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Gang members, gang affiliates, and violent men: Perpetration of social harms, violence-related beliefs, victim types, and locations.

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Abstract

Adult gang involvement attracts little empirical attention, so little is known about how they compare to nongang violent men in social harms beyond gang contexts. This study, based on unpublished data of 1,539 adult males, aged 19-34, from the Coid et al., (2013) national survey, compared gang members' (embedded in a gang; $n = 108$), affiliates' (less embedded in a gang; $n = 119$), and violent men's (no gang association; $n = 1312$) perpetration of social harms by assessing their violence-related dispositions and beliefs, victim types, and locations of violence. Results showed that compared to violent men, gang members and affiliates were equally more likely to: cause social harms to a wider range of victims, including family and friends, seek violence, be excited by violence, and carry weapons. Gang members and affiliates were equally more likely than violent men to be violent at home, in friends' homes, and at work; they also thought more about hurting people, but felt regret for some of their violence. A decreasing gradient was identified in gang members' (highest), affiliates' (next highest) and violent men's (lowest) beliefs in violent retaliation when disrespected, the use of violence instrumentally and when angry, and worry about being violently victimized. Implications of findings are that interventions need to address anger issues across all levels of adult gang membership. Importantly, adult gang members' regrets regarding violence and anxiety about being violently victimized could be key factors that interventions could use to help them relinquish their gang involvement.

Keywords: Gangs, affiliates, violent men, violence, victims, locations

Empirical examinations of gang membership focus primarily on youth (Pyrooz, 2014), and a robust finding is that gang membership strongly relates to involvement in violence (Klein, Weerman & Thornberry, 2006). Gangs are thought to be involved in disproportionate violence because gang environments are infused with external threats from rivals, police, and intra-gang conflict (Decker, Melde & Pyrooz, 2013). At the individual level gangs expect members to be ready for violence, to engage in violence for revenge, and to violently avenge disrespect (Densley, 2013). Violence is a key method used by gang members to validate masculinity, generate admiration (Lauger, 2014), and enrich their reputations and status (Harris, Turner, Garratt & Atkinson, 2011). At a group level, violence occurs within (e.g. as punishment) and between gangs (e.g. inter-gang rivalry, Katz, Webb, Fox, & Shaffer, 2011), and is used disproportionately by gangs when committing ‘petty crimes’ (Harris et al., 2011). The contagious nature of gang violence means that it occurs regularly (Zeoli, Pizarro, Grady, & Melde, 2014); leaving gang members exposed to greater levels of violence (their own and others’) than nongang comparisons, even nongang offenders (Wood & Dennard, 2017).

Understandably, research has focused on gang members’ violence in gang contexts. However, authors of a meta-analysis examining gang membership and offending, suggest that gang research should address a “...broader spectrum of personal and social harms associated with gang membership, by treating gang membership itself as a risk factor for other negative outcomes” (Pyrooz, Turanovic, Decker, & Wu, 2016, p. 384). As the peak age for gang membership is 15 years (Pyrooz, 2014), if gang membership *is* a risk factor for social harms (e.g. violence perpetrated at school, home, work), then it is reasonable to expect that adult gang members will, because of the length of their exposure to the risk factor (gang membership), be key perpetrators of social harms. However, adolescent gangs attract the lion’s share of empirical

attention, and there are few examinations of adult gang members. Some recognize this gap and call for more life-course perspectives to reduce “adolescence-limited criminology” (Cullen, 2011, p.289). This is a fair point considering that 40% of gang members report adult membership (Pyrooz, 2014). It is also important because adult gang members are less receptive to gang reduction efforts (Dong & Krohn, 2016). Consequently, as there is a need to understand more about adult gang members and their violence, the current study examined adult gang members’ pro-violence dispositions and beliefs, their involvement in violent social harms (defined as perpetrating violence beyond gang contexts; e.g. at home, work), their victims, and outcomes.

Although explicit examinations of adult gang members are scarce, youth gang research provides several explanations as to why gang members (youth or adult) may perpetrate social harms. Gang members are thought to be violent because they have poor self-control (Chapple & Hope, 2003), which suggests that provocations in nongang contexts will result in violent responses and social harms. It is also possible that social harms occur in nongang contexts, *because of gang-related experiences*. For example, gang members may use violence instrumentally for gang ‘business’ and continue to use it strategically in nongang contexts for personal gain (e.g. for money, drugs, sex). Also, in gang contexts the need to retaliate violently against victimization (Alleyne & Wood, 2010) may be all the more relevant for adult gang members who are targets of violence because they have high status and high profiles. As gang-related provocations and humiliations probably occur primarily in public, and in front of important others, swift retaliation will be vital to ‘save face’ and maintain status. This may not always be possible though, antagonists may disappear, or be individuals (e.g. the police) against whom retaliation would lead to unwanted consequences (e.g. prosecution). The frustration of being unable to retaliate, may lead gang members to ruminate about their perceived humiliation.

That is, “If they stew about a provoking incident and focus on their bad mood, they may in turn lash out against others who provide only the slightest excuse for aggressive retaliation” (Vasquez et al., 2013 p. 28). In short, frustrations can lead to *displacement* of aggression on to innocent targets (Dollard, Doob, Miller, Mowrer, & Sears, 1939), and generate social harms in nongang contexts against innocent others (e.g. friends, family members and/or co-workers), as a result of frustrations experienced in gang contexts.

Gang membership is also dynamic; members join, stay, leave, and even re-join their gang (Alleyne & Wood, 2010; Pyrooz, Decker, & Webb, 2014). So, if gang membership *is* a risk factor for social harms, it could be expected that the risk members present (adult and/or youth), will vary with how embedded they are in a gang. That is, more embedded members will be more exposed to gang norms of violence, and be more at risk of perpetrating social harms in nongang contexts. Consequently, a further aim of the current study was to examine adult gang members’ perpetration of social harms, according to their levels of embeddedness in a gang, by utilizing unpublished data from the Coid et al, (2013) survey to compare the extent and nature of social harms perpetrated by embedded gang members (gang members), less embedded gang members (affiliates), and nongang violent men.

