# Violence and Victims

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# Tweets, Gangs, and Guns: A Snapshot of Gang Communications in Detroit

**Desmond U. Patton, PhD, MSW**

*Columbia University, New York, New York*

**Sadiq Patel, MSW**

*University of Chicago, Illinois*

**Jun Sung Hong, PhD, MSW**

*Wayne State University, Detroit, Michigan*
*Sungkyunkwan University, Seoul, Republic of Korea*

**Megan L. Ranney, MD, MPH**

*Brown University, Providence, Rhode Island*

**Marie Crandall, MD, MPH, FACS**

*University of Florida, Jacksonville*

**Lyle Dungy**

*Detroit Crime Commission, Michigan*

The aim of this study is to determine the frequency of violent and criminal Twitter communications among gang-affiliated individuals in Detroit, Michigan. We analyzed 8.5 million Detroit gang members' tweets from January 2013 to March 2014 to assess whether they contained *Internet banging*–related keywords. We found that 4.7% of gang-affiliated user tweets consisted of terms related to violence and crime. Violence and crime-related communications fell into 4 main categories: (a) *beefing* (267,221 tweets), (b) *grief* (79,971 tweets), (c) *guns* (3,551 tweets), and (d) *substance use and distribution* (47,638 tweets). Patterns in violent and criminal communication that may be helpful in predicting future gang activities were identified, which has implications for violence prevention research, practice, and policy.

**Keywords:** communication; gang; social media; Twitter; violence

Increased access to technology and the proliferation of social networking sites (SNS)—among them, YouTube, Twitter, Facebook, Snapchat, and Instagram—have radically transformed social interactions, particularly for low-income teenagers and emerging adults living in violent urban neighborhoods (Decary-Hetu & Morselli, 2011; Pyrooz, Decker, & Moule, 2013). These individuals now have a social, and sometimes very

public, space to cope with traumatic events, communicate thoughts and feelings, share information, and curate their identity. Recent research suggests that gang members spend an estimated 20–50 more hours on SNS each week than do their non-gang counterparts. Similar to their non-gang counterparts, many individuals involved in gangs use social media to discuss daily events, share images and videos, and discuss and provide personal information (Pyrooz et al., 2013). However, online communication among gang members may also include violence, substance use, and criminal behavior (Goggin, 2012; Maratea & Kavanaugh, 2012; Moule, Decker, & Pyrooz, 2013; Moule, Pyrooz, & Decker, 2014; D. U. Patton, Eschmann, & Butler, 2013; Sela-Shayovitz, 2012).

There is mounting concern that neighborhood violence and crime in cities such as Detroit, Michigan, are escalated via social media (Pyrooz et al., 2013). This study seeks to determine the prevalence of violence and crime-related communications among gang involved individuals in Detroit. Determining the prevalence of gang communication on social media requires an in-depth understanding of the sociolinguistic variations of standard English. As such, we take an in-depth, qualitative approach to identifying specific keywords, phrases, and content that would most likely represent gang communication.

We focus on Detroit because gang violence remains a significant social concern in the city. In fact, it is the leading cause of death for African American males, ages 16–24 years (Green, 2013). The Federal Bureau of Investigation ranked Detroit as having one of the highest violent crime rates per capita in the country. In 2013, Detroit experienced 14,504 violent crimes, and 87% of the high school students reported knowing a family member or friend who had been shot (Detroit Youth Violence Prevention Initiative, 2014). Moreover, a large percentage of the shootings and homicides in Detroit are gang-related, accounting for 20%–50% of all homicides in large metropolitan areas (Papachristos, Hureau, & Braga, 2013). To extend and enhance our understanding of violent behavior and victims, this study aims to advance our understanding of Anderson's (1999) "code of the street" framework in a digital era by examining the Twitter communication of known gang-involved individuals in Detroit, Michigan.

## CRIMINALITY AND GANG INVOLVEMENT ON SOCIAL NETWORKING SITES

Several recent studies have investigated adolescents' use of social media to promote gang behaviors and activities, particularly in urban areas (Decary-Hetu & Morselli, 2011; D. U. Patton et al., 2013; Pelfry & Webber, 2012; Pyrooz et al., 2013; Sela-Shayovitz, 2012). For example, the National Gang Center (2014) reported that gangs are using technology to increase street level drug distribution and trafficking, and tens of thousands of gang members currently use such social media as Facebook, YouTube, and Twitter to communicate, recruit, and form new gang alliances nationally and internationally.

A recent research suggests that organized gangs are not more likely to engage in online activities than neighborhood cliques or factions (Moule et al., 2014). This is because engaging in online activity may be viewed as a luxury and individuals involved in organized gangs may be more aware of the consequences that are associated with an online presence such as legal prosecution of violent victimization (Moule et al., 2014). Furthermore, Decary-Hetu and Morselli (2011) reported that MySpace, Facebook, and Twitter provide a "new channel for publicity," with gangs no longer having to rely on word-of-mouth communications to promote their reputations and activities. Similarly, Womer and Bunker's

(2010) analysis of the social networking pages of Sureño gangs and Mexican drug cartels observed that gangs posted pictures and videos of themselves posing with firearms and drugs and referencing criminal activities. These studies, as well as others (e.g., Sela-Shayovitz, 2012), found that online images glorify gang culture and possibly encourage gang participation offline. However, Moule et al. (2014) reported that gang behavior is generally more symbolic than instrumental, suggesting that posts are often used for marketing gang activity, as opposed to recruitment. Decary-Hetu and Morselli also reported that gang presence on social media was most closely linked to promoting gang lifestyle or street culture through individual displays.

