A REVIEW OF THE RESEARCH LITERATURE ON THE SOCIO-ECONOMIC CONTRIBUTORS TO HOMICIDE



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Canadian Trends in Homicide

The 25 homicides in Surrey (4.8 per 100,000) in 2013 are inconsistent with the previous 4-year average (10.5 per 100,000), but similar to the 20 homicides recorded in 2009 and the 21 homicides in 2005. There has been an apparent 4-year cycle in the first 13 years of this century in which the homicide numbers increased substantially from the previous 3 years. The most obvious explanation of this pattern is that it reflects episodic organized crime drug trafficking "turf" or territorial violence over drug distribution in the Fraser Valley and, to some extent, other municipalities in Greater Vancouver, especially Vancouver. While this report will not specifically attempt to address whether there is an explanation for this cycle, it will review the research and related theories of why certain municipalities, such as Surrey, are more generally susceptible to higher homicide rates.

For comparison purposes, the recent Canada national homicide rate was 1.56 per 100,000 people in 2012. This rate represented the lowest national rate since 1966. Overall, in 2012, there were 542 homicides. The highest metro regions were Thunderbay (5.81 per 100,000), Winnipeg (4.8 per 100,000), Regina (3.06 per 100,000), and Halifax (2.9 per 100,000) (Boyce and Cotter, 2013). In British Columbia, the highest rates per 100,000 people could be found in Kelowna (1.6), Vancouver (1.5), and Victoria (1.1). In comparison, the highest municipal rate in the United States was in New Orleans (20.4 per 100,000) (Boyce and Carter, 2012). Importantly, regarding Canadian homicide trends, the rate has declined continuously since 1975, as have the rates of attempted murder, which in 2011 was 1.94 per 100,000. Critically, the base rate of homicide in Canada remains extremely low, accounting for only 1% of all crimes. This finding suggests that homicide is a very rare event in Canada. Cross-national comparisons with similar liberal democratic/advanced industrial countries, or those with similar levels of political, economic, and social institutions, place Canada lower than the United States (4.65 per 100,000), Norway (2.3 per 100,000), Finland (2.2 per 100,000), and Belgium (1.6 per 100,000) (Boyce and Carter, 2012). Based on criminological theories of homicide, it was expected that Canada's rate would be far lower that the US rate, but it is somewhat surprising that it was less than the extensive welfare state (i.e., high taxes to fund full range of social, educational, and health services and income supplements) Scandinavian countries with relatively small and ethnically homogeneous populations. This comparison is very important because extensive welfare policies, the resulting lessening of income family inequalities and poverty levels, along with homogeneous national populations typically predict low levels of homicides.

With regard to Canada, Boyce and Carter (2012) reported several other 2012 homicide trends. Despite popular images of homicide being an overwhelming large urban phenomenon in cities with 1 million or more residents, only Edmonton had a higher rate than non-metro cities. Handguns were the most common weapons in homicides. However, there was drop in these crimes among the most at-risk illegal professions, such as drug trafficking and sex trade workers, and those most at-risk legal professions, such as taxi drivers and police officers. In terms of gender, homicides were overwhelmingly committed by males (89 per cent) and by those between 18 and 34 years of age (4.81 per 100,000). Most importantly, 60% of the perpetrators had prior convictions, usually for violent crimes other than homicides, such as robbery (16 per cent). Despite popular media images of violent youth in Canada, those under the age of 19 years old were involved in only 7% of all

homicides, which constituted the lowest rate (1.4 per 100,000) in the last 40 years. Similarly, concerns about increased levels of youth female violence is belied by their 0.09 rate per 100,000; also the lowest in 40 years. While there was a brutal homicide of a 6 year old by a 9-year-old boy in Saskatchewan in 2013, this was the first incident of a homicide being committed by someone under the age of 12 years old in a decade. However, slightly more than half (53 per cent) of youth homicides were more likely to have involved a group than those over 18 years of age (30 per cent) and, therefore, not surprisingly, to have been gang related (30 per cent compared to 13 per cent) (Boyce and Cotter, 2013).

In 2012, of the 543 homicides in Canada, 246 involved alcohol, drugs, and other intoxicants. In those situations where information was available, 75% of the accused had consumed one or more of these substances, and nearly two thirds (62 per cent) of the victims has also consumed an intoxicant or an illicit substance. This proportion was even higher when the perpetrator was under the age of 19 years old (90 per cent). Again, where information was available, arresting police officers surmised that 74 homicides likely involved mental illness, including developmental disorders. This estimate constituted a continuing increase in mental illness-involved homicide since 2003 (Kuhn et al., 2013; Parker, 2014). Stranger on stranger homicides declined (95 per 100,000), while gang related homicides remained static across a three-year period (.27 per 100,000). This rate was triple in Saskatchewan (Boyce and Cotter, 2013). Historically, Manitoba (4.10 per 100,000) and Saskatchewan (2.69 per 100,000) have had the highest violence and homicide rates, while more general crime rates have been higher in British Columbia, suggesting that these Western regions might have distinctive criminogenic factors that distinguish them from Eastern provinces. However, once income inequality risk factors associated with high crime rates, along with high levels of social disorganization, such as the breakdown of both informal and formal social control of serious deviancy and minor criminality, in cities, towns, and First Nations reserves were considered, the regional differences in provincial homicide rates disappeared (Kennedy et al., 1991). A more recent study of general criminal rates and homicide revealed a much more complicated within provincial variation in these Western provinces. For example, in British Columbia and Alberta, these rates were higher in smaller, hub economic cities, such as Prince George in the North Central British Columbia and Fort Murray in the North Eastern Alberta region, which experienced economic changes and volatility in provincial internal and external migrant populations often seeking job opportunities or access to government services (Corrado, Davies, & Cohen, 2009).