Examinations of gang embeddedness show that deeply embedded members generally admit to gang membership, whilst less embedded affiliates often deny gang membership, even when admitting involvement in gang activity (Curry, Decker, & Egle, 2002). Yet, what differentiates gang members from affiliates is unclear (O’Brien, Daffern, Chu, & Thomas, 2013). UK evidence suggests that although they are younger than gang members, affiliates are just as violent (Alleyne & Wood, 2010), whilst examinations of adults show that affiliates have fewer antisocial personality traits compared to gang members (Egan & Beadman, 2011).

. They also have fewer symptoms of antisocial personality disorder (ASPD), anxiety, pathological gambling, and drug and/or alcohol dependence (Wood, Kallis, & Coid, 2017). Examinations of youth gang members in the US provide conflicting results regarding embeddedness. Although early work identified similarities in gang members' and affiliates' delinquency (Esbensen, Huizinga & Weiher, 1993), most later work notes differences. Gang members are identified as more delinquent (Curry, Decker & Egley, 2002), less intelligent, less able to control impulses, perform less well at school, need more help, but are more difficult to help, depend more on their gang, and are less inclined to leave it (Klein & Maxson, 2006). Prison-based studies differ again by showing that affiliates are more violent than gang members (Gaes, Wallace, Gilman, Klein-Saffran, & Suppa, 2002). This supports earlier street gang research which showed that gang members considered affiliates as extreme 'crazies,' useful only for specific violent events (Horowitz, 1983).

Although there is little clear discrimination between gang members' and affiliates' violence (Melde & Esbensen, 2013), interactional theory (Thornberry, Krohn, Lizotte & Chard-Wierschem 1993) provides theoretical reasons why gang members and affiliates might differ in their perpetration of social harms. For example, one of the theory's models (selection) posits that gangs seek members who signal gang-worthy credentials, and, considering the importance of violence to a gang, it seems probable that a capacity for violence will be a key signal gangs look for in prospective members. Consequently, perpetrating violent social harms may be a mechanism used by wannabee gang members to signal their credentials to a gang. After joining, members often continue to signal to gain and maintain status (Pyrooz & Densley, 2016). This suggests that social harms may continue. However, as affiliates are less likely than gang

members to continue signaling violence (Pyrooz & Densley, 2016), this may indicate that they cause fewer social harms than their more embedded counterparts.

The current study

If gang membership *is* a risk factor for social harms, it may be expected that adult gang members and affiliates commit more violence-related social harms in nongang locations and against nongang victims than do other violent men. However, as argued above, exposure to the risk factor (gang membership) and the perpetration of social harms, may be expected to relate positively to members' levels of embeddedness in a gang. The current study analyzed the data of three groups of adult men; gang members, affiliates, and violent men to compare their involvement in social harms. Specifically, we analyzed violence-related disposition and beliefs, responses to violence, use of violence, and victim types across nongang locations. We hypothesized that we would identify a decreasing gradient on all variables. That is, we expected that gang members would hold more pro-violence disposition and beliefs, be involved in more violent social harms in nongang locations, and have a wider range of nongang victims than affiliates or violent men. We also anticipated that affiliates would hold more pro-violence disposition and beliefs, be involved in more violent social harms in nongang locations, and have a wider range of nongang victims than violent men.

Method

Participants

Data was utilized from a large survey into men's health and behavior, conducted with over 4000 adult men (see Coid et al., 2013). Participants were originally identified as non-violent, violent, or gang members. For this study, original data was screened to exclude non-

violent men ($n = 3,285$) and to include affiliates who were omitted in Coid et al's., (2013) original analyses. The current study included 1,539 adult British males ($M_{age} = 25.30$ years, age range: 19-30 years) who were classified as: **1.** Gang members ($n = 108$, self-nominated their gang membership during the past five years), **2.** Gang affiliates, ($n = 119$, denied gang membership, but admitted involvement with gangs in violence and/or crime during the past five years), **3.** Violent men ($n = 1312$, admitted perpetrating violence over the past five years, but denied any involvement with gangs).

The original survey (see Coid et al., 2013) was administered by a renowned research survey company, who recruited participants via random location sampling (advanced form of quota sampling based on the national census). This method reduces interviewer selection biases from of sample location, and includes participants according to their frequency in the population; it also boosts the inclusion of individuals who are often reluctant to participate in research (e.g. working-class males). Sampling units were randomly selected (every 'n'th area was selected for inclusion) from regions across the UK in proportion to their population, to gain representative samples from England, Scotland, and Wales. Boost surveys then selected Black and ethnic minority men from areas with a minimum of 5% Black and minority ethnic residents and men from areas noted for high gang membership (Hackney, London and Glasgow East, Scotland).

Materials and Procedure

Participants were contacted in person and given information about study aims. Following the provision of informed consent, participants completed the questionnaire at home, and returned it directly to the researcher who paid them £5 for participating. Measures included demographic/background information (e.g. age, ethnicity, marital status, employment, being in

local authority care – i.e. being removed from parents as a child and placed in care of local government authorities). Whilst controversies still surround definitions of gang membership, self-nomination is a valid method (Esbensen, Winfree, He, & Taylor, 2001), and so to identify variable gang involvement, participants were asked in the original survey “Are you currently a member of a gang?” and about their involvement with a gang in violence and crime during the past 5 years. Items regarding violence were based on previous surveys (Stueve & Link, 1997; Coid et al., 2006), and asked about involvement in physical fights during the past five years. If they answered ‘no’ to this item, they were directed to the next set of questions regarding violence disposition and beliefs (e.g. retaliation, rumination, anger, humiliation, instrumental violence). If they answered ‘yes,’ additional questions asked about the frequency and nature of their violence (e.g. when intoxicated), victims, outcomes (e.g. injuries), and locations.