Gang members and non-gang-affiliated youth engage in many similar online activities, such as posting and watching videos and pictures, taunting others, and announcing illegal activities (D. U. Patton et al., 2013). In addition, gang members may also make fun of recent homicides, display weapons, or engage in online arguments, or "beefs," with rival gang members (D. U. Patton et al., 2013). Offline behaviors of gang members are also maintained through online settings (Decary-Hetu & Morselli, 2011). Decary-Hetu and Morselli (2011) found that Twitter profiles tend to depict a way of life, rather than promoting criminal activities. Many gang members in this study posted pictures of money, guns, women, parties, drugs, and alcohol. The authors noted that some individuals did promote their gang affiliations by praising achievements or expressing their allegiance.

## CODE OF THE (DIGITAL) STREET

The code of the (digital) street can enhance our understanding of why U.S. gang-involved youth communicate violence, substance use, and criminal activities on Twitter (Lane, in press). Anderson (1999) introduced the code of the street framework in a qualitative examination of urban street life among African Americans in Philadelphia. Anderson defines the code as "a set of informal rules governing interpersonal public behavior, particularly violence" (p. 33). It emerges from social disorganization, or a lack of cohesive social supports and resources in violent, distressed inner-city communities. Residents in these communities are exposed to high levels of community violence and experience recurring trauma. They thus yearn for safety and security. Youth often develop a repertoire of behaviors intended to gain a sense of safety and protection in violent neighborhoods. One main strategy is to establish and maintain "respect," a critical social resource that increases social capital and improves perceptions of safety and connectedness to one's neighborhood.

In the distressed, inner-city neighborhoods, Anderson (1999) studied two conceptual categories emerged: "decent" and "street." Individuals may exhibit both street and decent orientations and may have the ability to "code-switch" their behavior according to either set of rules, depending on the situation. Code-switching occurs during *audience segregation*, establishing relationships in a specific social space where one interacts without affecting relationships in other contexts. Therefore, as the code of the street hypothesis proposes, individuals in urban communities are keenly aware of their surroundings and interpersonal relationships, and they know how to behave when confronted or challenged. They can carefully navigate public spaces and exhibit behaviors intended to garner respect from their peer groups. These status-seeking behaviors are critical for gaining social capital, which is extremely valuable in low-resource communities (Anderson, 1999).

Anderson (1999), however, refrains from discussing the fluidity of urban youths' social identities. For example, youth who are non-gang members (categorized by Anderson as "decent") may affiliate with gangs or pretend to be a gang member (categorized by Anderson as "street") to gain respect and protection. We argue that gang-affiliated communications online is connected to upholding an identity that will obtain or sustain respect and protection from threats. If youth living in violent urban neighborhoods or gang members exhibit the slightest indication of weakness online, they become more vulnerable on the streets (Lane, in press).

## METHODS

Drawing on gang names, images with gang colors, hand signals, and Twitter posts, the Detroit Crime Commission (DCC) identified approximately 28 gangs in Detroit with a Twitter presence. Since January 2013, it has collected Twitter posts each day, examining known Detroit gang members' and other males' behaviors, concerns, and opinions about violence in their communities. (Gender/sex was inferred based on Twitter username, self-identification online, and profile pictures.) Publicly available posts were collected daily via Application Program Interface (API), a set of protocols or tools used to build software applications through the DCC collection provider (BrightPlanet of Sioux Falls, South Dakota).

In this study, the DCC, in collaboration with the study authors, performed an advanced keyword search of 8.5 million publicly available tweets using an extensive five-step process, which included (1) identifying key terms and phrases that may be associated with gang culture and behavior, (2) cross referencing the list of key terms with websites for additional context, (3) refining the list of keywords and phrases for a deeper focus on Detroit-based gangs, (4) identifying Twitter users based on key terms, and (5) refining that list of users based on key terms and DCC intelligence. To protect individuals' right to privacy, we did not access or collect any private or direct message information on Twitter, nor do we report any biographical information in our research. We instead analyzed publicly available tweets because these messages typify the purpose of Twitter: communicating to the public (both visible and invisible audiences).

### Data Collection

We identified gang-related language regarding crime, violence, and drug use and contents via websites that allowed us to look more deeply within the identified Detroit-based gangs than prior investigations.

Step 1: We first identified key terms and common phrases related to gang behavior used by known gangs in the United States. We used Copernic, a search engine commonly used in library science to conduct topical queries. During this process, we searched for two specific terms on Google—*urban slang* and *urban lingo*—to identify and rank websites where urban slang/lingo would be present. During this process, we identified 300 such websites.

Step 2: We then determined which websites to review by identifying functional sites that appeared to be professionally developed and maintained (i.e., www.worldstarhiphop .com) and provided gang-related slang/lingo, which yielded 200 websites. Research assistants then reviewed all 200 websites, and those were examined closely for urban slang. Professionally developed websites were selected because they provided a

clearer lexicon of slang/lingo and often included thorough definitions or additional context (e.g., images of videos) that aided in unpacking the meanings.