This brief overview of homicide trends in Canada suggests that there is no simple explanation for why Surrey experienced a major increase in homicides in 2013 other than a gang-based theme. Of the 25 homicides, 11 were identified as gang targeted, while at least another 2 involved drug issues (Bolan, 2014, January 1). Yet, the question remains why this municipality so consistently exhibits a substantial increase in homicide rates approximately every 4-years while others regions where gangs and drug trafficking also have been present historically, do not. All theories of homicide emphasize the need to distinguish types of homicide based on common identifiers, including the number of victims, motivation, the relationship between the perpetrator and victim, the use of weapons, sole perpetrator versus group, informal or formal groups, such as type of gang, and location, time of day, and even seasons. Several homicide profiles based on combinations of these traits have been identified in the overwhelming American based research studies, and there is

related theoretical consensus that different profiles require different explanations. For example, theories of domestic homicides involving wives, husbands, and other forms of intimate partnerships, as well as children, have focused on emotion based control themes, mental illness, and, more recently and increasingly, cultural values, such as family honor. As well, explanations of vehicle homicide typically emphasize alcohol, other substance use, and high risk/thrill seeking behaviours. Psychopathy based explanations have dominated the understanding of serial homicide, such as the cases of Willy Pickton, Paul Bernardo, and Clifford Olsen. Single mass homicide incidents, such as the Air India bombing in 1985 over Shannon, Ireland clearly have been terrorist politically motivated, while other mass homicides have been related to individual political grievances or issues, such as the role of women in the Montreal École Polytechnique shootings of female students, or major mental illness, such as in the recent Newton, Connecticut massacre of children and elementary school teachers. Given that the major theme of this report is to review theories and research regarding the apparent homicide cycle in Surrey and, secondarily, in other British Columbia municipalities, no attempt will be made to explain these other equally serious types of homicide. However, where some of the studies reviewed also included research concerning other types of homicide, these data will be discussed briefly.

The research reviewed for this report is nearly exclusively from American studies. Historically, among industrial and liberal democratic countries, homicide rates and absolute numbers have been the highest in the United States. Yet, these high rates disproportionately involved homicide among unrelated adults. In contrast, American rates of intimate homicide have not differed substantially from intimate homicide rates for many comparable countries (Roth, 2009). In addition, non-intimate homicides disproportionately involve African American youth residing in certain neighborhoods in America (Berg, 2010). For example, in the peak homicide rate year of 1993, the rate of African American homicide (280 per 100,000) was 14 times greater than the rate of Caucasian homicide (20 per 100,000) (Cook and Laub, 1998). Therefore, despite the sophisticated research designs employed in many American studies, especially the most recent ones, it is very important to consider the obvious fundamental differences between the United States and Canada. These differences limit any generalizing of findings to Canadian contexts. Where such caution is necessary, they will be discussed in this report.

American Research On Homicide Cycles and Trends

As in Canada, the focus of research and theorizing is primarily at the local level, such as major cities by population, their metropolitan regions, mid-sized cities small cities/towns, and rural regions. Within these geographic/political entities, most analyses have involved neighbourhoods as the key unit of theory and policy concerns. Less frequently, American research has been directed at understanding the fundamental differences by larger geographic regions, particularly the southern states, such as Louisiana, Mississippi, Alabama, and Texas, where homicide rates have traditionally been much higher at the state level than the other broad regions, such as the north-east and western Pacific states. The question has been whether the southern region's homicide rates are best explained by a combination of distinctive regional historical/cultural factors associated with African American race issues, gun related concerns, honor/personal relationships based dispute resolutions, and, with the exception of Texas, the lowest standards of living, literacy, education

spending, and health care. The "Culture of Honor" theory asserts that even strong communities characterized by strong and intimate social ties among families will experience higher rates of homicide because of traditions that encourage violent and murderous responses to real and perceived personal insults and threats even within families (Nisbett and Cohen, 1996; Nisbett, 1992). However, more recent research has not found this regional relationship (Loftin and McDowall, 2003).

American-based homicide research during the last 40 years has been concentrated in the largest cities, such as New York, Los Angeles, and Chicago, along with mid-sized cities, such as Detroit, New Orleans, Baltimore, Washington, and St Louis where the rates have been exceedingly high (Zahn and Jamison, 1997). Often, the absolute numbers of such crimes in all of these cities have been greater than Canada's annual average national number of murders (approximately 550). One reason for this consistent finding is that these cities all have experienced large numbers of drug related homicides, and, in certain cities, especially Chicago and Los Angeles, homicides usually involve long standing major adult/youth organized criminal gangs involved in drug trafficking and territorial disputes. For example, the peak homicide years in New York (1979 to 1981) were, by consensus, explained by the "cocaine wars" primarily on the streets of Harlem, the Bronx, and Brooklyn (Goldstein et al., 1992). While most of these homicides involved street level gang involved distributors and drug users, members of the highest-ranking members of the five traditional Italian organized crime families in New York and related gangs in nearby New Jersey cities and Philadelphia were targeted as well.