Ethics

The original study was approved by a University Research Ethics Committee and in line with APA ethical code of conduct, participants were informed of the study’s aims and were able to ask questions before agreeing to participate. Consent was obtained following explanations of the confidential nature of the study and, to preserve confidentiality, all responses were anonymized.

Results

Data Preparation and Statistical Analyses

The weighted sample of 1539 participants included: 633 (41.1%) from the main survey; 199 (13.0%) from the ethnic minority sample; 224 (14.6%) from the lower social class sample; 193 (12.5%) from Hackney (London) and 290 (18.8%) from Glasgow East (Scotland). Of the sample, 1312 (85.3%) reported violence to others in the past 5 years, but not as part of a gang

(violent men); 108 (7%) reported gang membership (gang members), and 119 (7.7%) reported that they were not in a gang, but admitted involvement with gangs in violence (affiliates).

Group membership (i.e. gang members, affiliates, violent men) was used as the independent variable in all analyses. To compare demographics, we used multinomial logistic regression, as some outcome variables had more than two categories (e.g. White, Black, Asian, Other). In all analyses the largest category (e.g. White) was used as the reference. To identify pairwise differences between: gang members and affiliates; affiliates and violent men; and gang members and violent men on social harms variables (i.e. violence-related disposition and beliefs, involvement in violence, victims, and locations) we used binary logistic regressions because responses were dichotomous (i.e. yes/no), and we wanted to control for, as well as examine, all items in our analyses. To control for sample differences, survey type was also included as a covariate in all analyses and robust standard errors were used to account for correlations within survey areas because of clustering within postcodes. An alpha level of 0.05 was used in all analyses.

Demographics

Comparisons of demographics were made using multinomial logistic regression. Findings showed that gang members were more likely to be Black or Asian than were affiliates or violent men (Table 1 shows descriptives and comparisons for the three groups). Affiliates were more likely than violent men to be Black, but not more likely to be Asian, whilst gang members were more likely than either of the other groups (who did not differ) to have been born in the UK. Regarding age, whilst affiliates were younger than violent men, gang members did not differ from affiliates or violent men. Affiliates were also more likely than violent men and gang

members (who did not differ) to be single. As children, gang members and affiliates were equally more likely than violent men to have been taken in to local authority care. Employment status did not differ between the groups.

INSERT TABLE 1 HERE

Beliefs about and involvement in violent social harms.

To identify if gang involvement is associated with more pro-violence beliefs and more involvement in violent social harms, we used binary logistic regression to compare the three groups on their violence dispositions, pro-violence beliefs, and involvement in violence. Gang members and affiliates differed from violent men on all items (see Table 2), except when threatened with a weapon (similar for all groups). Compared to violent men, gang members and affiliates were equally less likely to avoid violence, run away, or back down from fights, and equally more likely to: believe they would do better than average in a fist fight; ruminate about hurting others and believe that they could do so; become violent when disrespected; find fighting exciting; seek violence (e.g. at sporting events); carry a knife; and know how to access illegal firearms. Gang members were more likely than affiliates, who were more likely than violent men to: worry about being victims of violence; rate retaliation as important; become violent when angry; and use violence for gain (e.g. for money, drugs, sex). Interestingly, both gang members and affiliates were equally more likely than violent men to feel sorry for some of their violence.

INSERT TABLE 2 HERE

Violence levels and victims.

To establish if gang involvement was associated with more social harms, we used binary logistic regression to compare the three groups on numbers of violent events (severity) and victim types. Results showed that compared to violent men, gang members and affiliates (who did not differ) were involved in more violent events, and had a broader range of victims, including intimate partners, friends, and the police (see Table 3). Compared to violent men, gang members and affiliates were also more likely to be violent when intoxicated (gang members more so than affiliates). On some variables, gang members did not differ from affiliates *or* from violent men, whereas affiliates differed from violent men (e.g. being violent to someone they knew (not family or friend) and to unspecified others). Affiliates were also more likely than gang members or violent men (who did not differ) to be violent to strangers.

INSERT TABLE 3 HERE

Location of violence and outcomes.

To identify where social harms occurred, we used binary logistic regression to compare the three groups on locations of their violence. Compared to violent men, gang members and affiliates (who did not differ) were more likely to be violent in their own or others' homes and in the workplace (see Table 4). Whilst gang members' violence on the streets did not differ from either violent men's *or* affiliates,' affiliates were more likely to be violent on the streets than were violent men. Gang members were more likely than affiliates, who in turn, were more likely than violent men, to be violent in bars; all had similar levels of violence in hospitals or at unspecified, locations. In terms of violence outcomes, compared to violent men, gang members and affiliates were equally more likely to be involved in minor violence, violence that caused injuries to victims and/or perpetrators, and violence that involved the police.

INSERT TABLE 4 HERE

Discussion

In this study we compared adult gang members', affiliates', and violent men's involvement in violent social harms. We anticipated that gang members would have more violence related dispositions and beliefs, and a wider range of victims outside of gang contexts than affiliates who, we anticipated, would score higher on all measures than would violent men. Our findings were upheld in part. Affiliates scored higher than violent men on all items except doing nothing/as instructed when threatened with a weapon, and being violent in hospitals or 'other' locations. Contrary to our expectations, affiliates did not score lower than gang members on all measures; gang members and affiliates had similar violence dispositions and beliefs, were similarly involved in violence across locations, and had similar victims. In short, gang members and affiliates were equally more likely than violent men to engage in violent social harms.