Step 3: Keywords were identified. The names of the 200 websites were placed in Mozenda, a software used to extract Internet data. During this process, approximately 25,000 key terms and phrases were identified as urban slang and urban lingo used by gangs on Twitter. Each term was entered in a Microsoft Excel spreadsheet. The list of key phrases and terms were further refined to reflect Detroit-based urban slang and lingo. The research assistants reviewed the list of 25,000 keywords to identify specific terms most reflective of Detroit gang vernacular (see Table 1 for example of keywords). Inclusion criteria included (a) all words and phrases that reflect violence, aggression, or threat; (b) words and phrases that referenced Detroit landmarks, streets, and buildings; and (c) words that were also indicative of Detroit-based organized gangs or local gang factions or cliques. Exclusion criteria included words and phrases that do not directly or indirectly reference gang culture or behavior or indicate violent or criminal behavior or actions. Approximately 10,000 words were excluded during this process because they were not considered to be Detroit urban gang slang or lingo. A final database of 15,000 Detroit-based gang keywords and phrases were analyzed.

Step 4: We identified known Detroit-based gangs who communicated on Twitter based on language use, names, posting, and any of the 15,000 key terms. We then identified individuals who affiliated with gangs by using common Detroit gang names DCC has followed since 2013 and by examining Twitter posts, pictures, and videos, which provide clues, such as tattoos, gang names, hand signals, or gang initials that represent a proximal or distal gang affiliation. The DCC then ran the identified Twitter names through Maltego Radium (an open-source intelligence tool developed by Paterva) to locate "follows" and "followers."

Step 5: We refined our list of individuals thought to be involved or affiliated with, or known to be connected to, Detroit gangs by searching tweets collected between January 2013 and March 2014. We used key terms to remove unrelated links or links that were not connected to gangs. During this stage, we identified individuals perceived to be associated with gangs by DCC who do not use actual gang names as well as other previously unknown variants of gang names used on Twitter. Assessing gang affiliation and connections required several steps. First, we looked for the use of a Detroit-based gang abbreviation in usernames. For example, "Related Through Money" is a Detroit-based gang and its abbreviation is "RTM." A member or affiliate would use abbreviations in his or her Twitter feed or other social media username, such as "RTM_Mike." The research assistants then reviewed the public images of the Detroit-based gang members and identified instances in which known gang members were present with individuals unknown to DCC. The research

TABLE 1.   Twitter Keyword Search

| Categories | Examples of Keywords |
| --- | --- |
| Violence | Twitterbeef; getjammed; RIP; fuck |
| Crime | Glock; guns |
| Illicit substances | Weed; dirtysprite |

*Note*. RIP = rest in peace.

assistants attempted to identify the unknown subjects who appeared in multiple images. They reviewed public tweets between known (identified) and suspected gang members and searched for discussions of illegal activities such as violence, drug trafficking, and substance use. We further refined the Twitter names of core gang groups and members.

## Data Analysis

We used analyst triangulation (Denzin, 1979; M. Q. Patton, 1999) involving several research assistants with experiences in working with Detroit gangs as coders. Having multiple coders allowed us to check and verify the different ways in which the coders interpret the communications on Twitter and identify any potential blind spots or differences in those interpretations. For example, coders engaged in conversations around the extent to which a particular post was an example of a beef or argument online or perhaps a post of a popular rap lyric. The goal was not to come to consensus but rather to see the multiple ways of approaching the data (M. Q. Patton, 1999). This is particularly important when outsiders (e.g., scholars) are interpreting the communications of communications for which they may not be a part of. Our analysis approach was informed by Anderson's code of the street and Lane's digital street thesis which informed how we developed our list of keywords and performed queries, as well as our interpretations of emerging themes regarding violence and crime.

Step 1: After fully defining the list of keywords and gang members, we performed queries to retrieve posts related to violence, crime, and substance use from each Twitter user. If a Twitter user displayed no tweets that contained any combinations of keywords, that individual was removed from the study. During this phase, we also used a thematic qualitative approach, identifying several themes that surfaced in Twitter posts from the keyword collection around topics of violence and crime (e.g., beefing, grief).

Step 2: Next, we verified whether emerging themes regarding violence and crime on social media were new or had been discussed in prior literature. We drew on the work of Pyrooz and colleagues (2013), which highlighted social media behaviors of former and current gang members, including posting videos, images, and other communications regarding crime and violence. An additional theme regarding how gang-involved individuals grieve on Twitter, which was not found in prior literature emerged during the inductive data analysis. Analysis of images, posts, and hashtags specifying grief (e.g., #RIP) appeared in several Twitter posts. Data were managed using Microsoft Excel.

## RESULTS

The DCC collected more than 8.5 million Detroit-based gang-related tweets between January 2013 and March 2014. Of those, we found that 398,381 (4.7%) of them used terms related to violence (Table 2). Based on the existing literature, we focused our attention on three broad groups of Twitter-based communication patterns found to be prominent in gang-affiliated social media use: violence, crime, and substance use. Four unique types of communications emerged from the data that conveyed how behavior that may be associated with gang life is communicated on Twitter: (a) "beefing," or verbal altercations with rival gangs; (b) grieving the loss of a loved one; (c) displaying firearms; and (d) discussing and/or posting pictures in which the intent appeared to be use and distribution of illicit substances. Additional examples of Twitter posts can be found in Appendix A.

