierra-Arévalo, M., 2016. Legal cynicism and protective gun ownership among active offenders in Chicago. *Cogent Social Sci.* 2 (1), 1227293. <https://doi.org/10.1080/23311886.2016.1227293>.
- Sierra-Arévalo, M., Papachristos, A.V., 2017. Social networks and gang violence reduction. *Ann. Rev. Law Social Sci.* 13 (1), 373–393. <https://doi.org/10.1146/annurev-lawsocsci-110615-085017>.
- Sokol, R.L., Schmidt, C., Miller, A.L., Walton, M.A., Zimmerman, M., Resnicow, K., Cunningham, R.M., Carter, P.M., 2021. Motivations for firearm possession and storage practices among urban young adults: differences between parents and non-parents. *Injury Prevent.* 27 (5), 409–412. <https://doi.org/10.1136/injuryprev-2020-043856>.
- Sokol, R.L., Kumodzi, T., Cunningham, R.M., Resnicow, K., Steiger, M., Walton, M., Zimmerman, M.A., Carter, P.M., 2022. The association between perceived community violence, police bias, race, and firearm carriage among urban adolescents and young adults. *Prev. Med.* 154, 106897. <https://doi.org/10.1016/j.ypmed.2021.106897>.
- Solnick, S.J., Hemenway, D., 2019. Unintentional firearm deaths in the United States 2005–2015. *Injury Epidemiol.* 6 (1), 1–7. <https://doi.org/10.1186/s40621-019-0220-0>.
- Spano, R., Bolland, J., 2013. Disentangling the effects of violent victimization, violent behavior, and gun carrying for minority inner-city youth living in extreme poverty. *Crime Delinq.* 59 (2), 191–213. <https://doi.org/10.1177/001128710372196>.
- Spano, R., Pridemore, W.A., Bolland, J., 2012. Are exposure to violence and violent behavior precursors for initiation of gun carrying for poor, urban minority youth? *J. Interpers. Violence* 27 (1), 158–176. <https://doi.org/10.1177/0886260511416471>.
- Stuart, F., 2021. Code of the tweet: urban gang violence in the social media age. *Soc. Probl.* 67 (2), 191–207. <https://doi.org/10.1093/socpro/spz010>.
- Swaner, R., White, E., Martinez, A., Camacho, A., Spate, B., Alexander, J., Webb, L., Evans, K., 2021. "Gotta Make your Own Heaven.": Guns, Safety, and the Edge of Adulthood in New York City. Center for Court Innovation. https://www.courtinnovation.org/sites/default/files/media/document/2020/Report_GunControlStudy_08052020.pdf.
- Tracy, M., Braga, A.A., Papachristos, A.V., 2016. The transmission of gun and other weapon-involved violence within social networks. *Epidemiol. Rev.* 38 (1), 70–86. <https://doi.org/10.1093/epirev/mxv009>.
- Vacha, E.F., McLaughlin, T.F., 2004. Risky firearms behavior in low-income families of elementary school children: the impact of poverty, fear of crime, and crime victimization on keeping and storing firearms. *J. Fam. Violence* 19 (3), 175–184. <https://doi.org/10.1023/B:JOFV.0000028077.39946.2d>.
- Watts, S.J., 2019. Gun carrying and gun victimization among American adolescents: a fresh look at a nationally representative sample. *Vict. Offenders* 14 (1), 1–14. <https://doi.org/10.1080/15564886.2018.1536005>.
- Webster, D.W., Wintemute, G.J., 2015. Effects of policies designed to keep firearms from high-risk individuals. *Annu. Rev. Public Health* 36 (1), 21–37. <https://doi.org/10.1146/annurev-publhealth-031914-122516>.
- Yamane, D., 2017. The sociology of US gun culture. *Sociol. Compass* 11 (7), e12497. <https://doi.org/10.1111/soc4.12497>.
- Zinzow, H.M., Ruggiero, K.J., Resnick, H., Hanson, R., Smith, D., Saunders, B., Kilpatrick, D., 2009. Prevalence and mental health correlates of witnessed parental and community violence in a national sample of adolescents. *J. Child Psychol. Psychiatry* 50 (4), 441–450. <https://doi.org/10.1111/j.1469-7610.2008.02004.x>.