Demographics & background: Whilst gang members and violent men did not differ in age, affiliates were only younger than violent men. Yet, as the mean age of each group was around 25 years, this finding has little meaning. Gang members were more likely to be Black or Asian than were affiliates and violent men, and affiliates were more likely to be Black than were violent men. This supports US findings that ethnic minorities are disproportionately represented in adult gang populations (Pyrooz, Sweeten, & Piquero, 2013). Affiliates were more likely than gang members or violent men to have been born outside the UK, and more likely to be single. Our data cannot address the duration of affiliates' gang involvement, but they may have been gang 'wannabes' who join gangs as adults (Pyrooz, 2014), ex members who maintained ties to

their gang (Pyrooz, et al., 2014), or they may have grown up in their gang (Pyrooz, 2014), and kept their affiliate status due to little interest in full membership and/or because their gang allegiance was useful for personal gain, as noted in prison populations (Wood, et al., 2014). Only further research can establish if any of these possibilities is right.

It is particularly interesting that, compared to violent men, affiliates and gang members were both more likely to have been raised in the care of local authorities during childhood. This supports meta-analytic conclusions that children raised in care are especially vulnerable to gang influences (Raby & Jones, 2016). Although our findings cannot explain why children raised in care appear to be attracted to gang involvement, they do suggest that gang members and affiliates had less stable backgrounds than violent men. This may mean that during childhood they also accumulated sufficient risk factors (e.g. poor parental monitoring, poor attachment) to 'tip' them into gang membership (Esbensen, Peterson, Taylor, & Freng, 2009). Gangs are also attractive to youth who have poor family bonds, because they provide members with familial bonding and belonging (Vigil, 1988). As such, gangs may become replacement families; this may also compel them to remain in their gang 'family' into adulthood.

Violence beliefs and violent behavior: Compared to violent men, gang members and affiliates had stronger pro-violence dispositions and beliefs, and were more involved in violence. Gang members and affiliates were equally more likely than violent men to carry a knife, know where and how to access firearms, to seek and be excited by violence, and refuse to back down in confrontations, or if threatened with weapons. We found a decreasing gradient from gang members (highest) to affiliates (next highest) to violent men (lowest) in instrumental violence. As gang members are more embedded than affiliates, they may also be more involved in gang "business." Considering this possibility together with the finding that affiliates were more likely

to target strangers, two possibilities stand out; one, that adult gang members' violence is more purposive (i.e. for gang or personal gain) than affiliates', and two, that adult affiliates attack strangers possibly to signal their violence credentials to a gang (Pyrooz & Densley, 2016).

Although their inclination to instrumental violence appears to suggest that gang members use violence strategically, this is undermined by our finding that they are also more inclined to anger. We identified a decreasing gradient from gang members (highest) to affiliates (next highest) to violent men (lowest) in violent retaliation, and anger-induced violence. What generates gang members' anger is not clear. However, we also identified a decreasing gradient from gang members (highest) to affiliates (next highest) to violent men (lowest), regarding worry about being violently victimized. If gang members' high levels of anger, worry about being violently victimized, and rumination are considered together, it is feasible that gang members' anger and inclination for retaliation, derive, at least in part, from their experiences as victims of violence. As adult gang members, it is also possible that anger, ruminating about hurting others, and retaliation, develop across time and levels of victimization experiences. They may also be exacerbated by perceived threats to their status and reputation from younger members' advancing gang 'careers'. Similarly, our finding that compared to gang members affiliates worried less about being violently victimized, supports previous findings that affiliates have lower levels of anxiety disorder (Wood et al., 2017), and suggests that lower gang embeddedness may protect against developing anxiety disorder. It is concerning though that affiliates ruminate just as much as gang members, and that they are just as likely to respond violently to humiliation and disrespect. Taken together these findings suggest that affiliates' anger-induced and retaliatory violence may increase over time as a function of rumination and humiliation (see

above). It is paradoxical that this may also generate more worry about being violently victimized and lead to deeper embeddedness in the gang due to a perceived need for added protection.

Victims: Compared to violent men, gang members and affiliates had more victims, more versatile choices of victim (e.g. intimate partners, friends, strangers, police), caused more injuries to victims and themselves, and were more likely to be violent across a range of locations (e.g. own home, others' homes, work). This all supports that violence is pervasive in gang members' and affiliates' repertoires of responses to others, including family, friends, and colleagues. Regarding locations of violence, gang members were more likely to be violent in bars than were affiliates or violent men, but their street-based violence did not differ from violent men's or affiliates' (affiliates were more violent on the streets than were violent men). Consequently, although our gang involved sample upheld the tradition of street-orientated violence, they did not exceed violent men's street-based violence. This could be because violent men's violence occurs mostly around bars and clubs, and is also street-based. Further work is needed to establish if this is so.

Violence outcomes: It is particularly interesting that compared to violent men, gang members and affiliates were equally likely to regret some of their violence. Since both are more likely to be involved in major incidents of violence, their regret could derive from the disproportionate nature of gang (Decker et al., 2013), and hence their own, violence. It is possible that some of their regret may also result from the social harms that they cause to family, friends, and colleagues. Either way, it seems that gang interventions would benefit from exploring regret as a potential method for helping to motivate gang members and affiliates to address and relinquish their violence.