**TABLE 2.  Characteristics, Frequencies, and Percentages of Tweets (8.5 Million Total Tweets)**

| Type of Tweet | Definition | Frequency | % |
|---|---|---|---|
| Grief (RIP) | Posts depicting the loss of a loved one | 79,971 | 0.9 |
| Online "beef" | Posts depicting arguments between rival gangs | 267,221 | 3.0 |
| Gun display | Posts about glocks (type of gun) | 3,551 | 0.04 |
| Illicit substances | Posts including pictures and communications about illicit drugs | 47,638 | 0.5 |

*Note*. RIP = rest in peace.

**Beefing.** The most common category of tweets among the gang members (267,221 tweets) was conflict, or *beefs*, between rival gangs. For example, we queried #Fuck (a common term used to disrespect a rival gang) AND "Six Mile Boys" OR "6 Mile Boys" NOT "a hoe" to search for Twitter posts where the user was beefing with the Six Mile Boys.

In the Twitter post, "Fuck band crew fuck Squid," the user is "beefing" with both "band crew" and "Squid." In this example, Twitter is used as a platform to publicly display hostility and enmity between rival gangs or individuals associated with rival gangs. As indicated by the image, this message was retweeted by four other individuals, demonstrating that fellow gang and non-gang members read and redistribute posted messages.

**Grief.** Detroit gang members commonly use Twitter to cope with the loss of a deceased member by expressing rest in peace (RIP) with a specific gang member's street name. Of the sample, we analyzed 79,971 tweets that pertained to grief. Examples include recognition of a person who was killed and in some cases, the individual's gang affiliation. An example tweet is shown in the following text:

<div align="center">

RIP DAD
RIP TO NICK
RIP BESTIE QUISE
RIP MVHN JP
RIP MVHN ZMONEY

</div>

In this post, the user announced the death of his father and publicly acknowledged four other deceased individuals to whom he was related. Twitter may provide a platform for gang members to publicly express underlying emotional pain experienced because of death of a family member, friend, and a fellow gang member. Social media may allow gang members and affiliates to express grief in a way that is difficult verbally. Furthermore, the number of an individual's routine use of RIP suggests that a gang-affiliated Twitter user conveys how gang members process the loss of a person with whom they had bonded.

**Guns.** Twitter posts by gang members also provide some insights into the types of guns they use. For example, 3,551 unique Twitter posts referred to *Glock*, a firearm brand popular with gang members in Detroit. Other firearms were also referenced by name or in general terms such as *semiautomatics pistols*, *revolvers*, *bolt-action rifles*, *shotguns*, and *semiautomatic rifles*. Images of guns frequently depicted a young man holding a gun or pointing one at a camera. The gun was always prominently displayed, making it relatively easy to determine its type. The following image presents a young man pointing a 9 millimeter semiautomatic pistol toward the camera.

***Substance Use and Distribution.*** Detroit gang members engaged in conversations about substance use and distribution in 47,638 analyzed tweets. For instance, the term *weed* was found in 29,635 posts. Alcohol use was also commonly discussed. The search identified 4,771 unique Twitter posts referencing several brands of alcohol, among them, Ciroc, 1800, Patron, and Grey Goose, and 13,232 posts about being intoxicated. In addition to communication about substances, Twitter users also posted images of illicit drugs. The following example depicts a young man holding a folding knife, a Ziploc bag containing marijuana, and a cigar. The tobacco in the cigar was emptied and filled with marijuana instead.

## DISCUSSION

The purpose of this study was to determine the prevalence of violence and crime-related communications among gang-involved individuals in Detroit. We found that depictions of violence and criminal behavior comprised only 4.7% of 8.5 million tweets posted by gang members and their affiliates. However, of the Twitter postings related to violence and criminal activities, we observed that gang members employ four specific behaviors that could lead to violent and criminal activities offline: (a) online "beefs" or battles with rival gangs, (b) grieving the loss of a loved one, (c) displaying guns, and (d) direct communication about substance use and distribution.

The four aforementioned behaviors are consistent with other interview-based studies (Decary-Hetu & Morselli, 2011; Pelfry & Weber, 2012; Pyrooz et al., 2013; Sela-Shayovitz, 2012; Womer & Bunker, 2010), suggesting that the online activities of gang members are similar to non-gang members of the same age (e.g., connecting with friends on SNS, listening to music, and watching videos on YouTube). However, because our study only focuses on Twitter communications, future research should critically examine the linguistic variability (e.g., use of acronyms, slang, end emoji) used by gang members, their affiliates, and other individuals to communicate violence, crime, and drugs on Twitter. This will allow for additional key terms to be identified and existing terms to be refined to develop a more accurate and nuanced list of key search terms for future large-scale quantitative analyses.

### Advancing the Digital Street Thesis

Findings from our study advance Lane's digital street thesis by identifying and describing specific styles of communication on Twitter that draw links between violent and criminal behavior offline that escalates in online conversations. As such, we uncover an informal system that takes new form digitally and is also used to govern social interactions in economically disadvantaged and crime-ridden communities (Anderson, 1999). The code of the street is a subculture that shapes individual and group behaviors (Anderson, 1999). We contend that individuals in inner cities such as Detroit may be pressured to abide by this subculture, where gaining respect is paramount, to survive, and one's performance of self plays a critical role in how they are perceived (Anderson, 1999). Some youth present a tough image and persona via social media that garners respect from others, such as displaying guns and making threats on Twitter. For example, the most common form of communication was *beefing*. The frequent exchange of insults and threats between individuals or rival groups allows Twitter users to maintain and solidify their commitment to the street publicly by presenting an aggressive persona online in an effort to gain respect. However, there are several key differences between the digital and physical street that are articulated in social media posts.