Based largely on their homicide research in New York during this period, Goldstein et al. (1992) devised a typology of motivations for this crime: 1) Psychopharmacological; 2) Economic Compulsive; 3) Systemic; and 4) Multidimensional. The Psychopharmacological explanation focused on the combination of drug use and its associated mood change, specifically reduced inhibition related to risk-taking, thrill seeking, and anger, as the asserted cause of homicide. The economic compulsive violence type consisted of violence including the use of homicides to finance a drug habit. The third type, systemic, involved a group or a gang because homicides were caused by "... traditional aggressive patterns of interaction within a system of drug use and distribution" (Goldstein et al., 1992: 462). This system included six objectives: the enforcement of normative codes within the gang; homicides resulting from robberies and then retaliatory homicides; murder of informants; territorial conflicts; punishment for altering the contents of drugs and for "phony" drugs; and multidimensional or combinations of the previous five types. In their study of homicides in New York from 1984 to 1988, Goldstein et al. (1992) reported that the Psychopharmacological type had the greatest explanatory power (59 per cent) in 1984, but that the Systemic type was most prevalent (74 per cent) in 1988. They asserted that this shift reflected the evolving role of gangs in New York. While this study had methodological problems that limited the generalizability of their specific findings, their typology was useful for describing shifting homicide patterns and even trends. For example, it is possible that systemic, gang-based violence more likely explains cyclical homicide trends with high peak years while individuals with mental illness related to substance use and individuals who are drug dependent types explain stable, but lower rate homicide trends.

Alcohol misuse and abuse has long been associated with violent crime generally and homicide specifically, as well as when it is found in combination with drug use, including illegal hard drugs,

soft drugs, or prescription drugs. The loss of "self control" has been elaborated related to excessive alcohol use and has been far more prevalently related to homicides than drugs. As early as the 1950s, one of the leading criminologists in the United States, Marvin Wolfgang (1958), in one of the early classic studies of homicide, found that more than half (55 per cent) of perpetrators were under the influence of alcohol. This ratio has been confirmed in numerous subsequent studies (Wiezorek et al., 1990). For example, in an Australian study in the state of New South Wales, alcohol involved homicides typically occurred during peak entertainment periods. Specifically, nearly half (48 per cent) occurred on Saturdays, and 10% of all homicides occurred in or around clubs and pubs where serious assaults resulted in murder charges or convictions (Bonney, 1987).

An early pioneering study of situational factors associated with "hot spots" for serious assaults and homicide took place in Vancouver involving 185 drinking establishments. One distinctive "hot spot" type was identified as "the Skid Row Aggressive Bar". These bars involved a "bizarre atmosphere" that encouraged extreme violence by patrons characterized by high levels of aggression, extreme intoxication, and "down-and-outs" (impoverished/alcohol dependent/serious mental illness) who were not able to access other types of bars (Graham et al., 1980). In a later study in Sidney, Australia, a small number of this type of bar accounted for most of the serious violence that was hypothesized to increase the likelihood of homicides resulting from major assaults (Homel and Tomsen, 1993). However, a more recent "hot spot" club/bar context in Vancouver involved higher end establishments frequented by "gang" members/acquaintances where alcohol likely was part of the explanation for assaults and shootings resulting in homicides that took place on the streets in front of and near these public entertainment locations. These areas are easily accessed by public transportation and vehicles, and are typically frequented by high concentrations of alcohol and drug consuming aggressive young males. Another part of this dynamic was that the higher end clubs and bars attract members/acquaintances from gangs "at war", and, therefore, these public locations provided opportunistic access for targeted homicides, especially retaliatory motivated homicides and attempted homicides.

The important connection between alcohol consumption and homicides numbers and rates is further evident in the recent assertions that one of the main reasons for the substantial decline in homicides in New York City has been the decline in alcohol consumption, especially binge drinking. There is an extensive research literature on violence, homicide, and the link to alcohol consumption patterns in response to living in neighborhoods with high rates of social and economic disadvantage (Cerda et al., 2010; Chuan and Kois, 2012). There is, though, a consensus that no single factor explained this decline but, rather, it was the cumulative interactive effects of at least four other neighborhood focused factors, namely reductions in the availability of guns, increased incarceration rates, the change in crack cocaine markets, and the extensive use of misdemeanor policing of minor crimes, such as graffiti and pan handling. The current controversial police "stop and frisk" of "potential high risk for crime individuals" policy has also been asserted to have contributed to the persistent decline in homicides, while causing accusations of police discriminatory harassment of minority youth and young males.