Implications: Our findings have some important implications for interventions targeting adult gang involvement. Whilst they support the idea that gang involvement is a risk factor for social harms (Pyrooz et al., 2016), it is not clear whether gang involvement preceded the social harms or vice versa. For example, it may be that a belief which supports the use of violence to resolve disagreements in any context, is also a risk factor for gang membership. Whatever the reasons, our findings suggest that gang members and affiliates (to a lesser degree) use violence to deal with anger, perceptions of disrespect, humiliation, material gain, and threat, across contexts, victims and locations (gang and nongang). So, it seems vital that pro-violence beliefs are addressed when tackling any level of gang embeddedness. Although affiliates' lower levels of anger than gang members may make addressing their anger seem less important, their anger was higher than violent men's, and this suggests that addressing anger is crucial for tackling *any level* of gang embeddedness. Equally, although not significantly different, there is a trend in the data for affiliates' violence to exceed that of gang members. That is, although gang members did not differ from violent men or affiliates on several measures (e.g. violent to someone known, unspecified others, strangers, and street violence), affiliates were more violent than violent men. Consequently, since findings with youth show that affiliates are more likely to leave their gang than are gang members (Klein & Maxson, 2006), gang interventions targeting affiliates stand a good chance of significantly impacting their violence before they evolve into full gang members. The potential for intervention success with affiliates may even make an impact on gang violence more generally, and this makes targeting them all the more worthwhile. Other important implications for treatment include gang members and affiliates' regrets about violence. Although details of these regrets are unknown, regret is definitely worth exploring in treatment. If it is considered in tandem with gang members' and affiliates' high levels of worry (higher in gang

members) about being violently victimized, it may be that gang involved adults' regret and worry could both be pivotal in enhancing motivations to leave gang life.

This study, as any other, has limitations. Considering gang membership dichotomously (i.e. gang members/affiliates) does not identify the full variability and heterogeneity of gang membership, even though it can provide practical and theoretical meaning (Berger, Abu-Raiya, Heineberg & Zimbardo, 2017). Nonetheless, future work could look at embeddedness in more detail. Asking about past behavior also exposes data to the caprices of memory, but as violent events probably stand out in memory, particularly as so many are 're-lived' via storytelling in a gang environment (see Lauger, 2014), we have little reason to suspect that participants were unable to remember events. Random location sampling does not assess participation refusals, so we cannot know how many potential participants refused to participate, or why. Random location sampling does, however, provide certainty of gaining a representative sample of specific groups, which is particularly useful for examining gang membership. Although there is no theoretical reason to expect that our findings would differ with cross-cultural samples, our focus on the UK is not ideal, and so future work would benefit from examining adult gang joining cross culturally as well as longitudinally to understand more about the longevity of gang membership/affiliation and involvement in social harms.

Conclusions

Our findings highlight the importance of examining gang membership in adulthood. The evidence we present suggests that compared to nongang violent men, *any level of* adult gang involvement is associated with the perpetration of more social harms. We identify that compared to violent men, gang members and affiliates hold more pro-violence attitudes, are more violent in

a wider range of locations, and have a wider range of victims. Our findings further support the need for additional research which focuses on gang-involved adults. It would also be useful to expand this work to include adult women samples. The current findings suggest that it is important to consider gang members' and affiliates' regrets about violence, and their worry about being violently victimized as potential motivational factors for relinquishing gang life. It is also important when tackling gang membership, to consider the broader social harms that occur beyond the gang arena as these may shed important light on gang members' violence.

References

- Alleyne, E., & Wood, J. L. (2010). Gang involvement: Psychological and behavioral characteristics of gang members, peripheral youth and non-gang youth. *Aggressive Behavior, 36*, 423-436. doi:10.1016/j.avb.2009.08.005
- Berger, R., Abu-Raiya, H., Heineberg, Y., & Zimbardo, P. (2017). The process of desistance among core ex-gang members. *American journal of orthopsychiatry, 87*(4), 487-502. doi:10.1037/ort0000196
- Chapple, C. L., & Hope, T. L. (2003). An analysis of the self-control and criminal versatility of gang and dating violence offenders. *Violence and victims, 18*(6), 671. doi:10.1891/088667003780928008
- Coid, J. W., Ullrich, S., Keers, R., Bebbington, P., DeStavola, B. L., Kallis, C., Yang, M., Reiss, D., Jenkins, R., & Donnelly, P. (2013). Gang membership, violence, and psychiatric morbidity. *American Journal of Psychiatry, 170*(9), 985-993. doi:10.1176/appi.ajp.2013.12091188
- Coid, J., Yang, M., Roberts, A., Ullrich, S., Moran, P., Bebbington, P., & Singleton, N. (2006). Violence and psychiatric morbidity in the national household population of Britain: public health implications. *The British Journal of Psychiatry, 189* (1), 12-19. doi:10.1192/bjp.189.1.12
- Cullen, F. T. (2011). Beyond adolescence-limited criminology: Choosing our future—the American Society of Criminology 2010 Sutherland address. *Criminology, 49*(2), 287-330. doi:10.1111/j.1745-9125.2011.00224.x

Curry, G. D., Decker, S. H., & Egley Jr., A. (2002). Gang involvement and delinquency in a middle school population. *Justice Quarterly*, *19*(2), 275-92. doi:

10.1080/07418820200095241

Decker, S. H., Melde, C., & Pyrooz, D. C. (2013). What do we know about gangs and gang members and where do we go from here? *Justice Quarterly*, *30*(3), 369-402.

doi:10.1080/07418825.2012.732101

Densley, J. A. (2013). *How gangs work: An ethnography of youth violence*. Oxford: Palgrave Macmillan.

Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). Frustration and aggression. doi.org/10.1037/10022-000

Dong, B., & Krohn, M. D. (2016). Dual trajectories of gang affiliation and delinquent peer association during adolescence: An examination of long-term offending outcomes. *Journal of youth and adolescence*, *45*(4), 746-762. doi:10.1007/s10964-016-0417-2

Egan, V., & Beadman, M. (2011). Personality and gang embeddedness. *Personality and Individual Differences*, *51*(6), 748-753. doi:10.1016/j.paid.2011.06.021

Esbensen, F. A., Huizinga, D., & Weiher, A. W. (1993). Gang and non-gang youth: Differences in explanatory factors. *Journal of Contemporary Criminal Justice*, *9*(2), 94-116.

doi:10.1177/104398629300900203

Esbensen, F. A., Peterson, D., Taylor, T. J., & Freng, A. (2009). Similarities and differences in risk factors for violent offending and gang membership. *Australian and New Zealand Journal of Criminology*, *42*, 310-335. doi:10.1375/acri.42.3.310