First, an individual can claim connection or affiliation with a gang, group or clique without immediately needing to verify their authenticity. Second, an individual who engages in tough talk online can do so without immediate concerns for safety. However, recent research suggests that aggressive and threatening communications on social media have a feedback loop which in aggressive and threatening conversations that ignite online lead to fatal and nonfatal injury offline and offline violence becomes the content for threatening conversations online.

Another finding in line with the "code of the street" is substance use and distribution, which were expressed in the tweets in our study. As argued by Anderson (1999), because many individuals in cities such as Detroit become demoralized because of structural racism, poverty, and inadequate opportunities, they often turn to subculture of violence and drugs for economic gain, as well as necessities of the street. Despite the risks, these individuals may engage in this subculture as means of enjoying the "high life." Communications about substance use and distribution on social media is a distinct departure from Anderson's ethnographic research on the unwritten rules that guide behavior in violent urban neighborhoods. Where it is normally the case that substance use and distribution discussion in public spaces is covert, we find visible and clear discussions of how drugs are sold, who consumes drugs, and how often. Lane's (2016) digital street thesis contends that perhaps individuals are more interested in the publicity and respect that comes with participating in the street economy as opposed to considering the potential legal and violent consequences that may be associated.

## Limitations

The limitations of this study need to be recognized and can be addressed by future research. First, the data used were purely descriptive and only represented Detroit gang members and their perceived affiliates. We provided a rough estimate of how many gang affiliated individuals were associated with the 8.5 million tweets disseminated; however, our knowledge of the Twitter users were limited. Consequently, our findings may not be generalizable to youth in other areas.

In addition, Twitter data were collected for gang-involved youth in Detroit between January of 2013 and March of 2014 and do not present communications over a longer period. Moreover, the full ranges of Twitter posts were not presented. As a result, we were unable to provide deeper context with respect to specific personal, gender, familial, and interpersonal characteristics regarding the Twitter users beyond what were presented in the Twitter posts and images that were analyzed. Therefore, we were unable to determine precisely which tweets originated with individuals who were actually involved in Detroit gangs. A social network analysis may enhance our understanding and tracking of gang members' and affiliates' public identities on social media.

Finally, these results may be a significant underestimate of gang-related postings, given the local variations and rapid temporal and regional changes in colloquialisms and slang. Our searches were based on commonly used terms but may have missed Detroit-specific or less frequently used terms.

## Research Implications

Determining gang membership is a complex task. Individuals who live in a violent urban community may misrepresent their connection to gang activities to remain connected and protected within their neighborhoods (Harding, 2010). However, we argue that Twitter can provide clues about gang embeddedness (Decker, Pyrooz, Sweeten, & Moule, 2014) through forms of identity in Twitter posts and pictures, such as tattoos, gang names, hand signals, or gang initials.

Several important implications have emerged regarding research on gangs. First, these findings highlight the pivotal role Twitter may play in facilitating and promoting social identity and prominence for potentially gang-involved youth and emerging adults residing in violent urban communities. An important aspect of gang culture and respect in one's community is showing allegiance to a gang, set, or clique. As such, Twitter beefs or posting pictures of guns may be avenues for gang members to communicate and establish formal and informal rules of power, control, and legitimacy that govern public behaviors and claim public space (Womer & Bunker, 2010). These rules are governed by cultural schemas that emphasize a desire for respect, central to the experience of many young African American men in urban areas (Womer & Bunker, 2010). Second, the ways gang members communicate with one another portray an alternative community that reflects their urban lives and experiences. For example, gang-involved youth exhibit similar responses to death and loss in physical and digital contexts. And, in their community, gangs use graffiti, murals, and elaborate graphics to mourn the loss of loved ones killed by guns (Sela-Shayovitz, 2012). Third, in digital space, gang-involved youth post "RIP," display pictures, and create Twitter handles to memorialize the deceased. Twitter communications represent individuals' schemas, as illustrated by tweets grieving the loss of a friend or family member; online beefs escalated by profanity and used to disrespect other gangs; and posts related to guns and illicit substances. Fourth, our findings reveal that Twitter serves as a virtual space where the basic need for physical and psychological safety among individuals living in violent urban neighborhoods is described in posts that depict violence, guns, and drugs. However, future research is needed to fully understand the relationship between violent social media communications and physical and psychological safety.

Fifth, our findings also highlight that tweets are not limited to gang-involved or potentially affiliated individuals. Multiple and invisible audiences are able to retweet images, videos, and phrases posted by known gang members. These retweets have the potential to reach and impact unassociated users. We surmise that the ability of any Twitter user to retweet gang-related content has the potential to escalate community violence (Pyrooz et al., 2013) and is a major public health concern that warrants clinical and policy attention.

Although tweets about gang-related activities were only a small fraction of the total sample, they clearly demonstrated that gang-related activities are not bound by physical, offline characteristics. Future research might investigate the extent to which social media—and more specifically Twitter—can be a more reliable source for determining gang membership and affiliation. In addition, future research might examine the extent to which gang-involved youth communicate grief via social media and the relationship among expressions of grief, violence, and crime. In addition, researchers may use social network analysis tools, such as the examination of specific violent interactions revealed by our study, to detect escalation of violence, both on- and offline. Understanding how gang members and affiliates communicate via Twitter is vital for developing prevention and intervention strategies that use social media to better understand, detect, and reduce gang-related violence in urban communities.