This original theory underlying misdemeanor policing has also been subsequently referred to as quality of life policing, zero tolerance policing, and order maintenance policing (Chuan and Kois, 2012). Yet, this innovative policing strategy has been the subject of conflicting evaluation

assessments in several follow up studies. For example, in the Harcourt and Ludwig (2006) study that also considered or controlled for numerous neighborhood level factors, including population of young males, unemployment, prevalence of cocaine related incidents, precinct level poverty, levels of police personnel, and other factor socio-demographic factors, reported that misdemeanor policing was not associated with the declines in violence, including homicides. More complicated outcomes were evident in the Rosenfeld et al. (2007) study of order maintenance policing and homicide rates between 1988 and 2001 in New York City. Their study also included key neighborhood socio-demographic factors, including race/ethnicity, residential instability, the percentage of immigrants in the neighborhood, and socio-economic disadvantage. Importantly, precinct level police factors were also included, such as the number of police officers, misdemeanor complaints, deaths from cocaine overdoses, and the ratio of imprisonments per felony arrests. The conclusion from this methodologically sophisticated study was that misdemeanor policing appeared to explain a 10% reduction in homicide rates, even though the rates had begun a downward trend prior to the introduction of the new police tactics. Yet, these researchers asserted that these polices accelerated the downward trend.

Another study of homicide from 1990 to 1999 found that misdemeanor policing was related to a reduction in gun-related homicides, but not non-gun homicides (Messner et al., 2007), which was consistent with another study (Fagan et al., 1998). Again, the more recent research concerning declines in gun-related homicide has also been inconsistent. For example, when controlling for age groups, misdemeanor policing was only associated with gun-related homicides when the victims were 35 years old and older, but not for the victim age group with the biggest decline, namely those 15 to 24 years old. It was not evident, though, whether these changes in victim age groups were associated with the changes in the cocaine market. There is a consensus in the research that the cocaine market expanded rapidly from 1984 to 1986 and that this resulted in "turf" wars among crack dealers who resorted to guns for both protection and intimidation to expand distribution territories. But, by the 1990s, the markets for most hard drugs, including cocaine, either simply declined or remained stable, but moved to private spaces from the public spaces, such as streets and parks (Wendel and Curtis, 2000; Zimring, 2011). Most importantly, a definitive trend involving the direct link between cocaine and homicide victims was evident across an approximate 20 year period; only 5% of these victims had cocaine present in some form in 1981, but, by 1991-1992, nearly three quarters (72 per cent) of homicide victims had cocaine present alone or in conjunction with alcohol, followed by only 13% of these victims testing positive by 1999 (Tardiff et al., 2005; Chuan and Kois, 2012). A recent study found that higher cocaine use was associated with higher victim homicide rates for the 15 to 24 age group and the 35 and over age group. The largest drop in cocaine use, however, was for the former age group, which led Cerda et al. (2010) to conclude that changing drug markets were part of the explanation for the decline in homicide rates in New York City.

According to an ethnographic study of why the market for hard drugs, such as crack cocaine, declined, the main reason was that the younger age cohort had seen or experienced the enormously tragic damaging impact of these drugs on family, friends, and neighborhoods (Curtis, 1988). As a result, this key cohort for higher homicide rates appeared to switch to marijuana use (Johnson et al., 2006). Nonetheless, a disproportionate association remained between cocaine consumption and African American accidental death and homicide victims (Chauhan et al., 2011). The absence of this

relationship in White and Hispanic neighborhoods clearly indicates that certain ethnic/race groups have been historically more vulnerable to this relationship between hard drugs alone or in combination with alcohol and homicides, including homicide victimizations (Chuan and Kois, 2012).

Several themes emerged from the above American studies regarding hard drug market changes and related homicide trends. Most obviously, the effect of this relationship varies enormously by neighborhood race/ethnicity and level of socio-economic disadvantage. This theme will be evident throughout all of the American studies, and has direct implications for their generalizability to most Canadian contexts. The above fluctuating "public places located-homicide trends" evident in New York City likely are only relevant to Canadian city neighbourhoods that also experienced:

- changing types of hard/soft drug markets;
- competition among informally organized drug crime groups and formally organized crime gangs over control of market territories, and national/international drug sources;
- recruitment of criminally experienced adults into core organization roles, such as recruitment, discipline, drug access and distribution, other crime objectives, such as obtaining guns, money laundering, and inter-gang policy strategies, and mainly older adolescents and young adults recruited into drug distribution roles;
- drug distribution and other crimes, such as homicide, along with group/gang recruitment concentrated in socially disorganized and ethnically homogeneous neighborhoods with histories of concentrated socio-economic disadvantages; and
- evolving, innovative, and often controversial police gang and drug marketing strategies, and other criminal justice agency gang-targeted polices that directly affected homicide trends.

However, it is also necessary to keep in mind the fundamental differences between the neighborhoods included in most of the American studies and most Canadian urban neighborhoods. The key differences are:

- the much larger American population scale and higher housing concentrations in neighborhoods, especially in core city populations in cities such as New York City (8 million), Chicago (3 million), and Los Angeles (4 million);
- the size and concentration of ethnic/race homogeneous neighborhoods;
- the size and concentrations of American neighborhoods with high levels of both social disorganization and economic disadvantages;
- the absence of universal health care, until recent federal legislation, and consequent histories of the absence of preventive medical care for risk factors, such as alcohol, serious substance use, and aggressive mental illnesses/personality disorders, especially for adolescent and young males associated with high risk for violent/criminal lifestyles (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002);
- the challenges in accessing and the poor quality of emergency services; and
- extensive histories of American neighborhood-based and large-scale rival intergenerational organized adult/youth gangs associated with both internal and external migration to geographic adjacent city neighborhoods.