- Esbensen, F-A., Winfree Jr, L. T., He, N., & Taylor, T. J. (2001). Youth gangs and definitional issues: When is a gang a gang, and why does it matter? *Crime & Delinquency*, 47(1), 105-130. doi:10.1177/0011128701047001005
- Gaes, G. G., Wallace, S., Gilman, E., Klein-Saffran, J., & Suppa, S. (2002). The Influence of Prison Gang Affiliation on Violence and Other Prison Misconduct. *Prison Journal* 82, 359-85. doi:10.1177/003288550208200304
- Harris, D., Turner, R., Garratt, I., & Atkinson, S. Ministry of Justice, National Offender Management Service. (2011). *Understanding the psychology of gang delinquency: Implications for defining effecting violence interventions*. Retrieved from Ministry of Justice website: <http://www.justice.gov.uk/downloads/publications/research-and-analysis/moj-research/research-gang-violence.pdf>
- Horowitz, R. B. (1983). *Honor and the American Dream*. New Brunswick, NJ: Rutgers Univ. Press
- Katz, C. M., Webb, V. J., Fox, K., & Shaffer, J. N. (2011). Understanding the relationship between violent victimization and gang membership. *Journal of Criminal Justice*, 39, 48-59. doi:10.1016/j.jcrimjus.2010.10.004
- Klein, M. W., & Maxson, C. L. (2006). *Street gang patterns and policies*. New York, NY: Oxford University Press, Inc.
- Klein, M. W., Weerman, F. M., & Thornberry, T. P. (2006). Street gang violence in Europe. *European Journal of Criminology*, 3(4), 413-437. doi:10.1177/1477370806067911

- Lauger, T. R. (2014). Violent stories: Personal narratives, street socialization, and the negotiation of street culture among street-oriented youth. *Criminal Justice Review*, 39(2), 182-200. doi.org/10.1177/0734016814529966
- Melde, C., & Esbensen, F. A. (2013). Gangs and violence: Disentangling the impact of gang membership on the level and nature of offending. *Journal of quantitative criminology*, 29(2), 143-166. doi:10.1007/s10940-012-9164-z
- O'Brien, K., Daffern, M., Chu, C. M., & Thomas, S. D. (2013). Youth gang affiliation, violence, and criminal activities: A review of motivational, risk, and protective factors. *Aggression and violent behavior*, 18(4), 417-425. doi:10.1016/j.avb.2013.05.001
- Pyrooz, D. C. (2014). "From your first cigarette to your last dyin' day": The patterning of gang membership in the life-course. *Journal of Quantitative Criminology*, 30(2), 349-372. doi:10.1007/s10940-013-9206-1
- Pyrooz, D. C., Decker, S. H., & Webb, V. J. (2014). The ties that bind: Desistance from gangs. *Crime & Delinquency*, 60(4), 491-516. doi:10.1177/0011128710372191
- Pyrooz, D. C., & Densley, J. A. (2016). Selection into street gangs: Signaling theory, gang membership, and criminal offending. *Journal of Research in Crime and Delinquency*, 53(4), 447-481. doi:10.1177/0022427815619462
- Pyrooz, D. C., Sweeten, G., & Piquero, A. R. (2013). Continuity and change in gang membership and gang embeddedness. *Journal of Research in Crime and Delinquency*, 50(2), 239-271. doi:10.1177/0022427811434830

- Pyrooz, D. C., Turanovic, J. J., Decker, S. H., & Wu, J. (2016). Taking stock of the relationship between gang membership and offending: A meta-analysis. *Criminal Justice and Behavior*, 43(3), 365-397. doi.org/10.1177/0093854815605528
- Raby, C., & Jones, F. (2016). Identifying risks for male street gang affiliation: a systematic review and narrative synthesis. *The Journal of Forensic Psychiatry & Psychology*, 27(5), 601-644. doi:10.1080/14789949.2016.1195005
- Stueve, A., & Link, B. G. (1997). Violence and psychiatric disorders: results from an epidemiological study of young adults in Israel. *Psychiatric Quarterly*, 68(4), 327-342. doi.org/10.1023/A:1025443014158
- Thornberry, T. P., Krohn, M. D., Lizotte, A. J., & Chard-Wierschem, D. (1993). The role of juvenile gangs in facilitating delinquent behavior. *Journal of research in Crime and Delinquency*, 30(1), 55-87. doi:10.1177/0022427893030001005
- Vasquez, E. A., Pedersen, W. C., Bushman, B. J., Kelley, N. J., Demeestere, P., & Miller, N. (2013). Lashing out after stewing over public insults: The effects of public provocation, provocation intensity, and rumination on triggered displaced aggression. *Aggressive behavior*, 39(1), 13-29. doi.org/10.1002/ab.21453
- Vigil, J. D. (1988). *Barrio gangs: street life and identity in southern California*. Austin, TX: University of Texas Press.
- Wood, J. L., Alleyne, E., Mozova, K., & James, M. (2014). Predicting involvement in prison gang activity: Street gang membership, social and psychological factors. *Law and Human Behavior*, 38, 203-211. doi:10.1037/lhb0000053

Wood, J., & Dennard, S. (2017). Gang membership: links to violence exposure, paranoia, PTSD, anxiety, and forced control of behavior in prison. *Psychiatry*, *80*, 30-41.

doi.org/10.1080/00332747.2016.1199185

Wood, J. L., Kallis, C., & Coid, J.W. (2017). Differentiating gang members, gang affiliates and violent men on their psychiatric morbidity and traumatic experiences. *Psychiatry:*

Interpersonal and Biological Processes. doi:10.1080/00332747.2016.1256144

Zeoli, A. M., Pizarro, J. M., Grady, S. C., & Melde, C. (2014). Homicide as infectious disease:

Using public health methods to investigate the diffusion of homicide. *Justice quarterly*,

31(3), 609-632. doi:10.1080/07418825.2012.732100.