## Practice and Policy Implications

Our study has important implications for the development of effective prevention and intervention strategies for health practitioners working with gang-involved youth or youth who live in a violent neighborhood. As our findings show, social media sites, particularly Twitter, are constant companions of many gang-involved and at-risk youth and emerging

adults. Instant connectivity to digital technology has equipped gangs with viable tools for quick mobilization and affiliation. However, Twitter can also be an effective tool to reach out to at-risk youth and provide opportunities (e.g., teaching foundational and advanced computer skills) that can deter or reduce the risk of gang affiliation and involvement in violent and criminal activities.

As a widely used social media platform, Twitter should be integrated into interventions designed to effectively identify the escalation of crises and to foster peaceful conflict resolution and reconciliation among rival gangs and gang-involved youth. However, practitioners considering Twitter or other SNS need to first develop clear goals and carefully weigh the benefits and risks of using social media in professional practice. It is also important that practitioners consistently recognize the ethical obligations as part of their professional ethical codes—establishing protocols for avoiding confidentiality breaches, dual relationships, and privacy.

Health care providers (e.g., public health professionals, mental health counselors, psychologists, and social workers) may also consider Twitter as a viable assessment tool because it is a starting point for engaging gang-involved and at-risk youth in discussions of psychological and physical health risks, such as grief which was referenced in this study. Health care providers might also track the escalation of violence reported on social media, such as online "beefs" and gun displays, and how youth cope with traumatic events and describe negative sequelae associated with exposure to gang violence.

Professionals working with youth are often unaware of the types of communication and interaction that take place on Twitter. Education about and training on how to collect information from SNS could open avenues for using social media platforms for violence and substance use prevention and intervention (Shariff, 2005).

Our study highlights the importance of examining the role of SNS such as Twitter and how they can facilitate gang involvement, violence, crime, and substance use. Research findings consistently point out that these youth have complex mental and behavioral health challenges such as depression, anxiety, traumatic stress, and aggressive behavior that stem from poverty, inadequate resources, exposure to violence, and structural racism (Foster, Kuperminc, & Price, 2004; Gorman-Smith & Tolan, 1998). Stressful life events can increase this population's risk of engaging in substance use, delinquency, and violent behaviors, both online and offline. Continued research on the role of Twitter in communicating violent behavior, crime, and substance use among gang-involved individuals is imperative if we wish to understand their experiences and the medium they use to express them.

## REFERENCES

Anderson, E. (1999). *Code of the street: Decency, violence and the moral life of the inner city*. New York, NY: W.W. Norton.

Decary-Hetu, D., & Morselli, C. (2011). Gang presence in social network sites. *International Journal of Cyber Criminology*, *5*, 876–890.

Decker, S. H., Pyrooz, D., Sweeten, G., & Moule, R. K. (2014). Validating self-nomination in gang research: Assessing differences in gang embeddedness across non-, current, and former gang members. *Journal of Quantitative Criminology*, *30*, 577–598. http://dx.doi.org/10.1007/s10940-014-9215-8

Denzin, N. K. (1979). *The research act: A theoretical introduction to sociological methods* (2nd ed.). New York, NY: McGraw Hill.

Detroit Youth Violence Prevention Initiative. (2014). *2012-13 Progress report*. Retrieved from http://detroitk12.org/content/wpcontent/uploads/2014/10/DYVP_BookFinal_Condensed.pdf

Foster, J. D., Kuperminc, G. P., & Price, A. W. (2004). Gender differences in posttraumatic stress and related symptoms among inner-city minority youth exposed to community violence. *Journal of Youth and Adolescence*, *33*, 59–69. http://dx.doi.org/10.1023/A:1027386430859

Goggin, G. (2012). *Cell phone culture: Mobile technology in everyday life*. New York, NY: Routledge.

Gorman-Smith, D., & Tolan, P. (1998). The role of exposure to community violence and developmental problems among inner-city youth. *Development and Psychopathology*, *10*, 101–116.

Green, S. (2013). *Detroit youth violence prevention initiative progress report*. Retrieved from http://detroitk12.org/content/wp-content/uploads/2014/10/DYVP_BookFinal_Condensed.pdf

Harding, D. (2010). *Living the drama: Community, conflict, and culture among inner-city boys*. Chicago, IL: University of Chicago Press.

Lane, J. (2016). The digital street: An ethnography study of networked street life in Harlem. *American Behavioral Scientist*, *60*(1) 43–58.

Lane, J. (in press). *The digital street*. New York, NY: Oxford University Press.

Maratea, R. J., & Kavanaugh, P. R. (2012). Deviant identity in online contexts: New directives in the study of a classic concept. *Sociology Compass*, *6*, 102–112. http://dx.doi.org/10.1111/j.1751-9020.2011.00438.x

Moule, R. K., Jr., Decker, S. H., & Pyrooz, D. C. (2013). Social capital, the life course, and gangs. In C. L. Gibson & M. D. Krohn (Eds.), *Handbook of life-course criminology* (pp. 143–158). New York, NY: Springer Publishing.