Despite these fundamental differences in American and Canadian neighborhoods, there are sufficient parallels in risk characteristics for homicide that justify the utilization of American-based research and related neighborhood focused theories to assist in the explanation of fluctuating homicides rates in Canadian cities, such as Surrey.

The dominant theory of neighborhood variations in homicide levels and rates can be traced back over a century to the Chicago School of Criminological theory. Theorists, such as Thatcher in the 1920s (Thrasher, 1927) and Shaw and McKay in the 1930s (Shaw and McKay, 1932), identified the west side and south side geographic regions in Chicago as having distinctively high patterns of serious violent crime compared to neighborhoods in adjacent areas that too typically had provided relatively inexpensive housing stock for various and largely working class families and individuals from the major immigrant ethnic/race groups from the 19th century and into the 20th century. Shaw and McKay conceptualized certain high crime neighborhoods as being in geographic housing "zones of transition" between the core business district of Chicago and nearby factories, large slaughterhouses, and other industrial/transportation facilities that employed mainly working class men. Unlike the stable working class neighborhoods, the zone of transition neighborhoods had disproportionately low rental and crowded apartments with high occupancy turn overs, disproportionately African American single parent mother led large families with high rates of employment and absolute poverty. As described above for the contemporary period, these neighborhoods lacked basic social and recreational services too, and most of the social interactions occurred on the streets unsupervised by prosocial figures; typically adult males who were community, educational, religious, business, police, and political authorities. Instead, role models, especially for youth and young adult males, were "street" level criminals and gang members. This lead early American gang theorists, like Cohen (1955) and Miller (1958) to conclude that violent and street level targeted homicides have been an integral part of the subculture of certain neighborhoods.

In effect, homicides and its victims in the United States remained overwhelmingly located in vulnerable neighborhoods. Street based gangs were the major drug distributors and were primary in instigating and maintaining the enormous expansion of the crack cocaine epidemic in these neighborhoods that culminated in the peak homicide years in the United States. The contemporary School of Chicago neighborhood theorists lead by the former University of Chicago sociologist/criminologist, Robert Sampson, along with several of his colleagues undertook a massive research project to understand why certain African American Chicago neighborhoods had and still currently have been overwhelmed by tragic homicides. Sampson, Raudenbush, and Earls (1997) found that stable neighborhoods were characterized by residents who trusted each other and cooperated in a variety of neighborhood common objectives, including supervising children and older youth in public places and placing public pressure on local politicians to ensure that sufficient police resources were available to control street and highly visible level minor or nuisance crimes, such as prostitution, loitering, and vandalism. These theorists utilized key established sociological constructs associated with homicide rates, such as individual and group forms of social capital to build trust regarding routine neighborhood activities including caring for and supervising others' children, providing mutual assistance in obtaining employment, recreational activities, responding to emotional and health needs, and emergencies (Coleman, 1980; Putnam, 2000). Another key construct was "residential stability" defined by a combined score of

percentage of neighborhood residents who remained in the same housing location for 5 years and the percentage of owner occupied housing. Sampson et al. introduced the concept "collective efficacy" to describe the neighborhood "level of mutual trust and willingness to intervene for the common good" (1997: 919). In this study, neighborhood "concentrated disadvantage" was defined as a single added score based on neighborhood percentages of residents below the poverty line, on public assistance, are female-headed households, are unemployed, and are African American. The neighborhood "immigration concentration" construct was defined as the percentages of Latino residents and foreign born residents. Importantly, the results of this classic study indicated that higher levels of collective efficacy mediated the expected, and historically obvious, association between the concentrated disadvantage and homicide even in neighborhoods that had previously higher levels of homicide. Clearly, collective efficacy has been one of the underlying themes justifying traditional neighborhood crime prevention programs, such as neighborhood watch and community policing, yet this construct had not been related to understanding homicide rates across the range of neighborhoods included in the Samson et al. study based on the Project on Human Development in Chicago Neighborhoods (PHDCN). Skogan and colleagues (1981) conducted several major studies of policing and community reactions to neighborhood violence, including homicide in Chicago, but it was not on the scale of the PHDCN that allowed Sampson et al. (1997) to elaborate on the complex dynamics between neighborhood factors and differences in homicide rates.