Demographic Characteristics of Gang Members, Affiliates and Violent Men

Demographics	Violent men		Affiliates		Gang members		Affiliates vs. Violent Men		Gang Members vs. Violent Men		Gang Members vs. Affiliates	
	[<i>n</i> =1312, 83.3%]		[<i>n</i> =119, 7.7%]		[<i>n</i> =108, 7.0%]		<i>OR</i>	95% CI	<i>OR</i>	95% CI	<i>OR</i>	95% CI
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%						
Lower social class	625	47.6	44	37.3	50	46.1	1.69	0.60, 4.76	1.82	0.49, 6.70	1.08	0.21, 5.46
Other	554	42.2	70	58.5	44	41.0	1.38	0.44, 4.33	1.01	0.24, 4.30	0.73	0.13, 4.20
Ethnicity												
White [reference]	1007	76.8	92	77.0	37	34.1	-	-	-	-	-	-
Black	138	10.5	20	16.7	53	49.4	2.94**	1.43, 6.06	15.19***	7.85, 29.38	5.16***	2.20, 12.11
Asian	152	11.6	7	5.8	16	15.3	1.31	0.51, 3.39	6.49***	2.69, 15.63	4.95*	1.46, 16.81
Other	14	1.1	1	0.6	1	1.2	0.94	0.11, 7.93	7.16*	1.20, 42.68	7.61	0.63, 92.45

Non-UK born	104	8.1	7	6.1	5	4.6	1.32	0.59, 2.98	0.24*	0.07, 0.84	0.18*	0.05, 0.72
Single	894	68.5	101	85.6	61	57.7	2.77*	1.22, 6.30	0.50	0.23, 1.09	0.18**	0.06, 0.55
Unemployed	557	43.8	76	64.6	51	50.4	1.80	0.93, 3.49	2.04	0.92, 4.51	1.13	0.45, 2.85
Local Authority care	74	5.8	24	21.2	18	19.3	3.69***	1.98, 6.88	2.99*	1.21, 7.38	0.81	0.30, 2.22
Age (years)	Mean	SD	Mean	SD	Mean	SD	0.94*	0.89, 0.99	0.94	0.88, 1.01	1.00	0.92, 1.09
	25.39	5.02	24.47	5.16	25.13	5.31						

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$ AORs are adjusted for other demographic characteristics, Index of Multiple Deprivation and survey type. All 95% CI are computed using robust standard errors to account for correlations within survey areas due to clustering within postcodes.

Table 2

Comparisons of Gang Members, Affiliates, and Violent Men on Their Violence-Related Beliefs (N = 1539)

Violence-Related Beliefs *	<i>Affiliates vs. Violent Men</i>		Gang Members vs. Violent Men		Gang Members vs. Affiliates	
	<i>OR [95% CI]</i>	<i>p</i>	<i>OR [95% CI]</i>	<i>p</i>	<i>OR [95% CI]</i>	<i>p</i>
I often worry I will become a victim of violence	2.42 [1.56, 3.75]	<0.001	5.05 [2.98, 8.56]	<0.001	2.09 [1.12, 3.89]	0.021
I always avoid violence	0.31 [0.20, 0.48]	<0.001	0.45 [0.28, 0.74]	0.002	1.44 [0.80, 2.61]	0.227
I was brought up as a child not to back down from a fight	1.69 [1.10, 2.59]	0.017	2.61 [1.39, 4.89]	0.003	1.55 [0.73, 3.27]	0.252
If someone threatened me with a weapon I would: Do nothing / do what they told me	0.70 [0.44, 1.13]	0.142	1.01 [0.58, 1.73]	0.984	1.43 [0.71, 2.90]	0.315
If someone threatened me with a weapon I would: Run away or try to run	0.37 [0.22, 0.62]	<0.001	0.46 [0.24, 0.88]	0.019	1.25 [0.55, 2.85]	0.588

If someone threatened me with a weapon I would: Call the police	0.28 [0.16, 0.49]	<0.001	0.79 [0.49, 1.28]	0.342	2.83 [1.45, 5.54]	0.002
If someone threatened me with a weapon I would: Retaliate violently and hit them, even if it meant me getting hurt	2.44 [1.60, 3.73]	<0.001	5.85 [3.17, 10.80]	<0.001	2.40 [1.20, 4.80]	0.013
If someone threatened me with a weapon I would: Go and get a weapon and come back for them later	4.32 [2.80, 6.67]	<0.001	12.84 [7.27, 22.68]	<0.001	2.97 [1.54, 5.72]	0.001
I easily lose my temper and become violent	4.10 [2.68, 6.27]	<0.001	9.30 [5.22, 16.59]	<0.001	2.27 [1.15, 4.49]	0.019
I'd do better than average if I got into a fist fight	2.10 [1.35, 3.28]	0.001	2.01 [1.22, 3.31]	0.006	0.95 [0.52, 1.76]	0.882
I sometimes think about hurting other people and could easily do it	5.20 [3.40, 7.95]	<0.001	9.00 [5.44, 14.88]	<0.001	1.73 [0.95, 3.16]	0.074
If someone humiliates, disrespects or puts me down I may get violent	4.63 [2.90, 7.40]	<0.001	6.09 [3.11, 11.92]	<0.001	1.32 [0.59, 2.91]	0.499