Moule, R. K., Jr., Pyrooz, D. C., & Decker, S. H. (2014). Internet adoption and online behavior among American street gangs: Integrating gang and organizational theory. *British Journal of Criminology*, *54*, 1186–1206. http://dx.doi.org/10.1093/bjc/azu050

National Gang Center. (2014). *National youth gang survey analysis*. Retrieved from https://www.nationalgangcenter.gov/Survey-Analysis

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. *American Sociological Review*, *78*, 417–447. http://dx.doi.org/10.1177/0003122413486800

Patton, D. U., Eschmann, R. D., & Butler, D. A. (2013). Internet banging: New trends in social media, gang violence, masculinity and hip hop. *Computers in Human Behavior*, *29*, A54–A59. http://dx.doi.org/10.1016/j.chb.2012.12.035

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, *34*, 1189–1208.

Pelfry, W. V., Jr., & Weber, N. L. (2012). Keyboard gangsters: Analysis of incidence and correlates of cyberbullying in a large urban student population. *Deviant Behavior*, *34*, 68–84. http://dx.doi.org/10.1080/01639625.2012.707541

Pyrooz, D. C., Decker, S. H., & Moule, R. K., Jr. (2013). Criminal and routine activities in online settings: Gangs, offenders and the Internet. *Justice Quarterly*, *32*, 471–499. http://dx.doi.org/10.1080/07418825.2013.778326

Sela-Shayovitz, R. (2012). Gangs and the Web: Gang members' online behavior. *Journal of Contemporary Criminal Justice*, *28*, 389–405. http://dx.doi.org/10.1177/1043986212458191

Shariff, S. (2005). Cyber-dilemmas in the new millennium: Balancing free expression and student safety in cyber-space. *McGill Journal of Education*, *40*, 467–487.

Womer, S., & Bunker, R. J. (2010). Sureños gangs and Mexican cartel use of social networking sites. *Small Wars & Insurgencies*, *21*, 81–94. http://dx.doi.org/10.1080/09592310903561486

Correspondence regarding this article should be directed to Desmond U. Patton, PhD, MSW, Columbia University, School of Social Work, 1255 Amsterdam, New York, NY 10027. E-mail: dp2787@columbia.edu

**APPENDIX**

## Examples of Twitter Posts

| Type of Tweet | Example of Tweet |
| --- | --- |
| Grief | "It's squid day bitchessss! RIP YNC CEO squid." |
| | Maserati_Squid R.I.P WE MISS YOU BRO FUCK RTM N WHOEVA FUCK WITH THEM YOU HIP SQUID SAID WHAT UP AND THIS COMING FROM HIS SISTER BITCH!!! |
| | R.I.P Lil RTM Kenny gone but never forgotten |
| | dam bum bro ifuck up wen wrd got ta me yew gne offtop a hunnits years rtm |
| | R.I.P bsm wuan we aint forgot about u skum . . . believe that . . . RTM shit . . . |
| | JOY ROAD EXIT9 RTM DA MOBB . . . THA REAL MOBB . . . FREE TONE JON JON PA LIL B ELI . . . RIP TO EVER JOYBOYS AND GURLS THAT WE EVER LOST AND R.I.P TO ALL THA REAL NIGGAS WORLD WIDE . . . FUCK WHO EVER GOT A PROBLEM WIT RTM NIGGA ITS LIKE THAT AND IF ANY NIGGA WANNA DO ANYTHING . . . ILL MEET NIGGAS WHEREVER THATS RNS . . . TRY ME . . . TEST THA WATERS PUSSY . . . I LUV MY LIFE AND THA PPL THATS IN IT IM DELETING ALL FAKE AND SCARY PUSSY NIGGAS OUT MY LIFE . . . FREE ALL MY BROS . . . FREE THA WHOLE EXIT9 . . . RTM . . . SMN |
| | Yfn Cj Damn bro I remember when we was downtown talking bout that nigga fake glasses I.miss u bum |
| | ITS FOREVER FUCK RTM THAT SHIT AINT GONE NEVER CHANGE R.I.P SHOOTER SQUID |
| | My nigga phill said wass up R.I.P to my nigga phill them wick ass rtm niggas killed him an he was not an bandcrew his k light tommrow like my status for phill |
| | I need to go to the cemetery & talk to my best friend. Rip Dashanique that was my.lik baby . . . frfr |
| | All my mans gone its not alot of us left but we still good r.i.p and free all my niggas #RTM |
| | Smh . . . I lost a lot of niggas that was close to me . . . no homo . . . rns . . . free the whole mobb . . . that just make us go even harder . . . r.I.p Kenny Rio rob dollar . . . d nutty . . . tank . . . kiara. jahlon . . . taco . . . u kno the rest . . . s/o to my real tsf brow doing they thing . . . lb . . . vontae . . . and lil b . . . RTM DA MOBB 766 . . . 786 . . . 276 963 936 . . . |
| | you gone be at the.funeral lyke fam he shoilda listen to his bad karma |