Subsequent studies on homicide sought to elaborate on the Sampson et al. findings. For example, Rosenfeld et al. (2001) utilized a national sample of cities to assess the importance of higher levels of social capital and lower homicide rates. These researchers found that higher rates of social capital reduced residents' feelings of strain, anomie, and social disorganization that, in turn, facilitated the integration of formal police control of groups and individuals likely to engage in violence and homicide with informal control of these individuals by neighborhood groups. Part of this integration included the increased neighborhood social capital to access greater police resources. In another study by MacDonald and Gover (2005), the relationship between "youth/young adult on youth/young adult homicide" and neighborhood concentrated disadvantage, especially among African youth, was examined. Again, the American research focused on the historical theme of homicides having occurred disproportionately within certain ethnic/race groups, predominantly African-American, Latino, and, more recently American Indians. Not surprisingly, there was a significant association between economically disadvantaged neighborhoods and adolescent/young adult homicides, as well as a far higher prevalence of African American youth living in these neighborhoods compared to White cohorts. This study also explained that poverty driven economic deprivation increased the risk that youths'/young adults' families could only reside in communities with high levels of delinquent/criminal peer groups and "open-air drug markets". In other words, as explained by all classic criminological theories, youth in these neighborhoods had fewer options than their cohorts from other ethnic groups to meet basic emotional/psychological and material needs typical of these age groups. Therefore, serious property/related violent crimes and gang involvement become an obvious subcultural value and lifestyle choice for a disproportionate number of the above mentioned three ethnic groups' youth/young adults, especially, males.

There has been a debate about the importance of subcultures of violence explaining higher homicide rates. For example, are there certain ethnic/race groups that are prone to be more pro-

violent/homicide because of favourable traditional/customs values to these exceptional behaviours? Most of the contemporary research has not found such relationships, and, instead, as explained above, structural factors focused on historical concentrated economic disadvantage have predominated. Yet, several recent studies argued for a more nuanced examination of this issue and have considered historical relationships between criminal justice authorities, especially the police, and the emergence of subcultures of distrust of formal authorities and systems to protect and treat residents of the above disadvantaged ethnic/racial neighborhoods fairly and non-punitively. Instead of a sub-culture of violence supportive of homicide, the construct "Legal Cynicism" describes a sub-culture that, first, is supportive of "law and order", but, based on historical experiences, defines the criminal justice as illegitimate, corrupt, and as having not provided basic public safety. As a result, violence by residents, including homicide, is the only means to solve the community and personal problems the police do not solve, and even exacerbate. This sub-cultural theory has been utilized to explain why certain neighborhoods experienced high and stable homicides rates despite declines in neighborhood structural poverty and steep declines in homicides in other neighborhoods (Kirk and Papachristos, 2011). In a Canadian context, this theory might partially explain why homicides in Canada's most impoverished neighborhoods, such as the Vancouver Downtown Eastside, has had relatively few homicides compared to certain concentrated disadvantaged neighborhoods in other Greater Vancouver cities, including Whalley and Newton in Surrey. Despite several notorious exceptions, often involving perceived egregious failures by the Vancouver Police, the Criminal Courts, and federal and provincial corrections to protect the most vulnerable residents, Downtown Eastside politicians, community activists, and many residents, including many among the disproportionate numbers of drug injection users, the homeless, and the mentally ill, have asserted that collective efficacy has been high in their neighborhood. The collective efficacy dimension of the subculture in this neighborhood has been associated with constructive relationships with criminal justice authorities, and government and non-government service providers.

In addition, the Legal Cynicism neighborhood sub-culture theory asserts that many young males in disadvantaged neighbourhoods hold the view that all residents have been "tainted" as criminal and are routinely subjected to unfair stereotyping and "tough" police tactics (Kirk and Laub, 2010; Kirk and Matsuda, 2010; Klinger, 1997). Younger males were seen as fearing police harassment, and, often in the absence of pro-social fathers or other older authority/mentor figures, these young males turned to their approximate age cohort of males who held a similar view (Harding, 2009). Part of the latter negative view has been linked to the perception that the criminal justice system did not protect them from neighborhood-focused violence; therefore, homicide was seen as an appropriate self-defensive reaction to permanent threatening structural conditions (Carr et al., 2007). To examine this theory of homicide, a study utilizing the PHDCN sample of neighborhoods of 8,000 residents employed a three additive indicator scale of "legal cynicism": 1) "laws are made to be broken"; 2) "police not doing a good job in preventing crime in the neighborhood"; and 3) "police were not able to maintain order on the street in my neighborhood". While controlling for several of the above structural variables and key constructs, such as "tolerance of deviancy" and collective efficacy, the legal cynicism construct helped to explain why, even with the gentrification programs in one of the high homicide Chicago neighborhoods, the homicide rate increased to 97.6 per 100,000 in the early 2000s from 59.9 in the early 1990s (Kirk and Papachristos, 2011: 1223). In

contrast, in other neighborhoods in this study, the homicide rate declined 50% in 2005 after having tripled from 1965 to 1999 (Stults, 2010). Part of the explanation for the reduction in certain neighborhoods was attributed to the presence of large percentages of recent immigrants who apparently had not been subject to the pre-existing subculture of legal cynicism (Chavez and Griffiths, 2009). The need to focus first on neighborhoods as opposed to citywide explanations has been reinforced by similar studies in other American cities, such as New York, where high density, rent controlled apartment buildings occupied mainly by "low income/social assistance occupants neighborhoods" constituted homicide and other extremely violent crime "hot spots". Subsequent attempts were made to reduce these crimes through public and private security innovative programs (Fagan and Davies, 2004). For example, in Seattle, another study identified "30,000 micro areas" that provided distinctive patterns of 18 types of crime profiles, including homicide (Weisbord et al., 2004).