I have done violent things in the past 5 years I later felt sorry about	2.99 [1.93, 4.63]	<0.001	5.78 [3.14, 10.65]	<0.001	1.93 [0.94, 3.99]	0.075
I have got into fights in the past 5 years because it was exciting	7.21 [4.73, 10.98]	<0.001	5.84 [3.53, 9.65]	<0.001	0.81 [0.45, 1.47]	0.487
I have sometimes deliberately gone out in the past 5 years to get into/looking for a fight	8.13 [5.23, 12.66]	<0.001	13.33 [8.09, 21.97]	<0.001	1.64 [0.91, 2.96]	0.102
I have used violence in the past 5 years to get what I wanted [e.g. money, drugs, sex]	5.32 [3.45, 8.20]	<0.001	18.81 [10.94, 32.35]	<0.001	3.54 [1.89, 6.60]	<0.001
I have carried a knife in the past 5 years	9.21 [6.02, 14.11]	<0.001	9.49 [5.42, 16.61]	<0.001	1.03 [0.55, 1.93]	0.927
I have been involved in violence at sporting events [e.g. football] in the past 5 years	7.28 [4.77, 11.12]	<0.001	7.66 [4.62, 12.69]	<0.001	1.05 [0.58, 1.90]	0.867
I know people who have illegal firearms	6.80 [4.41, 10.47]	<0.001	4.86 [2.95, 8.00]	<0.001	0.71 [0.40, 1.29]	0.266
I could easily get an illegal firearm if I wanted one	5.13 [3.38, 7.77]	<0.001	4.98 [2.95, 8.41]	<0.001	0.97 [0.54, 1.75]	0.923

* Adjusted for non-UK birth, being single, unemployment, ethnicity, age, Index of Multiple Deprivation and survey type. All 95% CI are computed using robust standard errors to account for correlations within survey areas due to clustering within postcodes.

Table 3

Comparisons of Gang Members, Affiliates, and Violent Men on Involvement in Violence and Victim Types (N = 1539)

Violence Severity and Victims *	Affiliates vs. Violent Men]		Gang Members vs. Violent Men		Gang Members vs. Affiliates	
	OR [95% CI]	<i>p</i>	OR [95% CI]	<i>p</i>	OR [95% CI]	<i>p</i>
More than five violent incidents [severity]	6.62 [4.22, 10.40]	<0.001	8.87 [5.26, 14.95]	<0.001	1.34 [0.73, 2.44]	0.340
Violent when intoxicated	2.59 [1.65, 4.07]	<0.001	6.64 [3.30, 13.35]	<0.001	2.56 [1.18, 5.59]	0.018
Victim versatility [3 or more victim types]	3.92 [2.45, 6.28]	<0.001	4.95 [2.83, 8.68]	<0.001	1.26 [0.67, 2.37]	0.469
Intimate partners	3.44 [1.98, 5.99]	<0.001	6.54 [3.71, 11.52]	<0.001	1.90 [0.97, 3.72]	0.061
Family member	._**	._**	._**	._**	._**	._**
Friend	1.80 [1.22, 2.66]	0.003	3.29 [1.96, 5.51]	<0.001	1.82 [1.00, 3.33]	0.051
Someone known [not family or friend]	2.19 [1.47, 3.27]	<0.001	1.56 [0.90, 2.70]	0.116	0.71 [0.38, 1.33]	0.283
Stranger	1.65 [1.12, 2.42]	0.011	0.89 [0.53, 1.49]	0.653	0.54 [0.29, 0.99]	0.045
Police	3.64 [2.05, 6.48]	<0.001	3.30 [1.54, 7.08]	0.002	0.90 [0.37, 2.20]	0.825
Other	2.14 [1.05, 4.37]	0.036	0.79 [0.22, 2.77]	0.712	0.37 [0.10, 1.34]	0.131

* Adjusted for non-UK birth, being single, unemployment, ethnicity, age, Index of Multiple Deprivation and survey type. All 95% CI are computed using robust standard errors to account for correlations within survey areas due to clustering within postcodes.

** Estimation model has not converged due to data sparseness.

Table 4:

Comparisons of Gang Members, Affiliates, and Violent Men on Violence Locations and Violence Outcome

Location and Outcome *	Affiliates vs. Violent Men		Gang Members vs. Violent Men		Gang Members vs. Affiliates	
	OR [95% CI]	<i>p</i>	OR [95% CI]	<i>p</i>	OR [95% CI]	<i>p</i>
Your home	1.99 [1.19, 3.34]	0.009	3.60 [2.04, 6.37]	<0.001	1.81 [0.92, 3.57]	0.088
Other's home	2.61 [1.66, 4.10]	<0.001	4.04 [2.36, 6.93]	<0.001	1.55 [0.83, 2.89]	0.169
Street/outdoors	2.02 [1.33, 3.08]	0.001	1.63 [0.94, 2.85]	0.083	0.81 [0.42, 1.57]	0.527
Pub/bar	1.54 [1.04, 2.29]	0.030	3.18 [1.92, 5.26]	<0.001	2.06 [1.13, 3.75]	0.019
Your workplace	5.35 [2.24, 12.76]	<0.001	4.65 [1.65, 13.10]	0.004	0.87 [0.27, 2.75]	0.810
Hospital	3.71 [0.74, 18.45]	0.110	2.56 [0.38, 17.19]	0.333	0.69 [0.12, 3.83]	0.673
Other location	1.47 [0.83, 2.60]	0.187	0.83 [0.32, 2.12]	0.692	0.56 [0.20, 1.60]	0.282
Perpetrator injured	2.28 [1.54, 3.37]	<0.001	2.45 [1.45, 4.12]	0.001	1.07 [0.59, 1.97]	0.816
Victim injured	1.79 [1.19, 2.69]	0.005	1.94 [1.19, 3.19]	0.008	1.09 [0.60, 1.97]	0.785
Police involved	2.36 [1.58, 3.53]	<0.001	3.63 [2.17, 6.05]	<0.001	1.54 [0.85, 2.76]	0.153
Minor violence	0.29 [0.15, 0.58]	<0.001	0.12 [0.04, 0.32]	<0.001	0.39 [0.12, 1.29]	0.124

* Adjusted for non-UK birth, being single, unemployment, ethnicity, age, Index of Multiple Deprivation and survey type. All 95% CI are computed using robust standard errors to account for correlations within survey areas due to clustering within postcodes.