*(Continued)*

**APPENDIX**

**Examples of Twitter Posts** *(Continued)*

| Type of Tweet | Example of Tweet |
| --- | --- |
| Online "beef" | "Fuck bandcrew. Fuck Squid" |
| | you making yo self look like a btc you keep putn rtm n yo mouth ik yo neck hurt from all that dicksuckn bum |
| | Chris b u soft I'm done I'm go catch u dangling |
| | Lol it's funny hw dem niggas be runnin doe lol fuck rtm Ntf Vp btc get hip or get shot |
| | Niggas Don't Know We Magged Up Though Lol Bitch I'm #Ntf |
| | Any Niggas Want Hallows Can Get'Em R.I.P. Squid #Squad Up Bitch |
| | both know dnt not 1 Nigga want beef me & nick got hitmen all around the hood |
| | You lying nigga we beat they ass in the field so wtf yu tombou chased out the glow stp boostn nigga ill b at fairlane magged up sat cme up dere rt |
| | yea im in RTM cus my niggas shoot ! |
| | If A Tmc Nigga Ever Drove Up To Me I Would Of Let That Mag Shoot I Swear Cuz I Keep It RTM Boyzzzzzzzzzzz |
| | we was with tmcne n then rtm came n started shooting |
| Guns | Lol they talking about RTM and TNO shooting shit up in broad daylight |
| | If yu not rtm I'm shooting u dis summer dats on my mans |
| | #2012Memories WHEN ME MALIK RIVY N SQUID HAD A SHOOT OUT WIT RTM ON THE 6 N GREENFIELD |
| | Niggas hnk I spose to b scareced kuz you on twittet wit ah gun lol niggas kno I shoot 4real Fuck RTM N TSN BANDCREW BTC |
| | Call me when you need me I'm coming though squeezing with out a issue and I got my own strap this ain't my uncle pistol |
| | you put a gun on here wow I will kill you myself blood you a bitch nigga its good tho |
| | I got go get some bullets |
| | yall letting me in with the strap |
| | For now on I'm taking the strap every were I go fuck that I rather get caught with it than with out i |
| | Evergreen and joyrd you know who died there don't come around ain't no love you won't survive there choppa boyzz we kill |

*(Continued)*

**APPENDIX**

**Examples of Twitter Posts** *(Continued)*

| Type of Tweet | Example of Tweet |
| --- | --- |
| | I will go on seven mile and Avon and kill you and all your damn dogs |
| | men I'm gonna kill that btc made ass nigga!! |
| | Fuck u to cheese u fucked my btc ima kill u n ma ma iam yall ass to cum on |
| | CUM . . . NIGGA Y'ALL SCARED OF A CALDEIAN BUT PUSSY I SCRAPP THAT'S WHAT I DO AND BEST BELIEVE MY LINWOOD NIGGAS ARE READY TO SHOOT BITCH U TALKIN A LOT OF SHIT LIL NIGGA MEET ME WE CAN BANG ONE ON ONE |
| | Dey ask me would I still b dat same nigga wiit out da pistol . . . Wtf yuh think I was doin b4 niggas had pistols . . . I aint 1 of dem fuk boyz dat act tuff only wen I dey gotta gun |
| | I b dangling bt my bro got da pistol |
| | im ready to kill at any time |
| | I got my gun im shooting niggas now |
| | Waiting on this ski mask I ordered 2 come in so I can shoot this video shoot it on 6-mile lol |
| | STREET NIGGA UNDERSTAND I GOT BAD NEWS A SIXMILE NIGGA JUST SHOT A FED |
| | Where I got shot |
| | I SEE HOW IT IS BITCH U GONE TRADE ON ME FOR A OPP IG IMA SHOOT U TOO THEN CUZ BLOOD GOTTA DIE |
| | me too i bro beat delow ass they tryd to shoot at me |
| Drug use and distribution | Were da hoes drinks weed #turnup |
| | Up early af just spilled some lean on my all white mex's you standing being a lame why I'm leaning daily bitch I'm RTM bitch |
| | Everyday national |
| | i was tryna smoke wit yo hoe ass fuck u den yfn rtm btc |
| | Turning tha fucc up early ayee bout pop 6 bars were m shooters at #RTM #TTG |
| | Lol baby yhu on the west but I'm chilling with my dope man 2day |
| | I remember me my sister and brother woke wake up at 6 get dressed and smoke a blunt right before school good days |
| | I ain never buyin weed of 7 mile again |

*(Continued)*

## APPENDIX

### Examples of Twitter Posts *(Continued)*

| Type of Tweet | Example of Tweet |
|---|---|
| | bitch you I'm on that lean you know how quick I be forget |
| | Bro fooling I'm leaning and laughing like a mf #on my 7mile shy |
| | I just wanna smoke weed and sip lean |
| | Ready to pop these pills and go to sleep . . . |
| | What's wrong with going to school and selling drugs nigga act like you can't do both |
| | Love drinking lean hate what it do to me |
| | lee the silliest talking bout mystery weed shit |
| | RUNNING LOW ON WEED WHO GOT SOME REAL LOUD LOUD LOUD THATS GONE HAVE MY HEAD SPINING? |
| | I don't smoke medical marijuana I get my Shit from Cuz up the street |
| | Getting so blowed outta my mind I SWEAR I LOVE THIS SHIT |
| | I got dat muthafuckn LOUD on deck hmu 2day mite b my last day blowen n2 summer tyme |
| | McNichols PCK 100YRS PURPLE LEAN & PURPLE KUSH BUMS WE 6MILES FINEST |
| | Just smoke dat shit out . . . Its hard but that'll be the best solution |
| | man shyt crazy bro im ova here blowing good crud for him |
| | who bout to get tha blow fo me ill pay em |
| | bouta blow some loud after all that hard work |
| | Happy eat & smoke day bro |