Neighbourhood Level Life-Course Criminology and the Role of Risky Lifestyles

An important construct that emerged from the American studies of homicide was "neighborhood life-course" of serious violent crimes. The life-course construct in criminological theories has been typically restricted to explanations of criminal trajectories of individuals. Yet, the above studies of street based homicide overwhelming indicated that this crime shifted sharply within neighborhoods historically and changes in these rates differed substantially by neighborhood level risk characteristics for homicide, most importantly, youth/young adult street focused gangs and drug markets located in concentrated disadvantaged neighborhoods with low levels of collective efficacy and legal cynicism subcultures. Nonetheless, even when street homicides involved multiple perpetrators or groups, gang or not, individuals typically still made choices to commit these crimes. Not surprisingly, again, the most rigorous studies of the individual level focused explanations of primarily street homicide are American studies. These studies have emphasized life course or developmental criminological theories that attempt to explain criminal trajectories of various specific crimes, such as drug trafficking, sexual assault, arson, armed robberies, and homicide, and patterns of multiple crimes, such as property and violent crimes combined, and gang involved crimes, across the entire life span. Key constructs from this perspective include, for example, chronic offenders, prolific offenders, versatile offenders, life-course offenders, adolescent limited offenders, adult onset offenders, and serial violent offenders.

While the focus is on individual level risk factors, such as developmental psychological disorders, and protective factors, such as high IQ, for explaining various types of criminal trajectories, all these theories include the interaction between individual factors and middle level factors, such as the family, schools, neighborhood, and police services, as well as the interaction between the previous two levels and macro or broad society wide level factors, such as the national health care system, the economy, and the welfare system. This multi-level analytic framework is most evident, for example, in "failed nation-states" where the highest homicides rates globally occurred when political, economic, and police/military security systems and neighborhoods collapsed. Another example has been organized crime controlled neighborhoods, such the Camorra (one of the 4 major Italian mafias) neighborhoods in Naples where homicide was and remains a routine tactic to maintain illegal business enterprises (Varese, 2009). Obviously, such extremes have not occurred in

other liberal democratic/advanced industrial countries, especially Canada. However, in the United States, during the past peak homicide periods mentioned above, there were apparent police and non-resident "No Go" neighborhoods, especially during the evening and nighttime. Normal police activities and patrols were replaced or supplemented by specialized police gang units to counter potential homicide threats to both non-gang specialized police officers and residents.

Most studies of individual level homicide offenders have involved retrospective studies of personal risk factors and family risk factors. One of the foremost American homicide researchers, criminologist Professor Kathleen Heide (2003), summarized eight factors evident in studies up to the early 2000s. They included: prior arrest histories; child abuse; parental alcoholism; divided and violent families; running away from home; low school achievement; truancy; and suspension from school. In her own earlier research, Heide (1999) also identified several additional or more specified risk factors, namely poor judgment, the inability to deal with negative feelings, access to guns, the use of illicit substances, being the victim of child abuse or neglect, and witnessing violence. Importantly, many of these risk factors involve age based developmental stages. This supports the perspective that the explanation of homicide is necessarily complex because the pathway to adolescent and young adult homicide offending potentially begins early in childhood, and includes cumulative risk factors that interact with neighborhood, community and, even national level risk factors, such as the ease of the availability of guns. Importantly, though, interpersonal arguments predominated the motivations for homicide, rather than felony homicides or gang-related motivations (Loeber and Farrington, 2011).

The results of the most important study of homicide that focused on the individual-neighborhood level analytic framework and the developmental criminological theoretical perspective have been discussed in the recent book, Young Homicide Offenders and Victims, edited by the renowned criminal psychologists, professors Rolf Loeber and David Farrington (2011). This research is based on the Pittsburgh Youth Study (PYS) that utilized a longitudinal or prospective research design. The initial 1987 survey was supplemented by multiple follow-up surveys (up to 18 surveys) into adulthood of 3 different age cohorts of boys (503 in grade 1, 508 in grade 4, and 506 in 7) primarily from Pittsburgh's African-American inner-city neighborhoods. This study examined a variety of official and self-reported crimes, including homicide. This study's design allowed for an assessment of how patterns of risk and protective factors for homicide varied with the age curve for this crime; homicides increased in the late adolescent stage, peaked in early adulthood, and declined substantially in subsequent adult stages. Females were excluded because males committed nearly all homicides, especially street or public based and non-intimate types. Nationally, as mentioned above, African American males were overwhelmingly and disproportionately involved in homicides, both as perpetrators and victims, particularly, the 18 to 24 year old age group. In 2005, for this young adult age group, the African American males' rate per 100,000 (102.2) was eight times the rate of the same Caucasian age group (12.2) (Fox and Zawitz, 2007; Loeber and Farrington, 2011). Given this, the PYS study over-sampled African American neighborhood schools.

The PYS samples totaled 1,043 boys and included 37 who had been convicted of homicide. Three broad concepts were utilized to distinguish those who were in the homicide group and those not: 1) explanatory variables involved 21 family-based factors, such as being on welfare and low socioeconomic status, neighborhood risk factors, such as living in a "bad neighborhood" with respect to

crime, and psychological indicators associated to engaging in violence, such at a lack of guilt and hyperactivity-impulsivity-attention deficit; 2) behavioral variables that were antisocial risk factors, such as school suspensions and a history of truancy; and 3) criminal risk factors, including self-reported and official prior offences.

Regarding the 21 early or childhood (ages 7-14) explanatory variables, 19 were found to be significant. The strongest predictors of the homicide group by far were the environment/structural variables, including coming from a broken family, living in a bad neighborhood, being from a family on welfare, and being raised by a young mother. "Bad neighborhood" was the strongest independent predictor; followed by "young mother", low socioeconomic status, and "unemployed mother". Importantly, though, despite the above vastly higher prevalence of young African American young males involved with homicide nationally (US Center for Disease Control, 2008), when other early explanatory predictors were controlled for, race was not a significant predictor of homicide in the PYS. This finding has implications in certain Canadian urban contexts where homicides also appeared to have involved disproportionate numbers of ethnic/race youth/young males. Though overwhelmingly less frequent than the ethnic/race based American homicide number and rates, several ethnic/racial group young males appeared to have been disproportionately involved in street based homicides, particularly gang involved, such as African Caribbean males in Toronto, Aboriginal young males in Winnipeg, Regina, and Saskatoon, Vietnamese young males in Calgary, and South Asian and Asian young males in Vancouver. As in the United States, a theoretically contentious issue is whether there are certain ethnic/race groups that have subcultures more likely to explain, at least partially, why young males from these groups disproportionately have engaged in homicides compared to other ethnic/race groups' young males.

Of the 19 early behavioral risk factors, 11 were significant predicators of convicted homicide offenders. The strongest behavioral predictor was having been "suspended from school", as 78% of homicide offenders had been suspended compared to less than half (43 per cent) of the nonhomicide youth control group (the odds ratio was a very high 4.9, indicating that those suspended from school were nearly five times more likely to commit a homicide than those who were not suspended from school). The strongest three independent predictors/risk factors were positive attitude to delinquency, a positive attitude to substance use, and being suspended from school (Farrington and Loeber, 2011: 63). This profile of behavioral risk factors confirms the developmental theoretical perspective assertion that serious crimes, such homicide, emerge in the early childhood life stages. Further, these results confirmed the earliest delinquency research and related theory dating back to the end of the 19th century and the emergence of Canada's 1908 Juvenile Delinquents Act about the crucial role that school context and peers have had concerning pathways to serious and violent offending, now definitively, including homicide. In addition, it lends support for early childhood intervention programs both in family and school contexts to reduce the above prevalence and impact of the above risk factors (Corrado, Leischied, & Lussier, forthcoming). Not surprising, given the early and consistent research that identified early prior delinquency and criminal offence histories as among the strongest, if not the strongest, predictor of serious and violent offending (Loeber et al., 2005), most of this construct's indicators in the PYS were important risk factors for homicide. Importantly, this concept is central to constructs, such as life course persistent offender, criminal life style, career criminal, and psychopathy, and utilized by most criminological theories.

Conclusion

In Canada, a substantial proportion of fluctuations in homicide rates in Vancouver, Surrey, Toronto, Winnipeg, and Calgary have appeared related to young adult street focused drug distribution conflicts. However, base-rate levels of homicides more likely can be explained as the outcome of far less predictable and often spontaneously occurring high-risk violent lifestyle overwhelmingly involving young adults and, less frequently, older adolescents in public contexts. Again, most Canadian contemporary urban contexts have not had neighborhoods characterized as being socially disorganized, and having high concentrations of socioeconomic disadvantage, cultures of cynicism, and intergenerational street focused adult/youth gangs. The major exception is the historically concentrated disadvantaged Aboriginal neighborhoods and reservations. However, in these neighborhoods, gang related homicides have been episodic and subject to extensive multiple gang focused police enforcement initiatives and service programs involving government and nongovernment agencies, as well as community based groups.

Nonetheless, in most Canadian contexts, many of the spontaneous occurring street/public homicides and gang related homicides have occurred in major shopping, entertainment, and transportation locations and not necessarily in primarily residential neighborhoods evident in most of the American studies. Because this review focused primarily on neighborhood level risk factors for homicide, individual level factors were not fully explored. In order to understand the differences in the more specific locations of street homicides in Canada and the United States, it is necessary to explore the major individual level risk factor research literature. For example, as discussed above, while there are some neighborhood contexts that explain certain gang involved public or street homicides in Canada, these neighborhood level risk factors do not explain why so many of these homicides involved young males who did not have the above depicted profile, especially in several British Columbia contexts.

As indicated above, more recent research, including major Canadian studies, suggest that there multiple risk factor pathways to street located homicides, both gang and non-gang involved. This review also obviously has not included research and theories of street based homicides involving either individuals with major mental illnesses or those motivated by domestic or culturally specific motivations, such as honor killings. While few in number in public places, these types of homicides most frequently have occurred in private spaces. However, a different set of theories and research studies have examined these other types of homicide.

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